1. Read chapter

2. Review objectives (p.265)

3. Review key terms and definitions (p.265)
Add: rebound congestion (rhinitis medicamentosa)

4. Review Table 15-1. Which of the following are not typical symptoms of common cold? Select two. (hacking coughs, fever, sore throat, stuffy nose, chills)

5. Fever is a typical sign of _______ (common cold, influenza).

**Sympathomimetic Decongestants (p.266-267)**

6. Review the clinical use of sympathomimetics, antihistamines, expectorants, and antitussives.

Matching

<table>
<thead>
<tr>
<th>Type of drug</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sympathomimetics</td>
<td>A. Promote mucus clearance</td>
</tr>
<tr>
<td>Expectorants</td>
<td>B. Relieve congestion</td>
</tr>
<tr>
<td>Antihistamines</td>
<td>C. Suppress excessive coughs</td>
</tr>
<tr>
<td>Antitussives</td>
<td>D. Reduce secretions</td>
</tr>
</tbody>
</table>

7. Since stuffy, runny nose and nasal congestion are the main symptoms of common cold, use of *topical* sympathomimetics for common cold relies on the effects of the _______ (alpha, beta-1, beta-2) receptors. Explain how stimulating this receptor relieves congestion.

8. Phenylephrine is an example of selective α1-adrenergic receptor agonist. Prolonged and frequent use of this and similar drugs may produce the rebound nasal congestion (i.e., rhinitis medicamentosa or RM). Explain RM. [https://en.wikipedia.org/wiki/Rhinitis_medicamentosa](https://en.wikipedia.org/wiki/Rhinitis_medicamentosa)

9. Which of the following drugs may be given by mouth or as a spray? Select one. (Afrin, Tyzine, Sudafed, Privine)

10. Why are most sympathomimetic decongestants administered topically but not systemically? Select one or more. (faster, cheaper, more effective, less complications)
11. Use of systemic sympathomimetics for common cold may lead to _______ (high, low) blood pressure and _______ (tachycardia, bradycardia).

Antihistamines (p.267-269)

12. Histamine is found in the _______. Select one or more. (tissue mast cells, lungs, heart, white blood cells, blood basophils).

13. Histamine in the tissue mast cells, once released into the body, may cause
(A) Smooth muscle relaxation (T/F)
(B) Increased capillary permeability (T/F)
(C) Itching and pain (T/F)

14. There are _______ (1,2,3) histamine receptors and _______ (H1, H2, and H3) receptor is responsible for the inflammation and allergic reactions, as well as bronchoconstriction, excessive mucus and nasal congestion.

15. To treat common cold and allergies, antihistamines produce anticholinergic effect or block the H2 receptors. (T/F)

16. Which of the following are second generation antihistamines? Select three.
[Diphenhydramine (Benadryl); Cetirizine (Zyrtec); Fexofenadine (Allegra); Hydroxyzone (Visteril); Loratadine (Claritin)]

17. Comeanddine is an antihistamine. (T/F)

18. Excessive use of antihistamine results in strong _______ (anticholinergic, adrenergic) effect. This effect may lead to CNS stimulation, nervousness, anxiety and dilated pupil. (T/F)

19. For common cold symptoms, a beneficial effect of antihistamine is drying of upper airway secretions. (T/F)

20. Instead of using antihistamine as an H1 antagonist for drying of secretions, _______ is an alternative. This drug _______ (does, does not) cause rebound congestions.

21. For seasonal allergic rhinitis, the _______ (first-, second-) generation H1-receptor antagonist should be used.

22. Review Table 15-4. Fill in an example of drug for each category. The first example has been completed.

<table>
<thead>
<tr>
<th>Category</th>
<th>Drug</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anticholinergic</td>
<td>Ipratropium bromide</td>
</tr>
</tbody>
</table>
23. Match the generic and brand names of drugs used for seasonal rhinitis.

<table>
<thead>
<tr>
<th>Generic Name</th>
<th>Brand Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ipratropium bromide</td>
<td>A. Zyrtec</td>
</tr>
<tr>
<td>Budesonide</td>
<td>B. Sudafed</td>
</tr>
<tr>
<td>Cetirizine</td>
<td>C. Atrovent nasal spray 0.03%</td>
</tr>
<tr>
<td>Cromolyn sodium</td>
<td>D. Rhinocort</td>
</tr>
<tr>
<td>Pseudoephedrine</td>
<td>E. Nasalcrom</td>
</tr>
</tbody>
</table>

Expectorants (p.269-271)

24. Review Table 15-5.

25. Guaifenesin (Robitussin, Mucinex) is used as a(n) _______ (H1-receptor antagonist, anticholinergic, expectorant, antitussive).

26. Guaifenesin (Robitussin, Mucinex) is a _______ (mucolytic, stimulant) expectorant as it is absorbed into the respiratory glands to directly increase mucus production (and thus expectoration).

Cough Suppressants (Antitussives) (p.271)

27. What is the primary indication for cough suppressant?

28. Which of the following are classified as antitussives? Select three.
   (Guaifenesin, Codeine sulfate, Dextromethorphan, Hydrocodone, Cetirizine, Atrovent)

29. Which drug in #28 is a non-narcotic cough suppressant?

Cold Compounds

30. Review Table 15-6.

31. There are _______ (2, 3, 4) Robitussin products for cold symptoms. What are the primary differences between them?

32. Review “Clinical Scenario” (p.271). What is the likely diagnosis?