

Self-Study Fall 2015

Questions

Name: _____

Oasis: _____

Mark: ____/31

Professional Development

Geriatric Care

The following questions relate to the reading about elderly patients

- (1) Elderly patients are more likely than other demographics to refuse transport to hospital. According to the literature, why are elderly people more reluctant to go to the hospital even when they are critically ill?*
- a. Going to the hospital may result in a loss of independence
 - b. Going to the hospital means trading home cooking for less palatable food choices
 - c. Going to the hospital means potentially receiving invasive interventions such as needles and catheters
 - d. Going to the hospital may result in getting scolded about medication non-compliance
- (2) It is advisable to have only one crew member conduct the subjective interview of the elderly patient because:*
- a. Typically only one of the crew members can manage to speak in a pitch of voice that can be heard by the patient
 - b. Having multiple people asking questions can be irritating and confusing
 - c. Having multiple people asking questions results in an increased likelihood that transport will be refused resulting in no risk to the patient
 - d. All of the above are true
- (3) Age related changes include a reduction in T cell production, and with that some compromise to effective immune function. This type of age related change to immune function is referred to as:*
- a. Cullen's sign
 - b. Immunosenescence
 - c. Geriatric syndrome
 - d. Neutrophil predominant airway inflammation
- (4) Untreated asthma manifests with the following:*
- a. Inflammation, narrowed airways, constricted muscles, and damage to the walls of the airways
 - b. Prevention of damage to airway walls, increased A1C, and involution of the thymus gland
 - c. Increases to ciliary beat frequency, improved mucociliary clearance, and decreased tidal volume
 - d. Increases to the diameter of the bronchial lumen, peripheral vascular resistance, systemic inflammatory response

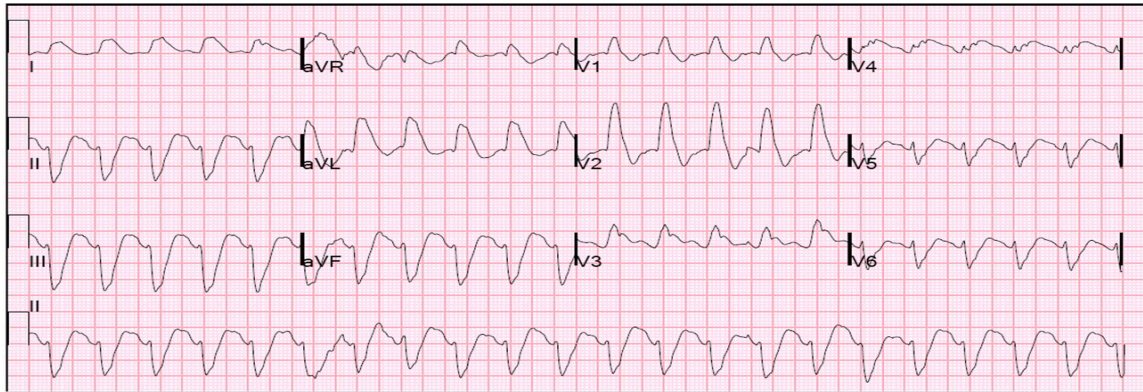
- (5) When a medication is administered and the patient experiences a slowing of their heart rate, lethargy, and ataxia. This action of a medication on the patient's body is known as:*
- a. Biotransformation
 - b. Pharmacodynamics
 - c. Pharmacokinetics
 - d. Distribution
- (6) The accuracy of blood pressure measurement changes when the BP cuff is not at the level of the heart. Assuming you have a patient in the left side-lying position, and measure the BP on the right upper arm (located in this patient 40cm above the heart) how inaccurate might your results be?*
- a. Falsely low by 16 to 32 mmHg
 - b. Falsely high by 16 to 32 mmHg
 - c. Falsely low by 2.5 to 5.0 mmHg
 - d. Falsely high by 2.5 to 5.0 mmHg
- (7) According to recent studies, as few as 10% of elderly patients can properly handle pressure aerosol devices (MDIs) such as Flovent and Ventolin. The reasons for this may include:
- i. Poor dexterity, cognitive impairment, and arthritis
 - ii. A desire to be non-compliant
 - iii. Muscle weakness and visual impairment
- a. i
 - b. ii
 - c. iii
 - d. All of the above
 - e. (i) and (iii)
 - f. (ii) and (iii)
- (8) Many factors contribute to the tendency for elderly diabetic patients to be less active than their non-diabetic peers. These factors include:
- i. Apathy and laziness
 - ii. Peripheral neuropathy and the resultant problems with balance
 - iii. Predisposition to falls
 - iv. Postural instability

