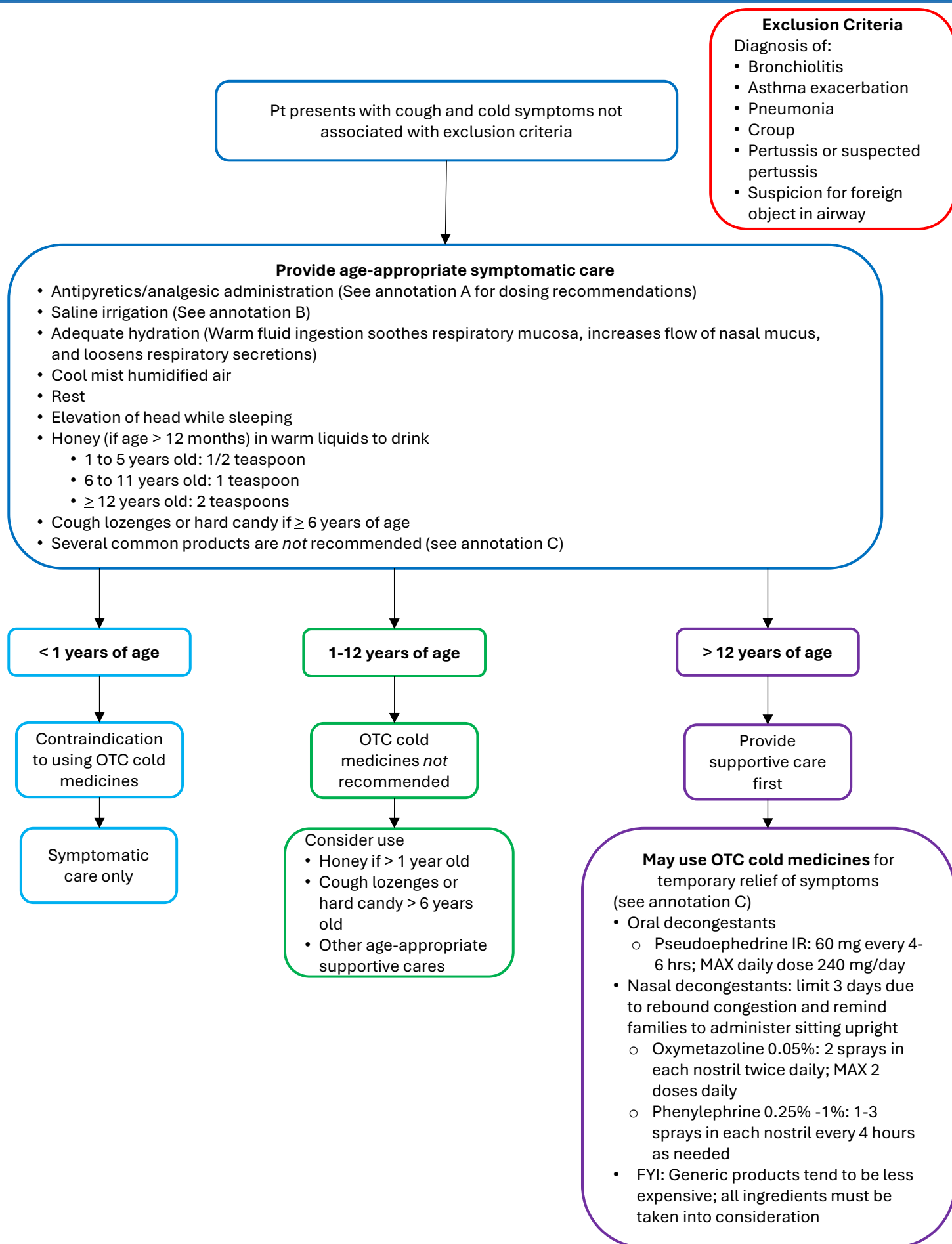


Cough and Cold: Pharmacologic Agents

Urgent Care Clinical Guideline



Annotations

A. Antipyretic dosing recommendations

- Acetaminophen 10- 15mg /kg every 4-6 hours as needed, do not exceed 5 doses within 24 hours.
- Ibuprofen 10 mg/kg every 6-8 hours as needed (≥ 6 months of age)

B. Saline irrigation

- Flushes nasal secretions, increases mucociliary clearance of secretions, vasoconstricts mucosa.
- OTC saline irrigation spray and/or saline nose drops available. (Kelly, 2004)
- Mix 1 teaspoon of salt in 8 ounces of lukewarm distilled or boiled water. Salt should also be iodide-free like pickling or canning salt.

