

SELF ASSESSMENT RSPT 1210 – MODULE E: MUCOLYTICS

- Name the three mucolytics.
 - ACETYLCYSTEINE**
 - SODIUM BICARBONATE**
 - DORNASE ALFA**
- How do each work as a mucolytic to thin secretions
 - ACETYLCYSTEINE – BREAKS DOWN DISULFIDE BONDS**
 - SODIUM BICARBONATE – ALTERS pH TO WEAKEN SUGAR SIDE OF CHAINS OF GLYCOPROTEINS**
 - DORNASE ALFA - BREAKING DOWN OF DNA IN MUCUS**
- What is the best way to facilitate physiologic clearance of mucous? **PROVIDE ADEQUATE HYDRATION**
- Dornase Alfa is also referred to as **RECOMBINANT HUMAN DEOXYRIBONUCLEASE (RHDNASE)** and has a trade name of **PULMOZYME**.
- List the dosage for Mucomyst:
 - 3-5 ML OF A 20% SOLUTION TID OR QID; MAXIMUM DOSE 10 ML**
 - 6-10 ML OF A 10% SOLUTION TID OR QID; MAXIMUM DOSE 20 ML**
- List the dosage for Dornase Alfa: **ADMINISTER ONE UNIT DOSE VIAL (2.5 mL of a 0.1% SOLUTION (2.5 mg).**
- How do mucolytics affect the property of mucous? They would:
 - decreases viscosity
 - decreases elasticity
 - decrease viscosity and elasticity**
- What is the composition of mucous?
 - 95% **WATER**
 - 3% **PROTEIN & CARBOHYDRATE**
 - 1% **LIPIDS**
 - .03% **DNA**
- Mucomyst is also given orally to treat a/an **ACETAMINOPHEN** overdose.
- List two common side effects of Dornase Alfa
 - VOICE ALTERATION**
 - PHARYNGITIS/LARYNGITIS**
 - RASH**
 - CHEST PAIN**
 - CONJUNCTIVITIS**
- Mucomyst should never be mixed in the same nebulizer with **ANTIBIOTICS**.
- Would you give Mucomyst to a patient during an asthma attack? **NO. MUCOMYST CAN PROMOTE BRONCHOSPASM IN A PATIENT WITH REACTIVE AIRWAYS.**
- A normal healthy person produces how many mL of mucous in 24 hours? **100 mL**

14. Name two sources of mucous production:
- A. **BRONCHIAL (SUB-MUCOSAL) GLANDS**
 - B. **GOBLET CELLS**
15. How does atelectasis affect lung compliance? **ATELECTASIS REDUCES LUNG COMPLIANCE.**
16. List three diseases that produce increased amounts of mucous.
- A. **CHRONIC BRONCHITIS**
 - B. **CYSTIC FIBROSIS**
 - C. **BRONCHIECTASIS**
 - D. **ASTHMA**
 - E. **PNEUMONIA**
17. Submucosal glands produce how many times more mucous than goblet cells? **40**
18. Differentiate between mucous and sputum
- **MUCUS IS THE TOTAL SECRETION FROM MUCOUS MEMBRANES INCLUDING THE SURFACE GOBLET CELL AND THE BRONCHIAL GLANDS.**
 - **SPUTUM IS THE EXPECTORATED SECRETIONS THAT CONTAINS MUCUS, AS WELL AS OROPHARYNGEAL AND NASOPHARYNGEAL SECRETIONS (SALIVA).**