BLUE TEAM SURVIVAL GUIDE

Last Updated Aug 2021

General Information:

Rounds 6CH @ 8:30 AM (unless Grand Rounds – 9:00 AM)
Lectures : Monday 11 AM,
Airway Center Conference: Tuesday 7:30AM, if there is an admitted airway center patient then feel free to join.
Chest Conference: Monday 11 AM, every other week

Important Contact Information:

Meredith Cuthriell, RN – Ward Team Coordination
Carmen Echols, PharmD – Pharmacist
Tracheostomy Nurse: Cindy Reilly
Vocera *33 6 Children's RT (Respiratory Therapist)

Important Dot Phrases	Important Order Sets
H&P Progress Notes D/C Summary .pmpdcsummary Sleep Study .ppulmipsleepstudy Asthma .ppulmasthmaactionplan Discharge Instructions – refer to Meredith's smart phrases	CF Admission Asthma ICU or Floor Admission

Available Pathways/Protocols – Children's Clinical Care Portal

PED Bronchiolitis Clinical Pathway
Diagnosis and Management of Influenza in Pediatric Patient's at UNC Hospitals
Children's Inpatient COVID pathway

High Flow Nasal Cannula Initiation
Weaning Supplemental O2 for Bronchiolitis (Inpatient)

PED Asthma Clinical Pathway, PED First Albuterol Treatment Process Flow Diagram
INPT Asthma Guidelines
Pediatric Inpatient Asthma Exacerbation Pathway

Pediatric CAP Guidelines

Monitoring for Hydration Pathway for High Nephrotoxic Medication Exposure
Cystic Fibrosis (CF) Medication Dosing Guide
High-Dose Ibuprofen Use in Cystic Fibrosis (CF) Patients
High-Dose Vitamin D3 Use in Cystic Fibrosis (CF) Patients
Laboratory Monitoring Guideline for Outpatient Pediatric CF Antimicrobial Therapy
The Use of Relizorb with Enteral Tube Feedings

UNC Adult Lung Transplant Protocol Manual

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Tips & Tricks

- General Tips
  - RNs should be present on rounds. RTs should be on rounds for ALL trach/vent patients.
  - Many patients on Blue are also G-Tube dependent and it is helpful to review nutrition daily on rounds and ask the nutritionist to join if possible
  - Resident/Intern leads discussion in room with support from fellow/attending
  - Review recent Pediatric Pulmonology clinic notes for new admissions
  - Summary → Peds Flowsheet
    - Review Oxygenation, Vent Settings, Sputum section, etc.
    - Discuss on rounds any trends or changes
  - Summary → LDA
    - Documentation for type of lines, drains, access
    - Includes documentation for Trach and G-Tube size/types
  - Follow-up should be scheduled before discharge!
  - Weekend discharges with DME equipment or IV antibiotics → contact Case Manager for that specific floor
  - All patients discharged from should have multidisciplinary medication reconciliation done
- Cystic Fibrosis Patients
  - Refer to separate CF Guide for details and special considerations
  - Follow sputum cultures during admission, they will continue to update as new things grow
  - Weekly PFTs to monitor improvement
  - TL;DR:
    - RT, PT, and Nutrition consults for ALL admissions
    - CFTR modulators not available inpatient; contact pharmacy so patients can use home supply if continued on admission!
    - No NSAIDs if on nephrotoxic medications
    - Vitamin K supplementation if on antibiotics
    - Review past sputum cultures and antibiotic regimens
    - Use order sets, protocols, pathways as listed above!
- Tracheostomy Patients
  - For trach patients document trach size/type in progress note
  - Trach Sign at Bedside
    - Type, Size, Suction Depth, Day of Weekly Trach Change
  - Spare trachs at bedside – current size & size smaller
  - Concerns/Rapid? Suction 1st, change trach, can always cover trach site and bag from above, page ENT early
  - Discuss trach care and vent settings daily on rounds
- Bronchoscopy
  - You are encouraged and can attend bronchoscopies while on this rotation
    - Location: Bronchoscopy Procedure Room or Children's OR, both on the 2nd Floor
    - Airway Evaluations: ENT & Pediatric Pulmonology
  - Fever and increased cough can be expected in first 24 hours post-bronchoscopy
  - Post-BAL CXR often with consolidations in lavaged segments
- Asthma Patients
  - PAS (Pediatric Asthma Scores) should be presented/discussed on rounds
  - PAS scores determine albuterol therapy frequency/dosages
  - Examine asthma patients before rounds and make a plan for albuterol therapy based on your exam, do not depend solely on PAS scores from overnight.
- Pulmonary Function Tests (PFTs)
  - CF patients will usually have weekly PFTs
    - Order Spirometry at Children's Location for the date of procedure

