HiFlo Nasal Cannula Oxygen Delivery for Nurses During Covid-19 Pandemic

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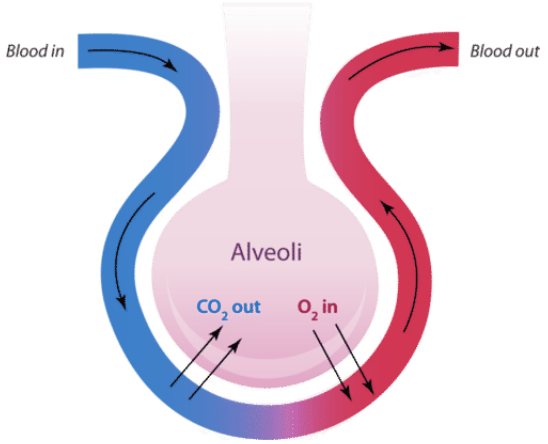
Clinical Educator

Nursing Professional Development

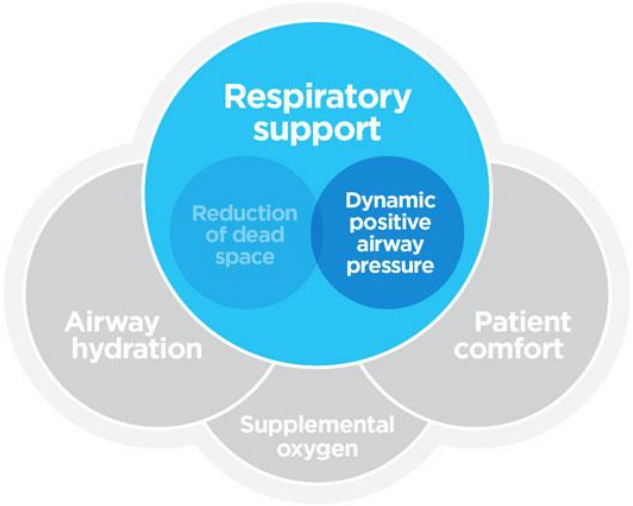
Who-What-When-Where-Why?

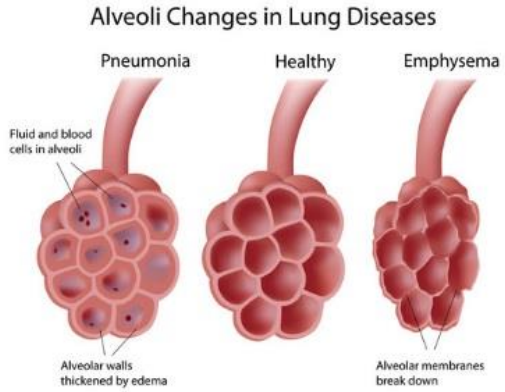
- Who: Patients stable on HiFlo O2 or weaning O2 requirement
  - Nurses who have completed HFNC in-services.
- What: Non-invasive, heated, humidified, nasal cannula. Will require a surgical mask over patient's face and cannula.
- When: When determined by physician to be stable on HiFlo O2 settings during Covid-19 surge plan implementation.
- Where: Medical-Surgical Inpatient units.
- Why: Reduce critical care time and allow for slow and stable wean of 02 requirements-HiFloNC is better tolerated than face masks & helps mobilize secretions.

