EQUIP FOR EQUALITY
A SPECIAL REPORT
from the Abuse Investigation Unit

National Review of Restraint Related Deaths of Children and Adults with Disabilities:

The Lethal Consequences of Restraint

Advancing the human and civil rights of people with disabilities in Illinois.

EQUIP FOR EQUALITY®

Mission

Established in 1985, the mission of Equip for Equality is to advance the human and civil rights of people with disabilities in Illinois. Equip for Equality is a private not-for-profit legal advocacy organization designated by the governor to operate the federally mandated Protection and Advocacy System (P&A) to safeguard the rights of people with physical and mental disabilities, including developmental disabilities and mental illness.

Equip for Equality is the only comprehensive statewide advocacy organization for people with disabilities and their families. All individuals with a disability in Illinois (as defined by the ADA) are eligible for services, including children, senior citizens, and individuals in state-operated facilities, nursing homes, and community-based programs.

Services, Programs, and Projects

Abuse Investigation Unit works to prevent abuse, neglect, and deaths of children and adults with disabilities in community-based programs, nursing homes, and state institutions. The Unit works with public investigatory agencies to improve their performance and coordination with each other; conducts investigations of abuse and neglect cases; alerts service providers to dangerous conditions and practices.

Public Policy Advocacy achieves changes in state legislation, public policies and programs to safeguard individual rights and personal safety, enhance choice and self-determination, and promote independence, productivity, and community integration. The Program drafts and secures passage of state legislation and participates in state regulatory and policy-making processes. It also undertakes in-depth policy research and reform projects on complex issues that have a significant impact on the lives of people with disabilities.

Self-Advocacy Assistance offers free, one-on-one technical assistance to inform individuals about their rights, alternative options and strategies, and steps they may take to advocate on their own behalf or on behalf of a family member.

Legal Services provides free legal advice and representation in administrative proceedings and federal and state court. The Program also engages in systems and impact litigation.

Training Institute on Disability Rights provides education through seminars for people with disabilities and their families. Seminar topics include rights and responsibilities under the Americans with Disabilities Act, protections against employment discrimination, guardianship, advance directives and special education rights.

NATIONAL REVIEW OF RESTRAINT RELATED DEATHS OF CHILDREN AND ADULTS WITH DISABILITIES:

The Lethal Consequences of Restraint

This publication is made possible by funding support from the U.S. Department of Health and Human Services, Centers for Medicare and Medicaid Services and Substance Abuse Mental Health Services Administration. The contents of this publication are solely the responsibility of Equip for Equality and do not represent the official views of these agencies.

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National Review of Restraint-Related Deaths of Children and Adults with Disabilities:

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At age 9, Justin* was admitted to a residential treatment center for children ages 6 to 12. He died after he refused to follow a counselor's instruction and lashed out at the staff. Justin, who weighed 104 pounds, was pushed against a door and pulled down to the floor by staff members. For seven minutes several staff members held him on the floor face-up with a 200-pound staff person lying across his chest. The coroner found Justin's death to be the result of positional asphyxia due to physical restraint, with the manner of death identified by the coroner as being "best deemed homicide."

Laura was 15 when she died at a residential program where she had been admitted after her mother refused to pick her up upon discharge from a state hospital. On the morning she died, Laura was not wearing socks. A staff member directed her to put socks on, and when she could find none and put slippers on instead, the staff member ordered her to sit on the floor. When she refused, the staff member said she "fell" against the wall so hard the wall "broke." Laura allegedly scratched a staff person, so two staff members physically restrained her in a seated position, her arms crossed in front of her body and pulled back tightly against her waist. She struggled for five minutes and then appeared to calm down, but then she became unresponsive. Laura died four days later from complications of mechanical asphyxia compounded by her obesity and a seizure disorder.

Martin was 23 and lived in a group home. He was autistic and had intellectual disabilities. He also had a therapy plan to help him if he became upset or aggressive. On the day he died, none of the staff in his home knew about his plan. When Martin became upset and tried to leave after running around the house, throwing things and disrobing, several staff members took him to his room, where he was forced face-down on the bed. One staff member sat on him, holding Martin's arms behind his back with one hand and pushing Martin's back down with the other. Martin died of asphyxia, with the manner of death listed as homicide.

Loretta was 88 when she was admitted to a nursing home. In the two days before her death, she had been sitting in her wheelchair restrained with a lap belt, and three times a staff person found the use of the belt unsafe, as it had not been effective at keeping Loretta properly seated in the chair. On the day Loretta died,

*The names of the individuals in the report have been changed to protect confidentiality.

staff members reported twice finding her seated on the floor with the lap belt still attached to the chair, once with the belt around her chest and a second time with Loretta gasping because the belt was around her neck. No changes were made to Loretta's care plan. At 5:30 p.m. Loretta was in her room seated in the wheelchair and restrained by the lap belt. At 6:10 Loretta was found dead on the floor with the lap belt around her neck. Loretta died of positional asphyxia.

Executive Summary

Restraint remains one of the most controversial and dangerous measures used today in settings that provide services to people with disabilities. Restraint is an intrusive and dangerous intervention that can have significant adverse implications for the physical and emotional well-being of the individual who is restrained. The use of restraints continues to represent a significant risk to adults and children with mental illness or developmental disabilities in any setting where restraints are used, as evidenced by the growing number of documented deaths.[1]

The risk that restraint poses to people with disabilities is heightened by an oversight system that remains seriously flawed. Current reporting of deaths related to restraints is neither complete nor comprehensive. The total number of children and adults, including seniors, who die each year as a result of being put in restraints, is unknown. Current reporting requirements do not include all publicly or privately funded facilities utilizing restraint.[2] As initially reported in a 1998 series in the Hartford Courant, there was for many years – and continues to be – no comprehensive oversight system in place for monitoring restraint usage and compliance with the law. There continues to be no federal or state government agency responsible for collecting comprehensive data on restraint usage and deaths across all settings where restraints are used.

In an effort to address this critical issue, Equip for Equality, in cooperation with the National Disabilities Rights Network (NDRN), which is the national membership organization for the Protection and Advocacy (P&A) Systems, and with medical, nursing and forensic experts, has conducted the "National Review of Restraint-Related Deaths of Children and Adults with Disabilities." In addition to co-authoring the report, medical, nursing and forensic experts also provided in-depth analysis of the deaths. In addition to the expert analysis, Equip for Equality convened other experts to review the findings and develop recommendations to Congress and the U.S. Department of Health and Human Services for reform.

The 61 deaths examined in connection with this study reveal disturbing details of the end of life for children as young as 9 and adults as old as 95. The stories

of their deaths, which are detailed in Appendix A, expose the inherent dangers associated with the use of restraint and the tragic consequences to people, often the most vulnerable among us, that can result from being restrained. For some, those consequences meant dying alone while hanging from the side of the bed strangled by the very devices meant to keep them safe; for others, it meant dying on the floor or the ground because their cries to staff to get off them when they could not breathe went unheeded. Some were restrained when they acted out because they were hungry; others were restrained because they did not follow staff directives. Many were restrained even though the circumstances under which the current law allows restraints to be used had not been met, and even more were restrained and died when their physical or emotional conditions were such that they should never have been subjected to restraint procedures. Finally, there were those who met the criteria for release before they died, but staff failed to release them, and others whose deaths were entirely preventable had staff responded to their obvious distress.

The deaths examined in this study document that the efforts and initiatives that have been undertaken during the last 10 years to reduce and eliminate reliance on restraint have been inadequate and must be dramatically enhanced. As efforts toward reduction or elimination of the practice continue, those efforts must also include the immediate elimination of dangerous restraint practices. Those efforts must be expanded to all settings where restraints are utilized, and a systematic and comprehensive national system of reporting ***and*** oversight must be developed.

Significant Findings of the Study

Where the 61 Deaths Occurred:

- The deaths occurred in small and large communities, urban and rural settings.
- The deaths occurred in a variety of settings – nursing homes, schools, wilderness camps, residential treatment facilities, state institutions, emergency rooms, general hospital units and psychiatric hospitals.
- The largest percentage of those who died had been admitted to a general hospital unit.
- Only 26% of these tragedies occurred in psychiatric settings, while the remaining deaths occurred in other settings.

The People Who Died:

- The people who died ranged in age from 9 to 95 years old.
- Nearly one-third of those who died were over the age of 65, with 14 seniors over the age of 80 at the time of their deaths.
- The four youngest children to die in restraints were 9 years old.
- Almost three-quarters of those who died were male.
- Nearly 75% of those who died had a psychiatric history, with the most common known diagnoses being schizophrenia, other psychotic disorders and mood disorders.
- More than half of those individuals admitted with a psychiatric diagnosis had been admitted for psychiatric treatment on three or more prior occasions.
- Twenty-five percent of those who died had a history of intellectual disabilities, learning disorders or other developmental disabilities.
- Nearly half of those who died had limited or no communication skills, due to medical circumstances that limited their awareness or consciousness.

Pre-existing Medical Conditions Not Considered:

- Nearly everyone who died had a medical condition that existed at the time they were restrained, which most frequently related to neurological, cardiac or respiratory conditions.
- More than half of those who died were overweight or obese.
- Of those with a pre-existing medical condition, nearly one-third had one or more medical conditions that contraindicated the use of restraint and should have prevented its use.
- The most frequently identified medical conditions contraindicating the use of restraint were current cardiac compromise (44%), obesity (41%) and current respiratory compromise (30%).

Trauma Histories Not Considered:

- Information on past trauma, physical, sexual or psychological abuse, was rarely available in the records in spite of its vital importance and the profound effect which restraint can have by re-traumatizing the person restrained.[3]
- In only 14 cases did the records contain information on prior physical or sexual abuse. In half of those cases, the prior trauma contraindicated the use of restraints.

Many Deaths Resulted from Unlawful Restraints:

- The restraints implemented in one-third of the cases (21 of 61 cases), whether used to address the person's behavior or the person's medical conditions, failed to meet the legal standard for use of restraint.[4]

- Of those who were restrained to address "aggressive behavior," nearly half either did not meet the prevailing legal standard to be restrained, imminent risk of harm to self or others, or a determination as to whether the legal standard was met could not be made from the treatment/medical records.

- In nearly all cases where information on less restrictive interventions could be found, the staff failed to use all available interventions. Most cases did not include documentation as to why other less restrictive measures failed.

Most Frequently Used Restraint Devices:

- The individuals who died were most frequently restrained in 4-, 5- and 6-point mechanical restraints (referring to the number of straps around the person's limbs and body and attached to a bed or gurney).

- The second leading device involved in the deaths was a bed rail. This finding is particularly alarming given the recent change in the CMS regulations that excludes bed rails from the definition of restraint.[5]

- The most common physical restraint (27 of 32 cases) involved staff members physically holding the individual down on the floor.

- Forty-seven percent (24 of the 51 cases) of the cases with available information involved a takedown to the floor during the restraint process, a high-risk procedure even for staff members trained in the risks.

- Twenty-one percent of the deaths (13 of 61 cases) involved both mechanical and physical restraints.

Dangerous Restraint Methods Frequently Utilized:

- In the majority of deaths, unsafe and inappropriate restraint methods were utilized.

- Of the 69 dangerous practices identified, 54% involved a person lying face-down in a prone position, which is associated with increased risk of asphyxia and aspiration;[6] 51% involved a person lying face-up in the supine position without the person's head being elevated, which is associated with increased risk of asphyxia, fatal cardiac arrhythmia or respiratory arrest[7] and 44% involved staff exerting pressure to the person's neck or torso, creating a high risk of fatality.[8]

- Only 7% of the cases involved the use of techniques deemed appropriate by standards for managing a person's aggressive behavior.

Most Physical and Mechanical Restraints Also Involved Chemical Restraints:

- In the majority of the deaths, medication was ordered either prior to or during the restraint, and in 89% of those instances, the medication was used as a chemical restraint.

- The medications used generally included antianxiety and antipsychotic medications.

Significant Failure to Monitor Individuals in Restraints:

- For all types of facilities, 44% of the individuals in restraints were not monitored or checked by staff at all before they died.

- Of the 10 cases that specified the criteria for the person to be released from restraints, **four individuals met that criteria prior to their deaths**.

Staff Responses to the Individual's Distress Found Particularly Disturbing:

- Forty-four percent (27 of 61 cases) of the individuals were discovered to have died while in mechanical or physical restraint.

- Forty-three percent (12 of 28 cases) of the cases with available information documented that the individual restrained indicated verbally or nonverbally to staff that he or she was in physical distress prior to death. The staff responded to the person's indication of physical distress in only half of these cases. Yet even when staff responded, the individuals died.

- In the majority of cases, the staff noticed signs of distress prior to the person's death. In three cases, the first signs of physical distress were noted before the person was even placed in restraints.

- Delay in staff's recognition and response to the person's distress or death was evident in 63% (34 of 54) of the cases with available information.

Most Restraints Contributed Directly or Indirectly to the Death:

In 82% of all the cases, the restraint either directly or indirectly contributed to the person's death. Most of the individuals died from being asphyxiated or as a result of heart disease. Nine of the deaths were ruled homicides by the coroner or medical examiner, none of which appear to have resulted in criminal charges let alone convictions. Staff members' behaviors were identified by the medical/nursing consultants as a contributing factor in 39% of the cases. The factors that were most frequently noted to have contributed directly or indirectly to the person's death included the following:

- Pre-existing medical conditions (67%, or 41 cases)
- Insufficient monitoring by the staff (62%, or 38 cases)
- Inadequate response by the staff to the person's distress (49%, or 30 cases)
- Overuse of force in physically restraining the person (39%, or 24 cases))
- Physical restraint not correctly done (34%, or 21 cases)
- Failure to use any other less intrusive interventions before restraining the person (25%, or 15 cases)

Recommendations

The results of this study document the immediate need for action to prevent further loss of life. The very serious concerns arising from those results related to the often preventable deaths examined in this study illustrate the need to strengthen ongoing efforts to reduce and/or eliminate reliance on restraint in settings where people receive treatments and services and to immediately eliminate dangerous restraint practices.

The physicians, nurses and Equip for Equality staff involved in this study spent many hours reviewing records, engaging in collaborative telephonic and face-to-face consensus discussions and attending a final summary meeting. While understanding that it is sometimes easy to retrospectively identify all the antecedent signs of an intervention that is obviously going to end in a tragedy, the medical/nursing consultants also recognized that it might not always be so obvious to those involved in responding to a crisis. In some instances, the dire circumstances should have been obvious to the clinical responders to the crisis. In other cases, the dangers could not have been so easily predicted.

While organizations work toward reduction and elimination of restraint, these findings identify critical safety issues that need to be addressed if future deaths are to be prevented in places where restraints continue to be used.

Policy Recommendations: Actions for National and State Policy Makers

Policy makers at both state and national levels must be alerted to the serious risks and fatal outcomes associated with restraint so that measures can be employed to successfully reduce and eliminate reliance on restraint and prevent restraint-related deaths across the service-provider systems and other settings where restraints continue to be used.

The findings of this study provide compelling support for the following eight actions:

- Mandating enhanced government oversight of restraint usage, injuries, deaths and other serious problems related to restraints with sufficient resources to ensure the effectiveness of the oversight.

- Promoting necessary reform in federal and state regulations, policies and practices, based upon the premise that the use of restraint is not treatment, but an emergency response to what is often a treatment failure.

- Establishing a ban on dangerous restraint practices such as prone restraints and methods that involve pressure to the chest or back, through implementation of regulations and policies.

- Establishing mandated reporting to a centralized national database of all incidents of restraint usage, injuries and deaths so that aggregate data can be analyzed for trends and patterns and public reports of that analysis released to increase safety and further reduce incidents of restraint.

- Identifying settings where restraints continue to be used but which are not currently mandated to report restraint-related deaths and requiring all settings in which restraints continue to be utilized to report to a national database of restraint usage.

- Establishing federal and state enforcement methods that will ensure compliance with reporting requirements related to restraints, including the use of meaningful sanctions for failure to report.

- Developing and maintaining an easily accessible national source of data and information related to successful restraint-reduction efforts.

- Ensuring availability of information related to the role of the nationwide P&A system in advocating for people with disabilities and addressing the misuse of restraint.

Recommendations for Immediate Action for Organizations and Clinicians Where Restraints Continue to Be Used

The findings of this study and the literature both document the critical need for any organization, program or facility that continues to utilize restraints to immediately establish policy and procedures that strictly enforce the limited circumstances under which the law currently allows restraints to be applied, and provide ongoing staff training to ensure that, if used, restraints are done in a manner least likely to cause injury or death, including the following:

Prohibit dangerous practices

- Prohibit the use of restraint when it is contraindicated by the person's medical

or psychological condition.

- Prohibit restraint procedures and devices that constrict the person's ability to breathe.
- Prohibit restraints when the person's airway is obstructed or the person is not breathing.
- Prohibit prone (face-down) restraint.
- Prohibit supine (face-up) restraint that involves pressure to the torso.
- Prohibit supine restraint that does not require the person's head to be elevated.

Recognize contraindications and other conditions and events that increase the risk of death

- Cardiac compromise and breathing-related medical disorders and conditions should be a contraindication to restraint because of the increased risk of death due to spontaneous apnea (breathing that suddenly stops).
- Morbid obesity should be a contraindication to restraint because of the increased risk of death due to asphyxia, and obesity may be considered a contraindication for the same reason.
- Intoxication, either due to drugs or alcohol, may be a contraindication because of the increased risk of death due to spontaneous apnea.
- Development of a deep vein thrombosis (blood clot) is a serious risk of being restrained, especially for people who are restrained for prolonged periods.
- Restraining of an elderly person is a high-risk procedure, especially if the person is disoriented or confused or his or her mental status is otherwise altered.
- Large numbers of staff members involved in a takedown or other form of restraint exponentially increase the risk of death.

Identify signs of distress that must be immediately addressed

- Listen to and watch a person being restrained. If the person states or indicates he or she cannot breathe, believe the person.
- Be alert for vomiting. If the person vomits, a medical emergency exists, especially if the person is improperly positioned.
- Release individuals who are snoring, as this can be a symptom of sleep apnea that increases the risk of death.

Recognize that a person's "behaviors" may be caused by an underlying medical condition that needs immediate treatment

- Determine whether medical delirium, which is often not identified in its early stages or is confused with a mental health issue, or other medical conditions are the underlying cause of the behavior.

- Staff members who have worked with the person or his or her family may have important information regarding the person's condition that should be sought and considered.

Utilize clinical expertise wherever available

- In clinical settings, require trained clinicians to assume the overall responsibility for restraint procedures, and do not allow non-clinicians or paraprofessional staff to be in charge of a restraint incident.

- In clinical settings, require that a registered nurse or physician with authority to direct involved staff have primary and ultimate responsibility for continually assessing the individual being restrained.

Closely supervise and examine each incident

- Require continuous staff presence during a restraint for behavioral reasons, and release the person from restraint at the earliest possible moment.

- Do not allow restraint to be used in a locked room or anywhere that access to the individual can be impeded in an emergency. Require supervision to ensure that staff members responsible for monitoring the individual and intervening during restraint incidents—e.g., range-of-motion exercises, offering fluids—are actually performing these duties.

- Conduct ongoing monitoring and oversight of each restraint incident by key leadership staff that includes a prompt and thorough review of the incident as a means to ensure safety.

- Ensure ongoing collection and analysis of restraint incident data as a method to prevent other incidents of restraint.

Recommendations for Immediate Action for Programs and Facilities that have Undertaken Efforts to Reduce and Eliminate Restraints

As programs and facilities undertake efforts to reduce and eliminate reliance on restraint, the very serious concerns raised by the findings of this study and the literature related to successful reduction initiatives demonstrate the critical importance of these steps:

- Establishing mission, vision and value statements through facility and program

leadership that create an organizational culture focused on the following:

- ✓ reducing/eliminating reliance on restraint for behavioral interventions and developing non-coercive environments within which to provide services;
- ✓ delivering services that are individualized and oriented toward the person's recovery; and
- ✓ providing care that is fully informed of the individual's history, including any history of physical or sexual abuse, and other relevant medical information.

- Providing ongoing training to support the vision for changes in organizational culture that reinforces the following:
  - ✓ primary preventative measures rather than restraint;
  - ✓ interventions that are less intrusive than restraints;
  - ✓ effective ways to de-escalate situations to avoid restraints; and
  - ✓ crisis intervention techniques that utilize alternatives to restraint.
- Developing and implementing treatment plans that address all aspects of the individual being served.
- Providing staff with resources and tools to properly respond to the needs of those whom they serve and to be able to identify and address the triggers that may cause individuals to react in ineffectual ways to the environment.
- Increasing resources to ensure the provision of adequate alternative treatment options, including the following:
  - ✓ environmental enhancements; and
  - ✓ alternatives to traditional treatment methods, such as the use of comfort rooms, sensory integration tools and creative calming approaches.
- Involving individuals served in the development of effective alternative treatment options, environmental enhancements and changes in the organizational culture.
- Developing peer support programs for people with mental illness that include strategies to utilize people who are successfully in recovery to work with those currently being served.
- Examining those restraint reduction initiatives that have had documented success to aid in the sustainability of the current initiative.

Introduction

In studies of the experiences of people who have been restrained, not surprisingly, most viewed the experience very negatively, describing feelings of anger, fright, humiliation, demoralization, bitterness, disorientation and sadness. Many reported that the worst part of being restrained was the profound sense of powerlessness and helplessness. For others, being restrained resulted in an overwhelming sense of vulnerability and fear because they were unable to protect themselves from potential assaults. And, finally, there were those who reported fearing death because of their belief that no one would hear their cries or come to help if a potentially fatal event occurred while they were alone and strapped down.[9] As documented by the deaths examined in this study, their fears were not unfounded.

Deaths of children and adults with disabilities, which are similar to the deaths examined in this study, are occurring across the country in hospitals, emergency departments, state institutions, nursing homes, schools, camps and residential treatment facilities at a rate that has been approximated to be 50 to 150 deaths per year.[10] Actual numbers are not known because no comprehensive mandated reporting system for all deaths exists. The purpose of this study is to examine why the deaths are occurring and to provide recommendations to prevent death and to enhance the efforts to reduce and eliminate reliance on the use of restraint.

Overview of Restraint Usage in the United States

Restraints involve immobilizing a person through mechanical, physical or chemical means so that the person's freedom of movement or access to his or her body is severely restricted. Restraints can involve strapping an individual's wrists and ankles to a bed or behind the individual's back, utilizing harnesses or sheets to inhibit movement or using a lap tray, belt or other device to keep a person in a wheelchair, or it can involve one or more staff members physically holding a person down. Chemical restraints are used to restrict an individual's voluntary movement through the use of drugs that are not standard treatment for that individual's condition or symptoms.[11]

Since at least the early 1800s, restraints have been used ostensibly in the name of "patient safety" to control behavior, protect individuals from falls and prevent interference with treatment, despite growing evidence of the risk of significant harm or death from their use. The notion that restraint is necessary to control aggressive behavior or treat psychiatric symptoms is rooted in treatment methodology provided to individuals with mental illness and the elderly centuries ago.[12]

In the mid-19th century, the first generation of American psychiatrists undertook a reform of the mental health hospitals and asylums that existed at that time. Their reform efforts were based in part upon the system of "moral treatment" that developed in Europe, and they incorporated calmness and kindness in treatment methods in an effort to move away from restraints as an accepted form of intervention. The American clinicians, however, concluded that "due to the uniquely independent and aggressive nature of the American character," restraint was a necessary component of treatment for aggressive behavior and psychiatric symptoms.[13] Use of restraint to control behavior or prevent interference with treatment has also been incorporated into nursing practices in America since the inception of modern nursing in the late 1800s.[14]

Not until the 1980s did a nonrestraint movement gain momentum in America. A combination of federal initiatives, vocal advocacy groups, investigative journalism and studies that estimated that more that 500,000 elderly people residing primarily in nursing homes were being restrained daily changed the "rhetoric of restraint use from protection to abuse," with the legal system supporting that change.[15]

The *Hartford Courant*'s National Exposé on Restraint-Related Deaths

In 1998, the *Hartford Courant* published a series of newspaper articles documenting the dangers and tragic consequences associated with the use of physical restraint on individuals with disabilities. The restraint-related deaths described in the series occurred across a variety of settings, including schools, hospitals and residential treatment centers, impacted a variety of disabilities and involved children as young as 6 years of age up to adults age 45.

As described in the series, the deaths clearly illustrated systemic failures by facilities serving individuals with disabilities in understanding behavior, in identifying antecedents of behavior and in utilizing less intrusive behavioral interventions, such as techniques to de-escalate a person's behavior as alternatives to restraint usage. The deaths demonstrated that staff charged with the safety and well-being of the individual had a lack of understanding of the impact restraint procedures have on the individual's respiratory system and of how any additional pressure applied to the chest or back further compromises the respiratory system and further endangers the individual's health. The deaths also demonstrated that staff charged with monitoring the health and welfare of the individual while in restraints had a lack of knowledge of symptoms of respiratory distress, and they illustrated failure by staff members, in some instances, to initiate emergency procedures such as cardiopulmonary resuscitation (CPR) or calls for emergency medical assistance.

The review of the restraint-related deaths revealed situations that quickly

escalated into power struggles between staff members and the individual, ultimately resulting in the use of restraints and the individual's death. Tragically, the deaths highlighted a system of care that was not individualized, oriented to the person's recovery or informed of the person's trauma history and other relevant histories and contraindications, but one that was more aptly characterized as a system based upon treatment failures. Sadly, the series estimated that numerous other deaths had occurred across the nation but went unreported due to the absence of a mandated reporting requirement and a designated enforcement authority.

Congressional and Executive Response to Media Exposé of Medicaid Services

In response to the series of articles published by the *Hartford Courant*, Senators Lieberman and Dodd each introduced a bill (Freedom from Restraint Act of 1999, S. 736 and Compassionate Care Act of 1999, S. 750, respectively), and Representatives DeGette, Stark and DeLauro introduced a bill (Patient Freedom from Restraint Act of 1999, H.R. 1313) designed to safeguard the use, monitoring and reporting of restraints in a variety of settings.

The most comprehensive of the bills, H.R. 1313, was introduced by Representative DeGette et al. and would have regulated restraint-related activities in all adult and child facilities receiving Medicaid or Medicare funds. The proposed legislation specifically protected individuals from the use of physical or chemical restraints or seclusion for purposes of discipline or staff convenience. It required that staff receive restraint-related training on an annual basis and required that guardians be notified not only of the restraint episode, but also of the existence of, purpose of and contact information for the state P&A program.

Additionally, the legislation proposed that restraint usage be limited solely for the purpose of ensuring the immediate safety and protection of the individual and others, and only as a last resort. Restraint orders were not to exceed two hours and had to identify the circumstances for the restraint and criteria for release from the restraint. Standing and PRN (as needed) orders for restraint were prohibited, as was the simultaneous use of restraint and seclusion. It also required facilities to remove restraints at the earliest possible time.

Also set forth were requirements for documenting the type, duration and rationale for the restraint episode and the requirement for documenting that less restrictive alternatives were used prior to the restraint. In response to the restraint incident, the individual's treatment plan was to be revised and provided, along with the restraint episode information, to the state's P&A system. Periodic reports to the secretary of Health and Human Services and the P&A agency specifying the number of times restraint or seclusion were used during the reporting period (at

a minimum annually) would also be required of facilities receiving Medicare or Medicaid funds.

The proposed legislation required that sentinel events involving deaths or serious injuries that occurred while an individual was in restraints or in close proximity in time to the restraint, or any death that occurred within 14 days of a restraint episode, were to be reported within seven days to the P&A agency and included in an annual report to the secretary. More importantly, the proposed legislation also authorized sanctions and the withholding of funds for noncompliance with the regulations.

Senate Bill S. 736 presented by Senator Lieberman also pertained to all Medicare and Medicaid facilities, but excluded home health agencies. The bill included prohibition of restraints for purposes of discipline and convenience, and limited restraint use solely for the protection of patients (not safety of staff). In addition, the proposed legislation required a physician to order the restraints with time, duration and circumstances documented.

Reporting of restraint episodes would be submitted to the agency's accrediting body or to the secretary of Health and Human Services or the delegate. The secretary or the delegate would be required to investigate any sentinel event and conduct a root cause analysis with an accompanying plan of correction. In the event of a death, the appropriate investigatory agency would be notified, as well as the P&A agency, licensing body and the state attorney general. Finally, this legislation would also create a national database of sentinel events.

Senate Bill S. 750, presented by Senator Dodd, offered more expansive coverage by requiring that any facility that falls under the P&A programs for individuals with mental illness must report sentinel events to the P&A within seven days of the event, and offered some of the specific protections noted in other proposed legislation. The additional requirement of this bill was the maintenance of federally mandated staffing levels and language authorizing the withdrawal of federal funds from a facility for failure to comply.

Despite the need for additional safeguards, there was strong opposition to the legislation. A number of organizations and hospital associations voiced opposition to the proposed legislation, citing various reasons. Professional associations voiced opposition to Congress's legislating a medical treatment and opposed some of the suggested time frames as being unfeasible and creating an undue financial burden on certain facilities. There was also opposition from unions to the bill's reporting requirements, especially those reports that would be provided to investigatory agencies. Privacy concerns were also voiced.

Each of the bills as drafted was sent to various congressional committees for

review. None of the bills made it out of committee, so the legislation was never enacted into law.

Despite the failure of the bills to be enacted into law, the focus that the *Hartford Courant* and the debate on the proposed legislation brought to the issue of restraints did have an effect. In 1999, a year after the *Hartford Courant* series, the Centers for Medicare and Medicaid Services (CMS) for the first time introduced mandatory national standards for the use of restraint and seclusion in hospitals that included many of the protections proposed in the legislation. The standards established a new Patients' Rights Condition of Participation, which all hospitals participating in the Medicaid and Medicare programs were required to meet. The CMS regulations require hospitals to report any death of a patient while in restraint or seclusion, or when it is reasonable to conclude the death was related to restraint or seclusion, to CMS. In response, CMS notifies the P&A and the state Medicaid agency, which conducts an on-site complaint survey of hospitals reporting deaths related to restraint or seclusion.[16]

President Clinton signed the Children's Health Act in 2000, which was modeled on the restraint and seclusion standards in the Dodd/Lieberman bills and created two sets of standards, one for public and private hospitals, intermediate care facilities (ICFs) and other health facilities receiving federal funds, and a second for public or private non-medical community–based agencies for children and youth. This act protects children and requires reporting a death to the secretary of Health and Human Services within 24 hours of the event.

In 2001, the Joint Commission on Accreditation of Healthcare Organizations (currently known as the Joint Commission) standards were also amended to offer many of the protections included in the initial proposed legislation.[17] In response to the *Hartford Courant* series, the Joint Commission issued new accreditation standards that applied to all health care facilities, including acute-care hospitals that used restraint or seclusion for behavioral reasons. Previously, the standards applied only to behavioral health care facilities.

However, several critical aspects of the proposed legislation were missing from the Children's Health Act and the revised federal regulations and accrediting standards. Missing was the broad application of the reporting requirements to all facilities providing services to individuals protected by P&A programs for individuals with mental illness under the PAIMI (Protection and Advocacy for Individuals with Mental Illness) program; legislation mandating adherence to safe staffing levels; legislation that would require a physician to order restraints (rather than a "licensed independent practitioner"); legislation that would create a national database for restraint use and injuries; and legislation that would have expanded the role of the state P&As by increasing their supervisory authority and giving them primary

investigative responsibilities.

In September 2006, the U.S. Department of Health and Human Services, Office of Inspector General, found that, in spite of the 1999 CMS regulations requiring hospitals to report restraint- and seclusion-related deaths, hospitals failed to report nearly half of the 104 documented restraint-related deaths found by the Office of Inspector General that occurred nationally between August 1999 and December 2004.[18] Moreover, the scope of the information that must be reported by hospitals to CMS is limited, and serious delay in the review of the information related to hospital restraint deaths that must be reported to CMS is evident.

Studies and Reviews Documenting the Dangers of Restraint

While an expanding body of literature has documented the risks inherent in the use of restraints,[19] the lack of a mandate to report crucial data related to prevalence and usage renders it very difficult to make an evaluation of the full extent of the risks to which people restrained are exposed. In one study related to the adverse effects of restraint usage, the authors found that the number of deaths raised the issue of restraint usage "to a life-and-death matter that demands attention from professionals."[20] In another study, the authors noted that "physical restraint is the only non-medical intervention in mental health with the potential directly to cause severe and even fatal injury to patients and that the degree of danger remains unclear."[21]

The findings of a review of observational studies documented that restraint usage in acute-care settings may, in fact, increase the risk of adverse outcomes, including death, infection and falls. Likewise, in residential settings, studies suggest that restraint usage is associated with an increase in falls and fall-related injuries, may increase agitation and cognitive decline and may result in reduced social interaction.[22]

In another study of 45 child and adolescent restraint fatalities, restraints were described as "high-risk safety interventions with fatal consequences if applied incorrectly." The authors concluded that safety might be better served by eliminating the adverse environmental causes of aggression and violence within the setting, and by banning dangerous restraint practices and enforcing the legal standard for use of restraint.[23]

Other studies examining fatalities resulting from restraints found the most common immediate cause of death for children and adults was asphyxia. In another study, the researchers found, among other things, that all restraints present considerable risk, are intrusive, have a negative effect on the treatment environment and have a profound effect on those who have had trauma in their lives.[24] "Literature reviews attempting to find an empirically-based rationale for

the use of seclusion and restraint have failed to find scientific support for its use, except in relatively rare situations."[25]

Efforts to Address the Dangers of Restraint

In 2003, the U.S. Department of Health and Human Services Substance Abuse and Mental Health Services Administration (SAMHSA) in partnership with the National Association of State Mental Health Program Directors (NASMHPD) established elimination of restraint usage as a key priority and initiated a "National Call to Action: Eliminating the Use of Seclusion and Restraint." Notably, restraint was perceived not as a necessary practice, but as a treatment failure. Many were invited to learn about efforts that were under way in determining what worked in reducing the use of restraint and seclusion and to collaborate in developing a shared national agenda to reduce and ultimately eliminate seclusion and restraint use in mental health systems. Those invited included leaders from federal and national mental health organizations; professional and provider organizations; state and local mental health agencies; clinical training programs; advocacy organizations, including Equip for Equality; federally funded research, training and technical assistance centers; consumers and family members.[26] The New Freedom Commission on Mental Health called for a transformation of mental health care in the United States, and Presidential Executive Order 13263 signed by President George W. Bush in April 2002 supported this call to action.[27]

The Pennsylvania experience is frequently cited as representing one of the most successful initiatives in eliminating the use of restraint in its state hospital system. Many factors have been identified as contributing to the success of the multiyear effort, including improved patient-staff ratios, consumer involvement, emergency response teams to manage a crisis through violence-prevention skills, evidenced-based practices, performance-measurement systems and effective patient and staff debriefing.[28] At least one study found that "the non-restraint values of hospital staff and community advocates that seclusion and restraint are not treatment modalities but treatment failures were the major reasons for the changes in attitude, culture, and environment…" within that system.[29]

SAMHSA afforded states an opportunity to apply for transformation grants to receive funding and technical assistance to support restraint-reduction initiatives in their mental health hospitals. Illinois, as with other states awarded the SAMHSA grants, followed the Six Core Strategies for the Reduction of Seclusion and Restraint developed by the National Technical Assistance Center (NTAC). Those strategies were developed by NTAC after review of available research and interviews with experts with documented successful initiatives for reducing restraint and seclusion in various mental health settings serving children and adults. The strategies include leadership strategies, data usage to inform practices, staff development, use of

seclusion- and restraint-prevention tools, consumer roles in inpatient settings and debriefing techniques.[30]

In 2007, in response to substantial evidence related to the inherent dangers that restraint and seclusion pose to people receiving mental health services and to staff, and the shift in the delivery of inpatient psychiatric services to the private hospital system from the public system, Equip for Equality released a study of 25 Chicago-area private hospital restraint and seclusion policies. This study answered the questions: 1) Do hospital restraint and seclusion policies in a major metropolitan area comply with federal and state laws? 2) Do they incorporate best practice standards? In critical areas of safety, staff training and oversight, the study found a significant lack of compliance with minimum federal and state laws and regulations as well as with best practice standards created to reduce the risks associated with restraint and seclusion. The policies, in the same critical areas, overwhelmingly failed to incorporate best practices.[31]

The significant level of noncompliance documented by the Equip for Equality study and the 2006 Office of Inspector General study related to lack of restraint-death reporting illustrates that simply passing laws to regulate the use of restraint and seclusion alone has not proven to be an effective mechanism to ensure compliance with the law or to prevent deaths and serious injuries.

As initially reported in a 1998 series in the Hartford Courant, there continues to be no effective oversight system in place for monitoring restraint usage and compliance with the law. There is no federal or state government agency responsible for collecting the data on restraint usage and deaths in all settings. The full extent of the risks associated with restraint is not known because reporting of incidents and deaths is so fragmentary. Some but not all types of Medicaid or Medicare residential facilities are required to report restraint-related deaths. Accreditation processes rely on voluntary reporting, which is often incomplete. Community-based Medicaid waiver program standards do not specifically address restraint usage, but require the state applying for the waiver to provide assurances that safeguards are in place to protect the health and safety of individuals served. Less than half the states have laws governing restraints in schools, and nearly all states allow prone restraints of children.[32]

Professional Organizations Call for Reduction and Elimination of Restraint

To their credit, a significant number of professional organizations have advocated for the reduction or elimination of the use of restraint, including the American Psychiatric Association, the American Psychiatric Nurses Association, the National Association of State Mental Health Program Directors, the Child Welfare League of

America, the American Academy of Child and Adolescent Psychiatry, the American Association of Community Psychiatrists, the National Alliance on Mental Illness and Mental Health America.

Recent position papers by the American Psychiatric Nurses Association and the National Association of State Mental Health Program Directors speak to concerns about the use of restraint and seclusion. Examples include the following:

- Recognizing the key role of nursing staff in maintaining safety on a hospital unit, the American Psychiatric Nursing Association supports a sustained commitment to the reduction and ultimate elimination of seclusion and restraint. The organization advocates for continued research to support evidence-based practice for the prevention and management of behavioral emergencies and recognizes the need to work with all stakeholders, including advocacy groups.[33]

- The National Association of State Mental Health Program Directors recognizes the significant risks for all involved in seclusion and restraint episodes. The goal of the organization is to prevent, reduce and ultimately eliminate the use of seclusion and restraint and to ensure that if such interventions are used, they are administered in as safe and humane a manner as possible by appropriately trained staff. The organization calls for early identification and assessments of people at risk of such measures, active treatment that is of high quality, trained and competent staff to effectively employ individualized strategies to de-escalate situations, policies that allow for such interventions only as an emergency safety measure and effective quality assurance procedures. The organization also supports the use of the Six Core Strategies to Reduce the Use of Seclusion and Restraint Planning Tool developed by the National Technical Assistance Center (NTAC).[34]

The push for reduction or elimination may be having an impact. One recent study has found that the number of hours that individuals in state psychiatric hospitals spent in restraints decreased by 46 percent between 2001 and 2005, representing an overall decrease in the number of individuals restrained in that setting by about 12 percent.[35]

However, in spite of decreases in the number of individuals restrained and the number of hours spent in restraints in state hospitals and the emphasis on eliminating the use of restraints in a number of settings, the deaths examined in this study document that much more is needed. The deaths are also a painful reminder of one of the continuing insidious effects of the stigma of mental illness – the failure to see beyond a person's mental health label, resulting in deadly consequences from undiagnosed and untreated physiological disorders. Moreover, while restraint deaths clearly do occur in psychiatric settings, the majority of deaths in this study occurred in non-psychiatric settings illustrating the critical need to address all settings in which restraints are used.

Methodology

Participating Protection and Advocacy Organizations

Equip for Equality requested state protection and advocacy organizations to identify the number of restraint-related deaths that had occurred in their respective states since implementation of the reporting requirements by CMS in July 1999 for such incidents. Equip for Equality recommended that local coroners and state survey, licensing and investigatory agencies be contacted for information and that the deaths include those that occurred in settings other than settings governed by CMS requirements.

Following identification of the deaths, the protection and advocacy agencies were asked to collect records related to the deaths for examination and analysis by Equip for Equality and a group of medical and nursing experts selected to provide a variety of judgments related to the use of the restraint and cause of death. The nature of the records sought for each death included the following:

- autopsy and medical examiner files, including reports, findings and inquest transcripts;
- treatment/medical records related to the restraint episode, including all efforts to treat the individual following the restraint and records identifying the individual's disability and diagnoses;
- medical records describing health care status, including assessments, diagnoses, treatment plans and the implementation of plans, and medications administered at or about the time of the restraint;
- restraint records, including those that describe the individual's behavior or actions prior to the restraint, justification for the restraint and any description or observations of the individual during the restraint episode;
- investigative reports from both the responsible state agency and the facility at which the restraint occurred; and
- any records relied upon by the state or facility in reaching conclusions/ opinions related to the death.

Description of Sample

Thirteen protection and advocacy organizations submitted 68 files. The deaths occurred between September 14, 1999, and August 9, 2005. Of these 68 files, 61 of the cases were determined to be appropriate for review. Seven of the cases were deleted from the study when the medical/nursing consultants determined

that death did not involve a restraint (e.g., the person had been secluded and not restrained). The number of deaths reported from each state that responded to Equip for Equality's request is listed below. It should not be interpreted that states that are not listed had no restraint-related deaths; rather the protection and advocacy organizations in those states did not provide records of deaths occurring in their states.

State of Individual's Place of Residence

State	N	%
Arizona	1	2
Arkansas	1	2
Colorado	3	5
Georgia	2	3
Illinois	10	16
Iowa	3	5
Kentucky	12	20
Louisiana	7	11
Missouri	1	2
Montana	1	2
South Carolina	2	3
Texas	18	30
Total	61	100

Development of the Evaluation Instrument

Equip for Equality, in conjunction with Lana Norwood, MSW, and J. Richard Ciccone, M.D., expert consultants for the study, created a descriptive research design to review the records of each death. The review process was designed to facilitate an accurate and reliable analysis of the relationship between the restraint and the individual's death, the degree to which application of the intervention met relevant standards and the specific risks associated with the use of restraints in each instance. A tool was developed to provide a comprehensive review of each death through the collection of consistent data from each incident to obtain quantifiable results from the study.

Prior to developing the tool, Equip for Equality and the consultants identified

10 major areas of information considered to be pertinent to the purpose of understanding the circumstances surrounding the death, which factors may have contributed to the person's death during the restraint and the response to the death by the facilities where they resided as well as those agencies with oversight or investigative responsibilities. The areas with a summary of the content for each are these:

1. ***Facility Information***: location and type of facility.

2. ***Patient Information***: demographic information; medical, psychiatric, substance abuse and intellectual disability diagnoses and history; communication ability; medication use; and contraindications for restraint based on the person's history.

3. ***Conditions Prior to Restraint***: prior restraint history, reason for the restraint that led to the person's death, the behaviors that led to the restraint and staff response to the behaviors.

4. ***Conditions During the Restraint***: type of restraint used, the use of techniques for managing aggressive behavior, the time in restraint, measures taken to protect the person during the restraint and the ordering of medication prior to and during the restraint.

