Cough & Cold Preparations
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1. Antitussives (cough)
   - Ex: dextromethorphan (Robitussin DM, Delsym)

   - MOA (mechanism of action):
     - Depresses the cough center in the medulla oblongata

   - Uses:
     - Suppress nonproductive cough
     - Assist in sleep (nighttime) if productive cough

   - AE (adverse effects):
     - Drowsiness
     - Constipation
     - ***do not give with MAOIs, SSRIs, SNRIs, TCAs due to cumulative serotonergic effects
Antitussives (cough)

- **Codeine?**
  - Tussionex (hydrocodone/chlorphenairamine)
  - House Bill 1

- **Peripherally acting**: honey (dark), lozenges, hard candy
  - Increase flow of saliva which soothes pharyngeal mucosa & may suppress cough
- **Honey**
  - Do not use in children <1 yo....WHY?

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**Antitussives (cough)**

- **Tessalon Perles**
  - **MOA:**
    - anesthetizes respiratory passage, lung & pleural stretch receptors reducing cough reflex

- **Efficacy?**

- **Cost**: 30 capsules = $4
2. **Expectorant**

- **Ex:**
  - guaifenesin (Mucinex, Robitussin)

- **MOA:**
  - Stimulates respiratory tract secretions & reduces phlegm viscosity

- **AE:**
  - Rare; N/V
  - Increase oral fluids

3. **Oral/Nasal Decongestants**

- **Ex:**
  - pseudoephedrine (Sudafed) – PO (restrictions on OTC sales)
    - Adult Sudafed: use in children >12 yo
    - Childrens Sudafed: dosing for younger children
      - Simply Stuffy
3. Oral/Nasal Decongestants

- Ex:
  - phenylephrine (Sudafed PE) - PO (NO restrictions on OTC sales)
  - Use in children >2yo
    - Little Remedies
    - Alternative for children <2 yo = Saline Drops
  - oxymetazoline (Afrin) - nasal spray

MOA:
- stimulates smooth muscle alpha adrenergic (arteries) receptors, producing vasoconstriction & reducing nasal congestion

AE:
- Increased BP (**caution in patients with high BP)
- Tachycardia, palpitations
- Tremor, nervousness
- Nasal irritation/dryness (Nasal spray)
- Rhinitis Medicamentosa = Rebound congestion
  - Nasal spray: Do NOT use > 3 days

Caution/contraindications: hypertension, CAD, glaucoma (narrow angle), MAO inhibitors
4. Antihistamine

- **Ex:**
  - chlorpheniramine (Chlor-Trimeton) - first generation
  - loratadine (Claritin) - second generation

- **MOA:** competitively antagonizes the effect of histamine at the H1 receptor

- **Uses:**
  - Allergic rhinitis (use non-sedating second generation)
  - Sneezing/itching/watery eyes/runny nose
  - Rhinorrhea & cough due to colds (use first generation)

- **AE:**
  - Sedation (varies based on class: first gen = more sedation)
  - Anticholinergic effects (dilated pupils, glaucoma, urinary retention, dry mucous membranes, constipation) (first generation)

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**Combination Products**

- **Coricidin HBP (OTC)**
  - Relieves:
    - Cough (antitussive - dextromethorphan)
    - Runny nose (antihistamine - chlorpheniramine)
    - Sneezing (antihistamine - chlorpheniramine)

  - What ingredient is it lacking to be safe for use with HBP?
    - Decongestant
Combination Products

- **Bromfed DM (Rx) - adult & pediatric dosing (>2yo)**
  - brompheniramine maleate (antihistamine)
  - pseudoephedrine hydrochloride (decongestant)
  - dextromethorphan hydrobromide (antitussive)

- **Phenergan DM (Rx)**
  - promethazine (Phenergan)
  - dextromethorphan (antitussive)

Cough & Cold Preparations in Children

- Not benign medications; judge whether this is necessary

- Watch for potential abuse

- **dextromethorphan** (Robitussin or Coricidan)
  - “Robo-tripping” = Robitussin
  - “CCC” triple C = Coricidan Cough & Cold
  - “DXM” = dextromethorphan (**combo product with acetaminophen-Tylenol**)
  - High doses can have a dissociative/euphoric effect
    - May consume 8-32 tablets at a time
    - May drink an entire 4-8 oz bottle of cough syrup; often mixed with a sports drink
    - May cause tachycardia, high BP, or seizures