

Inclusion Criteria:
Infants and children with suspected micrognathia and **any** of the following:

- Stertor/stridor/increased work of breathing when supine
- Feeding difficulty

Features of Robin Sequence

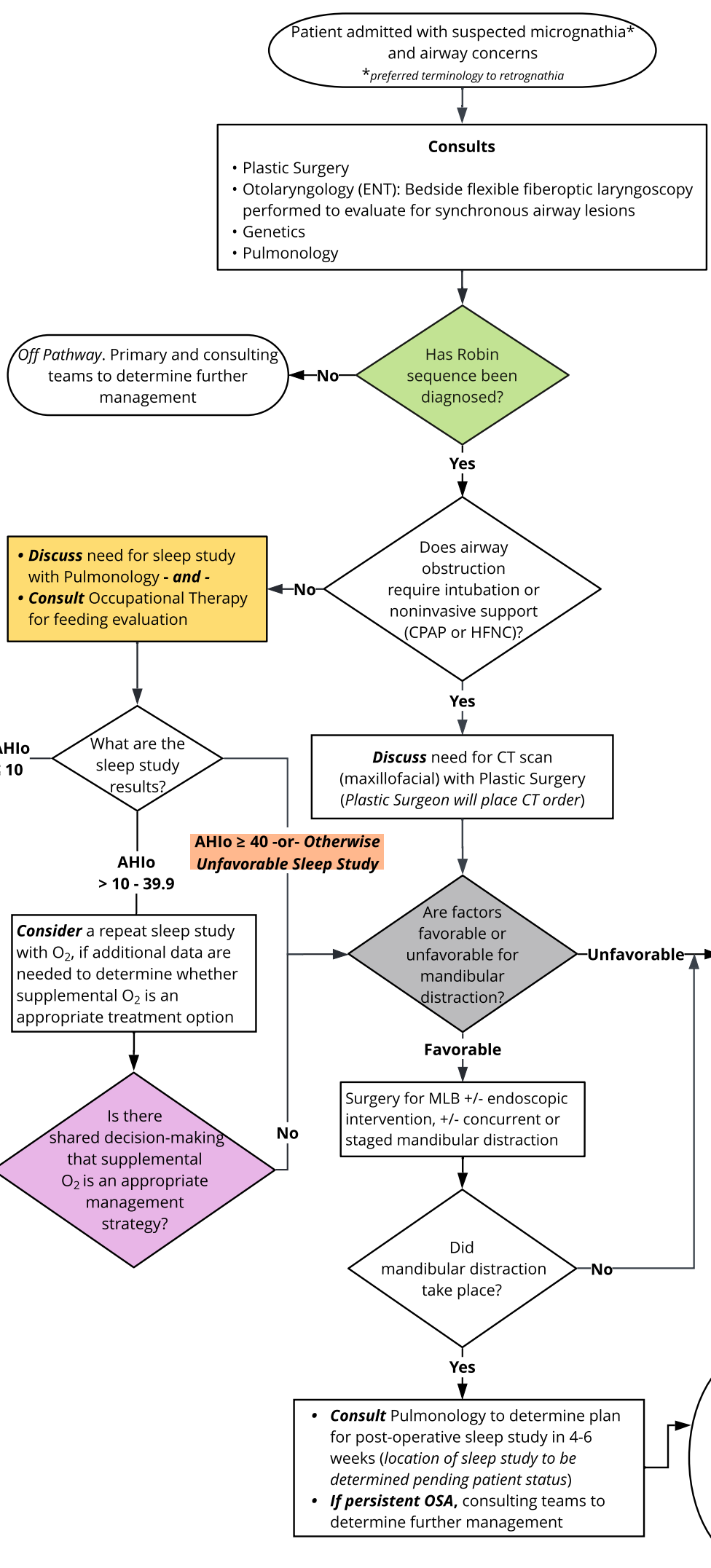
- Micrognathia
- Glossoptosis
- Upper airway obstruction with or without cleft palate

Criteria for Otherwise Unfavorable Sleep Study

- Any AHlo with severe hypoventilation:
 - End-tidal or transcutaneous CO₂ > 50 mmHg for > 25% of total sleep time (TST) - **or** -
 - CO₂ increase > 10 mmHg from awake baseline to sleep
- Any AHlo with saturation nadir (with obstructive events) < 80%
- Any AHlo with prolonged severe events

Supplemental O₂ Response

- Decrease in AHlo > 50% from baseline
- No hypoventilation



Timing of Diagnostic Evaluation

- **If patient is a preterm infant**, consider obtaining sleep study, and other relevant evaluations once the infant is term-corrected and on lower levels of respiratory support, if clinically feasible

Mandibular Distraction Considerations

- Determined by plastic surgeon (imaging may be ordered)
- Factors that may be unfavorable:
 - Chronic lung disease
 - Multiple anomalies/complex syndromes
 - Aspiration/dysphagia present
 - Abnormal neuromuscular status
 - Other surgical considerations
 - Multi-level airway obstruction
 - In some instances may be treated separately, followed by mandibular distraction (e.g., laryngomalacia)

Abbreviations (laboratory & radiology excluded):
AHlo = Apnea-hypopnea index obstruction
JAWS = Jaw, Airway and Sleep clinic