5. ***Authorization for the Restraint***: how the restraint was initiated and the procedures followed to implement the restraint.

6. ***Monitoring While in Restraints***: the procedures used to monitor the person and ensure his or her comfort while being restrained.

7. ***Facility Response to the Person's Distress***: date and time of death, indications and symptoms of distress while being restrained, staff response to the distress and/or death and facility administration response to the death.

8. ***Cause of Death***: cause of death and identification of any factors that may have contributed to the person's death, including deficiencies in staff training or knowledge.

9. ***Investigations and Report to CMS***: the external investigations conducted

as a result of the death, including those by state and federal agencies, law enforcement, the protection and advocacy agency and the coroner's or medical examiner's office.

10. ***Corrective Actions***: corrective actions taken, if any, and why these actions were taken.

After identifying these content areas, the consultants developed specific items to elicit information for that content area relevant to the implementation of the restraint and the death that occurred. Many items were based on standards that were contemporaneous to the time the restraints occurred and included the following: standards promulgated by the federal government for hospitals certified through the Hospital Conditions of Participation and intermediate care facilities certified by ICFMR standards, all under the authority of CMS; standards created by the Joint Commission; and additional standards considered essential to the appropriate and safe use of restraint.

In addition to objective informational items and those that addressed whether standards were met with regard to the restraint, the tool also contained several items that required that one or more expert medical/nursing consultants make a judgment based on the facts of the case. One of the critical professional judgments was the following: Was the person's death caused by the restraint? Other items required a professional opinion about whether the circumstances contraindicated the use of restraints in the first place, such as a history of sexual abuse or the existence of certain pre-existing medical conditions.

In its development, the tool underwent a series of revisions based on the application of the tool to actual cases by Equip for Equality staff, those persons who conducted the reviews and the consultants. While less problematic than rating scales, which require extensive testing to evaluate inter-rater reliability, each item was carefully reviewed as to the consistent use and understanding of the information the item was intended to elicit throughout the development process. To further ensure the consistent application of the tool, particularly with regard to the items that required expert judgments to be made, the expert nursing consultant responsible for reviewing all cases reviewed the same eight cases and compared their results, finding no major inconsistencies in these items requiring a physician opinion. Finally, prior to their formal reviews of selected cases, the physician consultants were trained on the methodology and reviewed one case to ensure their understanding of the items that would require their professional judgment. This further assured the reliability of the data collection instrument.

Evaluation Process

The review of the restraint-related deaths was conducted in two phases: The first review was conducted by Diane Faucher Moy, MSN, RN, PMHCNS-BC, and Mary Kay Allrich, MSN, RN, LPC, both with extensive experience in psychiatric nursing. The second review was conducted by an expert physician consultant(s) for any of the items that the nurse expert consultants identified as requiring medical expertise. In their initial review, the nurses reviewed the records of each death and identified the necessary data and information to complete the tool and whether any items would best be completed by an expert physician consultant. In addition to completing the tool, they also compiled a summary of the facts for each case to assist the expert physician consultant in conducting his or her review. These summaries also provided a qualitative collection of information to facilitate the quantitative summary, analysis and discussion of the data collected.

As an additional inter-rater reliability check on the selection of cases for the second review, 11 cases for which the nurse consultants did not request a secondary review were assessed by an expert physician consultant. After the expert nurse consultants and the expert physician consultants had completed their reviews, Equip for Equality facilitated numerous telephonically conducted consensus panel deliberations with the interdisciplinary teams. One of the key components of the cases reviewed by the interdisciplinary teams related to the question of causal relationship between restraint and death. Internal validity, the degree to which the conclusions of the research study are supported by evidence and can be trusted, was facilitated by the collaborative discussions and conclusions of the consensus panels.

Limitations of the Study

Most studies will have one or more issues related to methodology, data collection and sample size that will limit the ability to generalize the findings to the population of events, in this case deaths that occur during or subsequent to a restraint episode. For this study, the primary limitation is the sample. Not only is the sample small, it is drawn from only a few states. It is clear that with only 61 cases, while the data from these cases provide insight into and help identify some common factors associated with the deaths, these conclusions must be considered tentative without a larger sample.

Sample size was further reduced for many of the variables in the study because of missing data. Few of the cases submitted by the state protection and advocacy agencies contained all documentation that would allow for a finding on every item in the tool. Some cases were missing substantial personal histories and treatment

at the facility where the individuals resided at the time of their death. Reasons for the lack of documentation submitted by the protection and advocacy agencies can only be surmised. Documentation may have been missing from the file because the facility did not provide that information to the protection and advocacy agency, or the facility did not actually document important elements of the individual's history and treatment.

Missing information presented enormous challenges in collecting, displaying and reporting the data. To ensure accuracy in data collection, the medical/nursing consultants did not make any assumptions in reaching a finding on any item. For example, if the documentation available did not address whether the person had a psychiatric history, the item was coded as "Not available in the record" rather than as the absence of a psychiatric history.

Only a few items in the tool actually included information on all 61 individuals in the study. The number of cases with missing data is identified for those items where this provides clarity as to the results but is not reported where displaying the missing data may interfere with understanding the data. Numbers for items also vary because the review of some items was not applicable given the findings of previous items. Again, using the example of psychiatric history, the number of cases reported for any variable may reflect that the data were not available for some individuals, but it may also reflect that the item was not pertinent to the individual's history or the circumstances of the restraint. For example, if a person had a psychiatric history, the medical/nursing consultants completed additional items such as the psychiatric diagnosis and previous hospitalizations, which were not completed for those without such a history.

Finally, the deaths reviewed in the study came from 12 states, with two-thirds of those coming from just three states, Illinois, Kentucky and Texas. It is unclear how the weighting of these states in the sample may have affected the results obtained. For example, the population size of the facility where the person died was one variable included in the study. Results suggest that more than half lived in smaller towns and communities. With the limited participation by states, caution must be taken in the interpretation of this finding, since we cannot exclude the possibility that the results merely reflect the population distribution of the oversized participation of some states.

While there was little that could remedy the sample size and its composition, the data that were available were thoroughly reviewed and details gleaned to obtain as much knowledge about each episode as possible. Each case presents an opportunity for advancing our understanding of how the deaths occurred, and the detailed data gathered, including the extensive case summaries, present an array of circumstances that lead to tragic consequences for many of these individuals.

The end of life story for each person provides a wealth of qualitative information that, by itself, is invaluable in understanding the risks associated with restraints.

Study Findings

The results of the review of 61 deaths that occurred during or subsequent to being placed in restraints are summarized below, organized by the 10 content areas identified in the preceding section describing the study's methodology. Most of the data presented below is also contained in Tables 1-36 in Appendix B.

The tables in Appendix B contain percentages for both single- and multiple-response items. For single-response items, the percentages are based on the number of cases with sufficient documentation, and the percentages will add to 100 or in some cases, as the result of rounding, will add up to 99 or 101. In multiple-response items, the percentages reflect whether the data was best analyzed by the total number of responses or the total number of cases. For those items where the percentages are based on the total number of responses, the percentages will add up to 100. Where the percentages are based on the number of cases and an item has more than one response, the percentage column in the table will add up to more than 100. Unless obvious, each table will contain an explanation of how to interpret the percentages.

Where the Restraints Occurred

The people who died resided in communities both small and large; however, more than half (55%) were in facilities located in communities of less than 25,000. Approximately another quarter of the people resided in cities of 100,000 to 999,999. (See Table 1.)

Those who died had been admitted to a variety of facilities, including nursing homes, wilderness camps, general hospitals, community group homes and private residences. Seventy-five percent, or 46 of the deaths, occurred in facilities funded by Medicaid or Medicare.

Table 2 lists the types of facilities and the number of people residing in each at the time of their death. The following are the most frequent types of settings:

- The largest proportion, 26%, or 16 individuals, had been admitted to and were restrained in a general hospital unit.
- Fifteen percent (9 individuals) were patients in a state psychiatric hospital.
- Approximately 10% were residing in each of the following: a nursing home, a children's residential treatment center and a psychiatric unit in a general hospital.

The most frequent reasons for admission or treatment in these facilities or settings included the following (see Table 3):

- For psychiatric treatment, including both voluntary and involuntary commitments (33%)
- For treatment of a medical problem (27%)

At the time of their death, individuals had been in the facility where the restraint occurred from less than a day to more than 25 years. The median time in that setting was 6 days. As shown in Table 4, the majority of individuals (56%) had been in the facility where they died for less than seven days, with a quarter of the individuals having been in the facility for a day or less.

Personal Information and History

Personal Characteristics

The majority of the 61 individuals who died were male (72%) and Caucasian (67%). African-Americans are over-represented in this sample, accounting for 22% of the deaths studied and only 13% of the total United State population according to Census 2000. Hispanics and Caucasians are under-represented in this sample.

The ages of those who died ranged from 9 to 95; four individuals were 9 years old and 14 were 80 or older. The largest proportion of deaths occurred in people 65 and older (31%) and 22 to 44 years old (31%). Twenty-one percent were 45 to 64 at the time of their death. Nine of the 61 people (15%) were 17 years old or younger when they died. (See Table 5.)

Psychiatric History

The history of psychiatric or mental health problems of those who died was often sketchy to nonexistent. The following psychiatric history could be gleaned from records, with many records lacking sufficient detail to provide an accurate history.

Seventy-three percent (36 of 49 with available documentation) had a psychiatric diagnosis. The most common diagnoses provided in the case files were schizophrenia or other psychotic disorders and mood disorders. Of these 36 individuals, each of these two disorders was identified for 53%, or 19 individuals. (See Table 6.)

The individuals' psychiatric history, where available, indicated that 95% (53 of 56) were described as exhibiting behavioral or emotional challenges prior to their admission.

Twenty-two individuals' psychiatric history had information that addressed

whether they had ever been admitted to a psychiatric facility, the majority with three or more admissions (12 individuals, or 55%). Five of the people who died did not have a history of previous psychiatric hospitalization. (See Table 7.)

History of Substance Abuse

Very little specific substance abuse history could be found in the records. Thirty-four percent (15 of 44 with available documentation) had a substance abuse diagnosis, 13 of whom were diagnosed with an addiction to drugs or both drugs and alcohol. Thirty-two percent (11 of 34) were smokers.

History of Intellectual Disability, Learning Disorder or Developmental Disorder

One-quarter of those who died (15 individuals) had one or more diagnoses of intellectual disabilities, learning disorder or developmental disorder. Of those people with at least one of these diagnoses, the most common was intellectual disability/developmental disability (73%, or 11 individuals). (See Table 8.)

Communication Abilities at the Time of the Restraint

Documentation regarding the person's communication abilities was available in the records of 47 of the people who died. Of those, approximately half of the individuals (51%, or 24 of 47) did not have a communication problem, while the other half had limited or no communication skills. The most frequently identified communication problem was due to medical circumstances that limited the individual's awareness or consciousness (65%, or 17 of 26 had communication issues identified).

Treatment Planning to Address the Person's Risk for Restraint

The records related to 38 of those who died had information regarding this issue. Of the 38 cases, 21% (or 8 cases) had a treatment plan that discussed the person's risk of restraint with goals, objectives, methodologies and interventions to prevent its use.

Person's Preference for Intervention to Help Him or Her Regain Control

Only 25 cases had information that specified whether the facility had asked the person what type of intervention he or she preferred to help him or her regain control or address behavioral issues. Twenty-four percent (or 6 individuals) had been asked by the facility their preferred intervention.

Pre-existing Medical Conditions

Of the 57 cases with sufficient medical history, 95%, or 54 of the people who died, had at least one or more identified pre-existing medical conditions at the time of their restraint. Table 9 shows the percentage of those individuals with pre-

existing conditions, with the most frequently identified medical conditions shown below:

- Neurological (57%)
- Cardiac condition (57%)
- Respiratory, infection or muscular/skeletal (approximately 25% for each diagnosis)

More than half of the individuals who were restrained and died (58%, or 28 of 48 cases with available information) were either overweight or obese, based on their body mass index (BMI). (See Table 10.) All four individuals who were underweight at the time of their deaths were 65 years and older.

Medical/Nursing Consultants' opinion:

- ***Of those with a pre-existing medical condition, the consultants' assessments indicate that 30% (16 of 54 individuals) who died had one or more medical conditions that contraindicated the use of restraint. The consultants were unable to make this determination in 20% of the cases, or in 11 cases.***
- ***Consultants found that 16 individuals had a medical condition that contraindicated the use of restraint and 11 individuals had a medical condition that may have contraindicated restraint. For all 27 individuals, the following were most frequently identified as actual or potential contraindication to the restraint: current cardiac compromise (44%, or 12 cases), obesity (41%, or 11 cases) and current respiratory compromise (30%, or 8 cases). These findings are shown in Table 11.***

The staff was aware of the person's pre-existing medical condition in 94% (30 of 32with sufficient documentation) of the cases, but little is known regarding whether the staff was aware that the condition may have been a contraindication to restraint.

<u>Medication Use</u>

- Ninety-four percent of the people who died (49 of 52 cases with sufficient documentation) were using prescription medications within the 24 hours that proceeded the application of the restraint that led to their death. The number and type of prescription medications used were known for 46 of the 49 individuals.
- Twenty-eight of 46 individuals known to be using prescription medications prior to the restraint (61%) were taking two or more medications.
- The medications used are listed in Table 12. The primary psychiatric medication used was antipsychotics, with 61%, or 28 of 46 individuals using this medication within 24 hours prior to the restraint, followed by antidepressant (33%), antianxiety (28%) and mood stabilizer (24%) medications. For medical problems, 43% (20 of 46 individuals) were using a medication to

treat a cardiac problem.

Medical/Nursing Consultants' opinion:

Given the person's condition at the time of the restraint, the consultants determined that in four of 46 cases with information regarding medication use, the medication in combination with the restraint increased the risk to the individual's safety. Three of these cases involved drugs to treat medical rather than psychiatric conditions. The other case where medication contraindicated the use of restraint involved the use of pepper spray.

The staff was aware in all four cases that these medications were being used, but it was not known whether the staff understood that these medications may have been a contraindication to the use of restraints.

Use of Other Substances

Eight percent (5 individuals) had used either alcohol (one individual) or an illegal substance (4 individuals) within 24 hours of their death.

Prior Psychological Trauma

Fourteen records provided sufficient information to determine whether the people who died had a history of trauma.

- Of those 14, 10 had a history of physical and/or sexual abuse.
- The staff was aware of this history in four cases, but the medical/nursing consultants were unable to determine whether the staff was aware that the individual's history contraindicated restraint.

Medical/Nursing Consultants' opinion:

Based on the consultants' assessment of the available documentation, their history contraindicated restraint for five of the 10 cases, and in three cases they were unable to make this determination.

Conditions Prior to Restraint

Prior Restraints

Eight cases had sufficient information to determine whether the individual had been restrained at other facilities prior to admission to the facility where they died, with seven of those eight individuals restrained at other facilities. Thirty-four of the cases had sufficient information to determine whether the individuals had had other episodes of restraint at the facility where they died. Of these 34 people,

65% (22 individuals) had been restrained prior to the restraint episode immediately preceding their death. Overall 26 people had a previous restraint history at either the setting where they received services at the time of their death or at other facilities.

Of the 36 cases with sufficient information, 61% (22 individuals) had been involved in an incident similar to the incident for which they were restrained prior to their death. Of those 22 people involved in previous similar incidents:

- Seventy-nine percent (15 of 19 cases with sufficient documentation) were restrained for the previous incidents.
- Attempts were made to address any problems to prevent additional incidents in 56% of the cases (9 of 16 cases with sufficient documentation).

Reason for and Behaviors Leading to the Restraint

The restraints used prior to death were implemented to address two primary issues (see Table 13):

- Sixty-one percent (36 of 59 restraints with sufficient documentation) were implemented to prevent the person from injuring himself or herself or others.
- Thirty-six percent (21 cases) involved medical conditions such as preventing a fall or wandering (10 cases), to prevent the person from tampering with medical devices (nine cases) or to provide physical support (two cases).

For those 36 people identified as exhibiting aggressive behavior and restrained for that reason, the aggressive behaviors varied. (See Table 14.) The two most frequent types of aggression were at either end of the aggression scale: verbal aggression (67%) and aggression against other people (67%). Most people presented more than one type of behavior. None of the people restrained for aggression exhibited solely verbal aggression.

Precipitating Event for the Restraint

While the single most frequent precipitating event was related to medical reasons (18 of 54 cases, or 33%), the remaining 67% involved behaviors described as noncompliant, angry or delusional. These results are reported in Table 15.

Staff Response to Behavior Prior to Restraint

In response to a person's behavior prior to the restraint, the staff documented attempts to address that behavior in 91% of the cases (48 of 53), using one or more of the following with a total of 88 interventions: redirection (29 cases), medication (12 cases), one-to-one staffing (12 cases) or a soothing or distracting activity (nine cases). (See Table 16.) Most cases (68%) did not include documentation regarding

why the intervention was not successful.

Medical/Nursing Consultants' opinions: In reviewing the circumstances leading up to the restraint, the consultants reached the following opinions:

- ***In 86% (44 of 51 cases), the staff did not use all other available interventions, including the use of sequential de-escalation techniques for antecedent behaviors in 47%, or 20 of 43 cases. Staff also failed to address underlying medical conditions in 26%, or 11 of 43 cases.***

- ***While no one was restrained solely for verbal aggression, 19% of those restrained for exhibiting aggressive behavior (seven of 36 individuals), who then died, did not meet the criteria for being placed in restraint because they were not an imminent threat of danger to themselves or others. Slightly more than half of the individuals (21 of 36 cases) who were restrained for aggressive behavior (21 of 36 cases) presented an immenent risk of danger to themselves or others. The medical/nursing consultants were unable to determine whether the behavior presented imminent threat of physical harm to the person or others in eight cases.***

- ***For all restraints, regardless of the purpose, medical/nursing consultants found 34% (21 of 61 cases) to be unwarranted, with slightly less than half of the cases, (28 of 61 cases) meeting current criteria for restraint. Medical/nursing consultants were unable to make any determination in an additional 20%, or 12 cases.***

Conditions During the Restraint

Restraint Methods and Application

People were restrained with a variety of mechanical and/or physical restraints. (See Table 17.) The most frequently used mechanical restraints were 4-, 5- or 6-point restraints (37%, or 14 of 38 cases) and bed rails (34%, or 13 of 38 cases). The primary physical restraint was a physical hold on the floor, with 84%, or 27 of 32 cases involving this method. In 14 cases, both mechanical and physical restraints were used. Five individuals were restrained and secluded simultaneously.

Other circumstances of the restraints include the following:

- Forty-seven percent (24 of 51 cases) involved the use of a takedown procedure.

- In one-quarter of the cases (13 of 51 cases), the person was moved from a physical to a mechanical restraint.

- In applying the mechanical restraints, 52% (11 of 21 cases) were placed in restraints by one staff member, while 24% (five cases) had two staff members who assisted in applying the restraints.

- For physical restraints (holds), half (13 of 26 cases) required the assistance of two to three staff members, while 42% (11 cases) required the assistance of four or more staff members.

- Most restraints (67%, or 12 of 18 cases) took a minute to apply.

- The staff members who most frequently assisted in the restraint were aides or technicians (40%) and nurses (31%). (See Table 18.)

Medical/Nursing Consultants' opinion: In the consultants' opinion, only 7% (three of 43 individuals) involved the use of techniques deemed appropriate by standards for managing aggressive behavior, with 65% of the restraints (28 cases) involving an inappropriate use of methods of managing aggressive behavior. The medical/nursing consultants were unable to make this determination in 28%, or 12 of the cases examined, due to inadequate documentation of the techniques used.

Based on 47 cases with information regarding the amount of time spent in restraint, the time ranged from one minute to 10.8 days. Most people spent between 16 minutes to four hours (32%, or 15 individuals) or less than 15 minutes (28% or 13 individuals) in restraints. Twenty-one percent (10 individuals) spent more than 24 hours in restraint. (See Table 19.)

- The time from the **start** of the restraint to the time of death ranged from 10 minutes to 25.8 days.

- The time from the **release** of the individual from restraint to the time of death ranged from discovery of the person dead while in restraints to 4.3 days after release from the restraint, with a median of 45.5 minutes (based on information from 50 cases). Twenty-four percent of the people (12 of 50 cases) were released from restraint at the time of their death. Forty percent (20 of 50 cases) of the people died more than one hour after their release from restraints. In most of these cases, the individuals were on life support that was eventually withdrawn.

The medical/nursing consultants found that of the 51 cases with sufficient documentation, 80% (41 cases) involved the use of inappropriate restraint methods. In these cases, the individuals were restrained using one or more of the following inappropriate or unsafe methods: supine (54%) or prone (51%) positioning and pressure to the neck or torso (44%). (See Table 20.)

The medical/nursing consultants examined the circumstances of the restraint to determine whether the staff took appropriate measures and found that:

- In half the cases (10 of 20), the staff checked for contraband or dangerous attire.

- In 38% of the cases (12 of 32), the staff immediately assessed the person in restraint to ensure the correct application of the restraint device.

Medication Use Prior to and During the Restraint

The review examined the authorization and administration of medication to treat the precipitating behaviors both prior to and during the restraint. Findings for medication administered **prior** to the restraint indicate that:

- Medication was ordered for 32% of the people who died (15 of 47 cases with sufficient information) prior to the restraint, primarily "as needed" (12 of 18 orders). Thirteen people received all or part of the medication ordered.

- Approximately half of the medications (10 of 21) administered prior to the restraint were antianxiety, followed by antipsychotic medications, which accounted for one-third of the medications administered prior to the restraint (seven of 21). (See Table 21.)

- The time between the medication being administered prior to the restraint and the initiation of the restraint ranged from 10 minutes to 14.5 hours, with a median of two hours and 10 minutes (based on information from 12 individuals).

- The time between the medication being administered prior to the restraint and time of death ranged from 48 minutes to 10.9 days, with a median of eight hours and 13 minutes (based on information from 12 individuals).

Findings for medication administered **during** the restraint indicate that:

- Medication was ordered for 54% (28 of 52 with sufficient documentation) of the people during the restraint, with 12 individuals receiving medication on an "as needed" basis and 11 individuals receiving the medication as a result of an emergency order.

- Ninety-six percent (25 of 26 cases) received all or part of the medication ordered, with most receiving the full order. In one case, medication was given for which there was no order.

- Approximately half of the medications (18 of 38) given during the restraint were antianxiety, followed by antipsychotic, which accounted for approximately one-third of the medications administered during the restraint (12 of 38). (See Table 22.)

- The time between the initiation of the restraint and administration of the medication ranged from immediate to 7.25 hours, with a median of 15 minutes (based on information from 26 individuals).

- The time between the administration of medication during the restraint and time of death ranged from 33 minutes to 10.8 days (based on information from 26 individuals).

Medical/Nursing Consultants' opinion: According to the consultants, 89% (24 of 27) of the medications administered were used as a chemical restraint for those given both prior to and during the restraint.

Authorization for and Implementation of the Restraint

To learn more about the circumstances of the restraints and whether proper procedures were followed, analysis of the information included consideration of the type of facility or setting where restraint was used and whether the restraint was implemented for behavioral or medical purposes. Tables 23-26 summarize the information based on the type of facility and purpose of the restraint. Findings indicate that:

- For all types of facilities, whether restraints were used for medical or behavioral reasons, direct care staff (38%) and nurses (41%) initiated the restraints. Restraints occurring in Medicaid/Medicare-funded facilities were more likely to be initiated by nurses (54%) compared with all other facilities, where restraints were more likely to be initiated by direct care staff or aides (43%).

- For all types of facilities and restraints, physicians primarily authorized restraints, accounting for 62% of the restraint orders. Five restraints were implemented based on the individual's behavior or treatment plans that called for the use of restraint, with four of these occurring in non-Medicare/ Medicaid-funded facilities.

- Five of 13 individuals were assessed by a physician or licensed independent practitioner within one hour of the restraint as required by federal standards for Medicaid/Medicare-funded facilities; and in only one of these cases was the person assessed by a physician.

- For 57% (17 of 30 cases), regardless of facility type or purpose of the restraint, the restraint involved one medical order. There were no medical orders for one case, and two cases involved 12 to 26 medical orders for restraint.

- All restraints that occurred in Medicare/Medicaid facilities had orders that included the purpose of the restraint. A maximum length of the restraint and a description of the events and behaviors leading up to the restraint were both included in 71% (12 of 17) of the cases. In 35% (six of 17 cases), the order included direction that less restrictive interventions be used.

Additional findings regarding non-Medicare/Medicaid facilities and/or where the restraint was implemented for medical purposes include the following:

- In 19 cases information was available in the case record about the length of time that the individual could remain in restraints, and in eight of those cases the length of time was specified in an order.

- In 17 cases information was available in the case record about the criteria

for release of the individual from restraints, and in three of those cases the release criteria were specified in an order.

- In 16 cases sufficient information was available in the case records indicating that the facility had a procedure for ordering and applying restraints.

Medical/Nursing Consultants' opinion: The consultants determined that in four cases facilities had followed their internal procedures during the restraint, while in 11 cases they did not. The consultants were not able to make the determination in nine cases.

Monitoring While in Restraints

Medicare and Medicaid regulations address how a person placed in restraints is to be monitored. Findings for these types of facilities indicate that:

- Sixty-one percent of the people in restraints (27 of 44 cases with sufficient documentation) were monitored by staff members prior to their deaths, and of those case files with sufficient information, the monitoring provided prior to death met federal regulations in 36% (9 of 25) of the restraint episodes.

- Thirty-nine percent (13 of 33) of the records contained documented orders for restraint that specified the need for monitoring; 42% (14 of 33) of the orders were consistent with federal regulations.

For facilities not funded by Medicaid or Medicare, none of the 11 cases with sufficient information contained documentation that the individuals were monitored at all during the restraint.

For all facilities, findings indicate that:

- Individuals in restraints were most frequently monitored periodically or not at all. Forty-six percent of the people who died (24 of 52 cases) were monitored periodically, and 44% (23 of 52 cases) were not monitored at all prior to their deaths. (See Table 27.)

- When monitored, individuals were most frequently monitored for vital signs (31%), respiratory status (27%) and skin integrity (25%). (See Table 28.)

- Sixteen people were not assessed for any aspect of their condition. An additional 12 were not assessed periodically because they had died less than 15 minutes after the restraint had been implemented.

- Of the 30 records containing documentation of the restraint-monitoring process in which the individual had not died within 15 minutes, only 47% (14 cases) of the individuals in restraint were offered fluids, meals, bathroom use, personal hygiene, exercise, range of motion and periodic release of limbs.

- The staff evaluated the mental status and behavior of the person restrained in 58%, or 19 of 33 cases.
- The staff person responsible for monitoring was identified in 29%, or 8 of 28 cases.
- In 23% of the cases (10 of 44), the facility record contained criteria for the person's release from restraint.

Medical/Nursing Consultants' opinion: Of the 10 records that specified the criteria for the person's release from restraints, four people met the criteria for release prior to their deaths.

Response to the Individual's Distress

Signs of Distress

Each case was reviewed to determine how the staff responded to any distress displayed by the individual prior to his or her death. Findings indicate that:

- Forty-four percent of the people (27 of 61) were found dead in restraint.
- Forty-three percent of the people (12 of 28 cases with available information) had indicated verbally or non-verbally that they were in physical distress prior to their death. The staff responded to their distress in half, or six of these cases.
- In 75% of the incidents (43 of 57 cases), the staff noticed signs of physical distress prior to the person's death. In three cases, the first signs of distress were noted before the person was placed in restraints.
- From the time that the staff noticed signs of distress to the time of death ranged from five minutes to 25.8 days, with a median of 64.5 minutes (based on information on 34 individuals).

Table 29 contains the first and most critical signs of distress noted in an individual's file. An array of distress indicators were reported, with the most frequent sign being "unable to breathe." Findings indicate that:

- Of the 42 people for whom signs of distress were documented in facility records, 31%, or 13 individuals, had signaled an inability to breathe prior to their death.
- Also frequently found as a symptom of distress was no noticeable motion by the individual in 24% (10 of 42 cases) and cyanosis in 21% of the cases (9 of 42).

Response to Signs of Distress

Table 30 contains findings related to the response by the staff to the individual's distress. These findings are summarized below:

- The time between when the staff noticed the signs of distress to the time the staff responded ranged from immediate to 23 hours. In 69% of the cases (25 of 36), staff members responded immediately when the individual's distress was recognized accurately as distress.

- The staff's most common initial response was to begin CPR (23%, or 15 of 65 staff responses), and the next most common was to call on-site medical staff (18%, or 12 cases).

- Similarly, the staff's second most common responses were to continue CPR (25%, or 29 of 118 responses) or to provide medical care by on-site medical staff (21%, or 25 of 118 responses).

- For 21% (11 of the 52 cases with sufficient information), the first response to the distress and the death of the person coincided with the time that the death was discovered. The longest time between the first response to the distress and the person's death was 25.7 days, with a median of 43 minutes.

Other findings, including consultants' opinions, indicate that:

- The facility conducted an investigation of the death in 76%, or 25 of 33 of the cases with available information.

- ***Medical/Nursing Consultants' opinion: Consultants determined that there was a delay in staff recognition and response to the individuals' distress or death in 63% of the cases with available information (34 of 54).***

- ***Medical/Nursing Consultants' opinion: Consultants determined that of 44 staff responses, 59% (26) were noted to be the result of the staff's failure to assess the individual's medical status, 32% (14) were attributed to failure to accurately interpret and act on assessment findings and 9% (four) were the result of the lack of or faulty equipment.***

The Deaths

Location of Death

Most of the deaths (84%, or 51 of 61) occurred in the same location or facility where the restraint occurred, with the remaining deaths occurring during or after transport to a medical facility to receive care (i.e., ambulance, emergency room or acute-care medical facility).

Cause of Death

The causes of death for those who died during or soon after the restraint are summarized below and shown in Table 31. The results are based on the coroner's findings, even for those deaths where the medical/nursing consultants had a different opinion.

- The two major causes of death were asphyxia (34%, or 21 cases) and cardiac disease (26%, or 16 cases).
- For the eight deaths with cause of death as "other," four of these cases included evidence of excited delirium.
- For 16% (10 cases), no cause of death was listed or the coroner was unable to make this determination.

Factors That Contributed to the Person's Death

Based on evidence in the files for each individual, medical/nursing consultants made a determination of whether the death was directly or indirectly related to the restraint. The consultants determined a restraint to be indirectly related to the death if the restraint created circumstances that contributed to the death but the death did not occur as a result of the restraint activities themselves. (See Table 32.)

Medical/Nursing Consultants' opinions:

- ***For 82% of the cases (50 of 61), the restraint either directly or indirectly contributed to the person's death.***
- ***In 11% (seven cases), the death was not considered to be related to the restraint.***
- ***In 7% (four cases), the medical/nursing consultants were unable to make a determination based on the available information in the case records.***

Medical/Nursing Consultants' opinion:

When asked to indicate all factors that contributed directly or indirectly to the person's death, the following factors were most frequently noted. (See Table 33.) One or more factors may have been noted for each individual. The percentages below are based on the number of individuals in the study (61) when the factor was identified as contributing to the person's death:

- ***Pre-existing medical conditions (67%, or 41 cases)***
- ***Insufficient monitoring (62%, or 38 cases)***

- ***Inadequate response to the person's distress (49%, or 30 cases)***
- ***Overuse of force in physical restraint (39%, or 24 cases)***
- ***Physical restraint not correctly done (34% or 21 cases)***
- ***Lack of knowledge of other less intrusive interventions (25% or 15 cases)***

When the consultants were asked which single factor contributed to the distress and ultimate death of the person, the following factors were most frequently cited (see Table 33):

- ***Overuse of force in physical restraint (28%, or 17 cases)***
- ***Pre-existing medical conditions (25%, or 15 cases))***
- ***Insufficient monitoring (20%, or 12 cases)***

Medical/Nursing Consultants' opinion: The summary below lists those areas in which consultants determined that the staff knowledge was lacking in their responses to the circumstances of the restraint. Five cases did not indicate any staff deficiencies, and in six cases the medical/nursing consultants were unable to make a determination. Information is provided for all 61 cases and may include multiple deficiencies per case. (See Table 34.)

- ***Need for ongoing assessment and monitoring (62%)***
- ***Unfamiliarity with signs and symptoms of physical distress (56%)***
- ***Lack of knowledge of dangerous restraint techniques (48%)***
- ***Lack of use of other behavioral techniques for de-escalation (41%)***
- ***Lack of use of techniques for physically managing aggressive behaviors (39%)***
- ***Misapplication of the physical or mechanical restraints (38%)***

Medical/Nursing Consultants' opinion: Consultants noted that staff behaviors were a contributing factor to the person's death as a result of the restraints in 39%, or 24 of 61 cases. They did not find staff behaviors to contribute to the death in 44% (27 cases) and were unable to make a determination in 16% (10 cases). For the 24 cases for which staff behaviors were a contributing factor, medical/nursing consultants noted 36 instances of contributing staff behaviors, which are summarized below:

- ***Failure to use antecedent interventions found in 36% (13 responses)***

- ***Failure to assess, monitor or provide appropriate treatment in 28% (10 responses)***
- ***Use of excessive force in 25% (nine responses)***
- ***Incited person's behaviors in 11% (four responses)***

Investigations and External Reports

Investigations Conducted

In 83% (45 of 54) of the cases with available information, an autopsy was performed. An investigation was conducted following the deaths in all but one case (98%, or 57 of 58 cases). One or more of the following agencies shown in Table 35 conducted an investigation into the death: The coroner or medical examiner was most frequently involved in conducting an investigation (79%, or 45 of 57 cases), followed by the Medicare/Medicaid survey agency (56%, or 32 of 57 cases) and the state protection and advocacy organization (49%, or 28 of 57 cases).

Of the 52 cases with available information, the investigations addressed the death as one or more of the following allegations: 14 investigations into abuse, 14 cases of neglect and 11 cases of homicide. The remaining 24 cases involved investigation of other issues.

Findings of Investigations

- Law enforcement: The findings of most law enforcement investigations were unavailable. No homicide or other charges for illegal acts were pursued to a legal conclusion.
- State or federal agencies: Of those investigations with findings noted in the file, most (53%, or 19 of 36 cases) cited the facility with deficiencies other than abuse or neglect. Thirty-one percent (11 of 36 cases) were substantiated as abuse or neglect. Seventeen percent, or six of the deaths, were determined by state or federal investigations to be the result of natural causes, with one of these deaths found to be related to the restraint.
- Coroner or medical examiner: Findings from a coroner or medical examiner were available for 41 cases. Thirty-nine percent, or 16 of the deaths, were determined to be of natural causes, while 10 cases were ruled to be accidental, nine deaths were determined to be homicides and six deaths were determined to be the result of other causes.

External Notifications

- Of the 32 cases when reporting of the death to CMS was required and where there was sufficient information in the case records, 78%, or 25 deaths, were

reported to CMS.

- The length of time between the death and the report to CMS ranged from the day after the death to 124 days, with a median of three days (based on information from 15 cases).
- Of the 33 cases with information about the notification of the protection and advocacy organization, 85%, or 28 deaths, were reported to these agencies.
- The length of time between the death and report to the state protection and advocacy organization ranged from two days after the death to 292 days (based on information from 22 cases).

Corrective Actions

Where such information was available, almost all facilities where the death occurred took corrective action; 89%, or 31 of 35, of the deaths resulted in facilities' taking remedial action in response to the restraint incident. Facilities took corrective action primarily as a result of oversight by a state agency (90%, or 27 of 30 cases). For six deaths, facilities took action on their own.

Table 36 summarizes the corrective actions taken by the facilities in response to the deaths. This information was available in 31 cases, with the following three remedial actions taken most frequently:

- Employee training (81%, or 25 of 31 cases)
- Policy changes in restraint use (74%, or 23 of 31 cases)
- Policy changes related to other issues raised by the death (65%, or 20 of 31 cases)

Conclusions

The results of this study identify the circumstances surrounding the deaths reviewed, the factors that led to the person's death and those most at risk during a restraint. This information has implications for national efforts to reduce the risk of injury and death to people with disabilities as the work to eliminate restraints continues.

As uncovered in the *Hartford Courant* series more than a decade ago, and as documented in other anecdotal reports and in numerous research studies, the use of restraint as a method to respond to aggressive or self-injurious behaviors or medical issues can present serious, even fatal, risks to the individuals being restrained. Even where restraints are used with functioning equipment and well-

trained staff, although the risk may be reduced, serious harm can still occur. Wide-ranging estimates suggest that each year between 50 and 150 people die as a result of being restrained.[36] Without a mandate for each setting and program that continues to utilize restraints to report to a centralized agency, the number of children and adults who are restrained and are injured or die from such events will remain unknown.

While the findings of this study provide many insights into the inherent risks of the restraint procedure itself as well as the dangers presented by the circumstances, the conclusions of the study are limited for some variables due to the lack of available information, particularly as related to personal histories and treatment at the facility where the individuals died. While the reasons for the lack of information and documentation are unknown, this may suggest that important elements of a person's history and treatment are not being adequately documented or considered by facilities and programs and that this inadequacy is putting people who are restrained at even greater risk of death.

A key finding of this study, which has significant implications for regulation and oversight, is the array of settings in which restraints are used. While the medical/nursing consultants expected to find that the restraint-related deaths were occurring in psychiatric hospitals or children's residential treatment centers, the number of restraint-related deaths occurring in nursing homes and general hospitals was unexpected. While one-third of all those who died had been admitted to the hospital for psychiatric treatment, more than a quarter had been admitted for medical reasons.

A related finding, also surprising, was that the elderly made up a third of the deaths studied. Most of the restraints of the elderly were ordered for medical purposes (e.g., to prevent the person from pulling out IVs). In fact, at least one-third of all of the restraints were applied to prevent falling, provide physical support or prevent tampering with medical devices or removing dressings. A quarter of all the deaths examined occurred in general hospitals where hospital personnel failed to adequately monitor the individuals, properly apply the restraints or accurately assess or provide appropriate treatment. Several individuals died in nursing homes as a result of faulty equipment, use of equipment that placed the person at risk, lack of staff training to properly apply the restraints or lack of sufficient monitoring by staff.

Additionally, nearly three-quarters of those who died were males. African-Americans were over-represented in the sample, being 22% of the deaths but only 13% of the total United States population according to the 2000 Census data, and people of Hispanic descent and Caucasians being under-represented. Children as young as 9 years old died in restraints, with 15% of all the deaths involving children

17 and younger. One-quarter of those who died had a diagnosis of intellectual disabilities, learning disorder or other developmental disability. Nearly half of those who died had limited or no communication skills, primarily due to medical circumstances.

While there was less specific information available, slightly more than one-third of those who died had a history of substance abuse. The absence of information regarding substance abuse may indicate an alarming lack of consideration of co-occurring disorders. Failure to recognize the importance of substance abuse issues, such as acute intoxication or withdrawal, impairs the ability of the treating staff to decide on and implement appropriate treatments and interventions.[37]

Almost all of the medical histories reviewed indicated that the people who died had at least one or more pre-existing condition, and of those with pre-existing conditions, almost one-third had a condition that the medical/nursing consultants identified as a contraindication to restraint, including obesity, cardiac compromise and current respiratory compromise. Furthermore, the medical/nursing consultants found medical contraindications to be the single most important factor contributing to the death in 25% of the cases.[38]

The cases, however, revealed little information as to whether the staff had any awareness that these conditions may have contraindicated the use of restraint, reinforcing the critical need for additional ongoing staff training. In other instances, the medications being taken by the individual to address the medical diagnosis, in combination with the restraint, increased the risk to the person's safety. Again, staff training appeared lacking regarding the contraindications for certain psychopharmacological interventions.

The lack of staff recognition of the impact of past psychological, sexual or physical trauma as a contraindication of restraint, as evidenced by the cases where such trauma should have precluded the use of restraint, raises additional concerns regarding the adequacy of the training provided to staff. Trauma-informed care and safety planning are key elements to help staff members understand the perspectives of those whom they serve in facilities and programs. Staff members need to assess individuals and be knowledgeable of their past traumas and how those experiences are influencing current life issues.

The data from this study provide some useful information regarding circumstances occurring prior to the restraint that indicate the reasons for the use of the restraint and in some cases, its misuse.

Regardless of the reason for the restraint, 61% of the individuals had been restrained previously for an incident similar to the one that led to their death. As evidenced by the data and the findings, facilities are failing to adequately use

information from prior restraint incidents to prevent future restraint incidents, a key principle of an effective incident management system.

The medical/nursing consultants found approximately one-third of the 61 restraints to have been inappropriate because the circumstances did not meet the legal standard for use of such measures: imminent danger to the individual or others. Almost one-third were implemented for non-compliance with staff directions; others were initiated for reasons not related to the standard of "danger to self or others":

- An individual was restrained because he did not want to give up the geriatric wheel chair in which he was sitting to another patient.
- An individual was restrained after an altercation with a staff member resulting from the patient talking to his roommates after "lights out."
- A teenager was restrained after an altercation resulting from her being hungry and asking for breakfast, which was scheduled later than usual because it was the weekend.

In one-quarter of all the deaths, the staff failed to address underlying medical conditions and instead responded to the individual by restraining them rather than providing appropriate medical care, causing the individual to die. For almost all of the deaths, staff members failed to use all other less intrusive interventions that were available to them, which had they been used may have prevented the use of restraint and ultimately the death.

Prior to the use of restraint, in only six cases (of the 25 cases with sufficient information) was there evidence that staff members asked the individual what would help him or her calm down if he or she became upset. For many settings where restraint occurs, identifying the triggers that cause individuals to react in ineffectual ways to their environment, consideration of the triggers in treatment planning and effective de-escalation interventions have been shown to be successful methods to prevent the use of restraint. Successful interventions have included the use of environmental enhancements and alternative treatment options such as comfort or soothing rooms, sensory integration tools and creative calming approaches (use of headphones/MP3 players, biofeedback, exercise, use of outdoor time, equipment, etc.).

The medical/nursing consultants identified each of the restraint methods utilized during the episode that led to the death of the individual. Those methods included mechanical, physical and chemical restraints, with some episodes involving all three methods. Thirty-eight individuals were placed in mechanical restraints, and 32 in physical restraints, with 25% of the people physically restrained prior to placement in mechanical restraints. In nearly all instances where psychiatric medications were administered in connection with the restraint episode, the consultants found

that the medications were used as a chemical restraint in addition to the physical and/or mechanical restraint.

Alarmingly, the medical/nursing consultants found that a large number of the restraint episodes involved improper or dangerous methods. Approximately half the restraint episodes involved a takedown procedure, which is a high-risk procedure for both individuals and staff. Nearly two-thirds of the techniques used for managing aggressive behavior were found by the medical/nursing consultants to be inappropriate, compounding that risk by using such techniques as pressure to the individual's neck or torso, or placing individuals in supine or prone positions.

While any kind of restraint constitutes a high-risk procedure, individuals restrained in a prone position, particularly on a hard surface, such as the floor, appear to be at higher risk. This may be due to a number of factors, including decreased respiratory capacity; inability of staff members to assess the individuals' conditions, especially their airway and color; decreased opportunity for staff members to communicate with the individuals restrained; and the fact that staff members appeared to often use more force than they realized on the individuals' trunks, thus impeding breathing.

