

# Pediatric Pulmonary and Sleep Medicine

## Consult and Referral Guidelines

### Introduction

Our division cares for people with asthma, bronchopulmonary dysplasia, cystic fibrosis (CF), positive CF newborn screen, hypotonic syndromes (Eg. Duchene’s muscular dystrophy), rare lung disorders like interstitial lung disease, snoring, obstructive sleep apnea, insomnia and other rare sleep disorders (Eg. Narcolepsy).

Our division wants to make referrals to our office easy, fast and efficient for our primary care providers. To that end, we developed this tool as one way to maximize a productive office visit for you and your patient. We view this as a pilot document and welcome your feedback to further refine the guidelines. Suggested work-ups may not apply to all patients, but these are studies that we typically consider during the office visits.

\* NOTE: In regards to x-rays, we prefer to look at all x-rays ourselves during the visit. If your patient has not obtained their x-rays at Spectrum Health, we ask that the patient obtain a CD burned with all their x-rays and bring them to our office visit. Thank you very much for all your help!  
 #ADDITIONAL NOTE: Accredited CF care centers include the following: Helen DeVos Children’s Hospital (Grand Rapids), Sparrow Hospital (Lansing), Bronson Hospital (Kalamazoo), Children’s Hospital of Michigan (Detroit), & University of Michigan (Ann Arbor).

Diagnosis/Symptom	Suggested Workup/Initial Management	When to Refer	Information Needed
<b>Recurrent Cough or Wheeze</b> <b>Recurrent Bronchiolitis or Bronchitis</b>	Chest x-ray: PA and lateral*, Sweat chloride at an accredited CF Center#, Trial of bronchodilators at any age, Trial of oral and/ or inhaled corticosteroids or Singular® (if age appropriate) if bronchodilators non-responsive. Oral prednisone is typically dosed ~2 mg/kg/day x 5 days minimum.	Has been hospitalized, Intubated/ICU admission, Frequent ER visits, Frequent need for oral steroid bursts, Less than 2 years old, Unresponsive to usual therapy with increasing medication use, Complicating conditions such as rhinitis, sinusitis, GE-reflux, and/ or pneumonia, Abnormal spirometry or needs frequent monitoring with spirometry, History of chronic lung disease, prematurity, S/P RSV.	Referral letter to include: Chief concern, Summary of previous treatments and response, Respiratory history since birth, All lab results, All chest films (must have chest X-ray)*, If sweat chloride test was obtained, must be from CF Center accredited lab.#

HDVCH has developed these consult and referral guidelines as a general reference tool to assist referring physicians with the specialty referral process. Pediatric medical needs are complex and these guidelines may not apply in every case. HDVCH relies on its referring providers to exercise their own professional medical judgment with regard to the appropriate treatment and management of their patients. Referring providers are solely responsible for confirming the accuracy, timeliness, completeness, appropriateness and helpfulness of this material and making all medical, diagnostic or prescription decisions.

Diagnosis/Symptom	Suggested Workup/Initial Management	When to Refer	Information Needed
<b>Difficult to control asthma</b>	Chest x-ray: PA and lateral Upper GI Video Fluoroscopic Swallow Study	Same as above	Same as above
<b>Bronchopulmonary Dysplasia, Chronic Lung Disease (Worsening Respiratory Status for BPD)</b>	Chest x-ray: PA and lateral Oxygen saturations Upper GI Video Fluoroscopic Swallow Study	Unstable respiratory status or is slow to improve, Oxygen requirement, Difficulty growing or feeding, Problems/G-tube feedings, Re-hospitalization after discharge, Inability to wean medications and/or oxygen.	Referral letter to include summary of: Pre and post natal hospitalization (including SaO <sub>2</sub> ), Echocardiograms, growth and development evaluations, Ophthalmology evaluations, OT/PT evaluations, all lab results obtained after discharge from hospital Chest films Current treatments and response Current oxygen requirements
<b>Recurrent Pneumonia, Noisy Breathing, Chest Pain, Tachypnea</b>	Chest x-ray: PA and lateral If ruling out CF, sweat chloride obtained from a CF Center accredited laboratory Babies under 1 year with noisy breathing should see and ENT first	Recurrent illness despite treatment Increasing respiratory symptoms Symptoms that interfere with daily activities Respiratory symptoms/infections and problems with growth and/or development	Summary referral letter to include: Brief pre/post natal history and growth history, List of treatments and response, Current treatments, Sweat chloride obtained at CF Center accredited laboratory
<b>Rule Out Cystic Fibrosis</b>	Sweat chloride (obtained at CF Center accredited laboratory) CF Genotyping (if already completed) Chest x-ray: PA & lateral	Sweat chloride is positive or equivocal	Brief summary letter with pre/post natal history: Sweat chloride results Genotyping results if done

