5.9: Expectorants

Guaifenesin is an example of an expectorant.

**Mechanism of Action**

Expectorants reduce the viscosity of tenacious secretions by irritating the gastric vagal receptors that stimulate respiratory tract fluid, thus increasing the volume but decreasing the viscosity of respiratory tract secretions.

**Indication for Use**

Expectorants are used for a productive cough and for loosening mucus from the respiratory tract.

**Nursing Considerations Across the Lifespan**

The medication is safe for all ages. Guaifenesin is only recommended for use during pregnancy and breastfeeding when benefit outweighs the risk.

**Adverse/Side Effects**

Guaifenesin may cause a skin rash, headache, nausea, and vomiting. [1]

**Patient Teaching & Education**

Patients should take care to avoid irritants that stimulate their cough. Additionally, the medication can cause drowsiness. Patients should avoid taking them with other CNS depressants or alcohol. [2]

Now let's take a closer look at the medication grid for guaifenesin in Table 5.9. [3][4][5]
<table>
<thead>
<tr>
<th>Class/Subclass</th>
<th>Prototype/Generic</th>
<th>Administration Considerations</th>
<th>Therapeutic Effects</th>
<th>Adverse/Side Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expectorant</td>
<td>guaifenesin</td>
<td>No eating or drinking for 30 minutes after syrup</td>
<td>Helps loosen sputum (mucus) and thin bronchial secretions to make coughs more productive</td>
<td>Increased drowsiness in large doses</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Encourage patient to cough and deep breath</td>
<td></td>
<td>Gastrointestinal: Nausea, vomiting, diarrhea</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stay hydrated (2-3 liters/day)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. uCentral from Unbound Medicine. [https://www.unboundmedicine.com/ucentral](https://www.unboundmedicine.com/ucentral)
3. This work is a derivative of [Pharmacology Notes: Nursing Implications for Clinical Practice](https://med.libretexts.org/Bookshelves/Nursing/Nursing_Pharmacology_(OpenRN)/05%3A_ Respiratory/5.09%3A_Expectorants) by Gloria Velarde licensed under [CC BY-NC-SA 4.0](https://creativecommons.org/licenses/by-nc-sa/4.0/).
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