A major finding of the study, one with policy and training implications, is that the medical/nursing consultants determined that the use of excessive force contributed to the person's death in 39% of the cases. In 28% of the cases the medical/nursing consultants identified the overuse of force to be the single factor that led to the death of the individual.

The immediate and critical need for implementation of an effective and comprehensive system of reporting and oversight is illustrated by the study's findings related to compliance with federal standards. Seventy-five percent of the restraints occurred in facilities funded by Medicaid or Medicare, where regulations exist for the ordering and monitoring of restraints. The findings indicate that these facilities failed to follow federal regulations in many of the restraints that led to deaths. While CMS provides what is considered minimal standards for the use of restraints in hospitals, even these minimal standards are not being followed and offer little protection for people served in facilities funded by Medicaid and Medicare.

- Thirty-nine percent did not have orders for the restraint that specified the length of time that the individual could be restrained, and 65% of the orders did not include the less restrictive interventions used.
- Few orders specified the criteria for release.
- Thirty-nine percent indicated that the order for restraint required monitoring, with only 42% of such orders being consistent with federal regulations.

- Sixty-one percent of the individuals were monitored while in restraints, but of those files with sufficient information, only 36% were monitored in a fashion consistent with the federal regulation.

Adequate procedures for non-Medicaid/Medicare facilities were even less evident:

- Forty-two percent of the physician orders did not specify the length of time that the individual could be restrained.
- Only 18% had physician orders that specified the criteria for release.
- None of the individuals were monitored during the restraint.

For both Medicaid and Medicare and non-Medicaid/Medicare facilities, even when monitoring was done, it was insufficient, with little assessment: 16 individuals were not assessed for any aspect of their condition. In 20% of the cases, medical/nursing consultants noted that insufficient monitoring was the single factor that contributed to the person's death.

Eighty-two percent (50 of 61) of the deaths were found by the medical/nursing consultants to be directly or indirectly related to the use of restraint. Most of the factors identified by medical/nursing consultants as contributing to the death involved human error. Even those deaths involving a pre-existing medical condition could have possibly been prevented if this information had been available to the staff, its implications been understood by the staff and appropriate action taken, or adequate assessments and/or treatment had been provided by the staff. Medical/nursing consultants also found evidence of circumstances that have not been previously identified as enhancing the risk of restraint and suggest further study in those areas.

While two major causes of death were asphyxia and cardiac disease, the medical/nursing consultants identified several factors that contributed to the deaths: 1) pre-existing medical conditions; 2) insufficient monitoring; 3) inadequate response to the person's distress; 4) overuse of force in physical restraint; 5) physical restraint not correctly done; and 6) failure to use other less intrusive interventions. The immediate need for ongoing staff training is clearly documented by the medical/nursing consultants' identification of a number of deficiencies in staff knowledge, as revealed by their inadequate response to the circumstances of the restraint, which directly related to the factors contributing to their deaths.

More specifically, in 39% of the cases staff members' own behaviors were a contributing factor to the person's death and included 1) failure to use antecedent interventions; 2) failure to assess the individual, monitor the individual's condition or provide appropriate treatment; 3) use of excessive force; and 4) provocation of

the person's behaviors that led to the restraint.

Other conditions found by the medical/nursing consultants to create an enhanced risk of death included 1) children restrained shortly after a meal appeared to be at greater risk of dying from asphyxia as a result of increased episodes of vomiting; 2) adults and children with co-existing factors of obesity, sleep apnea and intoxication placed in 4-point restraint in a flat supine position had an increased risk of problems breathing; 3) use of mechanical restraints that were not the appropriate size increased the risk of strangulation; and 4) staff failure to respond to statements by the individual restrained indicating distress.

In several instances, the people who died evidenced signs of sleep apnea. Extra precautions were not taken in spite of the fact that sleep apnea may be an important predictor of cardiovascular disease and people with sleep apnea (who make up approximately 30% of the general population) are at an increased risk for cardiovascular diseases, including hypertension, stroke, coronary heart disease and irregular heartbeats (cardiac arrhythmias).[39]

Medical/nursing consultants identified a disturbing trend of nurses leaving the area where the individual was being restrained in order to perform other delegable duties, such as obtaining equipment and preparing a restraint room, leaving only unlicensed staff to oversee the assessment of the individual's condition and the procedure itself. In several of those cases, unlicensed staff became so anxious during the restraint that they forgot to assess the individual and failed to notice that the individual had stopped breathing.

Medical consultants found an additional disturbing trend related to a potential correlation in the use of lorazepam, an antianxiety medication, and a potential increase in the risk of death during a restraint episode. In a quarter of the deaths, lorazepam was administered during the restraint. Further examination and review of this issue is warranted.

The stories of the people who died and the critical concerns raised by this study provide powerful and compelling evidence of the potentially lethal consequences to people with disabilities, including the elderly and children, when they are restrained. This study also reveals the inadequacy of the efforts and initiatives that have been undertaken during the last 10 years to reduce and eliminate reliance on restraint and the immediate need to dramatically enhance those efforts. Efforts toward reduction and elimination of the practice must include the immediate banning of dangerous restraint practices. The efforts to reduce and eliminate restraint must also be expanded to all settings where restraints are utilized and a systematic and comprehensive national system of reporting and oversight must be developed and implemented.

Appendix A

The Stories of Those Who Died – Expert Review and Analysis

Story #1

Jill, a 32-year-old female, was admitted to a hospital at 2:30 p.m. She was evaluated by a physician and was cleared for admission to a psychiatric unit of the hospital. Jill weighed 315 pounds and was brought to the hospital by her boyfriend, who said Jill had been delusional and very disorganized for days. He said she had a previous hospitalization at a psychiatric hospital in another state.

On admission, the physician diagnosed Jill with "R/O [rule out] Schizophrenia" and "Psychotic Disorder NOS [not otherwise specified]." He ordered an antipsychotic to be given at bedtime, as well as oral Ativan for anxiety. Jill refused all medication. Throughout the morning of the second day, she was loud, disruptive and extremely delusional, believing that others were drinking her blood, a delusion consistent with a diagnosis of schizophrenia. She was self-abusive and at one point went into the shower and refused to come out, saying she had a new "skin." Twice during the morning, a registered nurse on the unit notified the physician of Jill's condition.

Jill was finally brought out of the shower and dressed, but she promptly took off her clothes and attempted to flush them down the toilet. At this point the nurse called the physician who ordered an antipsychotic (Haldol), an antianxiety drug (Ativan) and an anitcholinergic (Cogentin), a drug to prevent the side effects of Haldol, to be given by injection. During this time, Jill continued to escalate, throwing herself on her bed and then to the floor. Security staff was called to assist the mental health technicians with Jill.

The RN went to prepare the medication, and when he returned, Jill was restrained on the floor. The medication was administered at 3:50 p.m. by injecting her with a 1½-inch needle in an area of her hip. Later, it was noted that this method of injection could not have resulted in the medication being administered into the muscle, as ordered, but rather into subcutaneous fat. Such administration would have resulted in much slower absorption, particularly given Jill's obesity.

Jill was physically held on the floor by three mental health technicians and three security staff members. She was in a prone position with her face into the pillow. It was alleged (by other staff members) that one security staff member, a former prison guard, placed both his knees on Jill's back to hold her down. The RN left the room and upon return at 3:57 p.m., noted Jill's arm was cyanotic. Jill was turned

over, noted to be without respirations or pulse, and CPR was initiated. A full Code Blue was called but all efforts, including defibrillation, were unsuccessful. Jill was pronounced dead at 4:40 p.m.

The hospital notified local law enforcement and the staff held a debriefing but did not notify any other authorities. Upon media coverage, an investigation was launched by the Centers for Medicare & Medicaid Services (CMS) and the state licensing authority. Numerous hospital deficiencies were found. The autopsy revealed that Jill died from restraint asphyxia, and the death was declared a homicide. However, no one was ever charged with a crime. Eventually, after two plans of correction were submitted, CMS cleared the hospital of further certification jeopardy. CMS also fined the hospital. The hospital entered into a management contract with a private company for management of its psychiatric units.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was directly related to restraint. Jill's morbid obesity was a clear contraindication to restraint. There is evidence of excessive force used in the physical restraint. Placing Jill prone on the floor further exacerbated the situation. Her head was placed face-down on a pillow. The enormous pressure placed on her back and torso, coupled with airway obstruction, led to asphyxia.

Systemic and case-specific systemic issues include lack of an adequate and timely assessment of the patient, communication problems between staff, competency of staff, failure of staff to follow facility policies and procedures, inadequacy of facility policies and procedures (e.g., not requiring restraint in a supine or upright position, etc.) and staffing deployment decisions. Although it was noted that one security guard had not received restraint training, others had documented training. Therefore, staff competency as a result of the training is a concern.

It is problematic that Jill was hospitalized one day and died the following day and that during this period she was given similar but different psychiatric diagnoses. Additionally, she was given no diagnosis of substance abuse, in spite of a history of alcohol, amphetamine and marijuana use. It appears there could have been additional consideration of the relationship of Jill's past history of substance abuse, particularly her past use of amphetamines, and her floridly psychotic state upon admission. The relationship between amphetamine use and psychosis is well documented. A patient so psychotic as to think, as did Jill, that others are drinking her blood might be indicative of symptoms related to more than a schizophrenia-induced psychosis.

Although it is documented that the unit was above its required staffing levels for the shift, it appears that there were some unfortunate staff deployment decisions.

For example, since there was more than one RN on the unit, one should have stayed with Jill and should have assumed a leadership role in ongoing assessment of Jill and in ensuring a safe restraint procedure. Instead, the RN left the room to prepare a seclusion room, which a technician could have been instructed to do. The facility also did not stock adequate injection equipment for obese patients, and neither the physician nor nurse appeared to recognize the need for a longer needle required for intramuscular (IM) injection to an obese person. This is a common understanding and one that is taught in nursing school.

Story #2

Tom, a 45-year-old male, lived at a state-operated 280-bed ICF/MR program serving people with intellectual disabilities. Tom was diagnosed with an intellectual disability, but the severity of his disorder was not specified in the records provided. It was noted in the records that Tom had verbal skills and could read letters from home. He was known to have problems with temper and behavioral control and had an individualized program approved by a psychologist and psychiatrist for the use of 3-point restraint for aggression, with a time limit of 30 minutes per episode.

On the day of his death, Tom had escalating behavior before lunch and after lunch. After lunch, he took the garbage out and he came back in angry and verbally targeted staff members, suggesting they should be terminated from employment. This was a documented trigger noted in his individualized program. The staff attempted to redirect him, but his anger continued to escalate. He resorted to throwing objects, kicking, scratching and attempting to strike staff members. This altercation occurred in the dining room after lunch. Other staff members were summoned. By some accounts, Tom fell to the floor. It is not clear whether he fell to the floor of his own accord or if he was taken down.

Once on the floor, five residential technicians physically restrained Tom. He was then placed in a 3-point restraint. This apparatus apparently consisted of a waist belt with Velcro wraps to hold the wrists and then a denim wrap, with a Velcro fastener, that was used to swaddle the legs together. The first leg wrap brought to the scene was the wrong size, and another one was obtained. Tom reportedly continued to resist violently as staff struggled to apply the restraint. Tom tried to bite and spit, and staff members used one of the leg wraps as a shield over Tom's face to prevent being struck by mucus. Staff members later denied that the "shield" in any way compromised Tom's airway.

This entire event took place on the floor, with five people holding Tom by his legs, torso and head. The application of the restraints required turning him in several positions. Just as the restraints were applied, Tom cried and said he was sorry. Staff members then noted that his color did not look good, and they turned him on his side. He vomited, and a code was called. Staff members proceeded

to try to clear his airway and began CPR, using a rescue mask with oxygen. Tom vomited again, large amounts of undigested food (this was shortly after lunch). EMS (Emergency Medical Service) arrived promptly and took over the resuscitation process, assisted by a physician from the facility. Resuscitation measures failed, and Tom was pronounced dead.

There was an internal investigation performed by the facility and by the Centers for Medicare & Medicaid Services (CMS). Also, the deputy medical examiner for the state was personally responsible for the autopsy. It was noted that the cause of death was compression/positional asphyxia secondary to restraint. Manner of death was ruled a homicide. The autopsy found evidence that Tom sustained numerous injuries due to the restraint, including neck soft tissue injury. There is no evidence in the record provided that law enforcement did an investigation or considered charging anyone with a crime. CMS found numerous deficiencies requiring a plan of correction.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was directly related to restraint. There may have been an opportunity to de-escalate Tom before he became so uncontrollably aggressive. After losing behavioral control, Tom was subjected to extreme force by too many people at one time while being restrained. There was a lack of professional staff supervision during the procedure. The facility staff did not follow the organization's own procedures for restraint, including having one staff member serve as an observer. This appears to have been a case of staff members trying to do what they were trained to do but without adequate organizational supports and supervision.

One of the most disturbing aspects of this case is the method of mechanical restraint. The facility used a complicated practice of swaddling the two legs together with a wide wrap and a Velcro fastener. Also, the use of waist belts with wrist-to-waist fasteners is usually used in correctional settings rather than treatment settings. It seems as though the staff was almost destined to fail because of the complexity of the application of these devices with a large, violently struggling individual. Such application would require re-positioning of the person several times. In one investigation interview, the staff member noted that the swaddling sometimes had to be wrapped up to 20 times around the legs in order to be fastened. Additionally, the entire process took place on the hard floor of the dining room, causing Tom's head, neck and torso to be pressed directly against the floor in a physical restraint.

Story #3

Roger was a 44-year-old male who had a diagnosis of paranoid schizophrenia. He had a supportive family and worked at a recycling plant. He had been treated

on an inpatient basis at the same hospital where he ultimately died, but he had been discharged and admitted again within weeks. Upon his final admission to the hospital, he was examined in the emergency room and admitted to the psychiatric service with symptoms of psychosis, including admitted auditory hallucinations. Roger had a history of moderate bronchitis and emphysema. Upon admission, the physician ordered two antipsychotic medications and several other allergy medications that Roger had been on before admission.

On the day after Roger's last admission, he had increasing anxiety and agitation. He was thought to be suffering from akathisia, a side effect of antipsychotic medications. During the day, he grew increasingly agitated and appeared to be hallucinating and reacting to both auditory and visual hallucinations. Roger agreed to take a dose of oral Ativan, but his agitation continued to escalate. Finally, he slammed a door, threw his glasses in the direction of staff members and "bolted for the door." At that point, three staff members did a "takedown" to the floor. More assistance was called, and in the meantime, Roger was incontinent of urine. Roger verbalized that he had wet his clothes.

After more assistance arrived, Roger was taken to a seclusion room and placed in 4-point restraint. As Roger was being placed in the restraint, he began to sweat profusely, had increasing shortness of breath followed by periods of apnea and suffered a seizure. Two physicians were summoned immediately. At this point, Roger was not in complete cardiac arrest. A Code Blue was called, and Roger was placed on a heart monitor. The telemetry demonstrated that Roger was "basically in electromechanical dissociation," meaning that the electrical impulse of the heart muscle was firing but the heart was not responding with any pumping action and subsequently there was no pulse. Roger arrested and received CPR and various drugs, and an external pacemaker was applied, all to no avail. Roger was pronounced dead within 35 minutes of the initiation of restraint.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was indirectly related to restraint. The autopsy findings do not suggest that Roger suffered from asphyxia or any physical assault from the restraint procedures; rather, the autopsy results did reveal that Roger had heart disease and that his death may have been due to an arrhythmia. However, this was noted to be a "soft" conclusion.

Roger's agitation and aggressive behavior was uncharacteristic of this man. It is not apparent from the records that restraint was actually indicated at all or if other less aggressive interventions might have been successful, such as moving Roger to a quiet area with less stimulation, especially since he was hallucinating (he was noted to have been very upset about an interaction with another patient). It is also unclear whether some of his anxiety and restlessness may have been due

to antipsychotic medication he was taking.

When Roger was taken down to the floor and then had urinary incontinence, which was a new behavior for him, this should have been an indication that something was seriously wrong. The staff persisted in moving Roger to a seclusion room for the application of restraint, but it is unclear what his behavior was during this transfer. Apparently as soon as restraints were applied, his extreme distress was noted and medical staff was called immediately. Roger had a seizure, which he had never had before.

It is the opinion of the medical consultants that Roger sustained an acute anterior myocardial infarction (heart attack) and developed a lethal ventricular arrhythmia to account for his death. The heart attack may have occurred earlier on the day of his death and may have led to his atypical behavior. Whether it occurred before or after the use of restraints, it is likely that the struggle that occurred played a role in provoking the fatal arrhythmia. Except for the use of restraint, Roger might not have developed an arrhythmia, and if it weren't for the restraint, which was unnecessary and distracted from critical medical issues, the pre-existing medical condition would most probably have been assessed and addressed earlier than it was.

Of note is the fact that the hospital did not self-report the death to CMS for about one month. CMS did investigate the death as possible abuse but did not substantiate the allegation. CMS did find multiple deficiencies within the hospital, including those related to restraint policies and procedures, and the hospital completed an extensive plan of correction, which was accepted by CMS. No sanctions were applied.

Story #4

Tommy was an 11-year-old boy who was being treated in a nonprofit residential treatment center accredited by the Joint Commission. There is no indication that the center was certified to provide Medicaid services. Tommy was admitted to the program with a diagnosis of Asperger's disorder, oppositional defiant disorder and major depressive disorder. He was treated with a structured program, educational services and psychoactive medications.

On his first day in the program, a female staff member restrained Tommy in a basket hold. She stated that while she was restraining Tommy, he struck the wall with his leg and she heard his leg snap. Tommy suffered a fracture of his femur. Subsequent to this, the femur was again fractured in an incident when another resident fell on Tommy as he sat on the floor. This second fracture required surgery and pinning. Tommy had to use a walker for a period of time and was still limping and in pain when he died during a restraint several months after his admission.

The same staff member who was responsible for initiating the first restraint that resulted in the leg fracture initiated the restraint that resulted in Tommy's death.

On the day of the deadly restraint, Tommy was upset because he had been told he was not being discharged to home, as he expected. Another witness report said that Tommy was upset because he told the staff he wanted to see his therapist and this request was denied. Still another statement from another resident noted that Tommy said he needed to go to the bathroom and the staff would not give him permission. It may be that all three versions of why Tommy was upset are true. Nonetheless, he was upset, and the female staff member told him to sit on a blanket on the floor in the day room. He failed to comply with the request and escalated in his behavior.

At this point, the staff member requested help from her supervisor and stated that Tommy was hitting at her and attempting to bite her. The supervisor came to the unit, and the two of them proceeded to restrain Tommy. He was restrained in a prone position. Both staff members charted that the supervisor applied pressure to Tommy's legs using a facility-approved technique that involved the application of pressure by the staff member placing his legs perpendicularly over Tommy's legs and that the female staff member made a facility-approved "bridge" over Tommy's body, applying pressure only to the arms. The supervisor noted that they used the facility's procedures "by the book."

Tommy was restrained for about 21 minutes, at which time he seemed to "relax." The staff members released him and noticed immediately that he was not breathing. They called the nurse to come to the unit and started CPR. The CPR was maintained until EMS arrived, at which time EMS took over. Tommy was transported to a local emergency room, where he died.

Local law enforcement authorities investigated the case and conducted interviews with the staff and with other residents who had witnessed the restraint. Other children reported that the female staff member had actually sat straddled on Tommy during part of the restraint, putting pressure on his neck. When challenged with this information, the staff member recanted the previous statement and noted that this did happen, but for only a short period before the facility-approved restraint techniques were initiated. Other children also reported that Tommy begged to be released because the staff members were hurting him. One child stated he then saw Tommy whisper the request again and then he turned blue.

The autopsy revealed that the manner of death was homicide and that Tommy died from cardiopulmonary arrest while being restrained. Physical evidence found in the autopsy was also consistent with asphyxia. Law enforcement pursued charges against both the health care technicians. Eventually, charges were dropped against the supervisor and only the female staff member was charged with felony child

endangerment. The direction of the case changed, however, after the testimony of the assistant medical examiner, who stated that the death should have been ruled accidental. The prosecutor decided not to pursue the charges because he did not think he could prove the case.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was directly related to restraint. There were many problems with the care provided to Tommy. First and foremost, two adults restrained this frail child with an overuse of force. Not only was there excessive force that involved an adult sitting in a straddling position on Tommy, but also the child was in a prone position on the floor. He was not adequately monitored during the restraint to determine that he was safe and not in physical distress. There is a question about his previous two fractures to the femur, which could have represented a clinical contraindication to floor restraint. The staff did not use facility-approved procedures for restraint.

Other problems include the fact that the only order for the restraint was a broad physician's order written on the day of Tommy's admission to the program and a lack of professional supervision during the restraint itself. The nurse was called only after Tommy was noted to not be breathing. Finally, there is some question concerning the efficacy of the female staff member continuing to be assigned to Tommy, given that there was obvious dissention between the two of them. It is unclear that she really used any de-escalation techniques prior to the use of restraint. The supervisor noted several de-escalation methods as having been attempted, but he was not on the scene until the situation had escalated to restraint. The notation in the record concerning de-escalation procedures appears to be a "canned" statement on the restraint form.

<u>Story #5</u>

Sally, an 81-year-old female, died on September 11th in a nursing home. She was admitted to this nursing home by her family two months earlier because her family was very unhappy with the previous nursing home where she had been residing. They were involved in her care and moved her to the new nursing home in hopes of finding a higher quality of care. Upon admission, Sally had numerous medical diagnoses as well as a diagnosis of depression. Most notably, she suffered dementia with psychotic features and transient ischemic attacks.

Sally gradually became nonambulatory. Because she was judged to be a risk for falls and had made numerous attempts to climb over her bed rails, she was provided a perimeter mattress, a personal alarm and floor pads around her bed. Sally developed a decubitus ulcer (commonly known as bedsores) that caused her physician to order a special circulating air mattress. The manufacturer's instructions

for the mattress specified that the mattress had to be used in combination with bed rails because these mattresses actually move a patient's body around on the mattress to prevent decubitus ulcers. Thereafter, Sally repeatedly tried to climb over her bed rails while on the circulating air mattress. Wedge cushions were placed between Sally and the bed rails, but she persisted in moving these wedge cushions almost constantly. This type of repetitive behavior is not unusual in cases in of dementia.

After several weeks of treatment, Sally's decubitus ulcer healed, but the special mattress continued to be used to prevent recurrence of the ulcer. About a week before her death, Sally injured her mouth from bumping her face against the bed rails after moving the wedge cushions out of place. On the day she died, Sally continued to require frequent re-positioning of her wedge pillows. In the late afternoon, Sally was found dead with her head lodged between the bedrail and the adjacent bedside table. She had a "do not resuscitate" order, so no emergency measures were taken. An autopsy was ordered, and the cause of death was ruled positional asphyxia.

The state Medicaid Office conducted an investigation and found that "there was some indication of neglect" based on the facility's knowledge of Sally's history and the hazard side rails posed for her. The facility conducted an evaluation of all patients using the air mattress and wedge cushions, and their use was discontinued on all but one patient. For the one remaining patient, special precautions were taken to secure the wedge cushions.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was indirectly related to restraint. The clinical decision to use this equipment, paired with both inadequate assessment of ongoing risk and inadequate monitoring, all played a role in creating the "perfect storm" that led to Sally's death. Although Sally was terminally ill, her death was needlessly traumatic.

Story #6

Tim was a 52-year-old male who was admitted to a hospital and was diagnosed with a psychosis and opiate/analgesic abuse. On admission, he gave a history of prescription drug abuse, including opiates and other analgesics. He denied alcohol abuse. He stated that he had recently been treated for a new onset seizure disorder and had been prescribed phenobarbital. He gave a history of numerous other medical conditions, including heart disease, herniated lumbar discs, Crohn's disease and hypertension. The physician felt that Tim was a poor historian and was unsure as to whether Tim's seizures were due to withdrawal or some other reason. Tim complained of disorganized thoughts and visual hallucinations.

Tim was treated with a seizure medication and an antipsychotic. He had a downward course during his hospitalization, with increasing symptoms, including severe tremors, ataxia and psychosis, including visual hallucinations. His symptoms finally became so severe that he was required to use a wheelchair. Although he was not aggressive, he was so psychotic and unsteady due to tremors that the nursing staff notified the physician, and he ordered that Tim be placed in 4-point restraint in bed. Tim remained in restraint from 7:30 a.m. until 11:10 a.m. the next day, when he was found "pulseless."

During the restraint, he was monitored every five minutes. Tim was so diaphoretic (sweating profusely) that his bed sheets had to be changed. The nurse notified the physician twice of Tim's condition. With the first call, the doctor ordered an injection of Vistaril for agitation. With the second call, no orders were forthcoming. The physician did not ever personally assess Tim, even though such assessments are required within one hour of restraint being initiated. When Tim was found to be without a pulse, CPR was initiated and EMS responded. Tim was transferred to a general hospital emergency room, where he died.

An autopsy summary indicated that the cause of death was cardiomegaly and possible arrhythmia. The hospital did not notify CMS of the death, but CMS did receive an anonymous complaint about the death and conducted two survey reviews. CMS found the hospital deficient because the physician failed to assess Tim in a timely way after the restraint began and because it failed to report the death. CMS found the medical assessment to be lacking. Nursing assessment was also lacking, and the nursing staff appears to not have had a full understanding or appreciation of the implications and severity of the symptoms that they were noting.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was indirectly related to restraint. Tim's recorded symptoms are classic of a delirium or possibly a withdrawal from drugs. Delirium differs significantly from delusions, although delirium is sometimes confused with delusions and a psychiatric condition. Delirium is not a psychiatric condition, but rather is a medical condition requiring urgent medical intervention. Delirium can be caused by a number of factors, including undiagnosed infection and undiagnosed withdrawal from alcohol. Tim's history of new onset seizures, incoherence, visual hallucinations, picking at "invisible objects in the air," severe tremors and severe diaphoresis exemplify textbook symptoms of delirium, a life-threatening condition.

While Tim's death was not directly due to restraint, reliance on restraint as a primary intervention in lieu of active medical care led to Tim's condition not being adequately addressed. Except for the restraint, Tim's symptoms would have

necessitated active medical assessment and treatment. Tim should have been treated medically at the hospital or transferred to a medical hospital for acute medical and nursing treatment. Although the nurses' notes documented Tim's downhill course, there appears to have been no recognition in the nurses' notes of the potential lethality of the symptoms. Also, the physician did not come to assess Tim, even though the nursing staff called him twice to relate concerns regarding Tim's symptoms.

Story #7

Walter, a 30-year-old male, died while being restrained at a large state-run hospital. He had a long history of psychiatric hospitalizations and had a diagnosis of paranoid schizophrenia and personality disorder, not otherwise specified. He was admitted to the hospital after not taking his medication for an extended period of time, being homeless and decompensating. He had hepatitis C and also had a long history of polysubstance abuse.

After Walter's admission, several different medication regimens were attempted to stabilize him. His symptoms got progressively worse, and he became more unpredictably aggressive. He also seemed to be a bit unsteady on his feet and was placed on a 1:1 supervision while awake. His physician became suspicious that Walter was related to another of the physician's patients being treated on another unit of the hospital. This other patient, a woman, had Huntington's disease. It turned out the woman was related to Walter. Walter underwent testing, and it was confirmed that he also had Huntington's disease.

On the day of his death, Walter was in an altercation with a mental health worker. This occurred after Walter placed his hand on a female patient's knee and was asked to remove his hand. He got upset with the mental health worker, and it was reported that he shoved the mental health worker. Walter was given a PRN (as needed) intramuscular medication, consisting of Ativan and Haldol. He was then told that he was going to be placed on 1:1 supervision. Walter became upset and walked away from the nurse who made this announcement.

Witnesses reported several versions of what happened next. The nurse said that he called a "Dr. Care" as a "show of force." This code indicated a psychiatric emergency requiring staff members from several other units to come immediately to assist in an intervention. Another nurse arrived on the scene, and he later reported that Walter struck him, causing him to fall. The nurse had a fractured fifth digit. Another witness stated that Walter did not strike this nurse, but instead the nurse fell back trying to duck from Walter's swing. After this, Walter was restrained and taken to the floor. He was given another injection "stat" of the same drugs received 15 minutes earlier. According to reports, he continued to struggle. At some point there were seven to eight staff members involved in this personal restraint. Walter

was restrained initially on his back and side but was turned for the injection in his hip and then ended up in a prone position.

About five minutes after the medication was administered, Walter seemed to have "seizure-like" movement and then went limp. He was released, and it was noted he was not breathing. CPR was initiated, EMS was called, and the on-campus physician was notified and responded. The resuscitation effort was hampered by a large amount of vomitus that interfered with intubation efforts. Walter was transported to a local hospital by EMS and could not be resuscitated.

An autopsy was done, and the medical examiner determined that the cause of death was delirium after being restrained. The incident was investigated by the state regulatory agency.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was directly related to restraint. There were a number of systems issues that contributed to Walter's death. Additionally, there were several individuals whose actions were contributing factors. Some of the systemic issues were that the unit was understaffed on the evening of the incident, including a high number of patients on 1:1 precautions, and the charge nurse who was providing coverage for more than one unit had not received a patient shift report and had been off the unit attempting to find a piece of equipment for a patient procedure. It appears that a less qualified individual could have been sent on this errand.

When the restraint occurred, the RN assigned to Walter left the scene to prepare a 4-point restraint set-up in another room. Again, an aide could have been sent on this task so that the nurse could have been available to provide supervision to the staff and to monitor Walter's physical status during the restraint. The charge nurse was involved in the takedown and was injured in the scuffle, rendering him less effective and less objective in monitoring the situation.

It appears that Walter had calmed himself just before the restraint and was incited by the unit nurse telling him, in a threatening way, that he was being placed on 1:1. When Walter walked away from the nurse, the nurse called a Dr. Care code as a "show of force." The physical altercation then occurred, and several staff members from other units arrived. The scene was set for a negative outcome. During the restraint, Walter gave indications that he could not breathe and begged for the staff to get off his back. His cries went unheeded, and there was no indication in the record of nursing supervision of Walter's condition.

Walter was extremely obese. He reportedly vomited during the period of resuscitation, and this was no surprise, given he had finished his meal, consisting of two trays of food, just minutes before the restraint. The emergency record also

documented problems in intubation due to vomiting. Interestingly, the autopsy record states the respiratory tract and lungs were unobstructed and free of any foreign material.

Another troublesome component of the record is the fact that Walter received two injections about 15 minutes apart. Both were given on the authority of two different telephone orders, requested by two different nurses, from the physician on-duty for the hospital campus. Later, the physician reported that he did not remember the first call from nurse. However, he went on to say he did not want to imply he had not gotten the first call because he knew the nurse and the nurse was very good about always calling him for such orders. After Walter was transferred to the acute-care hospital, a third nurse reported that she saw the two nurses, who reportedly got these two different orders, in the nursing station throwing away a sheet from the patient record and rewriting a new order page. She told them that they should not throw away any portion of the patient record and that they should correct any error on the original sheet and notate it as such. They told her that they had a late entry to record.

Since the physician authenticated both PRN (as needed) orders, the issue was not further investigated. However, there was some speculation that one of the PRN injections was given without an order. If true, it was probably the first injection. If this were the case, the second nurse probably sought the second order not knowing the first injection had been given. It is unknown if these medications had any impact on Walter's death.

Even though the autopsy results did not find that Walter's death was related to the use of restraint, it appears that the medical examiner did not have a full understanding of the events leading up to Walter's death. The expert consultant panel determined that from the facts in the records, Walter died from positional asphyxia and that the death was directly related to the restraint.

Story #8

Susan, a 16-year-old female, died after a physical restraint in a residential treatment program. This privately owned organization also had an affiliated non–public school program. Susan was placed in the program from an out-of-state school district where her family resided. She had been in treatment in at least three other facilities for behavioral problems before coming to the program where she died. She was discharged from her previous program after assaulting a staff member.

Susan had a very troubled history. Her parents reported that she fell out of bed when she was three years of age and had a head injury, after which she had personality changes. She had a precocious puberty, beginning her menses at

age 5. She also had a seizure disorder and was diagnosed as having a learning disorder, attention deficit-hyperactivity disorder (ADHD), oppositional defiant disorder, depressive disorder and bipolar disorder. At the time of her last admission, she weighed just over 200 pounds and was hypertensive. She had compulsive overeating and sometimes had excessive water consumption. At the time of her death, she weighed 224 pounds, having gained a significant amount of weight at the program in spite of being on a supervised eating program.

While at the residential program, Susan was scheduled for individual, group and family therapy; medication therapy; and social/leisure skills training. Susan was not diagnosed with an intellectual disability, and her test results revealed scores ranging from 5th- to 8th-grade academic levels. Susan was on anticonvulsant, antipsychotic, mood stabilizer, antidepressant, ADHD and antihypertensive medication therapies. She often missed school and seems to have spent a great deal of time watching television in the dayroom of the residential program. She was frequently oppositional and aggressive. She struck both staff members and other residents of the program. During her seven-month stay, her mother died of cancer.

In spite of Susan's failure to demonstrate improvement in her behavior, the residential and school programs treatment plans remained essentially unchanged throughout her stay except for some variations in medications. A review of individual incident reports contained within the records provided revealed 191 instances of "therapeutic holds" and more than 20 injuries due to these interventions. Susan's left arm was fractured on two occasions; she also suffered fractures of both her right humerus and her right radial head, with resulting nerve damage. These injuries occurred during "holds" also. The left arm fracture required a cast. The right arm fractures required surgery, internal fixation and a procession of casts and splints.

On the date of her death, Susan awoke early and demanded breakfast. She was told to go back to bed because it was too early. She refused and began banging the door against the wall. She was verbally redirected but refused to stop, and the technician attempted a "physical re-direction." The technician reported that Susan then tried to attack her. She called for help and placed Susan in a basket hold on her bed. When another technician arrived, they both assisted in lowering Susan to the floor in a prone position. One technician straddled Susan while another held her legs down. Both technicians were women.

The technicians later reported the restraint lasted about three minutes and was stopped when Susan said she could not breathe. They turned her over to a supine position. By then Susan's color had changed and she gasped for breath. Susan did have a pulse but stopped breathing and seemed only semi-conscious. One technician began CPR, and the other called for help and went and got a first aid

kit. They took the face mask from the kit and used it. Another staff member called the on-call nurse, who told them to call 911 and then gave instructions on what to do. EMS and the deputy sheriff arrived. Susan was transported to an acute-care hospital, where she was pronounced dead in the emergency room. The state regulatory agency conducted an investigation and ruled out abuse.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was directly related to restraint. The most overwhelming concern in this case is the facility's failure to revise the treatment plan when interventions prescribed were not working. A summary sheet of interventions was included in the record, covering the time of admission until death. This sheet contains clear errors. For example, it is reported on the summary sheet that there were 85 therapeutic holds conducted during the period. Individual incident reports contained within records provided and generated by staff members after each occurrence revealed 154 instances of therapeutic holds. Even with possible "under-counting," the summary sheet, in addition to noting 85 holds, contains documentation of 4,791 cases of verbal redirection, 297 supervised separations, 117 physical redirections, 2,646 verbal prompts and 170 response costs (defined as an intervention to remove or restrict desired activity from the individual's options).

Susan clearly required an individualized behavior treatment plan developed by a developmental disability psychologist. It is of concern that all the above interventions occurred and were counted but the treatment plan remained essentially unchanged. Also, there seemed to be little consideration given to the fact that Susan had lost her mother to death by cancer after her admission to the facility. The treatment summary contained only nine instances of as-needed medication being used and only 435 instances of positive reinforcement (3.95 percent of all interventions). Third-party payers were funding $60 per day for case management and other services, $174.70 per day for room and board and $170 per day for school. With this amount of funding for Susan's care, a behavioral psychologist should have created a specialized program.

There is some problematic timekeeping contained with the records provided. The staff adamantly reported that the restraint lasted for only three minutes, commencing at 7:00 a.m. They reported they then began rescue interventions and called for help. It appears that they may have called the on-call nurse who then instructed them to call EMS. The emergency call was clocked into the sheriff's office at 7:16. Even with the scenario of calling the nurse first before calling 911, it seems unreasonable that the emergency response request took from 7:03 to 7:16 to accomplish. It is possible that the restraint seemed to have lasted only three minutes but actually lasted longer.

It is problematic that an improper restraint procedure was used and that Susan was restrained at all, given the serious previous injuries she had sustained and current complications she had of her arm failing to heal properly. Her recent surgery, obesity, hypertension and head injury were also contraindications to restraint. Finally, her initial behavior, while disruptive, did not constitute a danger to self or others; thus the legal standard for using restraint was not met.

Susan's death was the direct result of the restraint. The medical examiner ruled the cause of death to be "sudden cardiac death following hyperactivity and physical exertion during restraint." Contributory factor was hypertrophic cardiomyopathy. The manner of death was ruled accidental.

Story #9

Carl, a 17-year-old male identified with a behavior disorder, was admitted to a for-profit therapeutic wilderness program for youth, having been admitted to two other programs before being transferred from a ranch residential program to this 28-day wilderness program operated by a school district.

This program was operated on a 6,000-acre tract of state-owned land that was administered by a state parks service. The program consisted of the youth, boys and girls, being supervised by camp counselors, who worked several 24-hour shifts each week. The program consisted of a lot of hiking, camping out in the woods and projects for the state parks department, such as building things, cleaning out brush, etc.

On the day of his death, the students in the wilderness program had been hiking some distance when they stopped and made camp for the night. The counselors cooked dinner over the fire, and the meal consisted of Hamburger Helper. Later, staff would testify to the fact that Carl ate four bowls of the hamburger meal. Shortly before 8:00 p.m., the students went to their tents. Carl was assigned to sleep in a tent with two other boys. After they were in the tent, they were not supposed to talk, but the counselors caught them talking. The counselors told all three boys to come out of the tent to take their consequence of sleeping on tarps on the ground without the benefit of any shelter. Carl stood by the door of the tent and said something like, "Well, I guess we can talk now." By this, he most likely meant that the boys were already caught so they might as well get to talk while sleeping outdoors.

Two of the counselors confronted him about this remark and told him to come out of the tent. Carl made this statement again, and they told him he could spend two nights outside. He said something like, "Who is going to make me?" The verbal confrontation got more heated, and the counselors closed in on Carl. By some accounts, he tried to "shove" past them, and they took him down. By other accounts, he made "contact" with them. At that point, the two staff members

initiated a takedown and called for a third counselor to come and assist them. The restraint commenced at about 8:00 p.m., with one staff member holding Carl's legs and two staff members applying pressure on either side of his torso.

Carl continued to struggle in an effort to be released and made numerous threats to the staff and called them names such as "wetbacks" (they were Hispanic). The staff struggled to contain him in a prone position and finally asked a fourth staff member, a female who had worked there only a short time, to call for outside help in restraining Carl. She tried her cell phone, but it had poor reception, so then she tried the radio. The sheriff's deputy noted that he received the call for help at 8:29 p.m. He asked for directions on how to get to the campsite, but the staff could not give instructions. He later said it would be like looking for a needle in a haystack, since there was a 6,000-acre tract of land in question. Finally, a staff member asked the deputy to call other program staff living in a nearby county to guide him to the campsite.

The dispatcher placed this call to a nearby program staff member, and the deputy rendezvoused on the highway with that staff member, who showed the deputy the way to the site. The deputy later stated that when he arrived at the site at approximately 8:48 p.m., he saw three male counselors "sitting" on Carl. He went over to them and cuffed Carl, who was in a prone position. When he rolled Carl over, he was not moving. He had vomitus on his mouth and jacket, and the deputy said Carl was "sweaty and his lips were blue." He removed the handcuffs from one hand and noted Carl was not breathing. The staff began opening Carl's airway, which was filled with thick vomitus. They started CPR, and the deputy called for help. He attempted to call for life flight helicopter but no one, including the program manager, knew the campsite coordinates, although the site was one that was frequently used by the program and had even been named by the wilderness program staff.

An ambulance and the fire department responded, and both EMS and camp staff continued CPR for a long period of time. Carl was finally placed in an ambulance and taken to the park headquarters, where a doctor met them and pronounced Carl dead at 10:05 p.m. The boy's body was taken to a funeral home. Later, an autopsy was done by the medical examiner, and the cause of death was found to be asphyxia. It was also noted that there was aspiration of stomach contents as a component of traumatic asphyxia. The medical examiner noted that Carl had a large quantity of undigested, poorly masticated food in his bronchi, lungs and throat.

The state regulatory agency was notified of the death, and an investigation commenced. The regulatory agency had a very difficult time conducting its investigation because the program refused to let its staff be questioned without

an attorney being present. This delayed the investigation significantly. Finally, a compromise was reached whereby the staff signed waivers stating that the attorney was representing them personally in the case. In the meantime, the county sheriff conducted an investigation in concert with the state police. The results of the criminal investigation are unknown. The state regulatory agency substantiated abuse and neglect against the three male employees.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was directly related to restraint. Carl died from asphyxia. The staff improperly positioned him face-down and used excessive force. Staff members failed to conduct any appropriate assessments of Carl.

The program called the prone restraint procedure a "physical hold" and documented the event on a form that allowed staff to check either "prone position" or "supine position" on the form itself. It is obvious that the prone position was sanctioned by the organization as a proper method of restraint. There was also clear overuse of force and a failure to either monitor Carl or heed his cry that he could not breathe. There was a delay in calling for help, and there was a failure to have any type of viable emergency plan in place by the organization. When the deputy wanted to call in the life flight helicopter, the manager could not give any coordinates of where they were on the 6,000 acres. They had no GPS in place or even proper communication equipment.

The staff was poorly trained in de-escalation procedures, and not all staff members had documented training. Staff members appeared angry with Carl. Overall, this appears to be a situation involving organizational failure. There was no evidence that there was any written systematic behavior program in place for the students. There is no evidence of a treatment plan of any kind. It appears that the youth were told what to do, and if they failed to comply, punishments or consequences were given at will by counselors, e.g., sleeping outside, writing two-page essays instead of the required one-page papers, etc. There does not appear to have been any positive behavior reinforcement component to the program.

This does not appear to have been a medical program, although staff members did administer medication. There was no documentation of a physical examination performed on Carl at the time of admission although there was lab work done and a history was obtained from his mother. The autopsy noted, in addition to the cause of death, that Carl had an abnormal blood level of Celexa in his system. When the state regulatory agency notified the medical examiner to inquire about the high concentration of this drug, the examiner said it was "very difficult to establish what the levels were postmortem….such medications could attach themselves to other cells after death causing levels to go way up." Although not a part of

the official record, a newspaper account noted that the program hired a county medical investigator to review the case, and he claimed that Carl died from "excited delirium," noting this was caused by an excited state and the antidepressants he was taking.

Story #10

Jerry was an 80-year-old male who died at a private psychiatric hospital where he had been admitted initially to the Dementia Unit. Jerry was extremely medically fragile. His admitting diagnoses included organic brain syndrome, anemia and congestive heart failure. After assessment, his diagnoses also included dementia, chronic atrial fibrillation, chronic renal failure, coronary artery disease, chronic obstructive pulmonary disease, cerebral vascular disease, etc.