C. Common products not recommended

- **Advice for parents who choose to use OTC products despite CW recommendation against use**
 - Medications are unlikely to work
 - Use single-ingredient preparations; combination products may be dangerous if similar medication is given to a child inadvertently in another product
 - Products deemed to be “natural” are not well studied – difficult to know how much is absorbed and which side effects may result
- **External rubs (e.g., Vaporub, Babyrub)**
 - Parental report of cough severity improvement has been reported, however parental report is often unreliable compared with objective data.
 - Exposure to camphor, an ingredient in many rubs, is a concern. Although most exposures result in minor or no toxicity, refractory seizures can occur due to the high absorption rate of camphor. (Yin, 2021)
 - Rubs that do not contain camphor typically contain eucalyptus, lavender, or rosemary, which are known to cause GI or skin irritation.
- **Antihistamines (e.g., Benadryl, diphenhydramine, Vistaril, hydroxyzine,)**
 - Infants & Children: sedation may be the only beneficial effect; ineffective in relieving cold symptoms.
 - Adolescents & Adults: When used alone - not been shown to offer clinically significant benefits but may be helpful in combination with decongestants.
 - Use with caution in children with asthma as they thicken secretions and make them harder to clear.
 - Side effects: paradoxical excitability, respiratory depression, cardiac arrhythmias, hallucinations, dizziness, blurred vision, urinary retention, or dystonic reactions
 - 1st generation (diphenhydramine) have increased risk of overdose and side effects due to ability to cross blood brain barrier.
- **Decongestants (E.g., Pseudoephedrine, Phenylephrine, Oxymetazoline)**
 - Approved for use in children ≥ 6 years, but the AAP recommends use only for children ≥ 12 years
 - Not shown to be effective in children under 12 years of age.
 - Anecdotal reports of serious toxicity in young children using these products.
 - Use in adolescents and adults for a few days is reasonable and consistent with usual practice.
 - Moderate short-term benefit reported in adolescents and adults
 - Decongestants are sympathomimetic agents that decrease nasal congestion by causing vasoconstriction, reducing blood volume and swelling in the nasal mucosa and paranasal sinuses.
 - Side effects of systemic decongestants include irritability, agitation, sleeplessness, anorexia, nausea, vomiting, cardiac arrhythmias, palpitations, seizures, and dystonic reactions.
 - Topical preparations
 - Never use in infants
 - Can cause significant rebound congestion and prolonged use of topical decongestants can cause rhinitis medicamentosa, a chronic inflammatory rhinitis. Moderate short-term benefit reported in adolescents and adults – use sparingly and no longer than 72 hours.

Annotations (continued)

- **Antitussives** (e.g., Dextromethorphan, Codeine, Hydrocodone)
 - Lack of evidence for antitussive effects found in multiple studies/reviews.
 - Potential risks: respiratory suppression and abuse of controlled substances. May make it harder to expel mucous – use cautiously in children with asthma
 - AAP does not recommend dextromethorphan in children despite labeling for use in children ≥ 4 years old
 - Cough and cold medicine containing codeine is limited to use in only those 18 years and older
- **Expectorants** (e.g., Guaifenesin) - Lack of evidence to support effects
- **Combination products** (e.g., Robitussin®, Advil® Multi-symptom Cold and Flu, Theraflu®)
 - Increased risk of overdose and harmful side effects compared to single use products
 - Products containing **antihistamine and decongestant** may aid in some symptom relief; may aid sleep in younger children similar to 1st generation antihistamines alone; may decrease nasal symptoms in adolescents & adults.
 - Products containing **expectorant and cough suppressant** – would result in thinned secretions that could not be expelled because of cough suppression
 - AAP recommends decongestants only for children ≥ 12 years old.

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Please contact clinicalguidelines@childrenswi.org for questions or comments.

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Medical Disclaimer

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