

Based on the pedagogical resources from PediatricEducation.org, here is a structured study guide, a set of review flashcards, and an interactive 10-question practice quiz tailored for a medical student on their first pediatric clerkship rotation.

PediatricEducation.org

URL: <https://pediatriceducation.org>

Part 1: Pediatric Cough Study Guide

1. Classification by Duration

Understanding the timeline of a cough is the first step in narrowing down a differential diagnosis:

- **Acute Cough:** Lasts **< 3 weeks**. Most commonly secondary to viral upper respiratory tract infections (URIs), acute bronchitis, or acute sinusitis.
- **Subacute Cough:** Lasts **3 to 8 weeks**. Often represents post-infectious bronchial hyperresponsiveness (e.g., post-viral tussive syndrome, pertussis) or resolving airway inflammation.
- **Chronic Cough:** Lasts **> 8 weeks** (some pediatric guidelines specify > 4 weeks, but classical definitions extend to 8 weeks). Requires a systematic evaluation for underlying chronic pathology.

2. Character of the Cough as a Diagnostic Clue

The specific sound or quality of a cough provides strong diagnostic direction:

- **Barking / Brassy:** Characteristically points to croup (laryngotracheobronchitis), tracheomalacia, or foreign body aspiration causing upper airway or subglottic swelling.
- **Paroxysmal with a "Whoop":** Highly suggestive of *Bordetella pertussis* infection, particularly in under-immunized infants or adolescents with waning immunity.
- **Staccato:** Short, sharp, machine-gun-like coughs separated by distinct intervals; classically associated with *Chlamydia trachomatis* pneumonia in young infants (often presenting between 2–12 weeks of age).
- **Honking / Psychogenic:** Loud, disruptive cough that disappears entirely during sleep; indicative of a somatic symptom disorder or habit cough.
- **Wet / Productive:** Suggests excess mucus production, seen in lower respiratory tract infections, bronchiectasis, or Protracted Bacterial Bronchitis (PBB).

3. Key Red Flags ("Alarm Symptoms")

During your clerkship, always screen for symptoms that dictate urgent intervention or advanced imaging:

- **Neonatal Onset:** Any chronic cough beginning in the first weeks of life warrants investigation for congenital anomalies, cystic fibrosis, or primary ciliary dyskinesia.
- **Systemic Signs:** Unexplained weight loss, night sweats, or persistent fevers (points toward tuberculosis, malignancy, or chronic suppurative lung disease).
- **Feeding Difficulties:** Coughing, choking, or cyanosis during feeding suggests

gastroesophageal reflux disease (GERD), tracheoesophageal fistula (TEF), or swallowing dysfunction.

- **Sudden Onset:** Acute onset of choking or coughing without an infectious prodrome strongly indicates foreign body aspiration.

Part 2: High-Yield Review Flashcards

Card 1

- **Front:** What is the classical presentation of *Chlamydia trachomatis* pneumonia in an infant?
- **Back:** An infant between 2 to 12 weeks of age presenting with a distinctive **staccato cough**, tachypnea, and absence of fever. Hyperinflation may be seen on a chest X-ray.

Card 2

- **Front:** What defining characteristic helps differentiate a psychogenic/habit cough from an organic etiology?
- **Back:** A psychogenic cough is often described as a harsh "honking" sound, is highly disruptive during wakefulness, but **characteristically disappears completely once the patient falls asleep**.

Card 3

- **Front:** What is the diagnostic significance of a persistent, wet cough lasting more than 4 weeks in an otherwise well-appearing child without other anomalies?
- **Back:** It is highly suggestive of **Protracted Bacterial Bronchitis (PBB)**, which typically responds well to a prolonged course (2 weeks) of an appropriate antibiotic like amoxicillin-clavulanate.

Part 3: Interactive Practice Quiz

This practice quiz consists of 10 clinical scenario questions designed to test your approach to a pediatric patient presenting with a cough. Each question includes five distractors (foils) and a verified citation from PediatricEducation.org within the correct rationale.

PediatricEducation.org Cough Practice Quiz

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Try again without interactive quiz

Best of luck on your first pediatric clerkship rotation! Utilize these structured clinical clues during rounds to confidently evaluate and present your patients.