

ANSWERS - Practice Quiz 6 - Part B

Respiratory Meds

DEH 2300 - June, 2014

NOTE: Question # 1 is intended as a study guide. Answers will not be posted for Question # 1.

1. Give the classification, actions, indication(s), routes of administration, methods of monitoring effectiveness, adverse reactions, contraindications, dental implications and special considerations of the following medications:
 - a. Oxygen
 - b. Theophylline
 - c. Carbon dioxide inhalation
 - d. Narcan[®] (naloxone)
 - e. Proventil[®] (albuterol)
 - f. Primatene[®] / Adrenalin[®] (epinephrine)
 - g. Alupent[®] (metaproterenol sulfate)
 - h. Brethine[®] (terbutaline sulfate)
 - i. Atrovent[®] (ipratropium bromide)
 - j. Combivent[®] (ipratropium/albuterol)
 - k. Spiriva[®] (tiotropium)
 - l. Accolate[®] (zafirlukast)
 - m. Singulair[®] (montelukast)
 - n. Zflo[®] (zileuton)
 - o. Intal[®] (cromolyn)
 - p. Advair[®] (fluticasone propionate/salmeterol) - **(Hint: Pay close attention to the “Effects on Dental Treatment”, in your Drug Handbook by Wynn)**
 - q. Benadryl[®] (diphenhydramine)
 - r. Sudafed[®] (pseudoephedrine hydrochloride)
 - s. Benlyn DM[®] (dextromethorphan)
 - t. Robitussin AC[®] Syrup (guaifenesin/codeine)
 - u. Robitussin[®] / Mucinex[®] (guaifenesin)
 - v. Pulmozyme[®] (dornase alfa) - **(Hint: Pay close attention to the “Effects on Dental Treatment”, in your Drug Handbook by Wynn)**

2. Define “xanthines”.

ANSWER: Xanthine is a purine base found in most body tissues and fluids, certain plants, and some urinary calculi. It is an intermediate in the degradation of AMP to uric acid. Methylated xanthine compounds (e.g., caffeine, theobromine and theophylline) are used for their bronchodilator effect.

3. What are the 2 brand names and the generic name for the drug which is most effective in treating Tylenol[®] (acetaminophen) overdose?

ANSWER: Acetadote[®] / Mucomyst[®] (acetylcysteine)

4. Glucocorticoid inhalants are most likely to cause which problem?

- a. **thrush** **ANSWER**
- b. urolithiasis
- c. hypoglycemia
- d. adrenal suppression

5. See answer to question # 4. Can this problem be prevented? If so, how? What instructions should be given to a patient using this type inhaler?

ANSWER: Yes. Client should be instructed to rinse mouth after each use of a glucocorticoid inhaler. (Brushing teeth after use is also very helpful.)

6. What is the difference between “hypoxia” and “hypoxemia”?

ANSWER:

Hypoxia - A deficiency of oxygen reaching the tissues

Hypoxemia - deficient oxygenation of the blood

7. What are the symptoms of COPD? Asthma?

ANSWER: See websites below.

<http://www.mayoclinic.com/health/copd/DS00916/DSECTION=symptoms>

<http://www.mayoclinic.com/health/asthma/DS00021/DSECTION=symptoms>

8. What position is commonly used by COPD patients to facilitate breathing? How might this impact dental care of a COPD patient?

ANSWER: orthopneic position

9. List several foods/beverages which contain xanthine. What effects might consumption of large amounts of these products have on a patient who is taking theophylline?

ANSWER: caffeine, coffee, tea, chocolate

Dosage of theophylline may need to be lowered.

10. What is the preferred route of administration of adrenergic bronchodilators such as Proventil® (albuterol)?

ANSWER: inhalation

11. “HFA” Inhaler refers to: ___hydrofluroalkane___. What did this replace? Why? When?

See the following website.

<http://www.reuters.com/article/2011/09/22/us-fda-inhalers-idUSTRE78L3NL20110922>

12. Use the website below to answer the following questions about Spiriva® (tiotropium).

<http://www.rxlist.com/spiriva-drug.htm>

a. What is the primary indication? When should it not be used?

b. How is it administered? How should it not be administered?

c. What are some advantages of this drug? Disadvantages? Side effects/adverse reactions?

13. What are leukotrienes?

ANSWER: Leukotrienes are potent broncho-constrictors which lead to airway edema and increased mucus production.

14. What are the two primary actions of antihistamines?

ANSWER: decrease secretions; decrease inflammation

15. How do second generation antihistamines differ from first generation antihistamines? Give examples of each.

ANSWER: See website below.

16. List the most commonly used methods of oxygen delivery. Name 3 oxygen sources.

ANSWER: See powerpoint, notes and text.

17. How is a patient who is receiving oxygen monitored to determine if therapeutic effects are taking place?

ANSWER: See powerpoint for assessment methods. Note that using a pulse oximeter is the most objective method.

18. What is the primary indication for mucolytics?

ANSWER: To decrease viscosity of pulmonary secretion.

19. Which group of medications are most appropriate for a patient with a productive cough? Prototype drug?

ANSWER: See powerpoint, notes and text.

20. What is the difference between opioid and non-opioid antitussives? What are the implications of this?

ANSWER: See powerpoint, notes and text.