- Present new PFTs in this order: FVC, FEV1, FEF25-75 (precent predicted)
  - FVC: Forced vital capacity, amount of air forcefully expelled; FEV1: amount expelled in first second; FEF25-75 indicative of small airways and more variable
- Know the best FEV1 in the last year
- PFTs are found in the procedure tab or last pulm clinic note
- Make sure you clarify in the order if you need pre-/post-albuterol testing (not usually required inpatient)

Common Respiratory Support

Low Flow Nasal Cannula *"off the wall"*

- ~0.1-4 L (~4% FiO2 per L but not an exact relationship with variable FiO2 at the alveolar level)
- Used for children with hypoxemia to maintain oxygen saturations above appropriate level
- Will not typically help with work of breathing, except sometimes in small infants

High Flow Nasal Cannula *helps with oxygenation & work of breathing (ex. supportive care for RSV)*

- A rapid response should be called to initiate HFNC
- You set the FLOW and FiO2, these can be titrated independently
- Humidified air
- Max flow depends on the patient's weight; consider escalation of care / rapid response for patient's persistently requiring FiO2 > 50% and Flow ~/> 2L/kg
- Can be used as a nasal cannula or high flow with trach

Positive Pressure Support (CPAP/BiPAP)

- Only used on floor if used at baseline: nighttime for children with known diagnosis of OSA and prior sleep study
- May be used to escalate care from HFNC, need to transfer to PICU
- CPAP helps with oxygen delivery; BiPAP can help with ventilation too (decreasing CO2)

Trach Collar

- Primarily provides humidification primarily and can provide additional FiO2 if needed
- Reported as flow and FiO2: E.g. 8Lpm and 21% FiO2
- Flow does not provide PEEP as it is an open circuit, the flow is essentially set to the amount needed to provide the FiO2.
- Do not wean the flow on trach collar, can be set anywhere from 8-10 Lpm
- You can wean or titrate FiO2 as tolerated

Chronic Ventilators (Home Settings) – Patients on *blue are on chronic/home ventilators. There are several types of ventilators and settings.*

- *IMV: Intermittent Mode Ventilation, which allows for both mandatory and spontaneous breaths*
  - *SIMV-PC (Pressure Control) (+PS): Set the pressure given to the patient*
    - *Set PIP, PEEP, RR, FiO2 and +/- PS*
    - *Tidal volume will vary within a range*
  - *SIMV-VC (Volume Control) (+PS) : Set Tidal Volume (Vt) and Flow rate*
    - *Set Vt, Flow rate(Volume/Time), RR*
    - *Pressures given will vary to target the set tidal volume*

- *CSV: Continuous Spontaneous Ventilation, all breaths are spontaneous*
    - Pressure Support Mode: No mandatory breaths
        - Patient controls RR and minute ventilation
        - Some ventilators will have a backup rate

Oxygenation (SpO2 and PaO2)	Ventilation (pH or pCO2)
- Adjust PEEP, FiO2, MAP (mean airway pressure) - *Monitor oxygenation with SpO2, cyanosis, PaO2 (ABG only)*	- Adjust minute ventilation = Vt x RR - *Monitor ventilation with blood gas, End Tidal CO2, mental status*

- Titration of vent settings usually requires ICU level care/support
- Goal Tidal Volumes (Vt) = 6-8 ml/kg