**NOTE 9**

**PATIENT 1005**

**DATE: 5/18/20**

**Reason for Consultation**

BPD, failed extubation

**Interval Events**

Since our last consultation, Patient underwent DLB and flex bronch without significant upper airway findings and with very mild LMSB bronchomalacia; though glottic mobility was not assessed, the glottis was widely patent without masses or lesions. He failed an extubation attempt yesterday as below. His current ventilator settings are detailed below in structured A/P.  
  
At HOSP 1, extubation attempts on 3/05, 3/6, 4/4, 4/11, and 4/25 with airway dexamethasone dosing prior to the most recent 2 attempts.  
  
Extubation attempt 5/17:

Stable overnight, on an ERT this morning. Passed but then went to extubate and patient developed biphasic stridor with work of breathing. Moved to NIPPV but by about 1hr time was in need of reintubation. Reintubated with 3.0ETT, arytenoids were very swollen and touching at the midline. [1]

**Assessment/Recommendations**

Patient is an ex 24w2d now 37w0d male with severe BPD, PDA s/p ligation (3/29), acquired CMV, S aureus abscess and bacteremia, and multiple failed extubation attempts with biphasic stridor whom we are consulted regarding respiratory failure. Contributors to BPD may include alveolar/inadequate lung growth, cardiac etiologies/pulmonary hypertension, airway pathology such as malacia, and infection. Airway pathology has been ruled out with the exception of vocal cord paresis, which he is at somewhat higher risk of given history of PDA ligation. His alveolar disease has not required significantly high pressures to achieve goal volumes and moderate permissive hypercapnia, which on the spectrum of severe disease is not the most severe. Though less likely, there is some further infectious phenotyping that could be considered.  
  
1) **Ventilator strategy**  
- currently SIMV-PRVC 14 mL (7/kg) PEEP 7 PS 10 RR 28 Ti 0.5  
- given transitional phase of BPD, agree with general strategy as above; closer to 40-44 wk period, if still mechanically ventilated, would start trialing chronic BPD ventilator strategy per "Nationwide protocol" of slow, large breaths  
- would recommend pausing on extubation trials for at least 1 week to give upper airway time to recover  
  
2) **Phenotyping**  
- alveolar  
- ruled out large airways with **exception of concern for vocal cord dysfunction**  
- ruled out cardiac  
- possible infectious: 4/21 positive urine CMV, per ID likely acquired  
**-> please obtain tracheal aspirate  
     -> please follow up serum CMV qUANTitative PCR recommended to be done at HOSP 1; re-send if unable to locate outside result**  
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3) **Diagnostics**  
- 5/09 TTE no pHtn  
  
4) **Medications**  
- inhaled: none; **may consider trial of Atrovent BID for frequent secretions, would recommend waiting on results of trach aspirate first**  
- diuretics: HCTZ 1 mg/kg BID  
- systemic steroids: s/p multiple short courses of dexamethasone for airway edema post extubation attempts  
  
5) **Nutrition**  
- per NJ  
  
6) **Disposition**  
- remain in NICU  
  
Pulmonary will continue to follow  
  
Sam Bachs, MD, MA  
Fellow, Pulmonary Medicine  
  
Seen and discussed w/ Dr Jean  
  
**Attending Addendum:**  
Agree with HPI, examination, assessment, and plan by Dr. Bachs as above. I have reviewed the interim history and examined the patient. I have reviewed the above which reflects my findings and was done under my direct supervision and guidance. I agree with the above documentation which was summarizes my assessment and plan.  
  
Plan 2-3 weeks of stability and optimization, growth prior to another extubation attempt (and consideration of tracheostomy if fails). Consider repeat ORL eval, ideally has flex laryngoscopy when not intubated to eval for vocal cord function.  
  
Larry Jean, MD  
Attending Physician, Newborn and Pulmonary Medicine

**Problem List/Past Medical History**

Ongoing

ELBW - Extremely low birth weight infant

Premature infant

Historical

No qualifying data

**Inpatient Medications**

Inpatient

calcium carbonate, 75 mg = 0.3 mL, NJ, Q12hr

D10W 1000 mL + sodium CHLORIDE, IVF 20 mEq + potassium CHLORIDE, IVF 10 mEq + heparin, IVF 500 unit

ferrous sulfate, 20 mg = 0.45 mL, NJ, Q12hr

glycerin (glycerin Supp Pediatric), 1 supp, PR, daily, PRN

heparin flush (heparin Flush 10 unit/mL), 20 unit = 2 mL, IV, Q8hr, PRN

hydroCHLOROthiazide, 2 mg = 0.2 mL, NJ, Q12hr

midazolam, 0.1 mg = 0.1 mL, IV, Q4hr, PRN

morphine (morphine IV), 0.11 mg = 0.44 mL, ICU-IV, Q1hr, PRN

morphine infusion 12.5 mg [0.054 mg/kg/hr] + D10W 50 mL

multivitamin with minerals (DEKAs Plus oral liquid), 0.5 mL, NJ, daily

ocular lubricant (ocular lubricant ointment), 1 appl, OPTH, Q6hr, PRN

OMEprazole, 2 mg = 1 mL, NJ, daily

sucrose 24% oral solution, 0.4 mL, PO, Q2hr, PRN

**Relevant Diagnostic Images/Studies**

5/09 TTE  
• No residual ductus arteriosus.  
• Unobstructed left aortic arch.  
• Unobstructed branch pulmonary arteries.  
• Normal valve function.  
• Normal left and right ventricular systolic function.  
• Foramen ovale with left-to-right flow.  
• No significant right ventricular hypertension.• No pericardial effusion.

Vitals & Measurements

**T:**36.8  °C  (Axillary)  **HR:**130 (Monitored)  **RR:**55  **BP:**84/41  **SpO2:**94%   
**WT:**2.145 kg  **BMI:**12.2