- a. i
 - b. ii
 - c. iii
 - d. iv
 - e. (i), (ii) and (iv)
 - f. (ii), (iii) and (iv)
- (9) Acetylsalicylic acid (ASA) is absorbed completely with a maximum plasma concentration (Tmax) at 1 to 2 hours. It is distributed to all tissues, including the CNS, conjugated in the liver and eliminated via the kidneys. What has just been described?*
- a. The pharmacodynamics of ASA
 - b. The pharmacokinetics of ASA
 - c. Both the pharmacodynamics and pharmacokinetics of ASA
 - d. The rationale for using ASA for acute coronary syndromes
- (10) Grapefruit is a powerful inhibitor of the enzyme called cytochrome P450 CYP3A4. What effect does this inhibition have on a patient's medications?*
- a. It is a myth that grapefruit has any effect on medications
 - b. By inhibiting that enzyme, grapefruit negates the effectiveness of medications, much like Naloxone negates the effects of opiates
 - c. By inhibiting that enzyme, grapefruit increases the bioavailability of certain medications, increasing their potency and prolonging their effects
 - d. By inhibiting that enzyme, grapefruit accelerates the biotransformation of medication to inert substrates which are rapidly eliminated by the kidneys
- (11) When a paramedic notes that a patient seems to have difficulty hearing them, consider the following:*
- a. When a person with a hearing impairment is ill or tired, they may not hear or understand as well as they normally can
 - b. Ambient noise, such as noise produced by a television, may interfere with hearing
 - c. The pitch of a speaker's voice, particularly if the pitch is high, may make it difficult for a hearing impaired person to hear and understand
 - d. All of the above may be factors
 - e. The presence or absence of a hearing aid is the only factor that will make a difference

- (12) According to Hypertension Canada, for elderly patients who are aged 80+ and are not diabetic, what are the current goals for management of blood pressure?*
- a. Less than 140/90
 - b. Less than 130/80
 - c. Less than 150/90
 - d. Less than 120/80
- (13) A growing body of evidence suggests that age alone does not result in arterial stiffness and the resulting hypertension. Other factors include:*
- a. Obesity, high salt diet, high calorie diets, and low activity levels
 - b. Restricted calorie diets, walking and yoga
 - c. Dietary fiber, B-complex supplementation, and swimming
 - d. Bicycling to work, eating fresh produce, and maintaining a BMI of 22
- (14) Risks related to polypharmacy include:*
- a. Increased drug side effects and increased drug to drug interactions
 - b. Decreased drug side effects and decreased drug to drug interactions
 - c. Polypharmacy is unrelated to drug side effects and drug to drug interactions
 - d. All of the above are true
- (15) A patient with a large abdominal girth, xanthelasma, a high BP and higher than normal blood sugar may have received a diagnosis of _____ from his/her physician*
- a. Polypharmacy
 - b. Peripheral neuropathy
 - c. Geriatric syndrome
 - d. Metabolic syndrome
- (16) When addressing an elderly patient:*
- a. Use their first name in order to establish your position of power and authority over them
 - b. Use their last name, unless they invite you to otherwise, as it more respectful
 - c. Use their first and last name interchangeably to test for cognitive impairment
 - d. Use neither their first nor last name in order to maintain the privacy legislation