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<b>Positive CF Newborn Screen –</b> From the State of Michigan (Elevated IRT plus one or more identified CF mutations)	None needed. In the rare circumstance of a suspected bowel obstruction or respiratory distress, please directly speak with the on call pulmonary team.	As soon as the primary care provider receives a positive screen from the State of Michigan, please call HDVCH Direct 1-877-391-2345 and fax sweat chloride prescription to 616-267-2661. A sweat chloride test, pulmonary and genetic counselor appointment will be coordinated during that phone call. Appointments typically occur within 24-72 hours.	Referral information to include: Request for consultation, Pertinent history and physical-include if any, Order for sweat chloride test.
<b>Sleep Apnea/Sleep Disorders</b>	Consider treatment for allergic rhinitis or sinusitis first.	Any symptom of sleep difficulties Including sleep disordered breathing Daytime or nighttime symptoms Growth delay Sleep diary (available at our web site) Nocturnal enuresis (only if associated with sleep disordered breathing)	Referral letter to include: Chief complaint, Pertinent history and physical-include growth grid, Treatments pursued and responses, Any lab results, Prior ENT evaluations or other sleep evals/sleep studies.
<b>Technology Dependent</b>	Provider to Provider phone call for new referral		

**To request Pulmonary Function Tests only, please complete the “PFT request form” and fax it to (616)267-2201. Chose among the following options below for testing:**

- Baseline Spirometry: Minimum age five years
- Spirometry with Pre and Post Bronchodilator: bronchodilator administer only if baseline can be performed
- Spirometry with lung volumes and airway resistance: Minimum age of seven years
- Spirometry with Pre and Post with lung volumes and airway resistance: Minimum age of seven years

Results of these tests will be given to the patient’s family from the primary care physician. Results can be expected within fourteen days after the test has been performed.

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## APPOINTMENT PRIORITY GUIDE

Below represents the recommended prioritization for pulmonary and sleep medicine patients

Priority	Examples (not an exhaustive list)
<p><b>Emergent</b>            Call our office and send to the closest emergency department these different diagnoses. Call HDVCH Direct at 616.391.2345 to speak directly with provider.</p>	<p>Hemoptysis, Infant with apnea or apparent life-threatening event, Child with CF and abdominal pain with vomiting, Hypoxia, "Red Zone" of respiratory distress in an asthmatic.</p>
<p><b>Immediate</b>            Call HDVCH Direct at 616.391.2345 to speak directly with provider. Likely to receive an appointment within 48-72 hours.</p>	<p>Positive CF newborn screen. Diagnosis of CF with two positive mutation or positive sweat chloride test. Child with CF and abdominal pain. Other clinical situations as indicated by referring physician.</p>
<p><b>Urgent</b>            Likely to receive an appointment within 1-2 weeks. Call our department at 616.267.2200 and ask for the on call physician to be paged regarding an urgent referral.</p>	<p>Newborn with chronic cough/wheeze. Vent patients not improving from a URI. CF patients not improving from a URI.</p>
<p><b>Routine</b>            Likely to receive an appointment within 3-8 weeks. Fax completed referral form and records to 616.267.2201 or send through Michigan Health Connect.</p>	<p>Uncontrolled Asthma, Snoring, Fatigue, Obstructive Sleep Apnea, Tonsillar Hypertrophy, Persistent Cough, Shortness of Breath</p>

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