Jerry was placed on a "do not resuscitate (DNR)" status, and this decision included input from family members. He had a history of alcohol and tobacco abuse, although he had apparently quit drinking 20 years before and had quit smoking years before as well. Probably most notable for the events that followed was Jerry's atrial fibrillation, for which he was on anticoagulant therapy.

Jerry was on close to 20 medications, most of which were for his physical condition. A few days after admission, he was moved to the Geriatric Psychiatric Unit due to aggression and trying to hit staff members and other patients. He was placed on every 15-minute observation.

On the day of his death, Jerry was in the dayroom and had seated himself in a geriatric wheelchair (geri chair) that was apparently sitting unused in the room. The chair was needed for another patient who required a geri chair in order to take his meal. Staff members asked Jerry to move to another chair. He refused. The staff members continued to insist that Jerry surrender the chair, and he became more and more agitated. Finally, he was screaming and threatening the staff members verbally as well as "kicking" at them, although it does not appear that he ever left his chair to pursue staff members.

The staff members reclined Jerry in the geri chair and moved him to his room. There appears to have been six staff members involved in this procedure, with one staff member overseeing the procedure, one staff member steering the chair, and four staff members holding Jerry's arms and legs to prevent him from hitting or kicking them. At some point a "Silent Code Green" was called. This was not done on the public announcement system but rather by calling several different units to summon "a show of force" and to have adequate staff to place Jerry in mechanical restraints. After Jerry was in his bedroom, the staff let him up from the chair. He stood and then got in bed. He was still very angry and was yelling and threatening the staff. He was given Ativan 1 mg, IM, and the staff members proceeded to apply

a restraint vest (locked restraint vest) on him.

During the application of the restraint vest, the nurse noted that Jerry had a skin tear on his wrist. Documentation in another part of the chart seemed to indicate that Jerry may have been admitted with a scab in this area, although this was not exactly clear. It would not have been unusual for someone Jerry's age to have a skin tear due to his age, medical condition and treatment, especially his anticoagulant regimen. While the nurse was treating his arm, Jerry complained that the vest was too tight. Three staff members checked the vest and stated it was not too tight. Jerry then gasped for air and turned dusky.

The staff immediately removed the vest and started resuscitative efforts. There were a number of problems with the CPR process, including that it was not properly documented and the staff spent a great deal of time looking for a back board instead of a cardiac board, as well as looking for an Ambu bag (resuscitator bag). They did, however, quickly initiate CPR and a full code was called. Jerry was transferred to the adjacent medical hospital's emergency room, where he was pronounced dead.

The case was reviewed by the Centers for Medicare and Medicaid Services (CMS), with multiple deficiencies noted. A plan of correction was submitted to both CMS and to the state protection and advocacy organization. No autopsy was conducted, and, though missing a death certificate, the record noted the cause of death to be "cardiac arrest."

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was directly related to restraint and overall interventions. Jerry was extremely medically fragile. Just the day before his death, Jerry's Coumadin had been held because his blood was too thin. Atrial fibrillation is a serious medical condition and would have been negatively influenced by Jerry's becoming overexcited.

When Jerry refused to give up his chair, the best solution would have been for the staff to leave him alone to calm down. Instead, they incited him by repeatedly insisting that he give up the chair and, in spite of his increasing agitation, he was forcibly removed, which led to the struggle and subsequent restraint. Had the facility had an adequate number of geri chairs, this would not have been an issue. Since chairs were apparently in short supply, the ones that were available should have been stored for specific patient use and not just left in the dayroom for anyone to use. In most organizations, a specific geri chair stays with a specific patient during the entire hospitalization or as long as needed. This is due to the required terminal disinfection that should be accomplished between different patients' use of the equipment.

Not only could staff have left Jerry in the chair, it was very risky for them to apply

pressure to his limbs in order to transport him, given the fragility of his skin and his peripheral vascular disease.

Even though there was no evidence of asphyxia, Jerry was agitated and had just been placed in a restraint vest as the symptoms leading to his death emerged. With regard to Jerry's complaint that the restraint vest was too tight, while it is difficult to understand what was actually occurring with him, Jerry could have been feeling tightness in his chest due to his heart problem and may have interpreted the feeling as tightness due to the restraint vest. It seems unlikely that three staff members could have misjudged the safe fit of the restraint vest, although it is possible.

There were many problems with some other aspects of Jerry's care, including the fact that the nurse administered an antianxiety medication without a physician's order. The two codes called by the staff, one behavioral and one medical, seemed to have been fraught with problems. Additionally, the quality of the records does not appear to meet the standard of practice; the documentation of the facts was inadequate, with many illegible entries.

Story #11

Allen was a 35-year-old male who died on May 1, 2002, after being declared brain dead in a local acute-care hospital. A little less than 24 hours earlier, Allen had been in a physical altercation with three police officers in his home and had been restrained by the officers. Allen weighed more than 260 pounds and had long been diagnosed with mental illness. He had been treated in state hospitals but was not receiving any treatment at the time of the incident in his home. He refused to take medications and was generally non-compliant with any kind of treatment regimen.

At about the time of the altercation in which he arrested, Allen was living in a small house with his mother. His sister and her four children were also living in the same house. He was unemployed, and his sister reported he was a regular marijuana user but did not use alcohol. He had a girlfriend, but it is otherwise unclear how he spent his time.

Allen was in two or more conflicts in the days prior to the domestic disturbance call placed by his family. In one case, he was causing a disturbance in a church, and the police were called. He also got in trouble for knocking on doors of some neighbors. Finally, the police arrested him on a "fishing warrant," which apparently involved a previous unrelated outstanding offense. He spent the night in jail and was released to his family.

Immediately after this, the family went to the county prosecutor requesting help for Allen. They wanted to have him involuntarily committed, since he refused to seek

treatment. The family also spoke to the physician who had previously treated Allen for his psychiatric illness. The prosecutor refused to issue commitment papers, reportedly stating that Allen was not yet an outright threat to himself or others.

On the next night, his family noted that Allen was acting somewhat strangely. He was also very distraught about his recent arrest and his reported mistreatment by the police. Later in the evening, after the family went to bed, they were awakened after midnight by Allen, who was shouting and running around the house naked in front of the children. The mother, sister and children ran out the back door, got in the family van, and went to a local corner grocery store in order to use the pay phone to call the police.

The police dispatch record notes that the sister made the 911 call. She asked for the police and the paramedics. She told the dispatcher that her brother had chased them out of the house and that they were afraid of him. She also told the dispatcher that the police would need “back-up” because her brother was such a big man. She emphasized that her brother was diagnosed with schizophrenia and that he was very psychotic.

Three police officers responded to the call. They spoke to the family who was waiting on the street in the van. The family told the police that the weapons in the house included a BB gun and knives. The three police officers entered the house, called to Allen and told him they were coming in. They went down the hall to his bedroom and found him sitting “Indian-style” and naked on the floor. He initially was mumbling about going fishing but finally recognized the men as police officers as they were coming through the door. They again spoke to him. Allen reportedly stood up, cursed at them, threw an ash tray at the first officer coming through the door, and then charged at him, striking him on his shoulder close to his clip-on radio microphone.

The second officer then used pepper spray on Allen, delivering two puffs of spray. The officers indicated that the pepper spray did not slow Allen’s aggressive response. It did, however, have a significant effect on the first police officer in the room, who was quickly incapacitated by the effect of the pepper spray to his eyes. The three officers and Allen got into a physical fight as the officers tried to restrain him. Even though the officers were all three large men, they later reported that Allen fought hard and had incredible strength. They said it took about seven or eight minutes to subdue Allen. At this point, he was held in a prone position, half on and half off the bed. One of the officers sat across Allen’s back during the takedown. He was also struck several times with the officers’ fists. They reported this had little effect on Allen, and they then struck him multiple times with the end of their Mag flashlights in order to get his arms behind him so he could be cuffed.

Finally, the officers got handcuffs on Allen, but he reportedly continued to fight

and try to get out of the handcuffs. At this point, one of the officers went to a squad car and brought back a canvas hobble. The hobble was placed around Allen's feet, his feet and legs were bent backwards, and he was hogtied, hobble to handcuffs. As the police officers tried to catch their breath, one of them noted that Allen did not appear to be breathing. By this time, more back-up help had arrived. The hobble was removed, the handcuffs were un-cuffed and CPR commenced. Allen was transferred to an acute-care hospital, where he was determined to be brain dead and was later pronounced dead.

The case was extensively investigated by several law enforcement agencies. The family was quite verbal about the fact that the police officers had used an inappropriate amount of force. They went so far as to videotape Allen and his injuries while he was in the ICU. Allen's mother claimed that the police broke her son's neck and hip and knocked out his teeth, and that he died of the injuries inflicted upon him. She also adamantly stated that they had not called for police but had made the emergency call just for paramedics. This was proven wrong by the 911 tape recording in which the sister not only asked for the police and paramedics but advised that the police would need back-up.

The autopsy revealed a variety of soft tissue injuries and lacerations but no broken bones or teeth. The medical examiner stated at the inquest that none of Allen's injuries were life-threatening. The cause of death was determined to be "cardiopulmonary arrest during a prone police restraint as a consequence of excited or agitated delirium." The medical examiner also found that Allen's heart was four sizes larger than it should have been and diagnosed him with cardiomegaly. This physical condition was apparently not diagnosed or known before the autopsy was conducted.

The family filed a civil lawsuit against the police department as well as individual members of the police force. From the records provided, it is unclear what the outcome has been of the civil lawsuit. However, all three officers were exonerated of criminal charges in the case.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was directly related to restraint. One of the most troublesome components in this case is the glaringly broken mental health service system in Allen's community. It is unfortunate that this family's cry for help went unheard, either by officials who interpreted the law narrowly about what facts constituted "of danger to self or others" or by the actual law itself.

If the public mental health system had been more available, Allen might have been helped by assertive community treatment. Had Allen been properly assessed

after the initial arrest, he most likely would have been determined to be in need of services. Had the dispatcher actually sent both the police and paramedics, as the family requested during the second incident, there may have been a different approach and outcome.

It was said that the police department could not treat people with mental illness any differently than others are treated. This is patently untrue. Many communities across the nation have developed special teams of mental health police officers and/or sheriff deputies who are trained in special de-escalation procedures and other techniques particularly useful in responding to crisis calls, such as this one, involving individuals with mental illness.

Story #12

Joe was a 44-year-old male who died while involuntarily hospitalized at a state-run psychiatric hospital. Joe was diagnosed with schizoaffective disorder – bipolar type and crack cocaine abuse. His family relocated when Joe was three years old. His father died shortly after the family relocated, and Joe was raised in a large family with many siblings. His mother worked as a housekeeper. The social worker on his case noted that he came from a very deprived background. He had a 10th grade education and reportedly could not read. He had worked construction during his life and had never married. He had two siblings diagnosed with mental illness.

Joe had a long history of substance abuse and many psychiatric hospitalizations. He had also been incarcerated in jail on more than one occasion for such crimes as trespassing and aggravated battery. He was noncompliant with outpatient treatment regimens and was often homeless and living on the street.

Joe was admitted to the hospital in a homeless and psychotic state. His drug screen for illicit drugs was negative, and he stated he had not used cocaine in 50 to 60 days. He was prescribed antipsychotic medications in the form of Haldol concentrate and long-acting injectables. From admission until the time of the restraint from which he died, Joe was very irritable and increasingly aggressive and argumentative. He was sexually inappropriate in his comments and on one occasion went into the bedroom of a female patient.

One issue that seemed to be a primary source of conflict was Joe's behavior related to tobacco use. He took other patients' lighted cigarettes during smoke breaks on the patio, dug through waste receptacles looking for cigarette butts, threw cigarette butts at staff members and used other patients' cigarettes to light his own. On the day of his death, when his patio break was restricted, he charged at the door in order to get out. The physician then placed him on a 24-hour tobacco restriction. This made him extremely angry, and he was reported to have attacked a staff member. Several other staff members came to the rescue and a "takedown"

was performed. Joe was given injectable medications and was then escorted to the restraint room. The staff member was sent to the hospital and was treated and released.

Joe was placed in 4-point restraint in the late evening, and continuous observation was ordered. Over the next four hours, he struggled against restraints and continued to verbally threaten staff. At the end of four hours, the physician renewed the order and also ordered another injection of antianxiety medication. After about seven hours, Joe was noted to have fallen asleep at 3:45 a.m., and 15 minutes later he was noted not to be breathing. At that time, a code was called and oxygen was applied. CPR was initiated when the paramedics arrived, and Joe was transported to a general hospital.

It was determined that Joe was brain dead, and life support was removed. He was declared dead two days later. An autopsy was performed, and the causes of death were determined to be these: a large pulmonary thromboembolus (blood clot) of the left lung; peripheral thromboembolus of the right lung; severe cerebral edema (swelling of the brain); and left bronchopneumonia. The cerebral edema was thought to be related to having been on life support. The pneumonia was also probably related to life support.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was directly related to restraint. Additionally, there are many problems related to the care provided to Joe. He had a long history of medication noncompliance on typical antipsychotics. The physician ordered only one type of typical antipsychotic drug for Joe up until the day of his death, when he was started on a new-generation antipsychotic. Joe received only one dose of this medication prior to the restraint that led to his death. A more aggressive medication regimen could have been ordered with consideration to the new-generation medication, especially given his history of noncompliance.

Joe had increasing irritability, aggressiveness and psychotic thinking during the week prior to the restraint incident. Although Joe's behavior was highly inappropriate with regard to patio activities during smoke breaks for the patient unit, it appears he was told of his 24-hour tobacco restriction without much regard for the fact that he was already highly agitated. He could have been told of the restriction the next day, with the physician and other clinical professional staff present. Overall, the timing of the announcement of the restriction was poor and served to escalate Joe's aggression.

Issues related to tobacco were especially problematic for Joe. It appears that the staff had to spend a significant amount of time managing and intervening on

issues related to tobacco use. This may well have been because many of the patients were accustomed to smoking much more than they were allowed in the hospital, resulting in their being in a near constant state of early withdrawal.

When Joe was restrained, the staff made notations on a restraint checklist. A major concern with the checklist form is the lack of narrative documentation. For example, there are columns to mark the hourly assessment of behavior, mental status and physical status. Many of these required assessments were simply marked “Y” or “N” without any narrative documentation of findings. It is unclear what Joe’s mental or physical status was for many of the assessments marked as “Y.” “Circulation releases” were documented hourly by nursing staff. However, it appears that the hospital had a policy of notifying security staff when range-of-motion releases were to be accomplished so that they could present a “show of force” in order to discourage aggressive behavior during the release. The security staff documented being called for only two range-of-motion releases, done at 12:45 a.m. and 2:10 a.m. This calls into question whether the other documented range-of-motion releases were actually done or if the restraint flow sheet forms contain fraudulent information.

Joe died from thromboembolism, and the medical examiner noted that in 90% of such cases, the origin of embolism is in deep veins of the leg. It appears that Joe’s stationary position in restraint for a prolonged period was directly related to the development of deep vein thrombosis (DVT). This condition is sometimes seen in long airplane trips when the traveler does not stand up and move around the airplane cabin often enough.

Another concern with the restraint flow sheet related to 15-minute observations of Joe’s condition is that the entry for 3:30 a.m. was missing and the entry for 3:45 a.m. was only partially completed. Although the space on the form for narrative comment regarding the 15-minute check, which should have occurred at 3:30 a.m., was partially completed, it appeared that the entry related to the check at 3:15 a.m., consumed more space than the form provided. The 3:45 a.m. narrative states “Asleep, appears to be…” and is blank from that point. This may suggest that several 15-minute entries were made at one time, after Joe’s cardiopulmonary arrest, and that the writer left the 3:30 a.m. entry blank because the actual entry might have been that Joe was asleep. If, in fact, Joe was sleeping at both 3:30 a.m. and at 3:45 a.m., then Joe would have met the criteria for release before or exactly at the time of his arrest. Another possibility is that Joe appeared to be asleep at both 3:30 and 3:45 a.m., but actually was already in severe distress due to DVT. If this were the case, it might explain the 3:15 a.m. entry noting urinary and fecal incontinence of a 44-year-old otherwise healthy adult.

If Joe was being continuously observed, as required by the physician’s order,

then there is a curious absence of narrative description related to his condition from 3:15 a.m., when he had range-of-motion exercises and had his sheets changed due to incontinence of urine and stool, until the time of his cardiopulmonary arrest at 4:00 a.m. The standard of nursing practice for documenting emergency care afforded the patient after respirations ceased is also seriously lacking. There is also a concern about the quality of documentation of face-to-face physician assessments during the restraint. Although the physician documented two evaluations, there is inadequate detail of his findings and determinations.

Another significant issue is that there is no documentation that hospital staff commenced CPR when Joe was found not breathing at 4:00 a.m. Hospital records state in several places that Joe was given oxygen, but there is no documentation that any other intervention was applied. The paramedics arrived on the scene at 4:13 a.m. and began CPR. This is a glaring concern in the patient record and one not noted by any external investigation team. If Joe was apneic (without respiration) for 13 minutes and on oxygen without rescue breathing being performed, the prevailing standard of care was profoundly violated.

There is documentation that Joe's death was reviewed by the state Medicare survey agency, a state investigatory agency and the Centers for Medicare and Medicaid Services (CMS). There were no significant findings by any agency. CMS cleared the hospital immediately of any violations and cited no deficiencies. CMS made its on-site review without benefit of a final autopsy. There is also no evidence in the CMS report that any interviews were done with the staff. The report is lacking in content and contains only two sentences.

Story #13

Amelia was a 95-year-old female who died in a private medical hospital on the day of admission after being transferred to the hospital from a nursing home where she had resided. While in the nursing home, Amelia developed a cellulitis of the neck and scalp, resulting in an abscess that had to be drained. She was given antibiotics, but her condition deteriorated and she developed a delirium that resulted in her transfer to an acute-care hospital. It is noteworthy that Amelia had numerous other grave medical conditions, including lung and colon cancer, kidney disease, a pacemaker, pneumonia, dehydration, hypertension and chronic obstructive pulmonary disease.

Upon admission to the emergency room of the hospital, Amelia was in a full-blown delirium with acute confusion and agitation. Staff documented that she was pinching, kicking and trying to sit up on the stretcher. Her oxygen saturation was 97 percent while receiving oxygen. The first documented intervention was that wrist restraints were applied. Then staff inserted a urinary retention catheter and started intravenous fluids. Within 45 minutes, Amelia had pulled out the catheter (she had

not had a catheter at the nursing home). The catheter was replaced. Intravenous antianxiety medication was given twice during the afternoon. Amelia continued to be incoherent and very restless to the point that a restraint vest was applied. Her oxygen saturation dropped to 93 percent on oxygen.

At about 5:00 p.m., Amelia was taken to a nursing unit of the hospital and placed in a room directly across from the nursing station. Vital signs were not obtained and the pulse oximetry (equipment that measures oxygen saturation of blood) used in the emergency department had been removed. Amelia was still in restraints and was also placed in isolation because she had had a recent episode of a staph-resistant infection at the same hospital. Amelia's intravenous fluids had been completed, and the vein was maintained with an IV (intervenuous) lock. Amelia remained on oxygen. At 7:50 p.m., she was given additional antianxiety medication and she calmed down but remained in restraint. Amelia's agitation escalated again with hallucinations and she began to yell about the "yellow people." Amelia was repositioned several times due to her squirming down in the bed.

At 10:50 p.m., a lab tech found Amelia on the floor without respirations. One staff member documented that Amelia's restraint vest and wrist restraints were still on but not attached to the bed. Another staff member documented that Amelia was found seated on the floor in a semi-recumbent position with her head against the bed frame, with the vest and wrist restraints still tied to the bed, causing her arms to be stretched above her head. This staff member also stated that the base of the restraint vest was gathered up under Amelia's armpits. After Amelia was discovered on the floor, her restraints were removed and she was picked up, placed back in bed and pronounced dead by two registered nurses. The pronouncement of death by nursing staff was consistent with the hospital's policy for patients on a do-not-resuscitate status. An autopsy was performed, and it was determined that Amelia died from cardiomegaly (enlarged heart) and severe coronary artery disease. The coroner noted that there was no evidence that the use of restraint was related to Amelia's death.

The case was reviewed by the Centers for Medicare and Medicaid Services (CMS) as a complaint investigation. The complaint of death while in restraint was substantiated. CMS reviewed this and other cases and found that the hospital did not always secure a physician's order for restraint, although in this case a restraint order was in place. CMS also found that Amelia's record had an obliterated entry that had been improperly marked through, leading to the entry's being illegible.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was indirectly related to restraint. Amelia was gravely medically ill and, in fact, the hospital quality representative later stated that the hospital staff believed that the patient "was

actively dying" and tailored their interventions accordingly, complete with a do-not-resuscitate order. Amelia might have died during her hospital stay, given her medical condition. However, she could have been supported in a dignified process of death rather than dying alone hanging off the bedside tangled in wrist restraints and a restraint vest. Even if Amelia had died without having restraint as an issue in her death, there are a number of concerns with the quality of care given.

First and foremost, it is not clear that Amelia needed to be in restraints at all. The staff later reported to investigators that Amelia was given a urinary catheter for the convenience of staff. This is not consistent with national standards of nursing care. Since the primary reason Amelia appears to have been restrained was due to her pulling on her catheter, it seems that if the catheterization could have been avoided, the restraint could have likewise been avoided. Urinary catheters are often not used for persons "actively dying" when they have not had a urinary catheter before, as was the case with Amelia. Even after Amelia was judged to be calmer, the restraints were not removed, and the record contains no documentation that an assessment for the continued need for restraints was done.

Another significant concern is the lack of assessment and monitoring afforded Amelia, who was admitted on a weekday, and when she died at 10:50 p.m., her attending physician had not seen her at all that day. While the emergency room physician did assess and treat Amelia, it would seem reasonable that her attending physician would have seen her if she was "actively dying." Additionally, the attending physician's discharge summary indicated that he had plans to see her the next day and had ordered more tests to be completed. This summary gives no indication that he expected Amelia to die during the night.

Nursing assessment and documentation are also lacking. Amelia received no vital signs assessment upon transfer from the emergency department to the patient unit. Even when Amelia was calm, there is no indication that the vital signs were ever assessed. Likewise, no pulse oximetry was performed after 6:10 p.m., well before she was transferred from the emergency room. This last oximetry indicated a 93 percent oxygenation, which was low. This lack of vital signs and oxygen saturation monitoring is a glaring omission of assessment, given Amelia's diagnosed delirium, lung cancer and pneumonia. Hypoxia, dehydration and infection are primary causes of delirium, and Amelia had all three.

Another concern is the falsification of documents, the use of unauthorized codes on checklists and the obliteration of a handwritten entry in the record. Interviews of staff members revealed that many of the components of care documented as given, such as oral, skin and hour-of-sleep care, were not accomplished. Additionally, some other aspects of care documented as given were actually just "offered." There were several codes used that were not identified in the legends on

the checklists. Staff members appeared to create codes of their own making. The obliterated time notation on the restraint checklist, noted by CMS, was a potentially important entry, since it was the last entry made after 10:00 p.m. This entry gives the appearance of perhaps being a pre-recorded entry marked as “2300” hours, which then had to be changed to an earlier time, since Amelia was found dead 10 minutes before that time. Charting in advance is a violation of practice standards and so is correcting an error by obliterating the original notation.

A final concern relates to the lack of understanding, on the part of medical and nursing staff, concerning the use of restraints. There was staff confusion on what constitutes a medical restraint versus a behavioral restraint. Some staff training was not current, and emergency room physicians were not given restraint training. The hospital later noted it had provided additional training on restraint and had revised restraint policies and procedures.

Story #14

George was a 52-year-old male who was admitted to a state hospital on an emergency commitment after he was found talking psychotically to a statue of a famous figure. Upon admission, George was diagnosed with schizophrenia, was noted to be floridly psychotic and was deemed to be homicidal and aggressive. He was placed on line-of-sight observation, which, by hospital policy, required constant observation and charting notation every 15 minutes. It was also noted on admission that George was hypertensive, with a blood pressure of 201/147. Although there was no information in records provided concerning the number of prior admissions to this hospital, it was noted that George had been hospitalized at the same hospital in the past.

George was placed on a psychiatric unit and was given nighttime medications that included a mood stabilizer, a diuretic and Ativan, an antianxiety medication for agitation. The next morning George had lab work drawn but had not had his morning medications yet when the restraint that resulted in his death occurred.

On the morning of his death, at about 8:30 a.m., George was in the dayroom with other patients and staff. Some of the patients were going to shave, and George demanded to be given a razor so he could shave also. The health care technician told George he could not have a razor because he was too agitated and asked him to go sit down. George promptly “punched” the staff member several times in the face, causing a considerable nosebleed. Another staff member documented in a witness report that George had been acting “out of control all morning” before the incident occurred.

According to the record, the wounded staff member and two other male health care technicians took George to the floor, using a frontal approach. George was

then restrained in a prone position on the floor by these three staff members. All three of these staff members have consistent witness reports that there were three people involved in the restraint. However, other secondary reports, such as the medical examiner's report, noted that it had been reported that three to five staff members restrained George.

Shortly after the restraint began, a licensed practical nurse (LPN) gave George an as-needed (PRN) injection of Ativan. The LPN then left and went to the medication room. When the nurse came back to the scene shortly thereafter, George was no longer being restrained and staff members had backed away from him. The nurse called George's name, but there was no response. An assessment revealed that George had no respirations or pulse. CPR was begun immediately, a Code was called and onsite medical staff responded. EMS was summoned, and George was transported to the state hospital's emergency room, in a different building. The CPR was initiated at 8:46 a.m., George was transferred at 9:10 a.m., arrived at the emergency room at 9:28 am. and was pronounced dead at 9:43 a.m. There is no documentation of the time the restraint was initiated or terminated. There is a substantial lack of professional nursing and medical documentation of the episode.

The hospital notified the state protection and advocacy organization and the state Medicare survey agency of the death. There was a Medicare complaint survey, and the allegation that the death occurred secondary to restraint was not substantiated.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was directly related to restraint. The lack of a substantiated Medicare finding is extremely problematic unless not all of the information provided to the protection and advocacy organization for review was provided to the Medicare surveyors, e.g., autopsy reports, etc. If this was the case, then the Medicare investigation should have remained open until such time as the information was available. Medicare surveyors found only two areas of deficiency, the timeliness of reporting of the death and policies and procedures governing the use of restraint. In fact, there were notable problems with the quality of care provided to George, ranging from inadequate monitoring and assessment of his escalating behavior before the assault on staff occurred, to the methods used in the restraint. George was very obese, and this should have been a contraindication to restraint. The dangerousness quotient was further enhanced by the use of a prone position during the application of restraint and the practice of restraining an obese person on a hard floor. This was a recipe for a critical incident. Also, there was clear overuse of force during the restraint

as evidenced by hemorrhage of the neck and petechial hemorrhage (tiny broken capillary blood vessels) of the eyes.

It is particularly alarming that the staff member applying restraint to George's upper body was the same staff member who had been assaulted and was bleeding profusely. This staff member should have been relieved of duties immediately, both to provide necessary medical care to himself and to also remove the possibility of harm to George as a result of any reactive response. Even the nurse who gave the PRN (as needed) injection and then left the scene to return to the medication room did not address the staff member's injury. It was only sometime after the PRN injection that the injured staff member left to go to the bathroom to wash the blood from his own body.

Overall, the nursing care in this case was substandard. There was inadequate nursing assessment and monitoring before, during and after the restraint. There was no charting by a registered nurse, and there is no evidence, from the several first-person accounts, that any nurse took charge of the restraint process once paraprofessional staff initiated it.

Story #15

Chris, an 18-year-old male, died in a medical hospital about four weeks following a restraint incident that began in a prison and continued during transport via ambulance and after arrival at the hospital. His death was attributed to injuries he sustained while being restrained.

Chris was booked into a detention center. Booking records indicate a normal mental status screening result: individual denied history of (or current) hallucinations, suicidal ideation or alcoholism. There is no documentation in the record reviewed regarding disability or cognitive functioning.

Four days later, at approximately 10:20 p.m., Chris became agitated, began talking about seeing dead people. He was placed in a separate cell alone, began hitting the walls and, according to prison personnel, was hallucinating. He was placed in a restraint chair. At about 11:20 p.m., he was released from the restraint chair. After 15 minutes, he began hitting his head against the wall and banging on the door. Deputies opened the door to intervene, and Chris forced his way out of the door and began to attack the deputies. OC pepper spray was used to try to subdue him. He became more violent, throwing a chair and other objects. Deputies physically restrained him, but there is no description of how this was done, except that he was dragged back into the cell. He continued to beat his head against the walls and door. 911 was called, with EMS, police and sheriff deputies responding. Chris was combative, forcibly restrained by at least five people and "forced" onto a gurney in a prone position. Handcuffs and leg irons were used to restrain him in

this position during transport by ambulance to the hospital. At this point, he had injuries visually apparent on his head, deputies stating these were from his head-banging. Deputies describe Chris as “somewhat calm, speaking very little, not resisting” while in the ambulance.

The times of these events were not specified in the record, but it appears the incident lasted about one hour and 15 minutes at the jail, plus EMS transport time and some time at the hospital.

At the hospital, Chris immediately became combative again and was restrained by deputies and ER personnel. He was given a sedative (type and amount not known) injection. Reportedly, shortly after this, he had a cardiac arrest, was revived, placed on a ventilator and placed in ICU in critical condition. He remained in ICU for 25 days until his death. Autopsy results indicate he was monitored for increased intracranial pressure, had numerous contusions to his head, brain and body, and lacerations on his head and limbs. Bronchopneumonia and edema were present in his lungs. Approximately three of eight pages of the autopsy report were missing from the record reviewed.

The medical examiner’s opinion was that death in this case was due to complications of positional and mechanical asphyxia. Contributing to death are blunt force injuries of the head and extremities. Other significant conditions are atherosclerotic and hypertensive cardiovascular disease.

Expert Medical/Nursing Consultants’ Opinion:

It is the consensus of the expert consultant panel that this death was indirectly related to restraint. Chris demonstrated a significant change in behavior and mental status on the fourth day of his detention when he began hallucinating and became very agitated. This change warranted a physical assessment by either an RN or physician prior to or immediately after being placed in restraints. The change in mental status and behavior, including visual hallucinations, may have been symptoms of complications of alcohol withdrawal/delirium tremens. These changes occurred at a time consistent with possible delirium tremens. Untreated, these complications can lead to death and may have been a factor in his cardiac arrest in the emergency room.

The injuries that led to death were caused by restraint. The autopsy showed evidence of positional and mechanical asphyxia and numerous areas of brain injury.

This case points out the importance of considering and assessing for physical problems when a change in behavior or mental status occurs. While self-injurious behaviors must be prevented, behavior management without appropriate physical assessment and treatment can lead to deterioration in physical condition and to

death.

Story #16

Clyde, a 65-year-old male, was involved in a head-on motor vehicle accident. He was treated for injuries in the hospital for two days. Injuries included closed head injury with subdural hematoma. He was transferred to a rehabilitation hospital on the second day following surgery and placement was made of a PEG (feeding) tube and tracheostomy. He was noted to be agitated and nonresponsive to verbal stimuli except to open his eyes. He did not follow commands. Other medical issues were impaired renal function, diabetes mellitus, right upper arm deep vein thrombosis (DVT), history of cerebrovascular accident, hypertension and thrombocytopenia.

During the next two days, Clyde removed his PEG tube twice, requiring a second surgical placement. A nasogastric (NG) tube was utilized after Clyde removed the PEG tube a second time. Wrist restraints were implemented on the second day at the rehabilitation hospital at 8:00 a.m. to prevent Clyde from removing medical devices, including his NG tube, dressings and tracheostomy device. He was able to remove the wrist restraints several times. On that same day, at 6:00 p.m., a Vail bed (enclosed bed system) was added to the treatment plan to prevent Clyde from removing medical devices. Medication was also prescribed for agitation.

A check at 11:00 p.m. the next night documents that the restraints were in place and that Clyde was agitated. At approximately 11:40 p.m., Clyde was found to be nonresponsive, with no pulse, no respirations and one mitt restraint removed. He did not respond to resuscitation efforts and was transferred via EMS to the hospital. He was pronounced dead at 12:12 a.m.

An investigation by the state Medicare/Medicaid surveying agency and a state investigatory agency resulted in substantiation of neglect based on the facility's not having the proper-sized trach adaptor for Clyde's tracheostomy; Clyde was not adequately assessed for a Vail bed and wrist restraints; not all staff were CPR certified; and the discrepancy between monitor reading and shock delivery during resuscitation efforts.

The coroner did complete an investigation, finding that "Death in this case is attributed to ischemic/hypertensive heart disease. Contributing factors were found to include pulmonary emboli and chronic hypertensive encephalopathy."

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was indirectly related to restraints, which were used in response to Clyde's agitation. However, this is a case in which behavioral control was the focus of management rather than assessing and treating the underlying cause of the behavior. Clyde was

experiencing delirium, which was not diagnosed or treated for several days, including in his care at the hospital prior to transfer.

This case is complicated and cause for concern. Essentially, Clyde was transferred from the hospital to the long-term care facility with acute/chronic delirium, which was not really identified or treated by either facility. Moreover, the delirium may have been not just from his acute injury but a result of his medications — metoclopramide, amantadine, Ativan and oxycodone. The metoclopramide, in particular, can result in significant mental status changes in patients with impaired renal function, which Clyde had. The fact that he was labeled as having dementia and not diagnosed with delirium led to inappropriate use of medications and inappropriate handling of his symptoms. His agitation was not properly managed, and he was put in restraints rather than treated for his delirium. The restraints managed his symptoms rather than addressing more effective mechanisms to reduce his agitation. While the restraint did not cause this death directly, the use of restraint to manage symptoms led to an underestimation of his medical condition and consequently to his death.

More complete nursing assessments and follow-up, particularly in response to an irregular heartbeat detected on the day prior to his death, should have been accomplished.

Story #17

Ron died at age 30 at a residential facility where he had been living for 10 months. He died while being physically restrained by the two on-duty staff members. Ron was removed from his family and placed in foster care at age 7, due to physical and sexual abuse. He was diagnosed with personality change secondary to hydrocephalus, possible cognitive disorder, possible impulse control disorder and cognitive disorder with approximate developmental age of 13 years, history of hydrocephalus with ventricular peritoneal shunt. He had a long history of violence toward himself and others, including scratching, biting, strangling and hitting himself; elopement; setting fires; attempting to puncture the shunt; attempting to run in front of cars; assault with significant injury to staff; and destruction of a staff car. Cigarettes were restricted to one every two hours on advice of his physician, due to an incident of nicotine poisoning. He was admitted to a new residential placement after loss of his previous placement. A behavior plan was in place to assist him by replacing dangerous/inappropriate behaviors with appropriate behaviors.

Prior to the episode of restraint resulting in death, Ron had been incarcerated briefly, and the day before his death, he had a period of aggression toward himself,

staff and property. As a result, a decision was made to provide two staff members for Ron (2:1 staffing), and two staff members were on duty at the time of his death. On the day of his death, Ron had eaten a large breakfast. When one staff member went to the bathroom, Ron reportedly threw his Gameboy at a staff member, striking him on the head. Ron then ran for the front door (presumably to elope to a highway in front of the house). The staff member caught Ron and placed him in an upper torso hold. The second staff member returned to the room and assisted in placing Ron in a prone bridge hold. One staff member was on each side of Ron, holding pressure on his outstretched arms for eight to 10 minutes. Ron screamed and cursed at the staff members, and then began vomiting and stopped breathing. The staff members turned him over and began CPR, including mouth sweeps to clear mouth/airway and called 911. Police and EMS responded. Ron was pronounced dead at the hospital.

In the medical examiner's opinion, Ron's death was attributed to acute exhaustive mania/excited delirium. Also contributing to death was the physical restraint in a prone position.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was directly related to restraint. The restraint was in a prone position, following an extremely large meal. This resulted in vomiting and aspiration, which caused a cardiopulmonary arrest.

There were several problems with the use and method of restraint. Ron had a behavior management plan for incidents such as the one that occurred, and this plan was not followed. The purpose of such a plan is to utilize interventions that are developed specifically to meet the individual's needs and preferences. Even if it is believed that restraint was necessary to ensure Ron's safety, the behavior management plan should have been implemented while he was restrained.

The prone restraint position used in this death can easily place pressure on the chest and abdomen of the individual. This caused Ron to vomit and aspirate. Monitoring of his physical status during the restraint was inadequate, and he should have been released when the he voiced distress and became still.

Story #18

Collin was a 75-year-old male who was admitted to a general hospital and died several weeks later. His preliminary diagnosis was cardiac arrhythmia and confusion. He was also post CVA (stroke) with dysphasia. He had been discharged from the same hospital two days prior to this admission, but these records were not available. He also received a diagnosis of acute congestive heart failure with pulmonary edema, pneumonia, digoxin toxicity and organic brain syndrome. On

admission, his family reported he was short of air, had labored breathing and frequently choked.

Collin's respiratory and cardiac conditions were evaluated and treated. His complaints of choking were not treated. From admission on, he received medication for restlessness. He was initially given Librium 100 mg for restlessness, and of note is the family's request that he receive only half that dosage amount after receiving five doses in a 25-hour period. Treatment notes indicate he became more and more agitated, starting with trying to get out of bed, to pulling his Foley catheter out and then pulling out his IV, and he was noted to be "extremely restless and combative." Up until the time the agitation started, Collin had restful periods. Librium was discontinued and Haldol, routine and PRN, was started. Wrist restraints were then initiated, followed by the use of a vest restraint several days later. The Haldol dosage was increased steadily. Nonetheless, Collin remained restless and became more confused and disoriented. His cardiac and respiratory conditions were also being treated during this time. Collin's family was at his bedside daily. A swallow evaluation was not done during this hospitalization, though one of Collin's complaints on admission was "choking." He was on a modified texture diet. He was not on aspiration precautions. Two days before his death, Collin's wife reported that she thought he was congested and that he was choking while she was feeding him. His temperature spiked to 102, and his condition continued to deteriorate with increased white blood cells, temperature spikes, "significant adverse change" in chest x-ray, decreasing O2 stats and abnormal blood gases. Collin had a respiratory arrest at 6:10 a.m. on the day of his death. Resuscitation efforts failed, and he was pronounced dead at 6:30 a.m. It appears he was in wrist restraints and possibly the vest restraint at the time of the arrest.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was indirectly related to chemical and mechanical restraints. The care primarily focused on behavioral management (i.e., restraints), with a serious lack of appropriate care focused on the management of physical problems and prevention of complications. Restraint also contributed to Collin's death by increasing the risk of choking and pneumonia. The purpose of the restraints was to restrict movement. This restriction prevented Collin from pulling out medical devices, but it also decreased normal protective positional changes, possibly lung expansion and airway clearance.

Collin had neurological complications from a previous stroke, which were not addressed. This resulted in aspiration pneumonia and ultimately in his death. Care was grossly negligent. Nursing care should have addressed swallowing issues with evaluation and strict aspiration precautions. Swallow evaluation and appropriate feeding techniques are imperative for individuals with neurological

complications. Breathing pattern, airway clearance and gas exchange issues should have been aggressively addressed with appropriate nursing interventions throughout the hospitalization. Use of restraints with individuals in such condition may be dangerous due to restriction of movement, including reflexive movements that prevent aspiration.

Following the choking episode reported by his wife, vital signs became abnormal and continued to deteriorate. Physician involvement and transfer to an intensive level of care should have occurred at that time. The staff's lack of attention to Collin's physical condition directly led to his cardiopulmonary arrest and death. Temperature elevations and diaphoresis (excessive sweating) the day before his death should have prompted a transfer to an intensive care unit.

Story #19

James, a 59-year-old male, was admitted to the hospital three days before he died following a generalized seizure and fall at home, where he lived alone. James denied any psychiatric history, significant medical history or cognitive problems. He was on no medications at home. He had had a hip replacement several years earlier. He reportedly had been drinking since the age of 10 and, at the time of admission, stated he drank a pint of whiskey per day. He was currently working as a painter.

In the emergency department, James smelled of alcohol and complained of feeling weak, and bruising at his right eye was noted. He was alert and oriented to person, place and time. While in the ED, he had a seizure, some nausea and vomiting. His blood pressure was 130/70, he had right facial weakness and mild right hemiparesis (weakness on one side of the body) was noted. He was treated with Ativan IV, thiamine and IV fluids. A CT scan showed a 1-1.5 cm low-density lesion in the left frontal lobe, a small amount of subdural hematoma in the left frontal region with no mass effect on the brain, moderate diffuse cerebral atrophy and degenerative changes in his spine. X-rays revealed COPD (chronic obstructive pulmonary disease), abnormal opacity in his right mid lung and a possible acute rib fracture on the left ninth rib. He was admitted with a diagnosis of acute seizure and chronic alcoholism.

James was initially given Librium 50 mg IM for symptoms of withdrawal (disorientation, talking to self, restless, unsteady on feet). About 36 hours after admission, the pharmacy sent a note to the doctor recommending that he prescribe Ativan due to a short supply of Librium. The doctor subsequently wrote a progress note stating "He is in full blown delirium tremens." He also ordered Librium discontinued and ordered Haldol 2-3 mg IM every three to six hours as needed (PRN). James was also restrained with a roll jacket, with 4-point limb restraints added to prevent him from moving his "extremities in a manner and setting that

could cause injury." His last dose of Librium was given at 2:35 a.m. the day before he died.

Over the next 35 hours, James received Haldol IM PRN (total dose about 9 mg) and remained restrained continuously. He was not released for toileting but told to go in the bed. He remained confused, restless and struggling against restraint. About 16 hours after his last dose of Librium, he was noted to have tremors and agitation. His physical condition began to deteriorate at 9:00 p.m. on the day before he died with adventitious lung sounds. This progressed over the next 12 hours to temperature elevations above 101 degrees, rapid pulse and labored breathing. At 9:00 a.m. on the day of his death, his condition was described as "color ashen, lethargic, temp=102, considerable rhonchi, tremors in all extremities, no response to verbal stimuli." Two hours later while attempting to transfer him to a more intensive level of care unit, he had a seizure and cardiopulmonary arrest. Attempts to resuscitate failed, and James was pronounced dead at 11:17 a.m.

A discharge note prepared by the attending physician indicated that James's death was related to:

- Cardiorespiratory arrest most probably secondary to #2
- Myocardial infarction
- Seizure disorder, generalized, tonic/clonic probably secondary to #4
- Chronic alcoholism
- Delirium tremens
- Neuroleptic malignant syndrome

No autopsy was done. The death certificate signed by the attending physician stated the cause of death to be "Cardiac arrest due to generalized convulsion due to alcohol withdrawal." The CMS investigation cited the facility for a restraint order not being signed by a physician in a timely manner. The allegation that the facility failed to protect a patient from death while in restraints was unsubstantiated. It appears there was no examination of the appropriateness of the medical care for James's alcohol withdrawal and delirium tremens.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was directly related to restraint. James was experiencing symptoms of delirium tremens (confusion, restlessness, tremors and agitation) related to alcohol withdrawal. Standard practice for the medical management of alcohol withdrawal requires titrated doses of a benzodiazepine over several days to prevent the complication of

delirium tremens. James was treated appropriately with Librium until the pharmacy recommended a change to Ativan, due to a low supply of Librium. Librium was discontinued, but Ativan (or another benzodiazepine) was not ordered as a replacement.