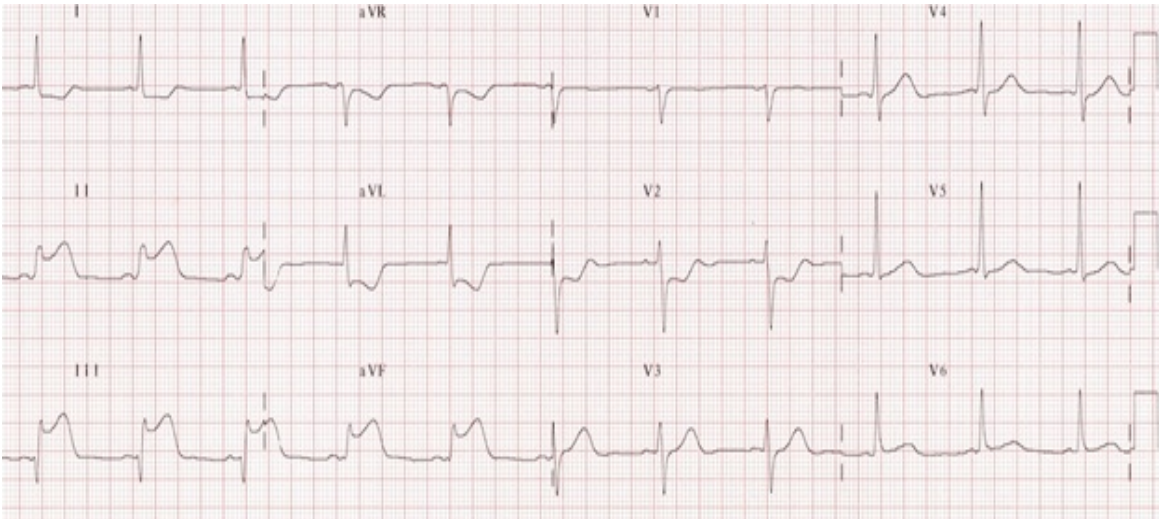
- (17) What can one deduce when an elderly patient's vital signs fall within normal parameters?*
- a. More investigation is required as vital signs within normal parameters may or may not be found with a serious illness
 - b. Relax. Vital signs within normal parameters are always a reassuring sign that the patient's complaints are insignificant
 - c. Vital signs are never within normal parameters when a patient is elderly
 - d. All of the above are true
- (18) If there is bleeding into the retroperitoneal space, signs of ecchymosis may be found:
- i. Around the umbilicus
 - ii. At the flanks
 - iii. In the testicles
- a. i
 - b. ii
 - c. iii
 - d. All of the above
 - e. (ii) and (iii) only
- (19) What relatively common condition in an elderly person should be considered when that person presents with back pain?*
- a. Abdominal aortic aneurysm
 - b. Myopia
 - c. Scurvy
 - d. Neonatal sepsis
- (20) What relatively common condition in an elderly person should be considered when that person presents with syncope?*
- a. Abdominal aortic aneurysm
 - b. Gout
 - c. Lassa fever
 - d. Gestational diabetes

(21) Interpret the following ECGs:



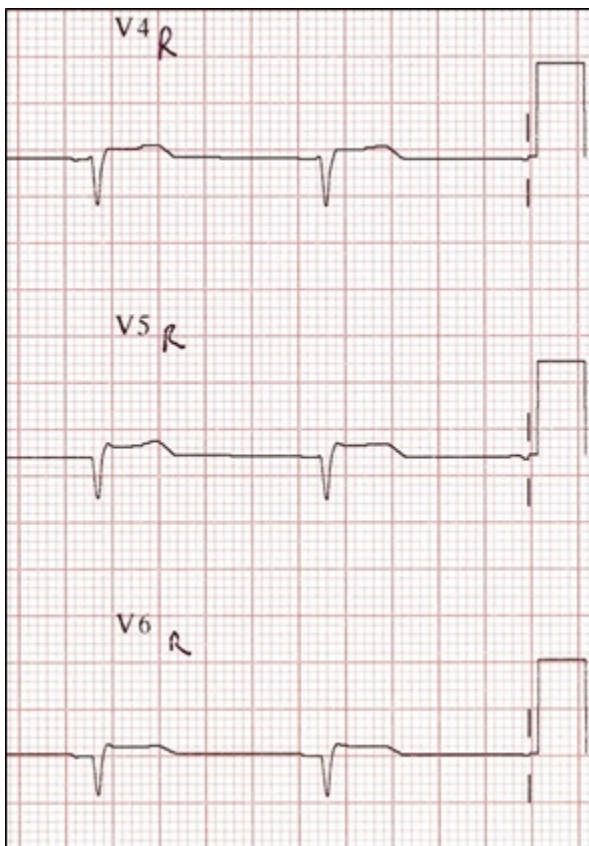
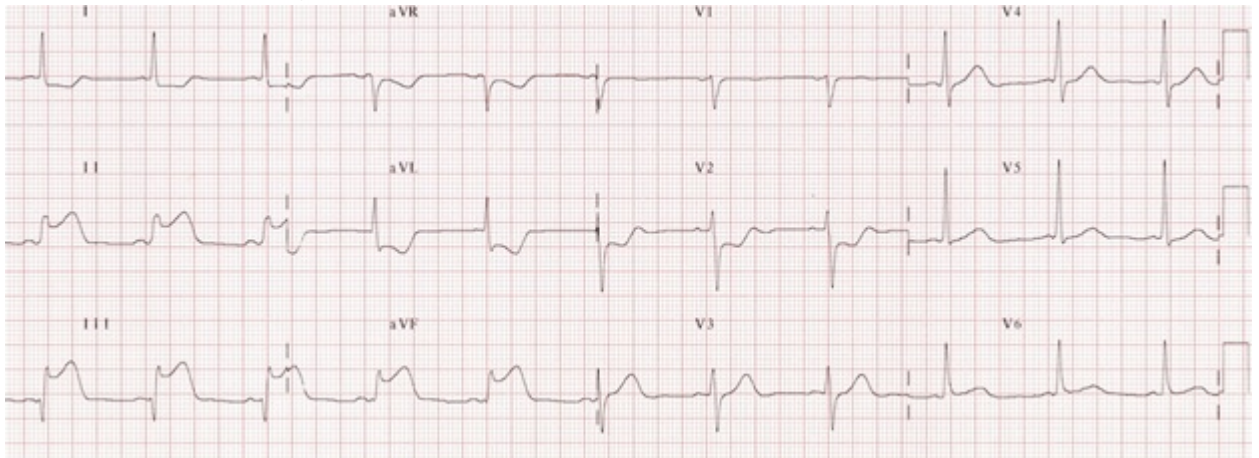
- a. 3rd degree AV block with a lateral MI
- b. wide complex tachycardia
- c. pericarditis
- d. AV sequential paced rhythm

(22) Interpret the following ECGs:



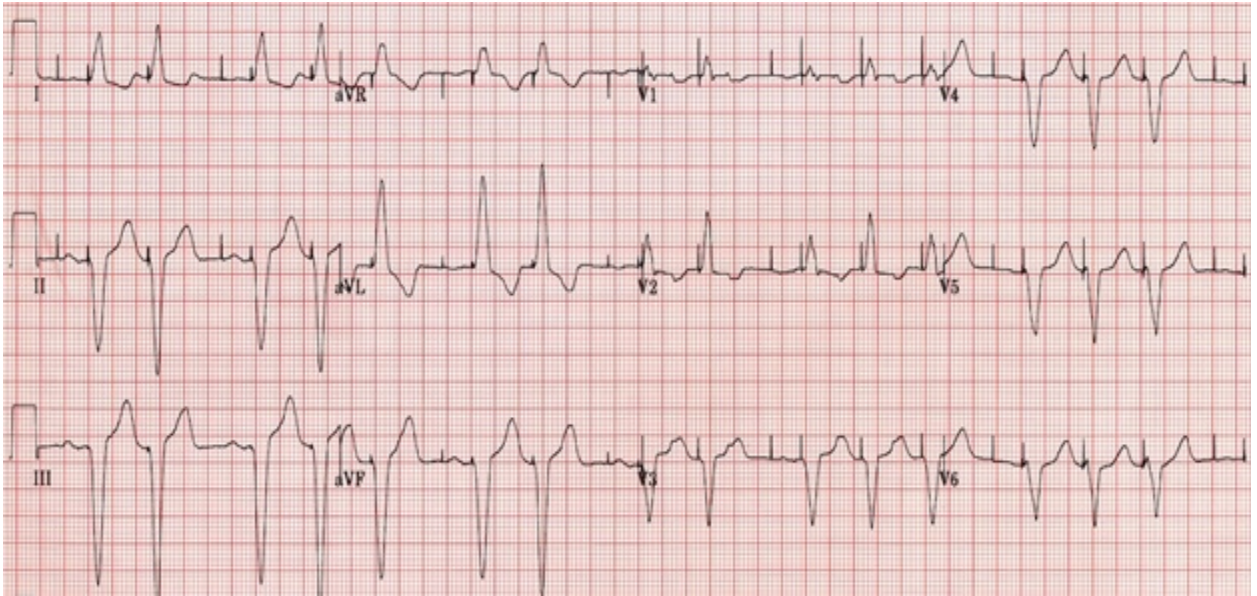
- a. Pericarditis
- b. Left bundle branch block
- c. Inferior MI
- d. Antero-lateral MI

