SYMPTOMS AND LABS
Any severe yellow box symptoms plus:
- Signs of congestive heart failure (e.g. peripheral edema, JVD, hepatomegaly, loud S2) which may require admission
- Children with the following disorders with yellow box symptoms should always have a pulmonary evaluation:
  - Duchennes muscular dystrophy
  - Myotonic muscular dystrophy
  - Cerebral palsy
  - Down syndrome
  - Prader willi syndrome
  - Pierre Robin Sequence
  - Acondroplasia
  - Sickle cell anemia
  - Hunter/Hurler Syndrome
  - Craniofacial abnormalities (e.g. Cleft lip and palate)

SUGGESTED PREVISIT WORKUP
- Generally no previsit workup necessary but call pulmonary for visit within one week: (207) 662-5522
- Will have outpatient clinical evaluation with subsequent sleep study
- If concerns for CHF may need inpatient evaluation promptly

SUGGESTED WORKUP
- Strongly consider referral to pulmonary for evaluation and sleep study
- Generally no previsit workup is required

HIGH RISK
SUGGESTED EMERGENT CONSULTATION

SYMPTOMS AND LABS
- Loud, continuous, snoring
- Concerns for pauses in breathing
- Nocturnal shortness of breath
- Family concerned/scared about their observation of night time breathing
- Choking during sleep
- Daytime tiredness interfering with school or associated with behavior problems
- Hyperactivity
- Mouth breathing
- Exam: Obesity
- Poor growth in height or weight
- Hypertension
- Tonsillar enlargement
- Craniofacial abnormalities
- Abnormal heart sounds (e.g. Loud S2)

SUGGESTED WORKUP
- If no symptoms then continue to follow clinically
- Take sleep history on annual physical to screen for above symptoms

CLINICAL PEARLS
- Patients with neurologic conditions, genetic conditions, and craniofacial symptoms are at increased risk for obstructive sleep apnea. These patients may not have a lot of symptoms but may have an abnormal sleep study. For this reason, there should be a low threshold for referral.
- Metabolic Consequences of Obstructive Sleep Apnea: Elevated CRP, Insulin Resistance, Hypercholesterolemia, Elevated Transaminases, Decreased insulin like growth factor, Decreased or altered growth hormone secretion.
- Neurocognitive Consequences of Obstructive Sleep Apnea: Decreased Quality of Life, Aggressive Behavior, Poor school performance, Depression, Attention Deficit, Hyperactivity, Moodiness.
- Cardiovascular Consequences of Obstructive Sleep Apnea: Autonomic Dysfunction, Systemic Hypertension, Absent Blood Pressure Dipping, Left Ventricular Dysfunction, Pulmonary Hypertension, Abnormal Heart Rate Variability, Elevated Vascular Endothelial Growth Factor.

MIDDLE RISK
SUGGESTED CONSULTATION OR CO-MANAGEMENT

SYMPTOMS AND LABS
- Intermittent, soft snoring
- Comfortable breathing
- No daytime tiredness
- No school or behavioral problems
- No hyperactivity
- Exam: No obesity
- Normal growth in height and weight
- No hypertension
- No tonsillar enlargement
- No nasal obstruction (normal septum, no rhinitis)
- No craniofacial abnormalities
- Normal heart sounds

SUGGESTED WORKUP
- Generally no previsit workup is necessary

LOW RISK
SUGGESTED ROUTINE CARE

SYMPTOMS AND LABS
- No symptoms
- No school or behavioral problems
- No hyperactivity
- No hypotension
- No tonsillar enlargement
- No nasal obstruction (normal septum, no rhinitis)
- No craniofacial abnormalities
- Normal heart sounds

SUGGESTED WORKUP
- If no symptoms then continue to follow clinically
- Take sleep history on annual physical to screen for above symptoms

These clinical practice guidelines describe generally recommended evidence-based interventions for the evaluation, diagnosis and treatment of specific diseases or conditions. The guidelines are: (i) not considered to be entirely inclusive or exclusive of all methods of reasonable care that can obtain or produce the same results, and are not a statement of the standard of medical care; (ii) based on information available at the time and may not reflect the most current evidenced-based literature available at subsequent times; and (iii) not intended to substitute for the independent professional judgment of the responsible clinician(s). No set of guidelines can address the individual variation among patients or their unique needs, nor the combination of resources available to a particular community, provider or healthcare professional. Deviations from clinical practice guidelines thus may be appropriate based upon the specific patient circumstances.