Haldol injections were used in an attempt to manage James's behaviors, which were in fact symptoms of the complications of alcohol withdrawal, for the 35 hours prior to his death. One of the possible adverse reactions to Haldol is neuroleptic malignant syndrome. Untreated, this condition can result in death. The expert consultant panel agreed this death was caused either by untreated complications of alcohol withdrawal, neuroleptic malignant syndrome or a combination of both.

- In this case Haldol was used as a chemical restraint, and mechanical restraints were used to control the behaviors/symptoms of a medical condition, delirium tremens.

- Mechanical restraints contributed to death in that appropriate nursing assessments and interventions were not completed while James was in restraints. Examples of this are the lack of accurate intake and output assessment when James was told to urinate in the bed rather than allowing him out of restraints to toilet; not being released from restraint (except ankle ones once) to assess his tremors, muscle status or allow for movement; staff failure to notify the physician promptly when vital signs became abnormal.

- Nursing staff members were focused on managing behavior and failed to adequately assess for and treat signs of physical distress and deterioration.

- Nursing staff members did not address James's basic needs, such as toileting, range of motion, hygiene and periodic releases from restraint during the 35 hours he was restrained

Story #20

Hillary, a 57-year-old female, died while living in a small group home (three residents) run by a family that was licensed by the state. She had resided there for two years. Three family members, two of whom functioned as full-time staff with no other outside employment, operated the home. The family had been operating the home for 13 years.

Hillary was diagnosed with an intellectual disability and cerebral palsy. Although she had a history of seizure, she experienced no known seizures since admission to the home. The record is extremely limited, with a note stating that the facility did not have formal records on medications, restraints, incidents, etc. Hillary held her own power of attorney and had virtually no family involvement. She was nonambulatory, required assistance with transfer to a wheelchair and was not independently mobile in the wheelchair. She was nonverbal and communicated by pointing and making noises. Hillary had reportedly alerted the staff to her needs by

making noises during the night without difficulty. The staff member stated she was given the full side rails for Hillary's bed by Comprehend (the agency that placed her in the facility) at the time of admission. The responsible state agency conducted semi-annual family care home assessments, and there were no concerns noted regarding the home during the assessment three months prior to Hillary's death.

The night before her death, the usual routine was followed, and Hillary was put to bed at about 9:15 p.m. The staff member indicated that Hillary showed no signs of distress at this time and to her knowledge made no noises in the night. The home's operator next checked on Hillary at 7:50 on the morning of her death and found her to be between the bedrail and mattress with her head caught between the two. Hillary was obviously dead. The cause of death identified by the coroner was "Asphyxia due to hanging (suspension)." An allegation of "lack of proper care and supervision" was investigated and unsubstantiated by the state agency.

The staff members were extremely upset by the death and stated no one had ever told them the side rails were considered a restraint. They were given the side rails by the previous residential facility when Hillary was admitted and were told that she used them nightly.

An allegation of "resident became entangled in the side rails and died" was investigated and substantiated by the state Medicaid survey agency. The facility was cited on inability of its residents to self-evacuate. The deficiency was corrected by the home by thereafter limiting services only to those individuals who are independently mobile.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was directly related to restraint. In this case, full side rails directly contributed to Hillary's death. The facility had been reviewed and approved by the state several times in the time period (two years) the side rails had been used for Hillary without any problems. Deficiencies cited following this death were appropriate. However, previous annual reviews of this facility should have recognized these deficiencies and assisted the staff with identifying appropriate alternatives, thereby preventing this tragedy for all concerned.

Story #21

Loretta was an 88-year-old female who was admitted to a nursing home and died there within several weeks. Her death occurred while she was restrained in her wheelchair with a lap belt. Loretta had diagnoses of dementia, glaucoma, bilateral cataracts, macular degeneration, right eye lens implant, migraines, osteoarthritis and gait abnormality. In the two days prior to the restraint that led to Loretta's death, the lap belt had been ineffective and found to be unsafe at least three times.

On two occasions during the same day, Loretta was found seated on the floor with the lap belt still attached to the wheelchair. On one occasion the lap belt was up around Loretta's chest when she was found. In the other incident, a staff member heard gasping and found Loretta sitting in front of her wheelchair, with the lap belt tight around her neck. LPN staff members were notified or present on each occasion but did not document the incidents, reassess Loretta's safety needs or revise her plan of care. On the day Loretta died, she was seen in her room sitting in her wheelchair at 5:30 p.m. A CNA entered Loretta's room at approximately 6:10 p.m. and found Loretta out of her wheelchair with her buttocks on the floor and the soft lap belt around her neck. The wheelchair had to be tilted forward in order to release the belt because it was so tight around Loretta's neck. Loretta was unresponsive to a sternal rub (a maximum stimulation assessment technique) and had no pulse or respirations. Loretta had a "do not resuscitate" order, so CPR was not done. The coroner was notified due to the unusual circumstances of the death.

An autopsy was done and cause of death was attributed to positional asphyxia. The manner of Loretta's death was determined by the coroner to be accidental.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was directly related to restraint. Loretta's death illustrates the dangerous nature of restraint, even one as simple and commonplace as a lap belt. Though the death was ruled accidental, there were clear indications preceding Loretta's death that continued use of the lap belt restraint was dangerous for her. Her ability to get out of the wheelchair leaving the restraint around her chest and neck demonstrated that the restraint was unsafe. Current national standards governing the use of restraint require that the restraint should have been evaluated and discontinued, and a revised plan of care implemented following the first incident in which Loretta was found with the restraint and her body in a dangerous position.

Additionally, minimum monitoring requirements (every 15 minutes) were not documented and appeared not to have been done. At the time of her death, the staff had not checked Loretta for approximately 40 minutes. Minimally, she should have been monitored continuously following the first incident to provide for her safety and to determine how she was able to move out of the wheelchair with the restraint still around her. The use of alternative methods to provide patient safety (rather than restraint) could well have prevented this death.

Story #22

Oliver died at age 29 within 24 hours of being admitted to an emergency psychiatric service. He was first seen at a university hospital emergency room two days before his death, due to a possible overdose of Benadryl. He was evaluated

medically and then evaluated by the Emergency Psychiatric Services. Oliver had a history of schizophrenia, bipolar disorder, obstructive sleep apnea, hyperlipidemia and hypertension. He was also obese. He was given Geodon 80 mg and discharged to his family the same day.

After returning home, Oliver was reportedly uncooperative, and his mother obtained an order to have him returned to the hospital. Deputies returned him to the hospital at 3:00 a.m. the day before his death. In the emergency department, he was determined to need oxygen, and a chest x-ray was done. The chest x-ray reported "prominent pulmonary vasculature which may be due to low volume inspiration versus pulmonary venous congestion." This result was noted on the emergency department documentation. Emergency department orders included instructions to use a CPAP machine (sleep apnea apparatus). A notation on an order indicated a message was left at Oliver's home to obtain his CPAP machine, but it was not obtained prior to his death. Oxygen for Oliver was reportedly stopped prior to leaving the emergency department without any ill effect (but no documentation was in the record regarding this).

Oliver was transferred to the Emergency Psychiatric Service, evaluated and admitted to a room with no oxygen supply at about 3:30 p.m. on the day of his death. He was noted to have snoring-type breathing, his oxygen saturation level was 85% and he was very sleepy. After 7:00 p.m. he was noted to be very anxious.

Between 8:30 p.m. and 2:48 a.m., Oliver received three sets of PRN medication (total of 6 mg Ativan, 6 mg Risperdal concentrate and 75 mg Benadryl). He was documented to have "grunting" type breathing several times during this period. He was secluded from 10:25 p.m. to 2:30 a.m. because the staff indicated he was a danger to himself, to others and to the environment, and was disrupting the care of others. The only behaviors described in the record were falling asleep while standing, refusing to stay in the room, refusing to remain lying down, refusing to remain seated and being loud in the hall.

At 11:48 p.m., he received the third set of PRN medications. At 12:01 a.m., he became diaphoretic, requiring a change of his gown. Oxygen saturations were 96%; other vital signs were not taken. At 3:00 a.m., it was noted that he would not stay in bed and was bumping into walls. He was placed in 4-point restraint; it appears in a supine position. Oliver's agitation increased, and he began "thrashing." No vital signs were taken until after medications were given while he was in 4-point restraint, which were noted to be blood pressure 100/74, pulse 12, respirations 44, oxygen saturations 75% and 81%. One RN remained with Oliver while another RN went to notify the physician and try to find a room with oxygen.

At 3:15 a.m., Oliver was still agitated, restless and would not calm. At 3:28 a.m., he stopped breathing and had no pulse. A code was called, and the physician

arrived at the room at 3:32 a.m. The head of the bed was at 15°. Resuscitation efforts continued until 3:55 a.m., when Oliver was pronounced dead.

The physician stated he was never informed of Oliver's low oxygen saturation levels when he was called for orders and that he had not ordered restraints.

The coroner's report listed cause of death as ischemic heart disease with eight physical indications of this, including coronary atherosclerosis, biventricular cardiac hypertrophy and pulmonary edema.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was directly related to restraint. There were numerous nursing and medical errors that contributed to Oliver's death. Oliver's restlessness and agitation were likely symptoms of delirium caused by inadequate oxygenation and metabolic abnormalities. There were numerous points in the last 24 hours of his life at which appropriate nursing and medical interventions could have prevented his death.

Oliver's abnormal oxygen saturation level of 85% in the emergency department should have prompted further medical assessment and treatment. He should have been admitted to a medical service and medically stabilized prior to admission to a psychiatric service because of his unstable respiratory status in the emergency department.

Once admitted, he should have been placed in a room or area with oxygen available, and his oxygen saturation should have been monitored regularly. His sleep apnea machine should have been obtained. The inpatient staff failed to adequately assess him. The only vital signs taken during the 12-hour period during which he was being medicated, secluded and restrained were prior to being medicated at 3:30 p.m., and after the last doses of PRN medication at 3:00 a.m., just prior to his respiratory/cardiac arrest.

Many of Oliver's behaviors that staff members were trying to eliminate or control were in fact symptoms of his compromised respiratory and oxygenation status. Oliver's refusal to remain in bed was probably an instinctual response to try to improve his breathing. Efforts to control his behaviors rather than treat his underlying physical problems only worsened his condition. Ativan increases respiratory drive and is contraindicated in individuals with limited pulmonary reserve. Any horizontal position in bed would have made it more difficult for Oliver to breathe. Sedative medication contraindicated the supine position restraint used, particularly in light of his obesity and pulmonary status. His symptoms should have been recognized as a deteriorating physical (respiratory) condition that required immediate medical intervention to prevent the severe respiratory failure and death.

Oliver's behavior did not pose a threat of injury to him or others at the time he was secluded. The only threat of injury to himself was at about 3:00 a.m. when he was bumping into walls. He was placed in 4-point restraint at this point. Despite vital signs that clearly indicated his physical condition was deteriorating seriously, he was left in the 4-point restraint in a supine position until he arrested. Four-point restraint, particularly in a supine position, was clearly contraindicated for Oliver due to his abnormal oxygen saturation levels, rapid pulse, rapid respiratory rate, respiratory distress, sleep apnea and obesity.

Story #23

Peter, an 89-year-old male, was admitted to a medical hospital through the emergency department five days before his death. He was brought to the hospital because of a change in mental status: difficult to arouse, slurred speech. He also had leukocytosis (raised white blood cell count), azotemia (elevated blood level of uria) and anemia. His past medical history included hypertension, diabetes mellitus type II, chronic renal insufficiency, osteoporosis, recurrent urinary tract infections, congestive heart failure, chronic obstructive pulmonary disease, cardiovascular accident and osteoarthritis.

Diagnostic tests indicated he had pneumonia, and he was treated with IV antibiotics. Peter was stable until the day before his death, when he was found at 6:15 a.m. not breathing and without a pulse. CPR was initiated; he was intubated, transferred to the intensive care unit and placed on a ventilator. An arterial line was initiated. He began having involuntary jerking movements shortly after his arrest. Physician evaluation indicated he had probably had a stroke in the respiratory center of his brain. The jerking movements increased to the point that the staff was concerned the movements would disrupt his arterial line or endotracheal tube. Medications were used to try to stop the tonic/clonic movements. At about 11:55 a.m. that day, an order was written for soft mitt restraints to prevent him from pulling out tubes. On the day of his death, he was weaned off the ventilator. According to staff, he remained in mitt restraints after he was extubated to prevent him from pulling out the arterial line. Peter died at 10:40 p.m.

In response to an allegation that the facility failed to protect Peter from unnecessary restraint, a review was completed by the state Medicare/Medicaid survey agency. The allegation was found to be unsubstantiated and that the restraints had not contributed to his death. The facility was cited for not meeting documentation requirements related to monitoring and physician orders (only one order in a 29- to 30-hour time period). The facility completed an acceptable plan of correction, and deficiencies were cleared on a follow-up visit.

Expert Medical/Nursing Consultants' Opinion:

This medical restraint did not contribute to Peter's death. Restraint was not used until Peter was in very serious condition in the ICU, and it was medically justified. Though documentation of required monitoring was not completed, Peter was monitored continuously for vital signs and oxygenation status while in the restraints because he was in the ICU and ventilated.

Story #24

Sally was an 81-year-old female who resided at home with her husband prior to a hospitalization several months before her death. She had COPD and peripheral vascular insufficiency and was chronically emaciated. Because of her poor nutritional status, skin breakdown and poor hygiene, home health nurses had urged her to get treatment for some time. Home health nurses reported she was not receiving proper care at home.

On admission, Sally was alert and oriented, had a stage II decubitis ulcer to the right trochanter area and healing decubiti at the coccyx and left trochanter areas. Admitting diagnoses were urinary tract infection, rule out sepsis, cachexia, malnutrition and COPD. She complained of abdominal pain. Prior to admission, she was on Zoloft 50 mg (sample) and Trazodone 100 mg at bedtime. There is no mention in the record of a psychiatric diagnosis or why she was taking these. Sally remained in acute care for several weeks until she was transferred to the Skilled Nursing Facility (SNF) in the hospital. She remained there until her respiratory status deteriorated. She was transferred to ICU later in the same month and eventually diagnosed with Methicillin-resistant Staphylococcus Aureus (MRSA) pneumonia. While in ICU, she had a swallow evaluation, which recommended aspiration precautions and other specific interventions to prevent aspiration. Sally's condition improved, and she was transferred to a medical surgical unit. The aspiration precautions and related interventions were not implemented on this unit. Sally became increasingly confused and uncooperative. She fell several times, pulled out her jugular central line, pulled out her Foley catheter and frequently took off her oxygen mask. Vest restraint was used for two days prior to her death to prevent injury from a fall. Sally died while being fed lunch by a certified nursing assistant, when she aspirated, arrested and resuscitation attempts failed. Sally was in a vest restraint at the time of this event.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was indirectly related to restraint and that the death was preventable. The swallowing evaluation recommendations for aspiration precautions and specific feeding instructions were not implemented for the nine days prior to Sally's death. The precautions were not

being implemented at the time of the feeding during which she choked and died.

The vest restraint was in place during the feeding at the time she aspirated. This type restraint impedes trunk/chest movements and would have restricted Sally's reflexive and instinctive movements to clear her airway during the choking episode. This restraint would hamper recommended basic life support (BLS) interventions for choking. There is no mention in the documentation of providing the BLS interventions for choking (repositioning, attempting to clear her airway manually). In Sally's case the choking episode began prior to 12:05 p.m. The vest restraint was not cut off for CPR until 12:15 p.m. Therefore, it would have been impossible to provide BLS interventions for choking during this 10-minute period. Sally's death is an illustration of the dangers of using a restrictive restraint during feeding. Vest restraint should not be used during feeding at any time for these reasons.

Additionally, a standard part of aspiration precautions is the availability of suction at the bedside. Suction was not available in Sally's room at the time of the aspiration. Emergency treatment was delayed because suction equipment had to be obtained. This should have been immediately available as part of the aspiration precautions.

Story #25

Paul was a 31-year-old male who was found sitting on the median of an interstate highway. He died a short while later in an emergency psychiatric unit after being restrained.

Police officers responded to the scene, and Paul identified himself as "Jesus." He had no shoes or socks and appeared to officers to be a psychiatric patient. Police physically intervened to get him out of traffic; however, he became combative, pulling officers into traffic with him. He reportedly was very strong. He was handcuffed, and his legs were shackled. He continued to be combative, verbally and physically. Officers transported him to a metropolitan psychiatric center in a squad car because an ambulance was not available. An emergency department RN and MD reportedly told officers that Paul should be evaluated at a medical facility for medical clearance. The police officer reportedly refused to transport him, saying that Paul was a psychiatric patient and needed to be admitted to the psychiatric facility.

Paul was initially on his back with handcuffs behind his back and leg irons in place. He was then placed in a prone position on the floor, with handcuffs and leg irons in place, to keep him from thrashing and kicking. One officer kept his foot on the leg iron chains, and another officer held Paul down with his foot placed at the back of his neck for 15 to 20 minutes. Several staff members reported that Paul had calmed down at this point. He was given a 2 mg dose of Ativan IM (intramuscular)

and was reported by various staff members to be either calm, quiet, "not moving," "motionless" or "moved when injection given." Vital signs had not been obtained since Paul arrived at the psychiatric center and were not taken prior to the injection of Ativan.

Staff and police placed Paul in 4-point restraint following the injection. He was carried facedown to a stretcher and placed on his stomach. One staff member noted urine on the floor where Paul had been lying. After the handcuffs were removed, Paul was turned on his back, the leg irons were removed, and the 4-point restraint were secured. Two staff members noticed at this point that Paul was not breathing, he did not fight or move and his body was limp. On assessment, he had no pulse and no respirations. CPR was started with oxygen, a defibrillator was applied and the staff called EMS.

Paul was taken to a medical hospital in full arrest, his pupils fixed and dilated. He was evaluated and treated for a short period of time until he was pronounced dead. Paul had not regained consciousness since his cardiopulmonary arrest. Medical records show numerous abrasions to his wrists, thigh, knees and ankles. Initial drug screen was positive for cocaine and phencyclidine (PCP).

The medical examiner's report showed findings such as cocaine induced agitated delirium (a mental disturbance characterized by confusion, disordered speech and hallucinations); cardiopulmonary arrest (heart attack) during physical restraint; rhabdomyolysis (the destruction or degeneration of skeletal muscle tissue, as from traumatic injury, excessive exertion, or stroke, that is accompanied by the release of muscle cell contents into the bloodstream resulting in hypovolemia, hyperkalemia and sometimes acute renal failure); coagulopathy (a condition affecting the blood's ability to coagulate); blunt force injuries; abrasions of the shoulders, back, left hip, chest, wrist, elbows, knees, feet; contusions of the scalp, forehead and wrist; soft tissues of back and forearm hemorrhage and edema; subarachnoid hemorrhage (bleeding in subarachnoid space of brain, probably secondary to levels of cocaine and PCP in Paul's system). The medical examiner did not find evidence of physical abuse or intentional injury.

Expert Medical/Nursing Consultants' Opinion:

Given the complex nature of the case (cocaine and PCP found in toxicology screen, timing of the subarachnoid hemorrhage and failure to perform vital signs appropriately), it is difficult to say definitively that the restraint, per se, caused Paul's death. Those involved with Paul did not respond adequately to his distress, especially when there were noteworthy changes in behavior.

Studies performed at the hospital and references to the autopsy findings indicate that Paul had sustained a substantial subarachnoid hemorrhage in the

posterior fossa, and this may have been the cause of his ultimate death. It is probably not possible to know whether the subarachnoid hemorrhage resulted from trauma (perhaps sustained before apprehension, during restraint or while he was in custody, striking his head against the steel bars of the police cruiser's caged back seat) or from recent cocaine use.

Paul essentially died twice in the span of his last 24 hours. The first episode of death (cardiac sudden death) occurred when he was being restrained in a prone position on the floor of the receiving area of the psychiatric facility. While he survived this episode of "death" for a matter of hours, the ineffective and delayed resuscitation made his later death inevitable, as neurologic recovery from the first death was not feasible.

Based on the history and autopsy, the expert medical consultants' opinion is that the episode of sudden death resulted from a malignant ventricular arrhythmia and that the most likely contributor to this was cocaine use. Cocaine causes a massive catecholamine surge that can lead to coronary vasospasm sufficiently severe to lead to acute myocardial infarction; it can cause lethal ventricular arrhythmias even without causing infarction.

Paul sustained significant rhabdomyolysis. Such skeletal muscle injury is probably the result of severe muscular exertion, probably during his apprehension and subsequent struggle with a number of police officers. The catecholamine surge associated with such a struggle likely further contributed to the coronary vasospasm. The addition of physical restraint to this mixture would magnify the elaboration of catecholamines, and, while likely insufficient in and of itself to lead to the lethal arrhythmia, certainly played a contributing role.

The subarachnoid hemorrhage may also have been related to cocaine use and resulting catecholamine levels. If restraint were related to the development of the subarachnoid hemorrhage, it would have been through the same mechanism — by amplifying the catecholamine surge. If the subarachnoid hemorrhage was traumatic and not cocaine-induced, then, the police officers' allowing him to strike his head against the steel bars of the police car may have played a role in causing his death.

Medical calamities usually do not result from one mistake but usually require a chain of multiple errors, none of which, by themselves, would have caused the calamity, and the prevention of any one would have averted it. In Paul's death there were certainly a chain of errors that led to his unfortunate death, including the following:

- An ambulance to transport Paul to a medical emergency room was unavailable.
- The police, apparently despite the request that the patient be "cleared"

medically first, refused to transport Paul to an emergency department and transported him initially to a psychiatric center.

- Restraint was improperly used. The restraint involved Paul's being placed in a prone position. One of the officers placed his foot on Paul's neck for "15 to 20 minutes." Both the placement in the prone position and pressure (enough to keep Paul from moving about) applied for an extended period of time created the risk of obstructing the airway or restricting the inflation of the lungs. Failure to assess Paul when he became calm delayed treatment of his serious physical problems. Paul should have been assessed for release from restraint when he became calm and noncombative.

- Paul was not adequately protected from self-injury (banging his head against the metal cage) while in the police car.

- The lack of vital sign monitoring may have allowed an emerging or in-progress cocaine-induced cardiac event to be missed. Vital signs were never recorded prior to the administration of Ativan or prior to the sudden cardiac arrest.

- Personnel at the psychiatric center were very busy with another, concurrent, emergency.

- Apparently, initial staff trained in advanced cardiovascular life support at the psychiatric center was unskilled, and no effective respiratory support was provided.

- Paul was not examined by a physician until he reached the medical hospital emergency department subsequent to his cardiac arrest at the psychiatric center.

Had any one of these not occurred, it is likely that the outcome would not have been Paul's death.

Story #26

Robert was a 48-year-old male who was admitted to a state hospital after first being arrested by police and serving time in jail. He was described as being "aggressive and out of control" while in jail. This was his 18th admission to the state hospital. Robert had been previously diagnosed with schizoaffective disorder, alcohol and cannabis abuse and hypertension. He was admitted on an emergency commitment, and several days later an involuntary commitment order for up to 90 days was obtained.

During the several days that preceded Robert's death, he was placed in seclusion and spent time in full mechanical restraints during several episodes before his death. Of the 107 hours leading up to Robert's death, he spent approximately 44 in seclusion and 62.5 in seclusion with restraints. He died while in seclusion. At the time of death and for the 19 hours before the time of death, Robert was in

seclusion and not in restraints.

Robert was given IV fluids and had a catheter inserted in order to provide adequate fluid intake. The available intake and output data do not indicate a significant dehydration. On the morning of his death, Robert had refused food, fluids and medication. He had been continuously monitored by video camera at the nurses' station and physically checked every 15 minutes. At 9:05 a.m. on the day of his death, he was noted to be lying prone on his bed, and a psychiatric technician went to check on him. Robert stated, "I'm fine. I don't need anything." At 9:15 a.m., when he was still in the prone position, a staff member checked on him again, and he was found to be unresponsive to verbal or tactile stimuli, apneic (no respiration) and pulseless. A Code Blue was called, and CPR was begun and continued until the pronouncement of his death at 9:40 a.m.

The medical examiner determined that Robert died of natural causes, stating atherosclerotic coronary artery disease as the cause of death. The autopsy did not indicate that Robert was dehydrated at the time of his death. The medical examiner did comment that a small pulmonary embolism was present and may have been related to the restraint. The medical examiner's report also stated that the pulmonary embolus did not contribute significantly to the death, due to the smallness of the affected vessel.

Both an internal review by the state hospital and review by the state Medicaid survey agency and the state investigatory agency concluded that the state hospital "met all federal requirements regarding [the patient's] care and subsequent death." The state protection and advocacy program requested an investigation, and they were particularly concerned about the lack of opportunities that Robert was given to perform range of motion (ROM) while restrained. The state policies require ROM opportunities be offered every two hours for people who are restrained. Robert's records show only a total of nine ROMs provided during his 62 hours in restraints. However, having ROM every two hours was found not to be "an enforceable policy by the Certification Bureau as it is not a federally required activity."

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was directly related to restraint. This case demonstrates the high-risk nature of restraint even when the individual is visually observed throughout the restraint period. Risks for complications of immobility exist with both seclusion and restraint. Seclusion restricts the area in which a person can move around, and restraint certainly restricts body movement. Proactive physical care and physical assessment are required to prevent complications and to detect changes in physical condition. Though Robert was continuously monitored by video and 15-minute checks, no change in his physical condition was recognized until after his death. The expert

medical consultant reviewing this case believes the pulmonary embolus probably developed secondary to immobility periods while in restraint. The development of an embolus is preventable by regular movement and exercise of the extremities. Documentation indicated this was not done for the majority of the time Robert was in restraint. Though pulmonary embolus can cause death, the coroner and the expert consultant panel did not find this to be a factor in Robert's death. It is also notable that resuscitation efforts did not include defibrillation, lack of which could have contributed to death.

Story #27

Justin was a 9-year-old boy who was admitted to a residential treatment center for children age 6 to 12. The coroner's report and several newspaper articles revealed that on the morning of Justin's death, a counselor at the center instructed him to do something. He refused and reportedly struck the counselor. Staff members then reportedly pushed Justin against a door and took him down to the ground, where he was held in a supine position. Several counselors attempted to restrain Justin, with one counselor lying across his chest. The restraint was documented to be seven minutes in duration. Staff members realized that Justin was unresponsive, and CPR was started. He was transported to a medical center, where he failed to respond to resuscitative effort. Justin was pronounced dead at 11:21 a.m. Justin weighed 106.5 pounds, and the counselor lying on Justin's chest was reportedly 200 pounds. The counselor was charged with homicide. The coroner's opinion was this: "The decedent died as the result of positional asphyxia due to physical restraint. The body weight of the adult on the decedent's chest and abdomen prevented adequate ventilation. Furthermore the manner of death is best deemed homicide."

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was directly related to restraint. In this case the pressure of a 200-pound man's weight was applied to the child's chest and abdomen until death occurred. This position and pressure would have severely restricted or stopped the child's ability to breathe. The restraint was not warranted and other, less restrictive and less dangerous, measures could have been used to assist Justin. Additional staff members were present who could have intervened to remove him from the situation. A dangerous restraint procedure along with excessive force was used in this incident. Given that the restraint was unnecessary and incorrectly used and that the staff did not sufficiently monitor during the restraint to ensure the child's safety, the medical/ nursing consultants found the death to be directly related to the restraint.

Story #28

Norm was an 80-year-old male who died in a nursing home. At the time of death, he was strapped into his wheelchair with a soft belt restraint. At the time of his admission to the nursing home, he had a long list of diagnoses, including Alzheimer's disease, hypertension, atherosclerotic coronary artery disease, urinary incontinence, blindness in left eye, degenerative joint disease, depression, agitated behavior and premature supraventricular tachycardia. Prior surgical history included a lumbar laminectomy, an angioplasty and a pacemaker implantation. On the day of Norm's death, vital signs had been fairly stable, though he had a somewhat elevated blood pressure at times and a pulse of 96-98 twice. No adventitious breath sounds (additional sounds over the normal ones) were noted in the documentation related to a head-to-toe assessment.

On the morning of his death, Norm was found at 6:00 a.m. "laying on [the] safety mat on [his] left side with [his] chest, arms and head on [the] floor." Following this, he was placed in his wheelchair with a soft belt restraint applied to prevent falls. He was able to move the wheelchair from place to place on the unit. He was assessed at least every two hours up until the time of death, with the last assessment occurring at 4:30 p.m. At 5:00 p.m., Norm was found in his bathroom sitting on the floor in front of his wheelchair with the soft belt still around his waist. The staff released the soft belt, but he was unresponsive, cyanotic, pulseless and apneic. Norm was transferred to his bed, still without a pulse or respirations, and pronounced dead.

An autopsy confirmed pneumonia, considerable vascular disease (coronary and cerebral), and edema and congestion of both lungs, among other diagnoses. The coroner noted a belt mark approximately one-inch wide on the mid- to upper abdomen. The staff members who found Norm were concerned about possible asphyxia, but no signs of asphyxia were found in the autopsy. The coroner attributed the death to be from natural causes, and the cause of death was listed as bacterial lobar pneumonia.

Notes documenting Norm's condition were available only for the 19 hours prior to his being discovered in front of his wheelchair, dead.

Expert Medical/Nursing Consultants' Opinion:

Bacterial lobar pneumonia is not a usual cause of death. While there is evidence of trauma from the restraint belt in the autopsy, it is not possible for the expert medical consultant to determine the relationship of the restraint to death.

Due to lack of information in the record, it is not possible for reviewing consultants to determine the primary factor in this death. The only mention of Norm having pneumonia is in the autopsy report. Lack of adequate assessment appears to be

a significant issue. Nursing notes documenting the 19 hours of care prior to death do not document any temperature elevation, shortness of breath or other signs of respiratory difficulty. There is no documentation of lung sounds. A respiratory rate of 26 is noted on two occasions. Medical/nursing consultants question if assessments were being completed by nursing staff prior to his death. A bacterial lobar pneumonia severe enough to result in death would likely have presented more abnormal assessment data than that which is documented.

Story #29

James, a 53-year-old individual who lived for many years in a residential facility had Down syndrome, hypothyroidism, cardiomyopathy, advanced dementia and flexion contractions. He had very impaired mobility and so had 1:1 attendants for many years. His only relative, a sister, was involved in his care and was his legal guardian. An advance directive was in place for no resuscitation, comfort measures only. He was admitted to a general hospital through the emergency room on January 29, 2002, with acute pneumonia and dehydration. During this hospitalization, he had progressive difficulty managing fluids, food and his own secretions. A PEG tube (a surgically placed feeding tube) was recommended. His sister made the decision to provide comfort measures only and not to prolong his life via PEG tube. On February 1, 2002, all medications except those for comfort were discontinued. James expired on February 2, 2002, while still in the hospital.

During the hospitalizations James repeatedly tried to get out of bed, pull out his IV and remove his oxygen. He also tried to hit or kick staff. Wrist and ankle restraints were utilized most of the time to protect his safety and ensure oxygen delivery. Vest restraint was used some of the time for the same reason. His sister requested the restraints be used to ensure safety even when she was providing 1:1 attendance for him. Chemical restraint (Haldol) was used in several instances to decrease agitation.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was not related to restraint. The record did indicate that timelines for physician orders and assessment were not met in several instances. There is no evidence reviewed that indicates harm was caused to James by the use of chemical or mechanical restraint.

Story #30

Patrick was a 75-year-old male admitted from another nursing home to the nursing home where he died within 24 hours of his admission. Patrick had psychiatric diagnoses of Alzheimer's, impulse control disorder, depressive disorder

and psychosis. His medical diagnoses were pernicious anemia, hiatal hernia, hypertension, past CVA (with aphasia and dysphagia), coronary artery disease and status post coronary artery bypass graft (previous heart bypass surgery). He required total care, had a history of falls and had a PEG tube (surgically placed feeding tube) for feeding.

The assessment of Patrick, conducted at the time of admission, stated that he needed a low bed due to his history of trying to climb over bed rails. Paperwork from the previous nursing home stated that Patrick required soft pads on the floor and cushioning of the edges of the bedside table to prevent injury. There is no indication on his discharge care plan from the previous nursing home that he required more restrictive measures (such as restraints) to maintain his safety. At the time of Patrick's death, which occurred on the same day that he was admitted to the second nursing home, neither the soft floor pads nor the cushioned table edges were in use.

Apparently on the day of Patrick's death, another individual was using the nursing home's only low bed. A decision was made to substitute a Posey-style roll belt to provide safety. There was no physician's order and no assessment of other less restrictive measures for Patrick's safety. This type/brand of Posey-style roll belt had not been commonly used at this nursing home, and subsequent to Patrick's death, almost all the staff members interviewed stated they had never seen the device, nor had they been trained on its correct application.

The CNA who applied the restraint when Patrick went to bed stated that he had the restraint on during his nap when she came on duty, so she applied it again when putting him to bed at about 6:45 p.m. She stated she looked at the device and figured out how it worked and placed it on Patrick. She was convinced she had done this correctly. She rechecked Patrick 15 minutes later, and he appeared to be asleep.

A medication aide entered Patrick's room at 8:00 p.m. and found him sitting on the floor beside his bed, unresponsive. His head and shoulders were suspended next to the bed with the Posey-style roll belt restraint straps bunched up under his neck and shoulders. A staff member cut the restraint off, initiated CPR and called EMS. Patrick was transported to the hospital, where he was pronounced dead at 8:39 p.m. An autopsy was done, and the medical examiner cited the cause of death as "Asphyxia due to strangulation (body restraint). Accidental." In the subsequent investigation, a demonstration by the CNA who applied the restraint clarified that it had not been applied correctly according to the manufacturer's directions. Of note, the record also indicated that nursing home staff did not tell EMS or the hospital that a restraint was involved in the incident. Police records indicate that the staff did not initially tell police of the restraint. When police did get this information, the

investigation proceeded as a possible homicide. The police reported the incident to the state investigatory agency.

After investigation, the state agency reported two RNs, one licensed vocational nurse (LVN) and one CNA to their respective licensing agencies for neglect. The nursing home was cited for numerous deficiencies and placed on "immediate jeopardy" status until follow-up survey visits cleared the deficiencies.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was directly related to restraint. The nursing home failed to provide appropriate care for Patrick, and many errors were made leading up to this event.

Information from the previous nursing home clearly specified that Patrick's safety needs could all be met through measures that were all less restrictive and less dangerous than a restraint device. Provisions for the low bed, soft floor pads and cushioned table edges should have been made by the nursing home prior to admitting him. An assessment of Patrick to determine appropriate alternative interventions to provide for safety in the absence of the recommended equipment was not done. The restraint device was used without RN or physician assessment, and there was no physician order for the restraint.

There were no documented assessments by a licensed nurse after the restraint was applied. Assessments that should have been provided include circulation checks and frequent basic safety checks. There were no documented checks on Patrick for an hour prior to his being found dead.

Appropriate direction and supervision was not provided to the unlicensed staff member who applied the restraint. Training for the correct application of the device should also have been provided. The prevention of any one of these errors might have prevented Patrick's death.

<u>Story #31</u>

Chris, a 14-year-old boy who was 61 inches tall and weighed 130 pounds, was a student in a behavior management special education classroom in a public school district at the time of his death.

On the day of his death, at about 2:30 p.m., Chris reportedly had still not had his lunch and began requesting it. He attempted to leave the classroom, presumably to get food, was ordered back into the classroom and then would not remain seated. At 2:38 p.m., the teacher placed Chris in a chair hold, with his arms crossed in front of his body and his hands held in back of his body. The teacher then lowered Chris to the floor. Chris was in a prone position, and the teacher was lying with her upper body across Chris's back. Chris began yelling "get off me, you're going to

squash me, I can't breathe, I'm going to faint." The assistant principal came into the room and witnessed the event. Chris said again twice "I'm going to faint" and then said "I give." Students reported that when Chris struggled, the teacher applied more pressure. The restraint ended between 2:53 and 2:54 p.m. Chris was still and did not respond to questions at this point. He was placed back in his chair by two staff members. Students reported that Chris "appeared to be a dead weight" and was limp. The teacher reportedly walked away from Chris and interacted with another student. At 3:00 p.m., a teacher's aide notified the nurse that Chris was in a restraint and had fainted. The nurse stated she found Chris slumped over on his desk not breathing. She placed him on the mat, instructed others to call 911 and began CPR. CPR continued until EMS arrived and assumed Chris's care.

Several students stated that Chris just wanted his lunch. Students reported that the teacher sometimes withheld his lunch until later in the afternoon if he misbehaved. Students who witnessed the restraint said the teacher increased her force when Chris struggled and said he could not breathe. The assistant principal present during the restraint reportedly did not do anything to help or stop the incident.

An autopsy stated that the cause of Chris's death was mechanical compression of the trunk resulting in asphyxia. The death was ruled a homicide.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was directly related to restraint. It is disturbing that this incident and the death occurred in the classroom of a public school. There were many problems with the treatment provided to Chris prior to his death. There is evidence in the record that Chris's teacher was punitive and harsh with him prior to this incident. Student descriptions of this incident leave no doubt that the teacher withheld lunch from Chris and treated him with unsafe physical restraint and excess force.

Withholding of food or any basic physical need is not an acceptable form of behavior management in any setting. Chris had a history of physical abuse, and the abuse included withholding of food. Withholding food was specifically contraindicated by his history of abuse by this method. Repetition of abusive treatment by a treatment team would likely increase an individual's anxiety and agitation rather than serve to calm.

Both the teacher and school administrator failed to assess Chris after he was placed in restraint or after he became quiet and limp. This is evidenced by the fact that neither the teacher nor the school administrator recognized that he was unresponsive and without pulse or respirations even when he was placed back in

his chair, slumped over and limp.

This case raises issues related to the governance and oversight of behavioral treatment, including restraint in educational settings. The record did not indicate if an approved plan was in place to address Chris's behavior. Behavior plans require thorough assessment to determine effective de-escalation and positive reinforcement techniques for the individual, as well as triggers and antecedents of negative behaviors. Such a plan would not have sanctioned withholding lunch from a child.

Additionally, the safeguarding procedures usually required when restraint is used were not present.

- There was no monitoring of Chris's physical or mental status during the restraint by the teacher, the assistant principal, who was present during the event, or the staff members who put him in his chair.

- A nurse was not present to assess Chris's physical status during the restraint and was not called until after Chris was not breathing, and was limp and nonresponsive.

Tragically, Chris's cries that he could not breathe during the restraint were not heeded. His death was easily preventable.

Story #32

On the day that Andy, a 30 year old male, died his family called 911 at 3:40 p.m. and reported that he was out of control, had shoved two female family members and was on top of his truck screaming. Police officers responded, and the family requested that they take Andy to a psychiatric hospital. The officers refused, reportedly stating they did not transport people to psychiatric hospitals. The police left the scene after they thought Andy had calmed. Later, police stated that Andy did not meet the requirements for commitment in a mental health hospital.

Shortly before 8 p.m. that evening, Andy reportedly entered a neighbor's house and began assaulting him while he was holding his 10-month-old baby. Two male neighbors restrained Andy by holding him down "to keep him under control" until police arrived. This restraint involved holding Andy down with weight pressure on his side and/or in a prone position. When police arrived, they handcuffed Andy with hands behind his back in a prone position without any struggle. The police began talking to the neighbors, and at some point realized Andy was not breathing. He was taken to a local hospital and pronounced dead at 8:50 p.m.

Andy had a history of being burned over 65% of his body at age 6 and reportedly had a mental health disorder due to a lack of oxygen to the brain as a result.

The post-mortem toxicology report detected thioridazine (0.24 mg/L). This, in conjunction with the family's request to take Andy to a hospital, indicates he was being treated for a psychiatric disorder. THC (marijuana) was also detected in the toxicology. The autopsy found a deep laceration of the scalp in the occipital area, but no underlying hemorrhage. The family stated they believed if police had gotten Andy help when they called at 3:30 that day, he would not have died.

The coroner's concluded that "I am of the opinion that [Andy], a 30 year old male experienced sudden death due to chest compression and being handcuffed behind his back all while in a prone position. These events immediately followed a struggle with [Andy] while he was in an agitated state. A contribution to his sudden death by the respiratory bronchiolitis or the intramural coronary artery cannot be ruled out. Because he died at the hands of other persons the manner of death is homicide."

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was directly related to restraint. The police/mental health system interface did not function appropriately to protect Andy and others from harm.

- Police should have assisted the family to get a psychiatric evaluation when they responded to a call for help from the family earlier in the day.
- Police failed to assess Andy prior to or following handcuffing him, causing a delay in resuscitation efforts.

This case points out key areas of need for family education. This family lacked knowledge of (1) strategies to help redirect or minimize Andy's agitation, (2) when and how to seek assistance, and (3) how to succinctly provide key information to community responders. It is imperative that the family members be educated regarding these issues.

Story #33

Ronald was a 60-year-old male admitted to a psychiatric hospital. Four days later, following a physical restraint by staff members, Ronald died. The record of this hospitalization is not in the documents provided for this review. Records from the protection and advocacy organization document the incident, and the autopsy report was available. Ronald had diagnoses of hypertension and hypercholestremia. His psychiatric diagnosis was not available.

While a patient in the psychiatric hospital, Ronald requested a cigarette. He was told he was not allowed to smoke. He became more agitated, demanded a cigarette and eventually struck a staff member. He was placed in seclusion. He did not receive any emergency medication. Three mental health workers "wrestled" him

into the seclusion room. Fifteen minutes later he was observed to be motionless. A Code Blue was called, and Ronald was pronounced dead upon arrival at the emergency room.

The autopsy cited several medical problems, listed below:

- Ischemic heart disease: severe occlusive coronary atherosclerosis, cardiomegaly with right and left ventricular hypertrophy, subendocardial scars consistent with healed infarcts
- Mild to moderate peripheral and cerebral atherosclerosis and moderate cardiac valvular sclerosis
- Chronic obstructive pulmonary disease
- Moderate nephrosclerosis
- Minimal prostatic enlargement
- Negative postmortem toxicology

The coroner listed the cause of death as ischemic heart disease; manner of death was cited as natural. The restraint in this incident was limited to the physical struggle to place Ronald in seclusion.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was indirectly related to restraint. The struggle and Ronald's agitation contributed to, or worsened, the pathophysiological process in his body that resulted in death.

Story #34

Chris resided in state-run facilities for people with developmental disabilities from the age of 14 until her death at age 38. Her diagnoses included profound intellectual disabilities, generalized tonic-clonic seizure disorder, mild spastic quadriplegia and depressive disorder. She could communicate likes, dislikes and some needs with limited verbal skills. She had a lengthy history of aggression and self-injurious behaviors (SIB), with behavior management programs in place for more than 12 years prior to her death. The behavior management plan at the time of her death included a contingent papoose board restraint or modified shower chair restraint in the case of noncompliance with personal hygiene, for aggression or SIB. It was documented that seizures sometimes followed episodes of SIB.

