Yukon-Kuskokwim HEALTH CORPORATION

Clinical Guideline

Bronchiectasis/Chronic Cough (Pediatrics)

Definitions

• Bronchiectasis is a lung condition with chronic wet cough and lung infections and is diagnosed by CT with contrast.
Use ICD10 code J47 – "Bronchiectasis."
• Bronchiectasis risk is defined as ≥3 episodes of wet cough >4 weeks in the past 2 years, often in a setting of persistent infiltrates and recurrent pneumonia.
Use ICD10 code J41.1 – "Chronic purulent bronchitis."
• All patients with either diagnosis should be made CPP and referred to pediatric pulmonology.

Stable Chronic Management

Comorbidities

• Aspiration: Trial thickener if <3 years, feed with swaddling in side-lying position at 45 degrees with slow-flow nipple, consider speech therapy.
• TB: Place PPD, send sputum/gastric aspirates if indicated (see **Pediatric TB Evaluation & Treatment guideline**).
• Asthma: Bronchodilators, inhaled steroids.
• Immunodeficiencies: Consider referral to Alaska Asthma, Allergy, & Immunology for work-up.
• CF: Confirm screen negative on newborn screen.

Maintenance Management

• Follow-up with pulmonology clinic Q3-6mo and pediatrician or health aide Q2-3mo to check symptoms and medications. At every visit:
  - Patient and caregiver should verbalize diagnosis.
  - Review plan for exacerbations.
  - Check that Problem List is up-to-date with plan.
• Annual PFTs if >5 years.
• Annual sputum culture if chronic productive cough.
• Annual flu and COVID vaccines.
• Pneumococcal vaccines: PCV-13 series followed by one dose of PPSV-23 (Pneumovax) at ≥ 2 years.
• Treat dental caries.
• Optimize environmental health with woodstove safety, vents, irritant reduction, smoking cessation, etc.
• Airway clearance: P&PD/chest PT, consider acapella.
• Consider allergy testing.

Transition of Care

• Review diagnosis and management with patient and caregiver at each visit. Patient and caregiver should verbalize diagnosis, treatment, and exacerbation plan.
• At age 17, a pediatrician should review chart and refer patient to pediatric pulmonology for chest CT, treatment plan, and handoff visit.
• By age 18, a pediatrician should schedule a transition of care appointment with family medicine, write an Alert Note that includes a summary of medical history and current treatment plan, and refer to adult pulmonologist.

Exacerbation Management

Consider if:
• Persistent infiltrate >6 weeks
or
• Chronic wet cough ≥4 weeks
or
• Fever, increased wet cough, dyspnea, etc.

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• Treat with Augmentin 45 mg/kg/dose BID or cefdinir 14 mg/kg/dose daily for at least 2 weeks.
• Consider probiotics.
• If able, do sputum culture (via RT in Bethel). If patient cannot produce sputum, use method described in **Induced Sputum Collection Checklist**.
• Ask screening questions for dysphagia and have low threshold to thicken feeds.
• Chest physiotherapy TID.
• Recheck after two weeks.
• Consider systemic steroids if significant bronchospasm.

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Improved

• Stop antibiotics.
• Follow-up in 2-3 months.
• Restart antibiotics for additional 2 week course if cough recurs.

Not improved

Continue antibiotics and recheck after two more weeks.

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Improved

• Stop antibiotics.
• Follow-up in 2 months.
• Restart antibiotics if cough recurs. Give prolonged course (plan for 4-6 weeks).

Not improved

• Consult pulmonologist.
• Adjust antibiotics per sensitivities on sputum culture.
• Consider repeat CXR.

This guideline is designed for the general use of most patients but may need to be adapted to meet the special needs of a specific patient as determined by the medical practitioner.
Approved by Clinical Guideline Committee 5/15/23. Click **here** to see the supplemental resources for this guideline.
If comments about this guideline, please contact Leslie_Herrmann@ykhc.org.