Exam 2 Review

Determining Sensitivity

• In a typical stress test, what measurement determines whether the test is positive or negative?
• And, then what follow-up test confirms that the finding was a true positive or a false positive result?

Sensitivity

• Explain in words what this is.
• What is the sensitivity for stress testing
  • 100 young women take a stress test
    – 50 women have positive results: 10 TP, 40 FP
    – 50 women have negative results: 45 TN, 5 FN
• What is the sensitivity of this test?
• Name 3 factors that might increase sensitivity.

Specificity

• 100 airline pilots undergo their annual physicals.
  – 75 have a negative test (70 TN, 5 FN)
  – 25 have a positive test (10 TP, 15 FP)
• What is the specificity of this test?
• What is the normal value of specificity for exercise testing?
• What type of people should be excluded to improve sensitivity?

Predictive Value

• 100 former smokers undergo a stress test
  – 45 have a positive result (35 TP, 10 FP)
  – 55 have a negative result (50 TN, 5 FN)
• What is the predictive value of a positive finding for this test?

Relative Risk

• Your client tells you he had a positive stress test and the doctor told him his relative risk was 3. He asks you what this means
  a) He is 3 times more likely to have CAD than another man his age
  b) He is 3 times more likely to have CAD than if he had a negative result
  c) He is 3 times more likely to have CAD than a 21 year old man
Blood Pressure Quiz

• The bladder of a BP cuff should cover what % of the arm?
• Which Korotkov sounds correspond to systole and diastole?
• Exercise may not be good for what type of hypertensive patient?
  a) HTN at rest and > increase w/exercise
  b) HTN at rest but normal peak BP with exercise
  c) Normal BP at rest but > increase w/exercise

Which of the following classes of drugs can be used to lower blood pressure?
  a) ACE inhibitors
  b) Beta blockers
  c) Diuretics
  d) Tranquilizers

Which one do you think might have the greatest effect on exercise BP?
Why do you think BP increases with age?
What do we mean by “mean blood pressure”?

Name this drug
• Used to lower blood pressure
• Primary site of action is the kidneys
• Used also with congestive heart failure to reduce the work on the heart
• May cause electrolyte disturbances unless taken with extra potassium
• Name one

Name this drug
• Used primarily for cardiac dysrhythmias because it slows AV conduction
• Potent coronary artery vasodilator
• Decreases blood pressure and heart rate
• There are 2 types of drugs (some affect the heart mostly (I) while others affect the periphery (II)
• Names may end in --ipine

Name this drug
• This drug is considered a risk factor for CAD
• It increases risk for not only CAD, but also diabetes, hypertension, atherosclerosis, and many cancers
• The use of this drug is decreasing in US adults but may be increasing in adolescents

Name this drug
• A drug that lowers BP and reduces the work of the heart by causing peripheral vasodilation
• This is drug that blocks the action of NE
• This class of drugs ends with ---osin
Name this drug

- These drugs lower blood pressure
- The drug also lowers blood volume
- The action is to inhibit a specific enzyme that converts AI to AII
- Names end in ---opril

Name this drug

- This drug lowers blood pressure
- There are 2 types of this drug, some act on the heart primarily and some on the blood vessels
- The heart type of drug has negative chronotropic and inotropic effects
- Names end in ---olol

Name this drug

- This drug is used to increase cardiac contractility by increasing the influx of Ca+
- It used to be used primarily for the treatment of CHF
- It increases Q usually without increasing BP
- Side effects include arrhythmias, heart block, ST depression and vomiting

Name this drug

- These drugs are used to reduce one of the CAD risk factors
- Side effects include GI distress, flatulence
- Many of their names end in ---statin

Name this drug

- These drugs improve a CAD risk factor
- Some act directly on the pancreas while others may work on muscle
- Most are taken in adults, although more and more are being used in children and adolescents

Name this drug

- This drug might be used in patients with atrial fibrillation
- Most commonly it is used to prevent strokes
- Side effects may include bruising, joint or abdominal pain, unexplained swelling
Name this drug

- This drug may cause dehydration and reduced cardiac contractility
- It reduces exercise capacity
- It causes mental impairment
- It is addictive