Her death occurred one day after a cardiac arrest from which Chris never recovered. During the two days preceding her death, she was restrained five times on one day and seven times on the day of the cardiac arrest. One restraint each day was for hygiene, and all others were for behavioral issues. The length

of restraint ranged from seven minutes to one hour 15 minutes. On the day of the cardiac arrest, Chris had been restrained off and on beginning at 7:30 a.m. Several times she was released from restraint for short periods (five to 20 minutes) and then restrained again. The restraints were for aggression and/or head-banging. Five episodes of restraint occurred from 11:20 a.m. to 2:14 p.m., with time between restraints ranging from five to 13 minutes. This number of behaviors resulting in restraints during this time period was unusual for Chris.

At 1:25 p.m., an assessment by an LPN of Chris's head (no apparent injury) is documented and she was given Benadryl 50 mg IM due to the repeated, almost continuous restraints. Chris had been given this medication in the past with no ill effect. She was released from the papoose board restraint at 1:35 p.m. and placed back on the papoose board at 1:40 p.m. One document states this was for removing her clothes; another note states it was for hitting, kicking and "trying to head butt." Chris was released again at 1:50 p.m. At 2:03 p.m., she was restrained with the papoose board again for head banging and released at 2:14 p.m. A direct care staff member (DCS) stated that she had seen Chris walk through the living area at least three times after 2:30 p.m., the last time being 2:55 p.m. About 20 minutes later, a DCS began looking for Chris and found her in a bathroom stall slumped over, nonresponsive, lips blue, arms limp. The DCS placed Chris on the floor, was unable to locate a pulse, did not start CPR but ran to get help. Two other staff members (one an LPN) saw Chris but did not start CPR. Another LPN stated she initiated CPR on her at approximately 3:15 p.m. That LPN stated that she had to tell one nurse who was assisting using a mouth cover that she needed to keep the individual's mouth open while doing rescue breathing. EMS arrived at approximately 3:25 p.m. EMS transported Chris to the hospital at 3:40 p.m. There are no records from EMS or the hospital. Chris died the following day at the hospital at 11:30 a.m. after being taken off life support.

Expert Medical/Nursing Consultants' Opinion:

The number of behaviors resulting in restraints during a 36-hour period was a change in the usual pattern for Chris. This change in behavior may have been symptomatic of a physical problem such as head injury, increased intracranial pressure or damage, probably secondary to self-injurious behavior. If this was the case, restraint may have worsened her physical condition. Data available in the record are insufficient to make a definitive determination as to the specific relationship of restraint to death. This case points out the importance of assessing changes in behavioral patterns in order to detect and address underlying causes effectively.

Facility procedures and/or Medicare requirements were not met at several points:

- Benadryl 50 mg IM PRN was ordered following the third restraint at 8:32 a.m. This was never given, and the physician was not notified. Administration of this medication might have prevented the repeated restraints throughout the day.

- The sixth restraint was for one hour 15 minutes, and there was no evidence that the physician was notified per facility policy.

- Vital signs were not assessed before or after administration of the PRN Benadryl.

- The required 30-minute respiratory/circulatory assessment by a nurse was not completed.

- Chris did not have a medical alert band on following PRN Benadryl. This was the facility procedure for alerting staff that an individual is on close observation. As a result, Chris was not observed from 2:55 p.m. until she was found nonresponsive at 3:14 p.m.

- Three staff members failed to begin CPR upon finding Chris, going for help instead. The fourth staff person to arrive at the scene did begin CPR.

- One staff person reportedly did not perform rescue breaths effectively, having to be told by the nurse to keep Chris's mouth open.

Factors which contributed to Chris's distress and ultimate death were

- Failing to adequately assess, monitor and protect Chris in light of the seizure history, association of seizures with self-injurious behavior and the PRN (as needed) medication,

- Inadequate response to distress, and

- Delayed resuscitation efforts.

Story #35

Mike was a 51-year-old male who was admitted to a state psychiatric hospital for the second time during the same year. Mike was taken to a metropolitan medical hospital emergency department by the fire department after being found lying on the ground, claiming to be nonexistent. He was then sent to a psychiatric facility for a few days, and then transferred to the state hospital. Mike reported he was homeless, as he had been kicked out of his daughter's house several months before. He had been noncompliant with discharge medications following his first admission to the state hospital. His family reported he abused cocaine and alcohol.

Mike was diagnosed with major depressive disorder, recurrent, severe with psychotic and melancholic features; antisocial personality traits; a history of

anemia; hypertension; and neurosyphilis of the brain. Medications prescribed during this hospitalization included Celexa, Zyprexa, Accupril and penicillin (for neurosyphilis). He was also placed on a low-salt diet. Despite medication, Mike continued to become agitated at times, cursing, threatening and attacking staff. Four days before his death, Mike received an emergency order of Ativan 2 mg and Inapsine 2 cc IM for such an incident. The next day, Mike was put on 1:1 supervision while awake, due to inappropriate behavior of stripping off his clothes.

Late during the evening prior to his death, at around 1:00 p.m., Mike repeatedly went into his room, where other patients were sleeping, and turned on the lights. He was asked to stop doing this and to sit in the lobby if he was not sleepy so he would not disturb the other patients. He kept doing this off and on, with staff verbally redirecting him back to the lobby. At around 12:20 a.m., Mike became angry, lunged at a staff member and grabbed his shirt. This person and another staff member tried to control him in a two-man basket hold. Mike was still trying to fight and kick. Three additional staff members came to assist. He was placed in a horizontal position on his side on the ground. He continued to fight, attempting to bite staff members, and cursing and threatening bodily harm to them. He then began striking his head on the floor, so one of the staff members began to support Mike's head. The staff person stated he did this with his hand between Mike's head and the floor to prevent him from harming himself. Reports of the event vary somewhat, but at some point, Mike went from his side to a prone position in the struggle.

An order for Ativan and Inapsine IM had been obtained, and a nurse administered the two injections, one to each gluteal at approximately 12:30 a.m. Mike was in the prone position at this point, with staff members holding limbs. All staff members involved state no one was on top of any part of Mike's body. Mike was trying to arch up when the nurse was preparing to administer the medication, so a staff member held him at the hips during the injections. Staff members all reported that Mike was still protesting during one or both injections. Various staff members described Mike as tensing up, groaning or saying "ouch" during the injection process. Immediately following the injections, staff members released Mike and told him he could get up, but he did not respond. Staff members checked him, rolled him onto his back and found him to be pulseless and apneic, with fixed and dilated pupils. CPR was begun and EMS called. The doctor arrived and directed the code until EMS arrived. Mike was intubated and transported to the community medical hospital, with CPR in progress. Resuscitation efforts continued at the hospital without success, and Mike was pronounced dead at about 1:35 a.m.

The cause of death, as determined by the coroner, was accidental death due to mechanical asphyxia during restraint for acute psychosis. A lawsuit was filed in this case. An expert witness physician for the plaintiff stated that "the hospital

personnel fell below the standard of medical care" and that "the conduct of the staff … that was below the standard of care, definitely caused the death of [Mike] by mechanical asphyxia." There was a confidential settlement to the lawsuit.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was directly related to restraint. Staff depositions regarding this incident would suggest an absence of pressure on Mike's chest or throat. However, the autopsy results indicate that pressure was applied and that the restraint caused the death. The movements and sounds Mike made as the injections were being given were probably a seizure prior to or during his cardiac/respiratory arrest. Mike's fecal incontinence during the restraint was also a sign of physical crisis.

Failures to provide appropriate care include these:

- Lack of physical assessment prior to or during the restraint, including prior to the Ativan and Inapsine injections, and
- Lack of effective intervention prior to the point at which physical aggression began. An almost identical incident had occurred four days prior and was managed safely with Ativan and Inapsine injections.

Story #36

Ricky was a 9-year-old boy who died in a residential treatment center. He had a history of increasingly regressed functioning, including multiple acute psychiatric hospitalizations. He was referred to a longer-term psychiatric hospital/ treatment center from a psychiatric hospital. His parents were in the process of divorcing at the time. Ricky had a history of opposition to authority, aggression toward others, threatening suicide and self-abusive scratching on extremities. Ricky was 50 inches tall and weighed 104 pounds.

He was admitted to the psychiatric hospital section of the treatment center with primary diagnoses of bipolar disorder and oppositional defiant disorder. Secondary diagnosis was attention-deficit/hyperactivity disorder. He was treated with medications, behavior management, individual and group psychotherapy, recreation therapy and a modified school program. Behavior management in the form of restraint, seclusion and temporary intervention plans (TIPS) was used. A TIP was basically a one-time plan with a resident involving a timed consequence for a problem behavior. The TIP was usually one to two hours, during which Ricky was required to sit at a desk and write an assignment.

Three days before his death, Ricky was transferred from the hospital unit to a residential unit at the facility. Medications had been adjusted several times; at this point he was receiving Effexor 75 mg BID, (twice a day) Dexedrine spansule

10 mg at 8:00 a.m. and noon, and Zyprexa 7.5 mg daily. Nineteen of the 31 days prior to his death, Ricky was given PRN Thorazine or Thorazine and Haldol for behavior issues. From admission through the day before he died, Ricky had been restrained physically 22 times. Most of these were for two to five minutes. Restraint documentation does not specify the type of hold used in the physical restraint. Only three physical restraints lasted more than 15 minutes; two of these were shortly after admission and the third was the restraint that led to Ricky's death. Twelve of the 22 restraints led to seclusion. Time in seclusion varied from 15 minutes to one hour. There was documentation of numerous "temporary intervention plans" that did not involve restraint or seclusion.

Two days after transfer to the residential unit, Ricky was restrained (physical) from 2:30-2:40 p.m. for yelling, cursing, crying, attempting to hit and bite others and throwing objects. At 2:45 p.m., Ricky was given Thorazine 50 mg concentrate by mouth. At 3:00 p.m., Ricky had urinated on himself and was asked by the staff to go to his room and shower. After several minutes of redirection, Ricky went into the group room and began running, throwing toys and then throwing books and toys at staff. Ricky continued to ignore redirection, and staff members tried to escort him to a designated area to calm down. He began kicking, scratching and trying to hit staff members. A staff member used a physical hold to restrain him, but the type of hold was not described in the records.

During the restraint, staff members tried to talk with Ricky and de-escalate him, but he continued to curse and scream. After 20 minutes of a staff member's questioning him, Ricky did not respond. The staff member "turned resident over" (implying this was a prone position hold on the floor). Ricky had no pulse, no respirations and a blocked airway. The staff member performed finger sweeps, Ricky vomited and was turned on his left side. Mouth-to-mouth resuscitation was provided, a Code Blue was called and nursing staff took over resuscitation efforts. Ricky had a pulse but no respirations, and rescue breathing was continued until EMS arrived and assumed care. Ricky reportedly survived five to six hours before being declared dead at the area medical hospital.

Autopsy findings were the following:

- Excited delirium: Clinical history of bipolar and ADD, history of struggle and restraint prior to cardiac arrest, Dexedrine therapy
- Cardiomegaly—significantly increased for age
- Abrasions and contusions of face, chest, hand, shins and bilateral occipital subgaleal hemorrhage
- Hypoxic injury to heart, kidneys, small bowel, colon and brain with diffuse edema of brain

- Patchy bronchopneumonia, with pulmonary edema and material consistent with aspirated gastric contents
- Therapeutic levels of all prescribed medications
- Cause of death: Excited delirium and hypertrophic cardiomegaly

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was directly related to restraint. This restraint occurred shortly after his transfer to a new unit with different staff. An adult male staff member restrained this child in a prone position, and injuries indicate overuse of physical force. This restraint lasted 20 minutes. Almost all previous restraints of Ricky had been brief, either ending in release or progression to seclusion within five minutes. The duration of this restraint, and that it was carried out by a single staff person, are factors that contributed to the tragic outcome.

The restraint occurred on a staffed unit and not in an isolated area. The reason for the restraint being carried out by a single staff person, apparently without observation or monitoring by other staff members, is not explained. Ricky was in a prone position apparently with the adult male staff member on top of him. Ricky weighed 104 pounds. The injuries described in the autopsy certainly indicate force was applied to Ricky's body. His physical distress, evidenced by vomiting and no movement thereafter, was not recognized until he had a respiratory arrest. This is an unsafe method of restraint and there was insufficient monitoring of the episode.

Ricky's behavior prior to the restraint did not meet the criteria of danger to self or others. Other interventions could have been used to address the behaviors, but were not. The treatment plan consisted of medications, a regular facility program and a school program to address the problems of bipolar disorder, oppositional defiant disorder and ADHD. The treatment plan did not address strategies for managing behavior, nor was restraint part of the treatment plan. There was no behavior management plan in the record, and there was no reference to one. The behavioral issues of this child were, in practice, managed with restraint, seclusion and TIPS. The frequency of these interventions certainly warranted the development of a behavior management plan that provided sufficient direction to staff to safely address Ricky's behavior.

The available record does not describe the process for ensuring continuity of care when Ricky was moved from the hospital unit to the residential unit, so it is not known if the staff on the residential unit was provided any information/training on Ricky's specific needs or his responses to interventions. An effective continuity of care process might also have prevented this restraint and death.

Story #37

Lucinda was a 95-year-old female admitted to a medical hospital for recent falls, weakness and a contusion to head. She had a history of numerous medical problems, including recurrent lymphoma, unspecified anemia, dementia and hypothyroidism. When admitted, she had a contusion of the forehead. A CT scan was negative for intracranial trauma. The next day, there was an incident in which Lucinda was found lying on the floor. Following this, a vest restraint was utilized, with family involvement, to prevent unsafe ambulation/fall due to confusion. Restraint checks were done every 30 minutes but were not detailed. A deficiency for this was cited by the state survey agency. Lucinda had neurological checks every four to eight hours throughout her stay, and these were normal. There were no documented incidents of Lucinda's getting out of bed or being in an unsafe position during the use of the vest restraint. During the hospitalization, Lucinda initially improved in alertness and strength. Two days later, discharge to a rehabilitation bed was in progress but was cancelled due to Lucinda's becoming less responsive. She was found dead in her bed at 7:20 a.m. the next day. No resuscitation measures were taken due to Lucinda's and her family's desires. No autopsy was done. CMS was notified and a review was done by the state survey agency. The conclusion of that survey indicated that Lucinda's death was unrelated to the use of restraint, and no regulatory violations in connection with her death were found.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was unrelated to the use of restraints.

Story #38

Martin was a 23-year-old male who resided in a small (group home) intermediate care facility for individuals with intellectual disabilities. He had a diagnosis of autism and intellectual disabilities. The record from this case is limited. Information for this review was gleaned primarily from a state agency investigation based on CMS requirements and from the autopsy.

Martin had a behavior therapy program, but the staff had not been trained on the program's interventions to prevent aggression. The behavior therapy program was not available for review. He had a documented history of throwing objects, biting himself and excessive water drinking, followed by vomiting, spitting and disrobing.

On the day of his death, Martin began to throw and break objects, disrobe and run out of the facility. A direct care staff member (DCS) took Martin to his bedroom, where the DCS performed a takedown and physical restraint on him. He became calm and then unresponsive. The two DCS members involved gave various conflicting accounts of what happened. Neither was able to demonstrate correct

restraint techniques. The DCS who performed the physical restraint demonstrated sitting on Martin's buttocks while holding his hands behind his back with one hand and holding Martin's back down with his other hand.

There is conflicting information regarding the use of CPR. A facility RN stated the 911 operator talked her through CPR until EMS arrived. The RN stated that she "blew into [Martin's] mouth" while holding the phone to his ear. Fire department and ambulance crew reported there was no indication at the scene that CPR had been initiated. Martin arrived at the hospital at 5:36 p.m. and was pronounced dead at 5:37 p.m.

An autopsy was done, with the cause of death determined to be asphyxia due to mechanical compression. Manner of death was homicide. The facility RN was reported to her licensing board as a result of the investigation.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was directly related to restraint. From the accounts and demonstrations by staff members during the investigation, the physical takedown and hold were performed incorrectly in a dangerous manner, resulting in death. The autopsy findings are consistent with the staff account that Martin was in a prone position with a DCS member sitting on Martin's buttocks, applying pressure to his back.

Staff had not been trained on Martin's behavior management program and did not implement any measures that might have prevented the use of restraint. The staff members who restrained Martin did not even know he had a behavior program.

The resuscitation efforts were inadequate. The facility RN should have been competent to perform CPR correctly without requiring assistance from a 911 operator. It is impossible to effectively provide rescue breaths while holding a phone, as the staff member stated he was doing.

Story #39

Andy, a 48-year-old male, died in a psychiatric hospital while in a physical restraint. Prior to admission, Andy was found during the night walking in traffic in 40-degree weather in his underwear. He was taken to a psychiatric emergency room, where he was described as hyper-religious, uncooperative, and threatening to kill himself. Upon his admission, his blood pressure was elevated at 149/176, and his pulse was 109. He had loose association and paranoid ideation. He was given emergency medication and transferred to a psychiatric in-patient facility the next day. He received Haldol, Ativan, Benadryl and Zyprexa during this admission. He remained uncooperative, aggressive and uncommunicative. He was secluded

and restrained while at the in-patient facility.

Based upon a court order, the next day Andy was transferred to a state hospital. There he received Droperidol, Benadryl, Thorazine, Ativan and a Nicoderm patch on the day of admission. On the available record, there is no documentation of any other medications given prior to the restraint that led to his death. A urine drug screen performed at the state hospital was negative.

Both of the psychiatric facilities were unable to get a medical or medication history from Andy (until he stated he had high blood pressure just prior to the restraint). While at the state hospital, his blood pressure was recorded only three times. These were within normal limits except for the last blood pressure taken (130/90) on the second day of his admission in the state hospital.

Two days after the elevated blood pressure, at about 10:00 a.m., Andy was interviewed by the physician. Andy stated he took five medications for his blood pressure and stomach. The physician attempted to get more information about the medication and to take a blood pressure reading. Andy became agitated and threatening toward the physician. A mental health worker (MHW) attempted to redirect Andy. Andy grabbed a coat rack and hit the MHW with it. The MHW attempted to restrain Andy, but Andy began hitting and punching the MHW around the head. Andy shoved the MHW and the physician into the wall. Additional staff members assisted in physically restraining Andy. The restraint was described as a Prevention and Management of Aggressive Behavior restraint with an initial “bear hug” and then a “horizontal hold,” with Andy on his left side and four staff members holding various parts of his body. The MHW who was initially attacked by Andy was described as “lying across [Andy’s] upper body.”

After approximately five to 10 minutes of restraint, Andy lost bladder control, then bowel control, became calm and stopped struggling. The physician was present throughout this time. Because of the possibility of seizure, Ativan 2 mg IM was administered. The physician was able to get a blood pressure of 80/60, with a thready pulse of 82 and pupils sluggishly reactive to light. Andy was nonresponsive and his pulse became unpalpable. CPR was initiated. Andy was intubated and an automated external defibrillator (AED) was used, but Andy had a non-shockable heart rhythm. Andy was continuously bagged with CPR until EMS assumed care at 10:27 a.m.

Andy was transported to a medical hospital, remained in ICU until he was taken off life support and died two days later at 3:19 p.m. His diagnoses in ICU were rhabdomyolysis, priapism, aspiration pneumonia and possible non-Q wave myocardial infarction (M.I.) The discharge diagnosis from the state hospital was bipolar type 1, most recent episode manic with psychosis; rule out substance-induced mood disorder.

An autopsy report was not available in the record. Allegations against three staff members for physical abuse were investigated and found to be unsubstantiated by the state investigatory agency.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that the description of the restraint, Andy's symptoms during restraint and the timing of the cardiac arrest all indicate that the death was directly related to the restraint. The takedown and restraint were clearly performed incorrectly, with a staff member lying across Andy's upper body. This would restrict breathing and eventually cause cardiorespiratory arrest. Appropriate monitoring would have detected and corrected the dangerous techniques used in this restraint prior to Andy's loss of bowel and bladder control and his cardiac arrest

Andy was admitted to the state hospital on the Friday of a holiday weekend. Psychiatric medications were not prescribed over the three-day holiday weekend. There was no rationale provided for why he was not provided with medication for his psychiatric illness during this time. The event that resulted in death occurred on the Tuesday after admission during the psychiatric evaluation. Prompt evaluation and medication intervention could have prevented this incident and Andy's death.

Monitoring of Andy's physical health was inadequate. Only three sets of vital signs were obtained and all were within 24 hours of admission. There were no vital signs taken or other physical assessment documented during the two days prior to Andy's cardiac arrest.

Story #40

Jane, an 81-year-old female, died while in the care of a licensed nursing home in a small town. Her patient record consists solely of a death certificate, which does not indicate whether an autopsy was performed. The cause of death was ruled "positional restraint complicated by atherosclerotic disease." It was noted that Jane was found in a "restraining device," sitting on the floor. The death was ruled accidental. The time of death was unknown.

Expert Medical/Nursing Consultants' Opinion:

This was a restraint-related death. Due to lack of information, it can only be speculated that Jane slipped from her wheelchair or a piece of furniture (e.g., bed, chair) while being mechanically restrained. Since the time of death was unknown, it appears that she was not being constantly monitored.

Story #41

Jerry, a 52-year-old male, died while in the care of a nursing home. The only

patient record available consists of a narrative report from the coroner's office. There are no records from the care facility available for review. Jerry died subsequent to a restraint incident. He had a history of suffering a closed head injury from falling out of a vehicle. He also was an insulin-dependent diabetic and had a long history of aggression.

According to the coroner report, Jerry attempted to leave the nursing facility where he lived, and he was confronted by facility staff. He became "agitated and combative" and hit a staff member. He was then persuaded to return to his room, where he "again became violent." The staff restrained him in a prone position, and he received an injection of lorazepam (Ativan) 2 mg IM. It is unclear how many staff members were involved in the procedure. Two police officers then arrived and placed Jerry in handcuffs. Nursing home staff reported to the coroner that one of the police officers placed his foot on Jerry's back in an effort to hold him down and to cuff him. After the handcuffs were applied, Jerry was turned over, and it was discovered that he was unresponsive and not breathing. EMS was summoned. There is no information available about what emergency measures were taken while waiting for EMS.

It was reported to the coroner that EMS was unable to start an IV or to intubate Jerry. The coroner was called to pronounce that Jerry was dead but was delayed in arrival due to another incident in town. After arriving, the coroner noted that at the scene was an intubation tube with the cuff inflated, which suggested that the tube had been placed in Jerry's airway and then removed. By the time the coroner arrived, lividity of the dependent areas of the body had occurred. He also noted a "bloody purge" from Jerry's nose. The coroner ruled the death to be due to asphyxia.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was directly related to restraint. Due to lack of information from the nursing home or other sources, there are many unknowns in this case. At the very least, it is clear that Jerry was restrained inappropriately in a prone position. A noteworthy fact is that it was reported to the coroner that he had defecated in his pants prior to receiving the injection. While this may have been a pre-existing problem for him, it is also sometimes an autonomic response to extreme fear and stress. Also, it appears that there was excessive force applied to Jerry's torso and back by the foot of the police officer. It is unclear why the nursing home called law enforcement for this incident, unless staff members believed that they did not have the resources, staff or otherwise, to manage the situation. It is unclear which staff member Jerry struck or if the employee was injured. It is also unknown what type or quality of emergency care was provided to Jerry prior to EMS arriving or how long it took for

EMS to arrive on the scene.

Story #42

Jenny, a 44-year-old female, died while being transported to a hospital via EMS. The only record available is a summary sheet from the coroner's office. There are no ambulance, police or hospital records available. Jenny died at about 6:00 a.m.

According to the coroner's summary sheet, Jenny was running down a boulevard in her town in the early hours of the morning. She was screaming and naked. She stopped a car and offered sex to a passerby, who called the police. The police and EMS arrived on the scene at about 5:15 a.m. and reported that Jenny became "combative and started fighting" the officers and EMS personnel. She was handcuffed and pepper sprayed. She was then placed in an ambulance for transport.

It was reported that Jenny vomited while in the ambulance and then arrested. It is not documented what emergency procedures were implemented in the ambulance. It is also unknown what her body position was or whether her head was elevated on the gurney in the ambulance. Upon arrival at the hospital, CPR and medications were given but to no avail, and Jenny was pronounced dead at 6:00 a.m.

The coroner's summary notes that the Jenny's body was naked on a gurney in the hospital when the coroner arrived. There was an intubation tube in place. It was noted that there were multiple contusions and abrasions over her entire body and handcuff indentations on both wrists. Both eyes were remarkable for petechiae hemorrhage and blood was observed in the mouth and nose. The coroner's decision regarding the cause of death was pending, and no results were provided in records reviewed. The coroner did note that this was being treated as an "in custody death."

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was most likely related to restraint. Due to lack of information from several vital sources, and in the absence of any autopsy findings, there are many unknowns in this case. An important unknown is whether Jenny had any pre-existing medical conditions, what medication she might have been taking or if she had a history of mental illness. It is unknown whether the contusions and abrasions were a result of the restraint or if they occurred before police apprehension. It is unknown what effect the pepper spray had on her. Pepper spray can be very irritating and in some cases has been known to cause aspiration pneumonia. The indentations from the handcuffs suggested the cuffs were applied too tightly or that Jenny struggled significantly to get released from the cuffs. Petechiae of the eyes are a typical symptom of asphyxia.

In summary, the condition of Jenny's body in the hospital suggests that excessive force may have been applied during the restraint. It is also probable that Jenny was restrained in a supine position without having her head elevated. If so, and if she vomited while in this position, aspiration would be very likely, particularly if she could not use a self-protective rescue mechanism to rise to an upright sitting position.

Story #43

Ronald, a 43-year-old male, was admitted to a general hospital during the morning one day before the restraint incident that led to his death. He had a diagnosis of schizophrenia and was brought in by a friend. He was reportedly not taking his medications and was in an acute exacerbation of illness. Ronald had a long history of mental illness. He was delusional, had command hallucinations and was hyper-religious. He was admitted to the psychiatric unit of the hospital. Throughout the rest of the day and the following day, he was noted to be very delusional and complained that there was a voice telling him to hurt people. He appears to have stayed in his room most of the time, and the nurses reported that he was calm but hyper-religious. The physician ordered an antipsychotic medication in the morning and at bedtime. He had a dose of this medication on the evening of his admission and in the morning the following day. Before the restraint incident, he had received a total of two doses of psychoactive medication.

The day following his admission, at about 7:00 p.m., the unit where Ronald was assigned had a change of shift report meeting. All the staff members, except one psychiatric technician, were at that meeting in a room off the unit. The one psychiatric technician on the unit was taking vital signs of patients in the dayroom. Suddenly, Ronald ran from his bedroom and came into the dayroom and charged the technician. The technician had his back to Ronald but was warned by another patient to watch out. Reportedly, Ronald was growling and shouting, "I am going to kill you, you black bastard!"

The technician jumped up and tried to avoid Ronald. The technician also screamed for another patient to go into the nurses' station and pull the emergency alarm. In the meantime, the technician was taking evasive action from Ronald. The other patient pulled the alarm, but it did not work. There was also an attempt to activate the alarm using a remote control, but that did not work either. Ronald finally blocked the technician in the corner, at which time the technician struck Ronald in the mouth with his fist, lacerating Ronald's lip and causing a nosebleed. It was later determined that Ronald also lost a front tooth in the altercation.

In the meantime, the other patient had used a telephone in the nurses' station to call for help, and several staff members who had been in the meeting came running to assist. Ronald was taken down to the floor. The hospital security staff members

were called and two guards responded. Staff members later reported that Ronald continued to buck and struggle to get loose and attempted to bite staff. Finally, a call was made to the emergency room, and two EMS technicians who were in the emergency room came to the psychiatric unit. The EMS technicians later reported that when they arrived on the unit at 7:39 p.m., there were five or six staff members literally "stacked" on top of Ronald. The EMS staff noted that Ronald was very cyanotic and had blood trickling from his mouth. They told the staff members to get off Ronald. The staff responded that Ronald was too aggressive for them to let him go. The EMS technicians had to insist that staff members get off Ronald. When they did, they checked Ronald's breathing and found him to be without respirations or pulse.

CPR was initiated, and a crash cart was obtained from another unit. Ronald was successfully defibrillated. He was transferred to ICU, where it was determined that he had no brain wave activity. Several days later, the ventilator was removed and Ronald died. The removal of the ventilator was done with family involvement. An autopsy was performed, and the cause of death was determined to be "anoxic encephalopathy and cardiopulmonary arrest after altercation in a psychiatric unit." The manner of death was ruled accidental.

Almost immediately after the incident, the EMS technicians described their perspective of what had happened. This was documented in e-mails to their supervisor. They were obviously very upset by the staff members having been "stacked" on top of Ronald. The hospital security staff also wrote a report on the incident, but their report differed in that Ronald was described as struggling to the end and that nothing inappropriate had occurred.

Almost immediately, both the state licensing authority for hospitals and a state Medicare team conducted an investigation, although it is not clear how they knew about the incident. Medicare found that the hospital had failed to report the incident, that the staff was not adequately trained in de-escalation and restraint techniques and that alarm equipment was inadequately maintained. Both authorities found that the hospital had failed to protect Ronald from harm and abuse. The licensing authority found that the hospital did not meet the minimum requirements for licensure.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was directly related to restraint. Ronald was restrained in a prone position with excessive force. It appears that he was experiencing command hallucinations when he attacked the staff member. He had acute psychotic symptoms on admission after being noncompliant with his medication regimen. He clearly was psychotic on the day after admission, which was the day of the restraint.

The unit was understaffed at the time of the altercation, and there was highly questionable nursing judgment in leaving one psychiatric technician alone and in charge of the milieu while shift report occurred in a room off the unit and out of sight. The technician also had worked at the hospital only about six weeks and had no training in restraint or verbal de-escalation procedures. He resorted to the only strategy he knew and that was to defend himself by counterattacking Ronald. It is noteworthy that the technician was never actually struck by Ronald, although he was obviously threatened by Ronald, who was substantially larger and heavier. One of the female patients later told an investigator that she thought Ronald was going to kill them all before it was over.

There were also equipment problems with the alarm system for the unit, and more frequent alarm checks were made part of the plan of correction by the hospital.

In addition to abuse, the Medicare investigation found problems with the hospital equipment and lack of training for the technician and for other staff members as well. It is surprising that Medicare did not find deficiencies in the supervision of nursing care, the assignment of nursing staff commensurate to the needs of patients and the failure of the hospital to assess Ronald for contraindications to restraint, as his weight would have been.

Story #44

Justin, a 21-year-old male, was taken to a hospital in the evening. At the time, Justin's mother and father were very worried about his behavior. He was a high school graduate and had been attending college before he stopped college and obtained a full-time job. He was still living at home. The mother reported to the physician that her son had recently broken up with his girlfriend and was very depressed about the breakup. She said her son had never had any symptoms of mental illness but had been acting strangely for three days. She also stated that he had begun to speak in a way she could not understand and seemed to be hallucinating. She said he had admitted to smoking pot with his friends. The mother was concerned that the marijuana her son had smoked may have been laced with some other kind of drug.

The physician in the emergency department interviewed Justin and ordered lab work and a brain scan. The scan was normal, and Justin was positive for marijuana. The mom later denied that she had told the hospital staff she was worried her son may have smoked crack, but staff members stated she had mentioned this concern. Lab work was not positive for cocaine. On admission, Justin was noted to be hypertensive and that he had been on treatment for this but had stopped his medications. The physician also noted that Justin was very angry. She later told an investigator that he was "seething" with anger and she felt he might "blow." The physician ordered Haldol 5 mg, Ativan 2 mg, Congentin 2 mg and Clonidine 0.2

mg. She then completed an emergency commitment request for Justin and sent him to the psychiatric unit.

Justin spent an uneventful night in an evaluation room on the psychiatric unit. The next morning, he went to the door and tried to leave the unit. A laundry man was attempting to use the exit door with a linen cart. The nursing staff told Justin to go back to the evaluation room, but he did not want to go. The laundry man accompanied Justin back to this room, but Justin came right back out. The nurse went over to intervene, and Justin pushed her. The laundry worker offered to take him back to the evaluation room, since Justin seemed to respond positively to him earlier, but he later reported that staff members told him, more or less, to "butt out." At this time, two technicians tried to get Justin to go back to his room, but they were unsuccessful.

The nursing staff called the hospital's police force to come and assist with Justin. The physician was in the nursing station and ordered a "now" dose of emergency medications as well 4-point restraint and seclusion. Three officers responded to the request. They locked away their guns before entering the unit but did keep other weapons such as chemical spray and nightsticks. As soon as they entered the unit and Justin saw them, a physical altercation ensued. This altercation included three police officers, two male hospital technicians and Justin. The altercation went on for some period of time, estimated to be about 15 minutes. Justin struck the police officers several times, and all three officers suffered minor injuries. There was no mention of whether the technicians were injured. From all accounts, the officers were clearly in command of the entire intervention. They hit Justin numerous times with their nightsticks and also sprayed him with Mace.

The nursing and medical staff stated that they hid from Justin as they were afraid of him. In fact, they used a cart to block the door and Justin's entry into the dayroom from the hallway. In later interviews and written statements, they seemed to have no awareness that they had abdicated their responsibilities to Justin. After the police had handcuffed Justin, the nurse ran out into the hallway with a syringe and gave him the emergency medication ordered by the physician.

Justin was then going to be moved to a seclusion room. He was placed on a sheet for the transfer but struggled off the sheet. By this time two other police officers had arrived on the scene, including the police supervisor. The officers physically moved Justin to a seclusion room. After they had already secured him in the seclusion room in handcuffs, the police said they needed to retrieve their handcuffs and that they could not leave the unit without this equipment. They, along with hospital staff, entered the seclusion room to retrieve the handcuffs. The seclusion room contained a bed that was equipped with a 4-point restraint device, and it was their intention to place Justin in the restraint device on the bed.

Justin was standing in the room and he began resisting. Police officers and hospital staff proceeded to remove the handcuffs. They were restraining Justin in a prone position on the bed when the registered nurse intervened, telling them that Justin would have to be placed on his back. He was rolled onto his back, and the police and staff proceeded to place Justin in restraints. Both Justin's legs were restrained first. As they were trying to place his arms in restraints, Justin reportedly began spitting at the police. One of the officers requested a sheet and a technician brought in a clean folded sheet from the linen closet. The police placed this unfolded sheet over Justin's mouth. At this time, the police were still struggling with Justin's flailing arms. As the arm restraints were applied, Justin suddenly went limp. The police requested that a nurse check Justin. The nurse noted that Justin took one breath and then no more. His pupils were dilated. There was no pulse or respirations. A Code Blue was called, and CPR was started. CPR was ineffective, and Justin was declared dead.

The hospital almost immediately contacted the police department and asked that they investigate the event, since the hospital's officers were involved in the restraint. An extensive investigation was conducted with numerous interviews, written statements, etc. The autopsy found that the death was due to combined effects of head injuries and hypoxia from neck injuries. One of the hospital technicians came forward after her initial interview and statement and told the investigator that she saw the police supervisor place his knee on Justin's neck during the mechanical restraint. During this act, the supervisor reportedly told Justin that he had injured three of his officers. Overall, she stated the supervisor was very angry with Justin, and she felt there was malice in this officer's rough treatment of him.

There is no evidence that the hospital notified CMS or how the protection and advocacy organization knew of the death. However, much later, when the protection and advocacy organization did know, it filed a complaint with CMS. CMS conducted a survey to investigate the complaint and found numerous deficiencies with the care that had been provided, but it did not confirm abuse. The police investigation report contained no conclusions, but the case was sent to the district attorney, who presented the case to a grand jury. No criminal charges were filed, and no indictments came from the grand jury.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was directly related to restraint and the degree of force used to restrain Justin. From records reviewed, there appears to have been inadequate de-escalation procedures employed by the professional nursing staff. There was only a request made for Justin to return to his room. When he refused to obey, an adversarial approach was immediately taken by nursing staff. They even refused the help of the laundry man,

who seemed to have had an empathic approach to which Justin had responded in a positive manner. Since the physician was worried about Justin's degree of anger and emotion at the time of admission, and since she worried that he might "blow," it is surprising that the medication regimen prescribed was so minimal. Also, when the restraint occurred, it had been hours since any medications had been given. Morning medications had not yet been administered.

The use of force by the police officers was not only excessive, but of a nature totally unacceptable in a hospital setting. There was no use of medically approved physical restraint procedures. The police intervened in a forensic manner consistent with apprehending a criminal who might be armed. It was clear they had no training in medically approved restraint procedures. Additionally, it was inappropriate for them to even have had weapons such as Mace and nightsticks with them, much less to use them on the unit. It is noteworthy that the hospital issued a memo subsequent to this incident that such equipment was not to be allowed on the unit anymore.

There was inadequate supervision of Justin's safety by the nursing staff. The Medicare report also indicated that there was inadequate physician supervision of the situation. The nurses seemed to be wholly unaware that they had abdicated their role in supervising the patient intervention and had failed to assess Justin's safety and his response to the restraint. It is extraordinary to have nurses hiding from a patient being restrained or to have law enforcement called into a psychiatric hospital unit to control a patient.

There were many errors committed during the restraint incident. It is also inconsistent with practice standards that Justin was placed in a locked seclusion room with handcuffs still in place. This is a very dangerous practice, especially given that there was furniture in the room. If Justin needed to be restrained, once in the seclusion room, this should have been done immediately using a hospital-approved mechanical restraint device. Handcuffs are not an approved medical device in any situation. There was no nursing or physician assessment of whether the standard was met for use of restraint. It was only initiated so police could retrieve the handcuffs. Justin's face or mouth should not have been covered by a folded bed sheet, which is quite heavy. Rather, if Justin was spitting, and it was appropriate to cover his mouth, it should have been covered by a surgical mask.

There was a lack of assessment of Justin's condition while being mechanically restrained. The police officer gave the alert that Justin was not breathing. On a final note, there was equipment missing off the crash cart that was necessary for emergencies, including a suction machine. There was also no electric source proximate to the site or electric extension cord on the crash cart. There is no way of knowing whether timely suctioning of Justin's airway may have had a positive

effect. This is a very troubling case, with many errors in judgment and clinical procedures, including patient assessment and monitoring activities.

Story #45

Fred was an 88-year-old male who was admitted to a hospital and died the next day. Fred was terminally ill with multi-organ failure. He had been hospitalized several times and was living with his son's family prior to his admission. He had nausea and vomiting on admission, due to gastritis. He had a feeding tube in place (inserted through the abdominal wall into the stomach). He was also suffering from hypertension, emphysema, peripheral vascular disease and other conditions. On admission, he had IVs started and he was given a "do not resuscitate" (DNR) status. It appears the hospital was trying to give palliative care and then intended to discharge Fred to hospice care.

The family asked that Fred be placed in restraint due to his confusion, agitation and attempts to get out of bed. The nurse apparently also thought that Fred needed to be in restraint in order to prevent accidental self-injury. The physician gave an order for a restraint vest, which was applied at 1:30 p.m. on the day of Fred's death, which occurred at 9:05 p.m. Fred was checked at two-hour intervals. Documentation noted that he continued to be confused and agitated, even moving his legs in between the bed rails.

At the last check, Fred was found to be halfway out of bed, with his upper torso suspended in mid-air off the side of the bed. The only thing preventing him from falling to the floor was the restraint vest, which caused him to be suspended, resulting in gravitational pressure to his chest. The bed was equipped with bed rails, two on each side of the bed, with a space in between the rails. Fred's torso was between the rails on one side. Since he had a DNR status, resuscitation was not initiated. An autopsy revealed that death was caused by positional asphyxia, and the manner of death was ruled accidental.

The hospital failed to notify CMS for four months after the death. Upon notification of the death, the authorized state survey agency conducted an on-site investigation. Many deficiencies related to the use of mechanical restraint were found, and the hospital was placed on "Immediate Jeopardy" status. This status was removed two hours later when the hospital submitted an emergency plan-of-correction for cited deficiencies. The most glaring deficiency found was that the hospital did not stock a full array of restraint vests in different sizes and that Fred had been restrained in a vest that was too large for his slight frame (he weighed less than 100 pounds). Subsequent to this review, the hospital implemented the plan of correction and also conducted its own study, including a root cause analysis.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was directly related to restraint. The restraint was initiated for the convenience of the staff and the family. There were many deficiencies in the standard of care for the use of restraint, including those related to the ordering, application and monitoring of restraint. There was no documentation of staff competency in the application of restraint or in the needed ongoing monitoring of patients in restraint. The wrong size restraint device was used, and the hospital did not even stock the proper size vest for a patient weighing less than 100 pounds. Other interventions were not employed, most notable of which was the hospital's failure to activate Fred's bed alarm.

Even though the wrong size vest was used, the most important failure of nursing care for Fred was the lack of sufficient monitoring. Monitoring of an acutely confused patient should occur more frequently than every hour or two. Fred was asphyxiated due to the restraint vest pressure on his upper torso. He had several pre-existing medical conditions, which also contributed to his death. It appears that while Fred was terminally ill and may have died even with excellent care, he surely suffered a needlessly traumatic death.

Story #46

Ronnie was an 85-year-old female who died at a hospital in a small town. This death came to the attention of the Medicare survey team when it was deployed to the hospital to investigate another restraint-related death. The hospital only revealed this death when questioned very directly as to whether there had been any other deaths at the hospital in which the patient died in restraint.

It is noteworthy that the review of this case was conducted without the benefit of any medical record. The materials provided include only the Medicare survey reports, the protection and advocacy organization's investigative report and some correspondence related to this case. Therefore, the information available is limited.

Ronnie, who weighted less than 100 pounds, was admitted to the hospital in order to undergo a femoral popliteal bypass and debridement of her left foot likely to increase circulation to the leg and foot. Ronnie also had the following diagnoses: congestive heart failure, history of stroke, venous insufficiency, dementia, Alzheimer's disease and arteriosclerotic cardiovascular disease. After the surgery, she was sent to ICU, where she stayed for several days before being sent to a post-operative unit. Seven days after admission, the physician wrote an order for a restraint vest because Ronnie was "at risk for injury to self" and because of "high potential for removing lines." On the previous day, Ronnie had removed her IV, but there was no evidence that on the day of the restraint order that she had tampered

with her IV.

The restraint vest was applied, and Ronnie was checked about every two hours. At 8:25 p.m., the bed alarm rang, and the nurse found Ronnie halfway out of bed, with her legs between the rails. Ronnie's position was straightened, and she was medicated with Restoril, a hypnotic, for rest. There is no evidence that she was monitored again until more than 2½ hours later, when the respiratory therapist entered the room at 10:55 p.m. to do a treatment. Ronnie was found lifeless, with her lower body off the bed and her upper torso being held in place by the restraint vest. CPR was briefly initiated but stopped when it was determined that she had a "do not resuscitate" status. There is no information in records provided on the official cause of death. An autopsy was not performed, and the coroner was not notified of the death.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was directly related to restraint. Although the hospital may have argued that the restraint used in this case was of a medical nature, it appears that it was primarily used for behavioral purposes. There was no evidence that Ronnie was tampering with her medical lines on the day the order was given for the restraint. Furthermore, and most importantly, a restraint vest would not be used to restrain someone who is tampering with an IV line, since such an apparatus does not limit the movement of arms or hands. In such case of IV tampering, if restraints are used, it is typically a wrist restraint that is employed. The restraint vest was used for Ronnie because of her restlessness and attempts to get out of bed. Although the bed alarm went off earlier in the evening, the nursing staff told the Medicare surveyor that they did not hear the alarm activate a second time. There is no note that the equipment malfunctioned, just that the nurses did not hear the alarm a second time.