(23) Interpret the following ECGs:

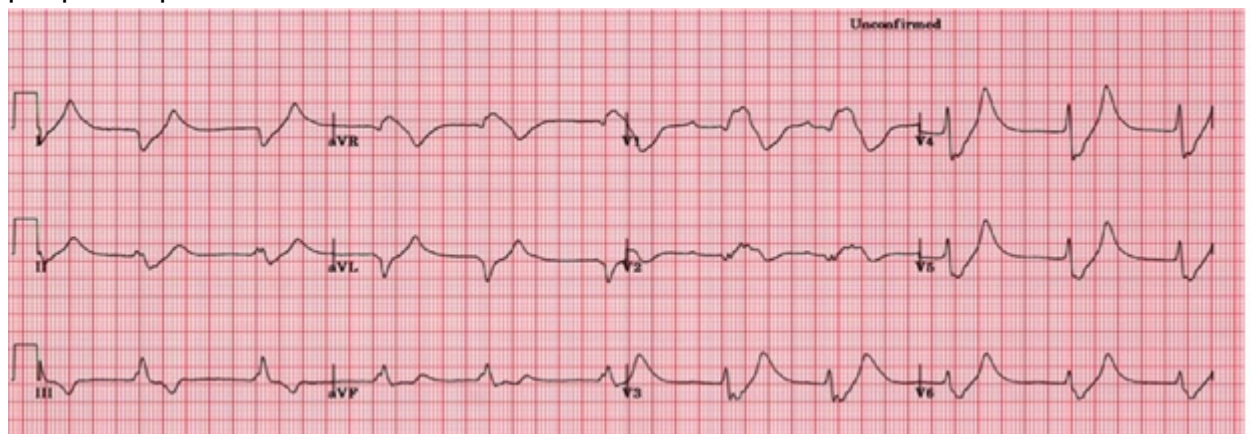


- a. Inferior MI with right ventricular involvement (safe to give NTG)
- b. Inferior MI without right ventricular involvement (withhold NTG)
- c. Inferior MI with right ventricular involvement (withhold NTG)
- d. Inferior MI without right ventricular involvement (safe to give NTG)

(24) Interpret the following ECGs:

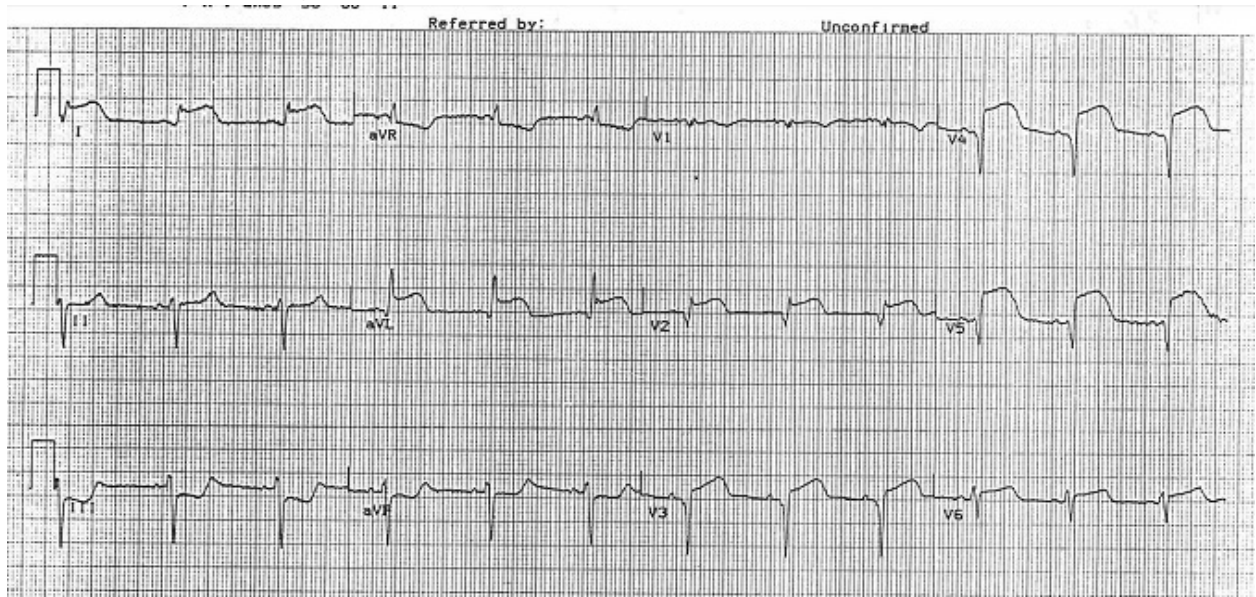


- a. Inferior MI with reciprocal changes
 - b. Paced rhythm
 - c. Left bundle branch block
 - d. Anterolateral MI
- (25) This EKG is from an elderly patient with diabetes, renal failure, and several missed dialysis appointments. She is unconscious and has no palpable peripheral pulses.



- a. Hyperkalemia
- b. Hypokalemia
- c. Wide complex tachycardia
- d. 3rd degree AV block

(26) Interpret the following ECGs:



- a. Left bundle branch block
- b. Inferior MI with right ventricular involvement suggesting a proximal occlusion of the right coronary artery
- c. Septo-antero-lateral MI suggesting occlusion of the left anterior descending coronary artery
- d. Uncontrolled atrial fibrillation

The next few questions involve some calculations. Take your time. If you are finding it difficult, spend some time with the interactive online tutorial. You will find the link at

http://www.lakeridgehealth.on.ca/training/medical_math_presenter/presentation.html

- (27) You and your partner are monitoring an IV TKVO on a frail, elderly patient. A micro drip set (60gtts/ml) has been used. The instructions are to continue to run it at 30 ml/hr, how many drops per minute will you set it to? ____ gtts/min*
- a. 15
 - b. 30
 - c. 45
 - d. 60

- (28) Following up on the previous question, to achieve that drip rate you need to see one drop every ____ seconds.*
- a. 6
 - b. 4
 - c. 3
 - d. 2
- (29) If the drip set chosen had been a macrodrip (10gtts/ml), then how many drops per minute are required to achieve 30ml/hr? _____ gtts/min*
- a. 30
 - b. 15
 - c. 10
 - d. 5
- (30) The medication you have administered to a patient by the SC route is supplied as 0.4 mg/ml. If you have delivered 1.5 ml of the medication, then the amount of medication you have given is _____ mg.*
- a. 0.4
 - b. 0.6
 - c. 1.5
 - d. 3.0
- (31) The medication you plan to administer to a patient by the IN route is supplied as 2mg/2ml. If your desired dose is 1.5 mg, what is the volume of medication you need? _____ ml*
- a. 0.75
 - b. 1.0
 - c. 1.5
 - d. 2.0