The restraint order was not complete, and the documentation for both the order and the application of restraint were insufficient, according to the Medicare surveyor. Documentation of other alternative measures was not accomplished. There was no notation of the size restraint vest used. The nurse later said she did not remember which size vest was used. Noteworthy is that the brand of restraint vest used, the Posey vest, comes in different colors for different sizes. Ronnie was very small, and it may be that the size of the vest used was too large for her. When Ronnie was found lifeless, she had moved to the far side of the bed and it appeared that she had tried to stand. This would have been impossible if the restraint vest had been of the right size and properly secured. It was wrapped tightly around Ronnie's waist and torso. This most likely led to her death by asphyxiation because her intercostals (breathing) muscles could not move properly.

This restraint-related death could have been prevented if proper monitoring had

occurred. It is likely that no restraint at all would have been warranted with proper supervision of Ronnie. It may be that 1:1 monitoring was needed. It appears that restraint was ordered for the convenience of the staff. While Ronnie was quite elderly and she may have never left the hospital alive anyway due to her extreme medical condition, it appears that she suffered a needlessly traumatic death. It is also very problematic that the hospital did not report this death to CMS, to the protection and advocacy organization or even to the coroner. The coroner was quite upset when questioned by the protection and advocacy organization and indicated that he was frequently not notified of deaths when, according to law, he should have been notified.

Story #47

Laura was a 15-year-old girl who died after being restrained at a residential program to which she had been admitted by the state child welfare agency after her biological mother refused to pick her up upon discharge from a state hospital. Laura had a very troubled history of physical and sexual abuse as well as parental neglect. She had been hospitalized several times in psychiatric hospitals with a diagnosis of bipolar disorder (mixed moderate). She had a diagnosis of mild intellectual disability. Her cognitive functioning had been tested several times through the years. Her most current WISC III revealed a full scale IQ of 55. She had been receiving services with the local mental health and developmental disabilities center.

Laura was placed at the residential program in a special pilot program for hard-to-place children. The records reveal that the child welfare worker looked at more than 80 referral sites before she found a program that would take Laura because of her special behavioral needs. Upon admission to the program, she was placed on a permanent 1:1 staffing plan. During the next 12 days, Laura was restrained and physically redirected multiple times. She was aggressive to staff and other residents and was very difficult to manage. The problem was further exacerbated by her size. She was 63 inches in height, and she weighed 215 pounds.

On the morning of her death, Laura appeared in the dayroom without socks. She was re-directed to go back and put on socks. She came back with house slippers on and said she could find no socks. The staff then told her to sit down. She refused and ended up falling against the wall and to the floor. A staff member claimed that she “broke” the wall. When a male staff member went to give her a hand in getting up, she reportedly scratched his arms with her nails. A basket hold on the floor was done by the male staff member, and a female staff member held Laura’s legs and feet. A third female staff member assisted with the hold on the feet for about “10 seconds” before redirecting her attention to the other residents.

According to staff members, they held Laura down for about five minutes. She

struggled at first but finally settled down and they let her go. They told her to stand. She just “looked at them.” They went and got a glass of water and sprinkled it on her face and got no reaction. They then picked her up and moved her to another room and started CPR. Another staff member called EMS and notified a supervisor who had stopped by to pick up some paperwork.

After EMS arrived, Laura was intubated and taken to the general hospital. She died four days later after life support was removed.

The medical examiner ruled that the cause of death was due to complications of mechanical asphyxia. Contributing factors were noted to be obesity and a seizure disorder. The manner of death was ruled a homicide, but no charges were filed. The state investigatory agency conducted an investigation and found two staff members guilty of abuse. The same agency, in its role as a licensing authority, investigated the facility and found several deficiencies related to the manner of restraint and the fact that one staff member did not have a high school diploma or GED on file.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was directly related to restraint. Given the number of personal restraints that Laura underwent in the 12 days she was at the residential program, it is clear that this program was not meeting her needs. She clearly required specialized approaches with a well-trained staff. There was only a very minimal treatment plan in place for her, and there were few strategies laid out to respond to her behaviors other than 1:1 supervision. The onsite staff members were not professionals, and there was no indication that they had onsite supervision by professional staff. Laura should probably never have been in this residential program due to the limited resources provided in developing and deploying an effective service plan for her. It appears that she was not ever seen by a psychologist in the program and was seen by a physician only one time.

Staff members applied excessive force in the course of the restraint. They used an improper technique and positioning of Laura. Another resident reported that Laura screamed that she could not breathe, but, according to the staff, because residents often say this when they want to be released, staff members did not believe Laura. All the staff consistently said that the restraint lasted only five minutes. When they released her, she did not obey instructions to stand. After noticing that Laura was not reacting to water being sprinkled on her face, they moved her to another room. They lost time getting a glass of water to pour on her as well as moving her. Instead of doing these things, they should have been checking her respirations and beginning rescue breathing. All the staff involved had current CPR cards but failed to practice basic CPR strategies (A-B-C). Involved

staff members were current on their Prevention and Management of Aggressive Behavior (PMAB) training. In fact, two of them had been PMAB trained within a month of the incident.

Laura's condition warranted further medical assessment. She could have possibly benefited from a different medication regimen. At the very least, the medication regimen prescribed warranted further review and evaluation.

Story #48

Anna was a 46-year-old female who was a resident of a state-operated developmental disabilities facility when she died. From records reviewed, it is clear she had been at the facility for at least 12 years, although the exact date of admission was not included in the files provided. Anna had an IQ of 1, as determined by the Slosson Intelligence Test, and her mental age was about 3.5 months. She had multiple medical problems, including scoliosis, congenital hydrocephalus, cortical atrophy, spastic cerebral palsy with quadraparesis, multiple flexion contractures and generalized muscle atrophy. She had very limited awareness of her surroundings and was assessed to be "docile, lethargic and apathetic."

Anna had a wheelchair with a fabricated seating system that required a lap belt, a chest belt, a headboard and a tray to facilitate upright posture. She had no "righting reactions." She was on a specialized feeding program and also received physical therapy. It appears she spent a fair amount of time in her room and also went to some activities. She shared her bedroom with two other residents.

The day before her death, direct care staff provided her morning hygiene, got her into her wheelchair seating system and fed her. The staff member who was primarily responsible for her care was floated off the unit at about 10:00 a.m. The unit operated with the use of a "hall monitor," whose job it was to monitor all the residents by walking up and down the hall. The monitors were the regularly assigned unit staff members, who each took an alternating turn, in one-hour segments, to be hall monitor. Anna was on an every 15-minute monitoring schedule. The hall monitoring schedule and assignments were delineated in writing for the day.

The aide assigned to the 11:00 a.m. to noon segment of monitoring later stated she checked the first two rooms on the hallway, neither of which was Anna's room, and then left the building. She went to her car, got some money and then went to a soft drink machine to purchase a Coke. She then went to the bathroom to change clothes. When she returned to her duty station, emergency resuscitation procedures were under way on Anna.

Another aide reported that she was walking down the hall and saw Anna slumped in her chair. She went into the room and tried to pull her up in the wheelchair. She was not strong enough to do this, and she became worried that Anna seemed

unresponsive. She went to the hallway and called for help. At this point in the documentation, there are several different versions of what happened. Apparently the second aide came into the room, got scared, refused to help and said she would go get more help. When she did not return, the aide went to the hall and again called for help. Another aide came into the room. The wheelchair tray was removed, and they disconnected Anna's lap belt, which was under her neck. Later, no one could remember what the position of the chest strap was or if it was connected in the front of Anna's body. The second aide checked for a pulse but could find none.

The two aides called for more help and then proceeded, with a third aide, to place Anna in her bed. According to the first responder aide, the unit charge technician came into the room and stated she knew CPR but she "could not do it." After much delay, an LVN and aide from another unit arrived and began CPR. There were reports that one staff member left because she was "sick at her stomach," one left because she had an asthma attack, one was crying hysterically, etc. Finally, two other nurses arrived, and an oxygen tank was obtained. It had a leak, so another tank was obtained. A suction machine was also brought to the room. At some point, they realized that no one had called for EMS or the campus physician, and that was done.

EMS arrived, began resuscitative efforts, including defibrillation, and then transported Anna to the acute-care hospital. The campus physician arrived on the unit during the EMS intervention. Anna was placed on a ventilator and died the next day. An autopsy was performed, and it was determined that Anna died due to traumatic asphyxia. The manner of death was ruled to be accidental.

After a late notification of the incident by the facility, the state investigatory agency conducted a survey. The investigation concluded with a finding of "inconclusive neglect" against the aide who had left hall duty to conduct personal business and "confirmed neglect against perpetrator unknown."

The facility director, at his discretion, overturned the inconclusive finding and confirmed the abuse against the employee who had left her duty station for a break. He also terminated three other employees who he judged had been inappropriate in their performance during the resuscitation. Three of the four terminated employees filed grievances against the employer for this termination action. The hearing officer ruled that two of the employees were to be reinstated into their positions, including the aide who had left hall duty on personal errands.

The state investigators also found other systemic problems with care provided, including the fact that the Physical/Nutritional Management Program documentation form for Anna had not been completed for three consecutive day shifts before her death. This form was apparently used to document the application of the seating

system and the nutritional program for Anna.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was directly related to restraint. Anna's death was determined to be due to positional asphyxia. There were many systemic problems in this case. Some of the problems included these:

- The direct care staff member assigned to care for Anna was pulled to go to another unit after she provided morning care for Anna. The residents assigned to this staff member were not reassigned to another aide.

- The hall monitor, who should have been checking Anna every 15 minutes, left her duty station to conduct personal business, leaving all the residents living on the unit unsupervised.

- There was indication that the chest strap on the seating unit was either not used or was positioned too loosely. The wheelchair fabricators later told the facility director that when they inspected Anna's seating system after the incident, there was a worn indention on the chest strap in a position that would indicate the strap was routinely applied too loosely. They were then instructed to check other residents with similar seating systems, and they found four other residents with chest straps applied too loosely, thus allowing the residents to slip down their wheelchairs.

- The LVN, when questioned by the state investigators about where the automatic external defibrillator (AED) was kept, did not seem to know what an AED was, much less having had training in its use. It was later determined that the AED was kept in the van used by nurses to make rounds on the campus but had not been brought in or used by the staff, including the RN.

- There was a leaky oxygen bottle that was improperly maintained. This caused a delay to Anna's receiving oxygen while a staff member went to another unit to obtain a second oxygen tank.

- There were numerous lost opportunities for EMS to have been summoned earlier. During the confusion of the CPR efforts, no one thought to promptly summon an ambulance. A few days after the incident, there were at least 38 training sessions provided to staff in procedures for summoning EMS.

- There was blatant refusal of several staff members to initiate CPR. There were stories of staff members claiming to be nauseated, having an asthma attack and crying when they should have been intervening with the resident.

- There was a lack of managerial clinical supervision in many areas of practice. It appears that there were no daily checks of emergency equipment. There were no daily quality checks of resident records to ensure that charting was being accomplished in a timely manner. It is customary for there to be concurrent reviews of records, generally done by night staff, to ensure that

charting is occurring as required. Since charting was not being done related to Anna's seating and nutritional program, there was no record of the care provided on the day shift for three days before the incident. Additionally, on the day of the incident, no supervisor noted that the direct care aide abandoned her duty station and left residents completely unsupervised.

- There were many training issues. Although the staff involved had current CPR certification, there was a definite issue of competency. For example, instead of moving Anna to the floor, she was placed on the bed, without a CPR board. Also, as stated above, it appears that no one had adequate training in the availability or use of the facility AED.

- The unit charge nurse stated that she heard noisy confusion down the hall, and the aide she was meeting with in her office was summoned to assist down the hall. In spite of all the noise and commotion, the charge staff member did not go to investigate what was happening on her own unit for some period of time. She said she got up from her chair to go but then decided not to go. Only after a while did she leave her office to determine what was happening. The first responder aide later told the investigator that the unit charge came to the room and stated she knew CPR but was not going to do it. The unit charge nurse had a different rendition of what occurred.

- From information provided in the record, it appears that the state investigatory agency should have substantiated neglect for some of the staff, including the one technician who had left her duty station. To the facility director's credit, action was taken without the benefit of neglect substantiation.

Story #49

Ernestine was a 42-year-old female who became acutely ill and died in an acute-care hospital after living at a state-operated facility for individuals with developmental disabilities. Ernestine was deaf and blind, and was diagnosed with a profound intellectual disability. She was on 1:1 supervision. Just before midnight, Ernestine was restrained on a papoose board for an hour and 15 minutes. This restraint occurred after she refused to go to bed and responded with kicking, screaming and fighting. After being released from restraint at 1:00 a.m., she was again restrained from 2:00 until 3:00 a.m. Both restraints involved the use of a papoose board. Ernestine had a treatment plan that included a behavioral management program that authorized the use of a papoose board. It is unclear how many staff members placed her on the papoose board, but at least two were believed to be involved. A direct care aide noted that Ernestine was released at 3:00 a.m. and then went to bed. No untoward effects of the restraints were noted by the direct care staff.

The campus supervising RN testified later that she received a routine notification at 4:30 a.m. that Ernestine had been earlier restrained and released. She stated it was routine for her to be notified when a person was restrained and to then check the individual after release from restraint. She stated she was not told the

individual was in any distress and that the notification she received seemed to be routine. She went to check on Ernestine at 5:00 a.m. and found that she was very diaphoretic, had labored breathing and was groaning. She checked her vital signs and reported that Ernestine's blood pressure was only faintly heard, that respirations were 40-42, pulse was 156, and pulse oximetry indicated an oxygen saturation of 96 percent. It was also reported elsewhere that Ernestine had a fever, but the actual temperature was not stated in records provided. The nurse testified that she saw no evidence of bruising or injury.

Upon determining that Ernestine was in distress, the nurse called the on-call physician and summoned an ambulance. The ambulance service was a contract company, and it took one hour to respond to the emergency. The local EMS (911) was not called even though it would have been available if notified. The nursing supervisor later told an investigator that she had never been notified that a restraint was in progress that evening and that she had even been on the unit making rounds at both 3:00 a.m. and 3:30 a.m., but no one mentioned to her that Ernestine had been in restraint. It was only at 4:30 a.m. that she was first notified to come and conduct a routine post-restraint assessment of Ernestine.

According to the state investigatory agency investigative report, the facility staff told the investigator that Ernestine died after being transferred to a hospital. They reported that Ernestine died of sepsis and that she was also in liver failure. They also reported that upon admission to the acute-care hospital, she had an elevated CPK (creatinine phosphokinase) level. The enzyme is often elevated with a heart attack (myocardial infarction) or other major organ damage. The facility's physician reported to the investigator that Ernestine may have died from a heart attack, because the autopsy showed a lot of fat around the heart. The physician apparently had this information from a phone conversation with a physician from the acute-care hospital.

An additional investigation was conducted by another state investigatory agency, with both agencies completing their investigations and rendering conclusions without the benefit of an autopsy report that apparently took more than six to eight weeks to be released. The state Medicaid survey agency found numerous deficiencies, including lack of adequate policies and procedures, improper supervision, improper training of staff, inadequate plans of care, etc.

The original state investigatory agency also found numerous problems at the facility. However, it found the evidence to be "inconclusive" as to whether physical abuse had occurred in connection with the two restraints preceding Ernestine's death. There were overwhelming problems discovered in the policies, procedures and processes of the facility, as well as false statements made by staff. Staff members testified to investigators that they had witnessed repeated instances of

Ernestine and other residents being physically and verbally abused by other staff members, but they had failed to report these occurrences, in accordance with state law. Additionally, staff members reported that there had been previous incidents of Ernestine being restrained and that restraint had been used as punishment, had been prolonged and had not been documented in any way. Staff members reporting these incidents stated they did not "tell on" the offending staff members because they feared peer retaliation and retaliation from administration. All of the staff members reporting this information were direct care staff.

The facility developed a plan of correction that included the revision of policies and procedures; the development of procedures for the use of a papoose board, which had not previously been developed; reassignment of staff members; an increase in supervision of staff, etc. Following the plan of correction, the facility was recertified to participate in the Medicaid program.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was indirectly related to restraint. Except for staff dependence on use of restraint as an intervention, Ernestine's behaviors may have necessitated adequate medical assessment of and intervention for her underlying medical condition. It is noteworthy that there was no autopsy report in any of the records of this case. The medical cause of death could run the gamut between previously existing liver/heart conditions to a lacerated liver secondary to a restraint injury. Also, Ernestine may have died due to sepsis.

The lack of integrity in the staff culture of the facility is one of the most distressing factors in this case. The family even reported to the investigators that they had received an anonymous call from a staff member about a month before Ernestine's death, warning them that she was being abused. Several direct care staff members reported that they had witnessed abuse of Ernestine, along with other residents, but had failed to report the abuse. Another resident told an investigator that she had told one staff member that another staff member was abusing Ernestine, but there was nothing done about it. The staff member who received the complaint admitted to the investigator that Ernestine's roommate had told her this but that she had not acted upon the concern. There appears to have been an enormous lack of professional supervision and guidance on this unit.

<u>Story #50</u>

Meg was a 14-year-old female who died during a restraint procedure at a residential treatment center that was licensed as a 24-hour childcare facility.

The records provided for this review are unusual in that there is little of Meg's record contained in the files. From records included, it appears that this death was

first noted by the protection and advocacy organization from a television newscast shortly after Meg's death. The facility spent a great deal of time arguing that the protection and advocacy organization did not have legal authorization to review the client records. They denied this access even after the family gave consent to obtain a copy of the records (even though by law this consent is not required) and after the protection and advocacy organization presented an attorney general ruling on another similar case.

It is unclear whether the protection and advocacy organization was ever allowed complete and full access to all the client records, and most of the documents from the facility contained in the records for this review were incident reports from the staff involved in the restraint that led to Meg's death. Incident reports are generally not contained in treatment records. Other health records contained in the file are from other facilities that had treated Meg prior to her admission to the facility where she died and other secondary source documents, including many news stories.

Meg had a troubled history that included a number of legal skirmishes due to aggression. She had been in juvenile detention on aggravated assault charges after stabbing her brother in the head with a pen. She was diagnosed with chronic adjustment disorder with mixed disturbance of emotions and conduct; mood disorder; and depression; and she had a history of purging. She was less than five feet tall and weighed 165 pounds. She had been admitted to a state-run hospital several times and had numerous episodes of physical/behavioral acting out. For most of her life, she had lived with an aunt and uncle who had told her she could not come back to their home to live. She had apparently also had problems in her biological mother's home with her mother and her mother's male companion, either a stepfather or a "boyfriend" (referred to both ways in different records).

Meg stated her stepfather had sexually fondled her. She told health care staff that she had later recanted the allegation but that it was, in fact, the truth that she had been molested. She stated she was no longer afraid of this man and, in fact, her mother was planning on Meg's moving back in with her upon her discharge from the facility. Meg had average intellectual capacity and was not suspected of having a learning disorder. She denied any use of drugs or alcohol. She was being treated with antidepressant and antipsychotic medications.

On the day of her death, Meg was supposed to have a visit from her mother, but her mother did not show up for the visit. Meg was very upset about this. She had an altercation with one of the male technicians during recreation because she was upset and disappointed about her mother. She cussed at the staff member, and he told her that she was being rude and needed to apologize and write an essay as a consequence for her behavior. She kicked the technician, and this resulted in a physical takedown. After the takedown, she was escorted to a timeout room, which

was described as an empty room with a mat on the floor.

Of great importance is the fact that this room had a motion-detection video-monitoring system installed. The entire episode from this point was captured on tape. This tape was later confiscated by the police department and was also viewed by the state investigatory agency investigator who conducted the later abuse/neglect investigation. After Meg was placed in the room and was sitting on the mat, staff members left the room and immediately returned. It is not clear why they did not just leave her in the room alone to calm down. Upon their return, Meg "lunged" at a staff member, and four of the staff members physically held Meg on the floor in a prone position with her head down.

Almost immediately after Meg was restrained, one of the staff members stood up. The other three technicians remained on the floor. Although they denied in their written statements that they ever sat on Meg, the tape revealed that one man was "lying" on her upper body and one woman was "sitting" on Meg's buttocks area. The restraint lasted for a little less than three minutes, at which time Meg was still. The staff members got off her, and she just lay there. Later, one staff member stated that Meg was "breathing heavy" at that time. The next assessment of Meg was about six minutes later, at 4:50 p.m., when staff members came into the room and noted that she was not breathing. At that point, they begin CPR procedures and called EMS. Meg was transferred to a local acute-care hospital, where she was pronounced dead at 6:01 p.m.

The autopsy was conducted by the medical examiner, who ruled that the cause of death was mechanical asphyxia and the manner of death was homicide. The medical examiner watched the videotape of the event with the state investigator and stated that the amount of pressure applied and the length of time of the restraint, although short, would have been long enough to lead to asphyxia. He stated that he was not qualified by training to judge whether the restraint was administered properly, but he did say that the restraint was a contributing factor to the death. Pathological findings included pulmonary edema and congestion. There was also physical evidence of blunt force trauma to the soft tissue of Meg's back and chest wall.

The state agency investigation substantiated both abuse and neglect on the part of the organization. The local police department investigated the case as a suspected homicide, and the case was presented to the grand jury as such, but the grand jury did not return indictments against the four employees.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was directly related to restraint procedures that included improper positioning, excessive force

and lack of appropriate assessment. Meg was upset and disappointed that her mother had failed to visit. Rather than reacting with negative consequences, a better and more empathic approach would have been to give Meg some one-to-one time to discuss her emotions and her disappointment with her mother. This verbal de-escalation approach might have facilitated a positive conclusion and avoided a physical altercation. It is also unclear why staff members did not just leave Meg alone in the timeout room to calm down once they had decided to place her there.

The facility violated numerous rules set forth in the state administrative code for the licensing of 24-hour child care facilities that prohibit restraints that place a child face-down and place pressure on a child's back; that obstruct the airway or impair breathing; that obstruct the caregiver's view of the child's face; and that restrict the child's ability to communicate. Although one staff member claimed in his written statement that he had ensured that Meg was breathing and even turned her face to one side, there was no evidence that this was done in the state agency iteration of the content of the video tape.

Not only was overuse of force a primary factor in Meg's death, it is also inconsistent with any practice standards that the staff did not assess Meg when the restraint was concluded. She was obviously not moving and was clearly unconscious at that time. Staff members should have stayed with her to not only assess her physical status but also to counsel her. The staff delay in not even checking her condition for six long minutes is inconceivable.

Story #51

Ronald was a 44-year-old man who died in an emergency room of a local hospital after experiencing cardiac arrest while in mechanical restraints at a state-run hospital. Ronald was a married man with children and was an unemployed laborer. He had a pre-existing diagnosis of schizophrenia and schizoaffective disorder and reportedly had a history of alcohol, cannabis and cocaine abuse.

On the evening before his admission to the hospital, his family reported that he was acting very erratically, trying to heat gasoline in a microwave oven and leaving all the gas burners on in the kitchen with his family in the house. The police detained him when he was apprehended while waving scissors in the air in front of a local hospital. He was admitted to the hospital on an emergency detention. During the admission process, he refused to answer many questions and was very uncooperative. This led to having an incomplete physical examination conducted. He was admitted to the hospital, and the physician ordered that he be placed on every-15-minute checks. Also, the physician ordered that Ronald be given an injection of Ativan and Thorazine for his agitation.

When the staff attempted to administer the medication to Ronald, he became very aggressive, throwing a coffee table at the staff and attempting to hit, kick and bite them. He also caused the syringe of medication to be dropped, during which time the plunger fell out of the syringe barrel. When the physician was notified about this event, he ordered Ronald to be placed in restraint, and he doubled the amounts of psychotropic drugs to be administered to Thorazine 100 mg and Ativan 4 mg.

Ronald was placed in 6-point restraint, which included arms and legs being restrained as well as a restraint across the thigh and chest. He was restrained at 2:20 p.m. and immediately given the emergency medications.

The hospital required that all patients in restraint also be placed on 1:1 supervision. Ronald was afforded this level of supervision. Between 2:20 and 6:20 p.m., he intermittently slept and snored loudly. He was difficult to arouse at times and was described as being stuporous. He was also noted to be restless, banging his head against the pillow and struggling against his restraints at times. At 6:20 p.m., the order for restraint was renewed. At 8:15 p.m., the technician grew concerned about Ronald's breathing, and he was described as having "apneic respirations."

The nurse assessed Ronald and went to call the medical officer on duty to come and assess him. While she was gone, Ronald became very clammy and ceased breathing. The technician called for help, and the nurse immediately responded. CPR was started, and a code was called. An automatic external defibrillator was attached to Ronald but gave a reading of "do not shock." EMS arrived, provided advanced life support and transferred Ronald to the emergency room of a local hospital, where he was pronounced dead at 9:06 p.m.

An autopsy was performed, and it was determined that Ronald died of severe coronary atherosclerosis with a greater than 90 percent narrowing of the right coronary artery. There is no evidence in records provided that CMS reviewed this case, and it is unknown whether the hospital participated in the CMS reimbursement program. The case was presented to the grand jury in an inquest, and the jury found that Ronald died of natural causes. The state police also investigated the case and found that no hospital policies had been violated.

Quality reports from the hospital contained in the file reveal that the hospital changed a number of policies and procedures as a result of this case. It was determined that Thorazine would no longer be used for emergency situations due to its tendency to cause hypotensive crisis. The criteria for release from restraint were revised, and it was clear that the hospital was also aware of its failure to properly assess patients in restraint. Finally, there was information in the file concerning sleep apnea and the fact that Ronald had several of the risk factors for this condition. Certainly, the repeatedly documented periods of loud snoring might

have been indicative of this condition.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was directly related to restraint. It is rare for a 6-point restraint to be used. Additionally, one of the criteria for release from restraint included that Ronald would not struggle against the restraints. Ronald slept during the majority of the restraint period. He not only slept, but also was difficult to arouse. It was repeatedly noted that he was snoring loudly. He was never offered fluids, food, toileting or range of motion. The fact that he was struggling against the restraint could have very probably been due to his inability to change positions for so long and his restlessness due to probable lack of oxygenation.

While there was charting on Ronald regularly and he was not left alone, the nursing and ancillary nursing staff were clearly not aware of the implications of what they were observing and charting. Additionally, the physician did not make all necessary assessments and document those assessments, as required. It is a serious concern that the patient was left in one position for so long. Additionally, if Ronald could not be sufficiently aroused to take fluids, intravenous fluids should have been given or Ronald should have been transferred to a facility where such medical care could be provided.

It appears that Ronald died from coronary artery disease but that his condition was exacerbated by an extended period of restraint, along with significant doses of psychotropic medication, lack of range of motion and lack of fluids. While the legal standard for use of restraint may have been met at the time it was initiated, it continued to be utilized when no longer necessary, and there was insufficient ongoing professional assessment and monitoring of Ronald's condition.

Even though there was no asphyxia and even though the coroner found that Ronald died of natural causes, Ronald was restrained for hours, slept in restraint, was given no fluids and was "snoring loudly" (indicative of respiratory distress), without any intervention.

Ronald received inadequate assessment upon admission, especially given that he was experiencing visual hallucinations. Often visual hallucinations are the hallmark of underlying organic pathology. If he had been adequately assessed, released from restraint in a timely manner, given fluids and provided the opportunity to move about, he probably would not have died. Except for staff dependence on use of restraint as an intervention, Ronald may have received adequate medical assessment and intervention.

Story #52

Curt was a 72-year-old male who died at a general hospital where he had been admitted from his home, where he lived with his wife. He had been treated at the same hospital earlier in the month for a short-term hospital stay. On this admission, he was acutely ill with a blood sugar of more than 700. He had numerous medical problems, including obesity, sleep apnea, hypertension, peripheral vascular disease, venous insufficiency and cellulitis of the leg. He was also an insulin-dependent diabetic who had stopped taking his medication and was not complying with a diabetic diet regimen.

Curt had a psychiatric diagnosis of bipolar disorder and was diagnosed as suffering from mania. He had been hospitalized a total of three times for his psychiatric condition and had undergone electroconvulsive therapy some years before. It is noteworthy, however, that Curt was a retired school teacher and apparently had enjoyed a high level of functioning in the past. He had three adult children who were involved in his life.

For the first seven days of his admission, Curt was treated on the psychiatric unit of the hospital. He had any number of assessments, including psychiatric, medical, nursing, occupational, activity and physical therapy assessments. He was provided physical therapy several times and had difficulty with his balance. He used a walker. He was medically ill and had slightly low hemoglobin and hematocrit levels and a high RDW (refers to red blood cell distribution width, which is sometimes elevated when anemia is present), a normal white blood count but with abnormal differential levels, and low protein, albumin and total bilirubin levels. It appears that he had an infection, either a very slow bleed or an anemia, and some liver problems. He suffered significant edema and had been given a diuretic, and the physician ordered that his legs be kept elevated. He was on an extensive medical and psychiatric drug regimen.

A review of progress notes revealed that Curt grew more and more confused during his hospital stay. One of the only positive things about the overall quality of the documentation was the number of direct patient quotes, which gave a good picture of Curt's mental status. This confusion was noted to be symptoms of mania by the staff. In reviewing the notes, it appears that the confusion suffered by Curt was more typical of delirium than outright mania. Examples include wearing his pajamas inside out and placing his clothes in the toilet. When asked why he had put his clothes in the toilet bowl, he responded that the doctor had "told him to drink water." While he did have some symptoms of grandiosity, overall the symptoms seem more typical of medical delirium.

In the early morning hours on the day he died, Curt became very excited and was clapping his hands in the air. The nurse and technician entered the room and

tried to re-direct him. They later both stated that Curt then threatened the nurse and "charged" at her. He was subdued in a physical hold by the technician, and then they placed him in a seclusion room in 4-point restraint. During the restraint process, the nurse administered an injection of Ativan to Curt. Shortly after the restraints were applied, the nurse removed one of the restraints from Curt's leg due to edema of the extremity. A pillow was then placed under Curt's legs.

Between 4:30 and 7:30 a.m., Curt remained in restraint. The staff later stated that he had been primarily monitored by black-and-white video feed without any audio feed. The staff did document vital signs at the beginning of the procedure and had gone into the room a few times, but primarily assessments were done by video monitoring at the desk. At 7:30 a.m., the nurse took Curt his breakfast and found him without pulse or respirations. A code was called, and a medical team responded. CPR was started, he was intubated and emergency medications were given. There was no response, and Curt was pronounced dead.

The autopsy listed the cause of death as a cardiac arrhythmia and ischemic heart disease. The hospital made a tardy notification to CMS of the death, which resulted in an on-site survey by CMS and report of various deficiencies. The protection and advocacy organization also conducted an investigation. These two investigations resulted in an extensive plan of correction by the hospital, and eventually CMS cleared all deficiencies.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was indirectly related to restraint. Curt was medically compromised, and restraint was contraindicated, given his medical condition. Except for staff dependence on the use of restraint as an intervention, Curt's medical condition would have necessitated adequate medical assessment and medical intervention for his underlying medical condition.

There were multiple problems in the standards of care and the standards of practice afforded Curt. He should have never been restrained at all. First and foremost, there was scant evidence that other less intrusive interventions were attempted. The staff resorted quickly to the very most intrusive procedure: simultaneous restraint and seclusion.

There was little documentation of efforts to redirect Curt. He had responded favorably in the past to the distraction of music, and this could have been attempted. He could also have been given an injection of Ativan before resorting to restraint procedures and then reassessed after it had time to be effective. Since the seclusion room was just a few feet from the nursing station and it appears that the staff was concerned about Curt's roommate being disturbed, they could have

relocated Curt to a bed in the seclusion room, left the door open, and observed him. In this way, he would not have been disturbing other patients and could have been closely observed.

Curt also should not have been restrained at all due to medical contraindications, including cellulitis, a previous sexual abuse history, hypertension, peripheral vascular disease compounded by cellulitis and because he was a brittle diabetic and had sleep apnea. He was obviously very ill, and at his age, should not have been placed in 3- or 4-point restraint. He was restrained without a physician's order and without one being obtained. In fact, the night nurse wrote a fraudulent physician's order for the restraint, a violation of the Nurse Practice Act for the state where the death occurred and a violation of prevailing standards of practice and conduct for professional nurses. Noteworthy is the fact that the day nurse also entered fraudulent every-15-minute special observation checks for the morning through 9:30 a.m. before Curt was found arrested at 7:30 a.m. This brings into question whether early charting and obtaining orders after the fact were common practices in the hospital.

The documentation of the restraint incident was very lacking, and there were scant details provided regarding the procedure. There was also little evidence of active monitoring of Curt. Most of the assessments occurred via a video stream of him. The video feed was in black and white and lacked sound, very problematic for someone whose color, vital signs and sensorium needed to be closely monitored. One staff member noted later that Curt had his back toward the camera. The physician was never notified of the restraint and seclusion procedure. There was a lack of consistent observation and documentation every 15 minutes. Also, there was no evidence that Curt's ongoing behavior necessitated the continued use of restraint and seclusion.

There seemed to have been great confusion on the part of the hospital regarding the prevailing standard concerning who should be responsible for the one-hour assessment of a patient in restraint. Even the plan of correction submitted by the hospital to address the deficiencies found by CMS did not provide clear guidance on the issue but rather simply parroted the CMS standard requiring a licensed independent practitioner to monitor patients in restraint without setting forth clear guidance as to what staff positions qualified.

Story #53

Eric was a 33-year-old male who died at a general hospital. Prior to his admission to the hospital in the early morning hours, he had been treated on an inpatient basis at a psychiatric facility. The records for this review contain only a few of the psychiatric facility's records that were provided to the coroner after Eric's death and to the general hospital as part of the transfer and memorandum of transfer

(MOT) packet.

From the scant information available, it appears that Eric had been treated at the psychiatric facility for at least six days and that his diagnosis was schizoaffective disorder and bipolar disorder. His medication records from that facility reveal that from the day of his admission, he was receiving antipsychotic and mood stabilization medications. He also appears to have been receiving an increasing number of as-needed doses of Ativan, an antianxiety medication, in both oral and injectable forms. Without any narrative progress notes, it is impossible to know exactly what symptoms he was experiencing that resulted in the need for this medication.

The evening before his death, Eric apparently had become increasingly confused and agitated, including banging his head on the walls, falling down and having at least three episodes of epistaxis (nosebleeds). An ambulance was called, and Eric was transferred, via a MOT agreement, to the general medical hospital for the purposes of medical evaluation and treatment. The transfer occurred by an ambulance service that restrained Eric during transfer. During the transfer, it was noted that Eric was confused, combative, tried to remove his oxygen cannula, had dried blood on and around his nose and had a blood pressure of 160/100.

Eric arrived in the emergency department of the hospital at 4:20 a.m. on the day of his death, and at 4:30 a.m. the restraints used by the ambulance service were removed and then hospital staff placed Eric in 5-point leather restraints, with bed rails in place. Eight minutes later, at 4:38 a.m. he was given an IV push of Ativan. He was confused and agitated. Between 4:38 and 5:50, Eric was restrained. During this time, he pulled out his IV, which had to be restarted, had lab work drawn and complained that he needed to go to the bathroom. A retention catheter was inserted and 700 cc of urine was obtained. From the emergency room records, it is unclear whether Eric continued to be severely agitated during this period.

During the time of restraint, patient checks were recorded every 15 minutes. The last recorded check was at 5:45 a.m. At 5:50, Eric was found to be without a pulse. A code was called and the emergency team performed advanced life support interventions, which were unsuccessful. Eric was pronounced dead at 6:28 a.m.

An autopsy was performed, and the results were presented to a grand jury inquest. The forensic pathologist gave testimony in the case and noted that autopsy had revealed that Eric had an enlarged heart with thickening of the left ventricle and damage to the anterior wall with an anomalous coronary artery. He noted that the toxicology reports were negative and that Eric did not suffer any external injuries that would explain his death. Eric did have one drug blood level, fluvoxamine, that was four times the normal level but not in a toxic range. It was thought that this could have been the result of recent administration without metabolism of the drug.

The autopsy results were that Eric died from heart disease and heart anomalies, including intramuscular bridging of the left anterior artery with surrounding fatty infiltration, right coronary ostium, quadruple lumen anomaly and cardiomegaly. A contributing factor was excited delirium due to bipolar disorder. The jury determined that the manner of death was natural causes.

A CMS survey was conducted on two different days. It is noteworthy that neither review has a reference to a patient death on the day that Eric's death was being reviewed. However, there were numerous deficiencies noted in the first review and additional deficiencies noted in the second review. The records provided do not contain copies of the hospital's plans of correction.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that Eric's death was probably directly related to his heart conditions and not directly related to restraint. However, except for the restraint, Eric might have received an adequate medical assessment and treatment of an underlying medical condition. The probable relationship between Eric's treatment and resulting death might be the failure of the mental health treatment to control psychiatric symptoms leading to increased bodily stress and the "perfect storm" for the pre-existing heart condition to surface and cause a major cardiac event resulting in death. Also noteworthy is the fact that Eric was reported to have received an intravenous push of Ativan after being received in the emergency department, but the post-mortem toxicology screen was negative for benzodiazepines such as Ativan. This is a puzzling finding and calls into question whether Eric actually received the sedation as ordered.

From the materials provided, it is unclear why Eric was originally hospitalized for psychiatric services. It is also very unclear what was occurring with Eric to cause his sudden onset of confusion and whether these symptoms were of a psychiatric nature or due to an underlying medical problem.

The psychiatric facility's literature advertised the fact that it was a restraint-free facility. It was noted that the hospital did not receive either Medicaid or Medicare funding. Without any record from the psychiatric facility, it is impossible to speculate on the acuity of Eric's psychiatric symptoms, whether he had been injured or whether he was experiencing a medical problem. It is noteworthy that the blood tests completed on admission to the general medical hospital showed no evidence of increased enzymes seen with a myocardial infarct. Also, the autopsy revealed no significant bodily injury that would account for Eric's sudden confusion and resulting death.

At the general medical hospital, Eric was restrained without an authenticated physician's order. This was noted to be a problem in other cases reviewed by

CMS. It is unclear whether Eric's combativeness necessitated the restraint or whether Eric was restrained because he had been admitted to the emergency room in restraints. It is not clear that other alternatives were attempted prior to the restraint, although several were listed in the record, including "assistance from family" (although there was no evidence that family was present and, in fact, they lived so far away as to be unable to attend the inquest). Most noteworthy is that Eric was mechanically restrained before a chemical restraint was used. Finally, it is not clear that even if restraint was needed, whether it needed to be a 5-point restraint.

Story #54

Fred was a 51-year-old male who died at a state-operated facility for people with developmental disabilities. Fred was diagnosed with profound intellectual disabilities, deafness, blindness, tardive dyskinesia and hypothyroidism. He was abandoned, along with several siblings, at a young age, after living in a very neglectful and abusive home. He had been a resident of the state-run facility since 5 years of age. Fred was nonverbal but did respond to touch cues. He was able to attend to his activities of daily living fairly well, including being able to feed and clothe himself. He was able to perform personal hygiene with touch cues and could find his way around his home environment without difficulty.

From reading the records provided, it appears that Fred spent most of his day in his bedroom and in the dayroom of his home living arrangement at the facility. He required a great deal of routine and structure in his environment. He had serious self-abusive behaviors and was also often aggressive toward staff and peers.

Fred had been on Mellaril, an older-generation antipsychotic, since the early 1980s. Fifteen months before his death, Fred had a routine electrocardiogram (ECG) as part of his periodic screening for Mellaril. This drug has long been known to increase the likelihood of heart arrhythmias and, as currently, was seldom used at the time when Fred died. In fact, his ECG showed abnormalities. The electrocardiogram was repeated 11 months later, and the test revealed even more disturbing changes indicative of anterior ischemia. It was decided to taper him off Mellaril. In spite of the ECG findings, he was not diagnosed at that time with any cardiac disorder. On the day of the decision to conduct a slow taper, it was also determined that it would be appropriate to monitor Fred with increased vital sign assessment and assessment for sleep disturbances and increased incidence of injuries so that Depakote, a mood stabilizer, could be started if warranted.

Between the start of the Mellaril taper and the day of Fred's death, his symptoms of aggression increased dramatically. He had repeated instances of self-abusive behavior and many self-inflicted injuries, including things like a serious self-inflicted bite to his great toe. He was also increasingly aggressive with staff and peers and

had trouble sleeping. Vital signs were not assessed with the frequency prescribed.

In spite of many instances of aggression, Fred was never started on Depakote or any other psychoactive medication. In fact, two months before his death, the team noted that in spite of all his behaviors, he still did not "meet the criteria" for beginning Depakote. It is noteworthy that the criteria did not include acts of aggression but rather "number of injuries incurred." There was no consideration of changing the criteria, using a different medication or using different behavioral techniques to address increasing aggressive behaviors. In fact, Fred's behavior intervention plan was not revised in the 12 months before his death. The last dose of Mellaril given was two weeks before his death.

On the day of his death, Fred was allowed to go outside to enjoy the sunshine. When it was time to come in, he was extremely upset and did not want to return to the unit. One of the staff members later hypothesized that Fred was upset because when he was allowed outside, he thought that it must be his day for an outing in the van. When the van ride did not materialize, he was upset because this was an activity he enjoyed. This leads to the question of just how often residents were allowed to go outdoors, since van ride outings were only periodically offered.

After return to the unit, Fred was extremely upset. He attempted to hit and slap the staff, threw furniture, tried to harm other peers and threw himself on the floor, trying to bite his tongue and hurt himself. He was placed in a 4-point mechanical restraint at 11:00 a.m. At 12:50 p.m., he was given an injection of Thorazine. He was released from restraint at 1:25 p.m. Throughout the evening, Fred was very restless and exhibited other physical symptoms, including perspiring, being unable to sit still, labored breathing, stumbling gait and weakness in his legs. He was in and out of bed. He was given two more doses of medication, including Ativan and Thorazine.

At 9:30 p.m., Fred slumped forward while sitting with his legs crossed. He was on 1:1 supervision at the time. The technician called for help and began CPR immediately. EMS was called, and the onsite physician also responded and attempted to intubate Fred. He was transferred to a general hospital, where he was pronounced dead at 10:05 p.m. An autopsy was performed, and inspection and evaluation of all organs revealed no abnormalities. The cause of death, based on Fred's history, was determined to be a fatal ventricular arrhythmia.

CMS investigated the death and found a number of deficiencies in the care given to Fred as well as others. The state investigatory agency also reviewed the case and made minor recommendations. The protection and advocacy organization was notified of the death as well.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was indirectly related to restraint. The medical/nursing consultants had significant concerns with the medical and behavioral assessment, treatment and interventions afforded to Fred. While there is no evidence to suggest that Fred's death was directly related to the restraint that had occurred several hours earlier, he was clearly stressed from being restrained and immobilized for more than two hours on the day of his death.

Documentation during restraint revealed that Fred struggled a great deal while in restraint, even injuring himself. He was not afforded health care or behavioral services that met a reasonable standard of care. These tragic omissions of assessment, monitoring and active treatment did have an impact on his deteriorating mental and physical condition. Fred was tapered off Mellaril, which he had been on for 20 years, without adequate consideration of deteriorating behavior, increased instances of aggression and self-abuse, and difficulty sleeping. All of these symptoms and behaviors must have placed serious stress on his heart, which was already known to have a documented ischemia. There was woefully inadequate monitoring of Fred's condition by medical or nursing staff. There was no reasonable behavioral plan in place for him, and no changes were made in his behavioral plan for almost a year, in spite of major deterioration in behavior.

Of major concern is the record's lack of evidence of multidisciplinary planning for Fred. The service coordinator documented almost the same verbatim monthly note, month after month, seemingly without ever reviewing direct care staff documentation or what was currently happening in Fred's life. It also appears that the team was locked into a plan set 18 months before Fred's death and gave no consideration of changing the plan. For example, the team's criteria for starting Depakote did not include acts of aggression, and even when the aggression continued to dramatically escalate the criteria was not changed.

It appears that well-intended direct care staff was left unsupervised, unsupported and "unheard" in the care and services for Fred. The behavioral plan provided direction for few interventions. One unlicensed direct care staff member repeatedly documented efforts to determine if some of Fred's self-abusive behaviors were due to pain, including dental pain. The use of non-prescription anti-inflammatory drugs seemed to temporarily decrease self-abusive behaviors. In spite of this, there was no documented assessment of Fred's mouth by a physician or nurse, and there was no documented referral to a dentist.

Story #55

Dean was a 38-year-old male who died at a state-operated psychiatric hospital.

He was diagnosed with a bipolar disorder, with symptoms of depression and psychosis. He also had a dependent personality disorder. Prior to his admission, he resided in the community in his family's home that his siblings had purchased for him to live in after his father died. His father and siblings had raised him after his mother died when he was a small child. His siblings cared for him and were involved in his life.

Dean had been treated for mental illness on a number of occasions and had several previous admissions to psychiatric hospitals. He had no history of substance abuse. He received Social Security disability benefits. Dean was hypertensive and had hypothyroidism, sleep apnea and a number of circulatory problems and presented to the emergency department with symptoms of psychosis. He had stopped his psychoactive medication. Even more pressing was the fact that he was physically ill. Weighing 340-350 pounds and being only 66 inches tall, he was diagnosed with lower deep vein thrombosis. He had previously received anticoagulant therapy for this same condition. He had pitting edema and was also diagnosed with cellulitis of the leg. The emergency room physician ordered him to be placed on an antibiotic and to have a physician re-evaluation in three days. However, because of his symptoms of mental illness, law enforcement officers transported him to the state hospital for involuntary treatment.

During the next three days, Dean had symptoms of profoundly disordered thinking. He refused to be interviewed or examined by the medical staff. These refusals were documented, but there was no evidence of assertive action to ensure that the medical staff completed these assessments. Dean's behavior was extremely bizarre. At one time he thought he had consumed his own blood. He sat on the toilet for long periods of time, refused a number of meals and refused medications. He was periodically described as being catatonic. At other times he screamed and was aggressive. He was placed on close observation due to unpredictable behavior. He was placed in seclusion twice due to reported aggressive behavior toward staff. On one of these occasions, he pushed a staff member into a seclusion room and slammed the door. It took five staff members to place Dean into a seclusion room. During this three-day period, the only medication he received was as-needed intramuscular injections of psychoactive medications on two occasions.

On the day of his death, Dean was in his bedroom yelling. His vital signs were taken, and it was noted that his blood pressure was 148/100. The nurse noted that his ankles were very edematous, and she checked his pedal pulses, which were present. Later in the evening, the nurse offered him medication to calm him. He reportedly aggressively ran after the nurse and a security officer. The physician was notified, and he ordered three psychoactive medications be administered. When the nurse approached Dean to administer the medication, he got into a scuffle with the security staff, and they all ended up on the floor. A total of four staff

members, including two security guards, restrained Dean in a prone position on the floor while the nurse administered three injections.

As the nurse finished administering these drugs, she noted a pink discoloration of Dean's neck. She directed that he be turned over onto his back. His face and neck were discolored, and he was nonresponsive. A code was called, and advanced life support was provided. Dean was transported to a local acute-care hospital, and he was pronounced dead in the emergency department. An autopsy was performed, and the cause of death was noted to be cardiac arrhythmia, excited delirium and bipolar disorder with associated psychotic features.

The hospital did not report the death to CMS, but the case was reviewed at a later date, and CMS gave the hospital a deficiency for failing to report the death. The hospital contended that, since the autopsy revealed that restraint was not a factor in the death, there was no need to report the death to CMS.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was directly related to restraint. There were a number of contraindications to restraint, including morbid obesity, hypertension and circulatory problems. Additionally, Dean was at high risk for an untoward outcome to prone restraint, given his excessive weight. He may have been subjected to excessive force, especially since two of the people involved in the restraint were not health care staff and it is uncertain what type of training they had. Even though there was no evidence found during the autopsy of trauma due to the restraint, it is possible that his intercostal (breathing) muscles could not accommodate the act of chest expansion in a prone position with such excessive morbid obesity.

A very troublesome theme in this case is the fact that Dean did not have any documented follow-up on his deep vein thrombosis and cellulitis after his admission to the hospital. There was no antibiotic ordered for Dean as was prescribed in the emergency room prior to admission, and there was no documentation that a physician reassessed the cellulitis. There was also inadequate nursing assessment and monitoring of Dean's physical condition. Furthermore, when there was a change in vital signs and his blood pressure increased, the physician was not notified. The day before his death, a urinalysis was completed, which was abnormal (protein 3+ and ketones 2+). The results were posted on the day of his death, but there is no documentation that results were called in to the physician, and the physician did not authenticate that he has seen the results until one month after Dean's death.

Overall, Dean was described as "psychotic" and "catatonic" in some progress notes. The symptoms that resulted in this characterization of his condition are similar to those that are sometimes seen in medical delirium, a physical condition

that constitutes a life-threatening medial emergency. A frequent cause of medical delirium is infection. Dean had an active diagnosis of cellulitis. Evidence in the record suggested that his infection may have become more systemic, resulting in a sepsis, sometimes referred to in lay language as “blood poisoning.” Medical delirium requires intervention in an acute-care setting, such as intensive care. There was no evidence of any extraordinary efforts to ensure a physical assessment to rule out such a condition or to bring in a consultant to the case. It appears that the hospital may not have been equipped to manage Dean’s physical condition, and if this was the case, he should have been hospitalized in a medical facility until his cellulitis could have been stabilized.

Another concern in the record is the different perspectives on Dean’s mental and behavioral status. Upon admission, the psychiatrist planned to seek an involuntary commitment at the end of the emergency detention period. On the day of Dean’s death, after having been secluded twice and being on close observation status during his three-day stay, the physician wrote, “Since [Dean] does not (nor has he since admission) exhibit behavior that is an imminent danger to self or others, emergency medications cannot be implemented at this time.”

There is less than adequate documentation of Dean’s care during the hospitalization. An example is there is no mention in the legal medical record of the physical restraint used during the administration of medication just prior to Dean’s cardiac arrest. There is no record of any other physical restraint, although such intervention may have been used to place him in restraint. Some telephone medication orders were not authenticated until more than a month after the death, and the discharge summary was not completed until nearly two months after his death. Abnormal lab values were also authenticated as having been reviewed by a physician more than one month after Dean’s death.

Although CMS found numerous deficiencies with the care provided to Dean, as well as with policies and procedure of the facility, interestingly, the review failed to note any specific issues with the lack of follow-up on Dean’s deep vein thrombosis and cellulitis. This may be related to the CMS practice of rarely involving a physician in these types of reviews. The CMS investigator focused on the nurse’s failure to report changes in blood pressure and mental status to the physician and the lack of medical assessment. Interestingly, there was no note in the autopsy performed of Dean’s cellulitis or edema of the leg, although the nurse mentioned, during an interview with the protection and advocacy organization, his concerns with Dean’s leg edema earlier in the day before the restraint.

Story #56

Tom was a 49-year-old male who died during the morning in the emergency department of a general medical hospital after being admitted there the evening

before. Tom was apprehended by the police near a river in an acute state of intoxication and was transported to the hospital via ambulance for emergency care. When apprehended, he was very belligerent, aggressive and hostile. He reportedly hit an EMS staff member. He was admitted to the emergency department in handcuffs.

In the way of background, interviews with staff later revealed that Tom had been treated in the emergency department previous times for acute intoxication. Tom also had physical problems, including weighing 245 pounds and having a history of fractures of the left tibia and fibula, resulting in the need for an external fixation device.

When Tom entered the emergency department, he was loud, aggressive, cursing and threatening to harm others. He complained of pain from the handcuffs, and police removed the cuffs and replaced them with two soft wrist restraints supplied by the hospital staff. This occurred at 8:35 p.m. He was almost immediately medicated with an intramuscular injection and placed in a room within the emergency department. Blood work was drawn, and it was determined that his blood alcohol level was four times the legal limit for the state. The staff noted that Vicodin pills were found in his pocket.

After being admitted to the emergency room and being medicated, Tom calmed down within 15 minutes of being medicated and slept through the remainder of the night while being restrained. The order for restraint by the physician specified that the restraint was for medical restraint; hence, the restraint order required renewal only every 24 hours. This was problematic, since the restraint was clearly for behavioral reasons, thus necessitating every-15-minute nursing assessment and a maximum time frame of four hours. There was erratic assessment of Tom throughout the night by the nurse and physician. In one case, there were almost three hours between documented nursing assessments. Vital signs were taken but not the complete complement of required assessments, and the times of these assessments were erratic as well. In some instances, a security staff member did the assessment and care of Tom. For example, at 1:50 a.m., the security guard determined that Tom was resting so well that only one wrist restraint was needed, so he removed one of the restraints.

Tom slept through the night. Arousal was never attempted in order to assess Tom's mental and physical status. He received no fluids, food or offers for the bathroom. At 9:10 p.m., Tom was temporarily catheterized in order to obtain a urine specimen for the lab. Only 80 cc of urine was obtained, indicating possible dehydration. On four occasions the staff documented that he was snoring. The staff later stated he was snoring "real loud" and that the head of the bed was almost flat.

At 7:57 a.m., Tom was found to be without respirations. The nurse and the

security guard, who had no up-to-date resuscitation training, did CPR. A code was also called, and advanced life support was given but was ineffective. The code was terminated after 19 minutes, and Tom was pronounced dead at 8:16 a.m. An autopsy was performed, and it was determined that Tom died from hypertensive cardiovascular disease and that ethanol toxicity was a contributing factor.

The hospital did not report the "death in restraint" in a timely way to CMS. Later, while reviewing the death, the hospital did become aware that it should have made the report and then did so nearly a month after Tom died. A CMS onsite review was conducted almost immediately, and the survey revealed an extensive number of deficiencies related to the policies, procedures, training and practice of restraint, for Tom as well as for others. CMS recommended suspension of the hospital's participation in the Medicare program. The protection and advocacy organization also conducted an onsite review and had an extensive number of concerns with this case as well as with overall policies and procedures and with the training for restraint. The hospital developed a plan of correction, which was accepted by CMS, and the termination recommendation was withdrawn.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death was directly related to restraint. If Tom had not been placed in restraint for hours and been maintained in restraint while sleeping, his death would have been very unlikely. Tom was restrained for more than 11 hours, almost all of the restraint occurring while he was sleeping soundly. He had extreme intoxication and had been sedated. He weighed 245 pounds and was less than six feet tall. A security guard later stated that Tom's bed was almost flat. The fact that his snoring was so loud as to be noted four times in the record, even when critical information such as vital signs and blood oxygenation was rarely mentioned, suggests that the snoring was very pronounced. Had Tom not been restrained, he might have moved about more freely and found a more comfortable position that would have allowed for a less labored breathing.

The hospital staff never appreciated the fact that Tom's snoring was symptomatic of labored breathing and probably a partially obstructed airway, which occurs when the muscles at the back of the throat relax. Tom had four of the risk factors for sleep apnea, including being male, overweight, intoxicated and sedated with medication. If Tom's airway was partially obstructed by relaxed muscles, this could have placed a strain on his already diseased heart, leading to heart failure. In addition, Tom's extreme intoxication and sedation may have led to central respiratory depression and subsequent respiratory failure. The autopsy revealed that even upon death, nearly 12 hours after admission, Tom's blood alcohol was well above the legal limit for intoxication, supporting the concept of central respiratory depression and

failure.

Procedurally, there were many issues with the staff's lack of understanding of the differences in restraint for behavioral vs. medical purposes. This led to Tom's not being assessed every 15 minutes as is required by national prevailing standards. Furthermore, not even the less stringent reassessment standards while in medical restraint in existence at that time were met. After being initially assessed upon admission, Tom's vital signs were only assessed three more times. After an initial admitting assessment of blood oxygen, oxygen saturation was checked only one more time, almost eight hours before Tom was found without respirations. In neither measurement of oxygen saturation was it at a full 100 percent as would be expected in a man his age with no respiratory ailment.

With regard to clinical assessment of the initial need or ongoing need for restraint, it was not done. The only noted reassessment of the need for ongoing restraint was conducted by an untrained security guard, who determined it was safe to remove one restraint. Although there is a single notation before midnight that restraints were checked every two hours, there is no further mention of this by the nursing staff. After falling asleep, Tom was never offered any food or fluids. He was never offered the bathroom or other opportunity for hygiene. He was never aroused so as to assess his mental or physical status. Although Tom was briefly reassessed by the physician at 3:00 and 6:00 a.m., there is no mention of the need for ongoing restraint.

There were many unmet training needs of the medical, nursing and security staff, including providing up-to-date CPR training. There must have been no re-privileging or competency reassessment processes related to CPR in place for medical and nursing staff because this would have alerted clinical management of the unmet training needs. Also of concern is the fact that the hospital trainer stated she had no understanding of current restraint practices in patient care areas. This represents a significant disconnect between training, quality processes and actual practice. With an effectively linked clinical management system, evaluations of actual use of restraint and CPR would drive the identification of opportunities for improvement in practice as well as the identification of learning needs of staff. Similarly, core-training requirements should have been tracked by the initial credentialing process or staff competency assessment for new employees and contract staff.

There are three final systemic concerns with this case. Although not mentioned in the CMS report as an issue, staff interviews suggested that it was a very busy night in the emergency room. After midnight, there was only one registered nurse and one technician on duty in the emergency department. At one point, a sick child had to be transferred via helicopter to a higher-acuity health care setting. This all

suggests that one of the factors that may have been in play was that staff was too busy and the emergency department was understaffed on the night of Tom's admission. A sleeping patient may have been a relief to overburdened staff. Such a situation would also lead to having to resort to an untrained security staff member to perform CPR.

The second systemic concern in this case was the hospital nurses' willingness to relegate or delegate professional nursing assessment and practice, first to sworn police officers and then to a security guard within the hospital. This is a violation of national standards of nursing practice as well as the state administrative code governing nursing practice in the state where the death occurred, which requires nurses who delegate nursing activities to ensure that individuals performing delegated nursing duties are trained and competent to perform such activities. In this case, the professional nurse or nurses who improperly delegated nursing duties were in violation of their own practice act.

The third systemic concern is the hospital's apparent willingness to use security guards to be an adjunct to staffing the emergency department and providing clinical care. The security guard said that their training was done by police officers. This leads to the question of the hospital's actual role in training security staff and ensuring their competency to render services, including emergency aid. The hospital also used security staff to provide "show of force" activities, including the use of pepper spray. Generally, once a patient is actually admitted to the hospital, clinical staff can manage behavioral issues. The use of pepper spray or other weapons should never be employed by hospital personnel, and such action would be limited to use by law enforcement officers in some extraordinary newsworthy event, such as a person brandishing a gun in the hospital and threatening staff or patients.

Story #57

Harvey, an 89-year-old male, died in a small-town hospital, which was apparently a medical center with the capacity to perform orthopedic procedures. Prior to his admission to the hospital, he had been admitted to a different hospital, but it is unclear from the records whether he was hospitalized due to a cardiovascular accident (CVA) prior to admission or if he had a CVA after hospitalization. However, while at the first hospital, he was diagnosed with a bilateral temporal CVA. Harvey was restrained in bed with his arms tied to the rails. The exact type of restraint device was not specified. In spite of being restrained, he fell out of bed, and the fall resulted in a fracture of the right hip.

Harvey was then transferred to the second hospital for an orthopedic evaluation relative to the hip fracture, but he never became stable enough for surgery. Harvey died two days later with his family at his bedside. The coroner was notified and

reported that there did not seem to be any “medical misadventures or equipment malfunctions” and that it was unclear whether the hip fracture contributed to the death. The coroner reported that the treating physician would sign the death certificate.

Expert Medical/Nursing Consultants’ Opinion:

It is the consensus of the expert consultant panel that the restraint was not the direct cause of the death. Due to lack of a medical record from either of the treating hospitals, there are many unknowns in this case. This appears to be a situation of an elderly man, just short of his 90th birthday and weighing only 99 pounds, who died while being treated for a serious medical condition. It is unclear whether his fall and subsequent fracture had a contributing role in his death about two days later.

The coroner’s report gave a suspected cause of death as “undetermined.” If it was concluded that the fall was a contributing factor in the death, then the question of why alternatives to wrist restraint were not attempted would be a clear issue of concern. It has been shown that falls in the elderly in hospitals and nursing homes can be decreased with a systematic assessment for confusion and with such interventions as attention to pain relief, maintenance of communication with the patient, distraction and use of low beds.

Although this patient died after having been restrained, the death does not appear to have been related to the use of restraint.

Story #58

David was a 38-year-old male who was admitted to a state hospital on an involuntary basis after he became agitated and combative in a nursing home. He had no previous admissions to the state hospital. He reported that he had graduated from high school and, at one time, had served in the military for a period of three years. On admission to the hospital, he weighed 142 pounds and was 71 inches tall. His admitting diagnosis was altered mental status, and his principal diagnosis was metabolic encephalopathy. Upon admission to the hospital, he was placed on a psychiatric unit and was started on antipsychotic medication.

From the time of admission, the medical staff noted that David had multiple serious medical problems including hypertension, cerebral degeneration, cardiomyopathy, a seizure disorder, hepatitis B and a staph infection. He was started on a number of cardiac medications. There was a history given that he had previously been in another hospital, possibly a United States Department of Veterans Affairs hospital, where he had been on a ventilator and suffered from arrest. David was unable to give a good history, but it was noted that he had a tracheotomy scar and had multiple skin graphs from previous burns. It was noted that he apparently had a

history of substance abuse, but it was not stated what type of substance(s) had been abused or what the time frame was for this use. Substance abuse did not appear to have been a factor in the admission.

The hospital did a quite extensive medical work-up, especially given that it was a psychiatric hospital. He had only minor improvement in his condition, being confused, somnolent and disoriented. During one evening, another patient reported that David was bleeding. David was found sitting in a chair with a small cut on his face or eye (reported both ways), and the staff believed he may have been slapped by another patient. An ice pack was applied to his face. He was unable to report what had happened to him.

On the next morning, the staff continued to be concerned about David's altered mental status and sent him for emergency medical care. He was then admitted to the intensive care unit. David was started on several intravenous medications and fluids, was placed on oxygen and a condom catheter was applied, and David was placed under telemetry observation. David was sent for a CT scan, although the area to be scanned was not noted and the results of the scan were not found in the record.

The medical record notes that the physician wrote an order for medical restraint, in the form of restraints to the arms to prevent the removal of medical equipment. The nurses' notes include documentation that this occurred and that a restraint vest was also placed on David to prevent him from crawling out of bed. In another part of the record, there is a third-party report that David had been placed in 4-point restraint, but this is not reported directly by the staff actually assigned to him and documenting his care. There is thorough documentation of David's status and behavior during the hours preceding his death. Although the term was not used in the record, the behaviors documented appear to be symptoms of delirium, secondary to an underlying medical condition. David seemed to be completely disoriented and in a stupor, attempting to pull out his IV, struggling in bed and even placing his feet and legs between the bed rails.

David was noted to be in asystole (without a heartbeat) via telemetry just after midnight one week after his admission, and a Code Blue was called. Resuscitation was ineffective, and he was pronounced dead at 12:48 a.m. Cause of death was ruled as metabolic encephalopathy by the medical staff of the hospital. Later, the state crime lab ruled the death to be due to cardiac arrhythmia. No autopsy was found in the record.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this death does not appear to be restraint-related. It is not clear that David had an actual psychiatric

diagnosis, but if he did, it appears to have been secondary to the primary medical diagnoses, which were grave in nature. He appears to have had all the symptoms of delirium, secondary to his medical condition. His laboratory results, which were extensive in nature, were very significantly abnormal, especially his liver functions and enzymes. Although it is possible that some of his symptoms might have been due to a blow on the head or facial injury, the panel does not think this was likely. Rather, it appears that David had end-stage organ failure, probably liver failure. It does not appear, from the records provided, that his restraint had any role whatsoever in his death.

Story #59

Kerry was a 67-year-old male who died at a general medical hospital. He was admitted to the hospital at 11:20 a.m. via ambulance after he fell at home at approximately 8:30 a.m. According to family, he had been drinking a fifth of whiskey daily for about three weeks and had a long history of alcohol abuse. Upon admission, Kerry had bilateral bruising of his eyes and he was spitting blood from his mouth. His admitting blood alcohol level was 0.3. He was diagnosed with hypercoagability (he had been on Coumadin at home), epistaxis (nosebleed), hyponatremia (low salt level) and alcohol abuse. He had a history of congestive heart failure and coronary heart disease. He had undergone a quadruple bypass in 1996 and had a pacemaker inserted in 1997. He had also undergone ulcer surgery in 1994.

Kerry was treated in the hospital until his death four days after admission. He was given intravenous fluids and was treated for alcohol withdrawal and for his pre-existing medical conditions. Alcohol withdrawal interventions appear to have been in keeping with current medical standards, with intravenous Valium administered along with vitamin preparations, including vitamin K. IV fluids included potassium and sodium supplements, since Kerry remained both hypokalemic (low potassium) and hyponatremic (low sodium). This was a reasonable approach utilized to manage Kerry's symptoms of alcohol withdrawal and to prevent delirium tremens.

Kerry continued to grow more restless and agitated. On the second day of his admission, soft wrist restraints were applied after he pulled out his IV needle and also disconnected his IV tubing. The restraint was used for medical purposes. Kerry was so medically fragile that the staff had to resort to inserting an IV needle into a vein in his finger, as he had no other vein with integrity enough to accommodate an IV needle/catheter.

The day of his death, Kerry was on telemetry and was also visually assessed by the nurse at 1:30, 2:30, 3:00, and 5:15 a.m. During this period, Kerry was resting quietly. At 5:19 a.m., he was found nonresponsive, with no heartbeat or respirations. A code was called and advance life support was administered,

including defibrillation. The efforts were unsuccessful, and Kerry was pronounced dead at 5:49 a.m.

The coroner was notified of Kerry's death, and he declined to investigate the death. The hospital self-reported a death while in restraints promptly. CMS investigated the death and found the hospital in compliance with all Medicare Conditions of Participation.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that while Kerry did die while in restraints, it appears that the death was unrelated to the use of soft wrist restraints. From the records provided, the care provided to Kerry appears to have been appropriate. Medical and nursing interventions were consistent with current standards of care.

Story #60

Andrew, an 83-year-old male, died at a hospital. He had been admitted to the extended-care hospital after being transferred from an acute-care hospital, with bilateral lung infiltrates and hypoxia. Throughout his stay at the hospital where he died, he was gravely ill with numerous medical problems, including chronic atrial fibrillation; extensive lung disease, including having a tracheotomy; severe hepatic disease and cirrhosis; and severe malnutrition. He had numerous medical treatment lines, including a urinary catheter, an IV, a nasogastric tube, a trach collar, pulse oximetry, a central line for the administration of total parenteral hyperalimentation (nutrition intravenously) and oxygen. Due to his medical condition, he appears to have suffered from a medical delirium, which would be typical with severe hypoxia and metabolic encephalopathy secondary to liver disease.

Due to his confusion, he pulled out tubes/lines several times. He pulled out his nasogastric tube three times, requiring x-ray validation of proper placement secondary to reinsertion. Due to these issues, he had soft wrist restraints prescribed for medical purposes. Andrew died late in the evening on the day of his admission. He had had a visit from his son earlier before the death, and his family members were involved in his care. He had a "do not resuscitate order" and no interventions were provided upon his death.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that while Andrew was in soft wrist restraint, this does not appear to be a restraint-related death. It is noteworthy that not all records were provided for this review. For example, there was no death certificate or medication administration records for the period close in time to the death. Therefore, all remarks are predicated on the records that were provided,

which included nurses' notes, a medical admission note, the death summary, restraint worksheets and an investigation of the death by the facility. It appears that the use of restraints had no bearing whatsoever on Andrew's death. The care given, from the records provided, seems to have been comprehensive. Although there was no medical history provided in the record packet, it appears that Andrew was suffering from end-stage organ failure secondary to chronic alcoholism.

The hospital nursing staff conducted a review of this case, including the hospital's compliance with it own rules on restraint. No problems were noted, and the conclusion from this review was that the restraint had no bearing on Andrew's death. Although the hospital did notify CMS of the death, there is no indication that CMS conducted an investigation.

Story #61

Valerie was a 90-year-old female who was admitted to an extended-care hospital with classic symptoms of a bowel obstruction, plus 16 other medical diagnoses, including congestive heart failure and renal failure. Her only psychiatric diagnosis was depression. She required immediate surgery, and the surgical intervention included the creation of an ileostomy. Due to her confusion and altered sensorium, Valerie kept trying to pull out her various tubes and lines, and the physician ordered soft wrist restraints. Postoperatively and until the time of her death nine days later, Valerie was in soft wrist restraints. The physician's order was renewed every 24 hours, and the wrist restraints were properly monitored, and restraint care was appropriate. Valerie was gravely ill, and her death was due to natural causes, secondary to major intestinal surgery and infection. She had a "do not resuscitate" order in place.

The hospital contacted CMS regarding Valerie's death. CMS determined not to investigate the death due to the circumstances of the illness and the fact that restraint was not a factor in the death.

Expert Medical/Nursing Consultants' Opinion:

It is the consensus of the expert consultant panel that this does not appear to have been a restraint-related death. Valerie's death appears to be unrelated, in any way, to the use of soft wrist restraints. The restraints were applied to key numerous IV lines, a nasogastric tube, oxygen, urinary catheter, ileostomy equipment, etc. in place. From records provided, medical and nursing care appears to have been comprehensive and appropriate.

Appendix B

The tables in Appendix B contain percentages for both single- and multiple-response items. For single-response items, the percentages are based on the number of cases with sufficient documentation, and the percentages will add to 100 or in some cases, as the result of rounding, will add up to 99 or 101. In multiple-response items, the percentages reflect whether the data was best analyzed by the total number of responses or the total number of cases. For those items where the percentages are based on the total number of responses, the percentages will add up to 100. Where the percentages are based on the number of cases and the item has more than one response, the percentage column in the table will add up to more than 100. Unless obvious, each table will contain an explanation of how to interpret the percentages.

Table 1. Population Size of Individual's Place of Residence

Population	N	%
Less than 10,000	18	30
10,000 - 24,999	15	25
25,000 - 99,999	8	13
100,000 - 999,999	16	26
1 million or more	4	7
Total	16	101

Table 2. Type of Facility Where Death Occurred

Type of Facility	N	%
Nursing home	6	10
MR/DD facility/center	4	7
Community-based group home	2	3
General hospital unit	16	26
Psychiatric unit in a general hospital	7	11
State psychiatric hospital	9	15
Emergency room	2	3
Children's residential treatment center	6	10
Wilderness camp	1	2
Behavior disorder/Emotional disorder special education (public school)	1	2
Private residence	2	3
Other	5	8
Total	61	100

Table 3. Reason for Admission to the Facility

Type of Facility	N	%
Residence for individuals with intellectual disabilities	7	12
Long-term care	7	12
Treatment for a medical problem	16	27
Psychiatric treatment - voluntary admission	7	12
Psychiatric treatment - involuntary admission	8	13
Psychiatric treatment/accompanied by a court order	5	8
Education	1	2
Treatment for behavioral/psychiatric problems in a non-medical facility (children)	6	10
Other	3	5
Subtotal	60	
Not specified in the record	1	
Total	61	101

Table 4. Length of Stay in Facility

Length of Stay	N	%
One day or less	13	25
2–7 days	16	31
8–30 days	11	21
31 days to one year	7	13
More than one year	5	10
Subtotal	52	
Not specified in the record or not applicable	9	
Total	61	101

Table 5. Personal Characteristics

Characteristic	N	%
Gender		
Male	44	72
Female	17	28
Total	61	100
Age		
17 and younger	9	15
18–21	1	2
22–44	19	31
45–64	13	21
65 and older	19	31
Total	61	100
Race		
Caucasian	39	67
African-American	13	22
Hispanic	4	7
Other	2	4
Not specified in the record	3	
Total	61	100

Table 6. Psychiatric Diagnoses

Psychiatric Diagnoses	N	%*
Schizophrenia/Other psychotic disorders	19	53
Mood disorder	19	53
Anxiety disorder	2	6
Adjustment disorder	2	6
Personality disorder	7	19

*Multiple response item. Percentages are based on the total number of individuals (36) who had one or more of these diagnoses.

Table 7. Number of Psychiatric Admissions

No. of Admissions	N	%
No admissions	5	23
1 admission	4	18
2 admissions	1	5
3 or more admissions	12	55
Subtotal	22	
Not available in the record or not applicable	39	
Total	61	101

Table 8. Diagnoses of Intellectual Disability, Learning Disorder or Developmental Disorder

Diagnoses	N	%*
Intellectual disability/Developmental disability	11	73
Learning disorder	2	13
Pervasive developmental disorder	2	13
Attention and disruptive behavior disorder	3	20

*Multiple response item. Percentages are based on the total number of individuals (15) who had one or more of these diagnoses.

Table 9. Pre-existing Medical Conditions

Medical Condition	N	%*
Neurological	31	57
Infection	14	26
Cardiac condition	31	57
Diabetes	5	9
Respiratory	13	24
Obesity	8	15
Muscular/skeletal	14	26
Other	34	63

*Multiple response item. Percentages are based on the number of total individuals (54) who were identified as having a pre-existing condition with one or more diagnoses per person possible.

Table 10. Body Mass Index (BMI)

BMI	N	%
Under weight (less than 18.5)	4	8
Normal weight (18.5 to 24.9)	16	33
Overweight (25 to 29.9)	8	17
Obese (30 and over)	20	42
Subtotal	48	
Not specified in the record	13	
Total	61	100

Table 11. Relative Contraindications for Restraint: Medical Conditions as Determined by Expert Medical/Nursing Consultants

Medical Conditions	N	%*
Current cardiac compromise	12	44
Current respiratory compromise	8	30
Obesity	11	41
Head or spinal injury	2	7
History of fracture (or osteoporosis)	3	11
History of surgery that would contraindicate restraint	2	7
Seizure disorder	5	19
Other	2	7

*Multiple response item. Percentages are based on the number of total individuals who were identified as having a pre-existing condition (27) which may have contraindicated restraints, with one or more condition per person possible.

Table 12. Types of Medications Used Within 24 Hours Prior to the Restraint*

Medications Used Within 24 Hours of Restraint	N	%*
Psychiatric Drugs		
Antipsychotic	28	61
Antidepressant	15	33
Antianxiety	13	28
Sedative/hypnotic	8	17
Mood stabilizer	11	24
Anti-Parkinsonian**	7	15
ADHD	1	2
Other	2	4
Medical Drugs		
Anticonvulsant	6	13
Antibiotic	15	33
Anticoagulant	6	13
Cardiac	20	43
Diabetic	4	9
Respiratory	9	20
Analgesic	11	24
Other	20	43

*Multiple response item. Percentages are based on the number of total individuals (46) who were identified as using one or more medications within 24 hours prior to the restraint.

**** Used to address side effects if anti-psychotic medications**

Table 13. Reason for the Restraint

Primary Reason for Restraint	N	%
To prevent a person exhibiting aggressive behaviors from injuring himself/herself or others	36	61
To prevent the person from falling	9	15
To prevent the person from wandering	1	2
To prevent the person from tampering with medical devices or removal of dressings	9	15
To provide physical support	2	3
Other	2	3
Subtotal	59	
Not specified in the record	2	
Total	61	99

Table 14. Aggressive Behavior Prior to Restraint

Type of Aggressive Behavior	N	%*
Verbal	24	67
Against Objects	16	44
Against Self	7	19
Against Others	24	67

*Multiple response item. Percentages are based on the number of individuals (36) who were identified as exhibiting aggressive behaviors.

Table 15. Precipitating Event

Precipitating Event	N	%
Medical reasons	18	33
Noncompliant with staff directions	17	31
Psychiatric symptoms	10	19
Person became angry	7	13
Other	2	4
Subtotal	54	
Not specified in the record	7	
Total	61	100

Table 16. Staff Response to Behavior

Response to Behavior	N	%*
Redirection	29	33
Medication	12	14
One-to-one staffing	12	14
Soothing/distracting activity	9	10
Supportive devices	7	8
Counseling	5	6
Removal from area	5	6
Seclusion	5	6
Timeout	2	2
Cigarette break	1	1
Other	1	1
Total	88	101

* Percentages are based on total number of interventions (88).

Table 17. Type of Restraint Used

Mechanical restraints (N = 38)	N	%
4-/5-/6-point restraints	14	37
Bed rails	13	34
Vest restraint device	11	29
Wrist restraints	11	29
Other	4	11
Handcuffs	3	8
Lap belt	3	8
Papoose	2	5
Physical restraints (N = 32)		
Physical hold – floor	27	84
Basket hold	5	16
Other	5	16
Physical hold – standing	4	13
Physical hold – chair	2	6

*Multiple response item. Percentages are based on the number of individuals restrained by each method.

Table 18. Staff Involved in the Restraint

Individuals Involved	N	%*
Tech/Aides	35	40
RN/LVN	27	31
Police	8	9
Security staff	5	6
Doctor	3	3
Other staff	3	3
Other	3	3
EMS technicians	2	2
Public school teacher	1	1
Public school teacher aide	1	1
Total number of staff involved	88	99

* The restraints may have involved one or more of the staff members/others listed above. Percentages are based on the total number of staff members/others involved (88) in all of the incidents where this information was available.

Table 19. Length of Time in Restraints

Time	N	%
15 minutes or less	13	28
16 minutes to 4 hours	15	32
More than 4 hours up to 8 hours	5	11
More than 8 hours up to 24 hours	4	9
More than 24 hours	10	21
Subtotal	47	
Not specified in the record	14	
Total	61	100

Table 20. Potentially Dangerous Restraint Methods Used

Inappropriate Restraint Methods	N	%*
Supine position without head elevated	22	54
Prone position	21	51
Pressure to torso or neck	18	44
Arms crossed in front of body	2	5
Face covered with a towel	2	5
Carried face down	1	2
Chokehold	1	2
Hogtied	1	2
Bent forward at waist	1	2
Total number of unsafe practices	69	

*Multiple response item. Percentages are based on the number of individuals (41) who were placed in restraints using one or more unsafe methods.

Table 21. Psychiatric Medications Given Prior to the Restraint to Address Behaviors that Precipitated the Restraint

Psychiatric Medications Used Within 24 Hours Prior to Restraint	N	%*
Antianxiety	10	48
Antipsychotic	7	33
Sedative/hypnotic	2	10
Anti-Parkinsonian**	1	5
Other	1	5
Total number of medications	21	101

*Percentages are based on the total number of medications administered (21).

Table 22. Psychiatric Medications Given During the Restraint

Psychiatric Medications During Restraint	N	%*
Antianxiety	18	47
Antipsychotic	12	32
Sedative/hypnotic	4	11
Anti-Parkinsonian**	3	8
Other	1	3
Total number of medications	38	101

*Percentages are based on the total number of medications administered (38).

Table 23. Initiation of the Restraint

Staff Initiating Restraint	Medicaid/ Medicare Facilities with Behavioral Restraints		All Other Facilities and/or Medical Restraints		Total	
	N	%	N	%	N	%
Direct care/Aides	8	31	13	43	21	38
LVN/RN	14	54	9	30	23	41
Professional staff	1	4	1	3	2	4
MD	1	4	3	10	4	7
Other	2	8	4	13	6	11
Total	26	101	30	99	56	101

** Used to address side effects of anti-psychotic medications

Table 24. Authorization of Restraint

Staff Authorizing/ Ordering Restraint	Medicaid/ Medicare Facilities with Behavioral Restraints		All Other Facilities and/ or Medical Restraints		Total	
	N	%	N	%	N	%
MD	14	67	14	58	28	62
LVN/RN	2	10	-	-	2	4
Professional staff	-	-	1	4	1	2
Other	-		1	4	1	2
Behavior or treatment plan	1	5	4	17	5	11
No order	4	19	4	17	8	18
Total	21	101	24	100	45	99

Table 25. Number of Orders Given in Episode Sequence Involving Death in Restraint

Number of Orders	Medicaid/ Medicare Facilities with Behavioral Restraints		All Other Facilities and/or Medical Restraints		Total	
	N	%	N	%	N	%
0	-	-	1	8	1	3
1	13	76	4	31	17	57
2-3	3	18	3	23	6	20
4-8	-	-	4	31	4	13
12 or more	1	6	1	8	2	7
Total	17	100	13	101	30	100

Table 26. Content of Orders for Restraint (for Medicaid/ Medicare Facilities Only)

Order Contents	N	%*
Purpose of restraint	17	100
Description of events	12	71
Maximum length of restraint	12	71
Less restrictive interventions described	6	35

*Multiple response item. Percentages are based on the number of individuals (17) with information on the content of the order.

Table 27. Monitoring Process

Monitoring Process	N	%
Continuous assessment	3	6
Periodic assessments	24	46
Video monitoring	2	4
Monitoring not done	23	44
Subtotal	52	
Not specified in the file	9	
Total	61	100

Table 28. Monitoring Activities

Monitoring Activity	N	%*
Vital signs	16	31
Respiratory status	14	27
Cardiac status	9	17
Skin integrity	13	25
Total number of monitoring activities	52	100

*Multiple response item. The percentages are based on the total number of monitoring activities (52).

Table 29. Signs of Distress

Signs of Distress	N	%*
Inability to breathe	13	31
Motionless	10	24
Cyanosis	9	21
No pulse	8	19
Diaphoresis	7	17
Incontinence	7	17
Labored breathing	6	14
Vomiting	6	14
Rapid breathing	4	10
Restlessness	4	10
Confusion/Hallucination	3	7
Elevated heart rate	2	5
Cheyne-Stokes breathing	2	5
Shortness of breath	2	5
Dilated pupils	2	5
Weakness	2	5
Fever	2	5
Elevated blood pressure	1	2
Cough/Gurgle	1	2
Convulsions/Seizure	1	2
Muscle tension	1	2
Other	6	14

*Multiple response item. Percent of individuals (42) with reports of each type of distress (up to 3 of the signs of distress considered most critical).

Table 30. Staff's Response to the Person's Distress

Staff Response to Distress	First Response (N = 65)		Second Response (N = 118)		Total (N = 183)	
	N	%*	N	%*	N	%*
Began/Continued CPR	15	23	29	25	44	24
Called EMS	2	3	22	19	24	13
Medical care by on-site staff	5	8	25	21	30	16
Called Code Blue	10	15	16	14	26	14
Called on-site medical staff	12	18	-	-	12	7
No response – DNR	10	15	8	7	18	10
Chemically, mechanically or physically restrained	3	5	-	-	3	2
Transported to emergency room	-	-	9	8	9	5
No action	7	11	8	7	15	8
Other	1	2	1	1	2	1
Total responses	65	100	118	102	183	100

*Multiple response item. Percentages are based on the total number of responses, with one or more responses possible.

Table 31. Cause of Death as Determined by the Coroner

Cause	N	%
Asphyxia	21	34
Aspiration	1	2
Thrombosis	1	2
Cardiac disease	16	26
Natural causes	4	7
Other	8	13
Unspecified/Unknown	10	16
Total	61	100

Table 32. Death Related to Restraint as Determined by Expert Medical/Nursing Consultants

Death Related to Restraint	N	%
Yes, directly related	39	64
Yes, indirectly related	11	18
No	7	11
Unable to determine	4	7
Total	61	100

Table 33. Factors That Contributed Directly or Indirectly to the Death as Determined by Expert Medical/Nursing Consultants

Factors	Multiple Factors*		Primary Factor	
	N	%	N	%
A pre-existing medical condition	41	67	15	25
Insufficient monitoring	38	62	12	20
Inadequate response to the person's distress	30	49	2	3
Overuse of force in physical restraint	24	39	17	28
Physical restraint not correctly done	21	34	4	7
Lack of knowledge of other less intrusive interventions	15	25	-	-
Inadequate response by staff to resuscitate	12	20	-	-
Takedown not correctly performed	10	16	2	3
Mechanical restraints not correctly used	10	16	3	5
Psychotropic medication	8	13	-	-
Failure to provide appropriate care or implement the plan of care	8	13	2	3
Alcohol or other substances	7	11	1	2
Low staff-to-patient/resident ratio	4	7	-	-
Lack of equipment for resuscitation	4	7	-	-
An environmental hazard	4	7	-	-
Faulty equipment	3	5	-	-
Unable to determine	2	3	2	3
Medications other than psychotropic medication	1	2	-	-
Faulty mechanical restraint equipment	1	2	-	-
Contraband used by the person to harm himself/herself during the restraint	1	2	-	-
Other	5	8	1	2
Total			61	101

*Multiple response item. Percentages are based on the total number of individuals in the study (61).

Table 34. Deficiencies in Staff Training, Actions or Knowledge as Determined by Expert Medical/Nursing Consultants

Staff Deficiencies	N	%*
Need for ongoing assessment and monitoring	38	62
Unfamiliarity with signs and symptoms of physical distress	34	56
Lack of knowledge of dangerous restraint techniques	29	48
Lack of use of other behavioral techniques for de-escalation	25	41
Lack of use of techniques for physically managing aggressive behaviors	24	39
Misapplication of the physical or mechanical restraints	23	38
Unfamiliarity with the person's medical condition	11	18
Failure to provide/Unfamiliarity with CPR	9	15
Unfamiliarity with the person's psychiatric condition	8	13
Failure to provide appropriate care	3	5
Misuse of emergency equipment	2	3
Other	3	5
None	8	13
Unable to determine	6	10

*Multiple response item. Percents are based on the total sample (61), with multiple staff deficiencies identified.

Table 35. Investigating Agencies

Agency	N	%*
Law enforcement	15	26
Medicaid/Medicare survey agency	32	56
State licensing	9	16
State protective services	16	28
Protection and advocacy	28	49
Coroner	45	79
CMS	2	4
Other	8	14

*Multiple response item. Percentages are based on total number of cases (57) for which one or more investigations were conducted.

Table 36. Corrective Actions

Action	N	%*
Trained employees	25	81
Developed/Revised restraint policy	23	74
Developed/Revised policies related to issues raised by the death	20	65
Disciplined employees	7	23
Purchased resuscitation equipment	4	13
Replaced faulty equipment	4	13
Terminated employees	3	10
Eliminated restraint device or practice	3	10
Other	2	6

*Multiple response item. The percentages are based on total number of cases (31) for which corrective action was taken.

Endnotes

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