Positive Airway Pressure



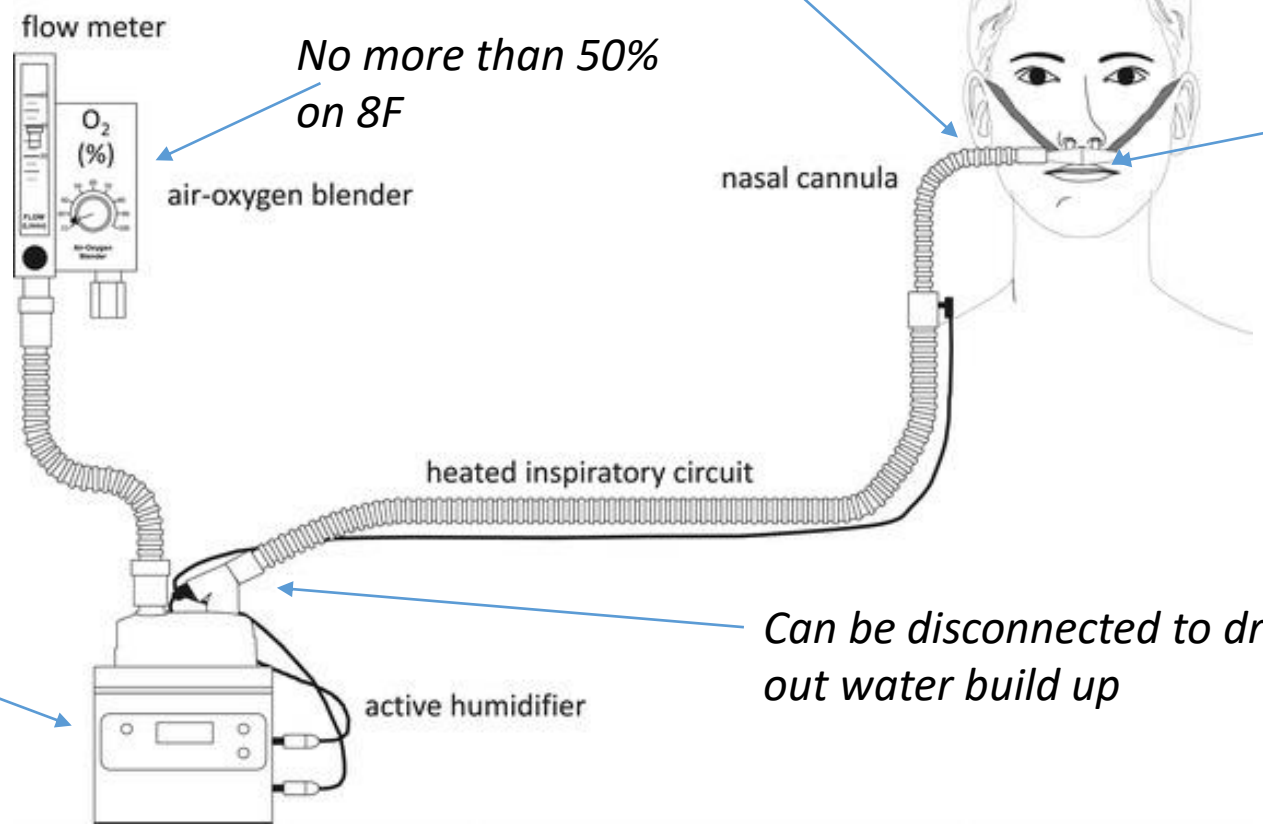
- Improves gas exchange
- Decreases work of breathing
- Reduces risk for treatment-related complications in acute care





It's all about ventilation and oxygenation. Keeping the alveoli open is essential for expelling carbon dioxide.

HiFlo Nasal Cannula



No more than 40L on 8F

No more than 50% on 8F

Can be disconnected to drain out water build up

Can be unclipped here for patient to wash face or blow nose

The heater and the only thing that can alarm: Call RT

Can be disconnected to drain out water build up

Frequent (every 2-4 hours & prn) Skin Assessments. Watch for HAPI from tubing!

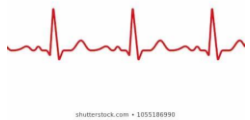
Straps too low!

Make sure prongs do not occlude the nostrils. If you think they do, speak with RT

Orientation of tubing can be changed

Nursing Considerations

- **Handoff (RT and nursing) to verify acceptable 02 sat, and baseline respiratory and skin assessments**
- **Communication with CMU: They will monitor tele *and* continuous pulse oximetry**
- MEWS scores! This includes VS and LOC. These should stay stable.
- Arterial blood gas interpretation. pH 7.35-7.45 PCO2 35-45 HCO3 22-26 PO2 75-100
- Q4 hour & prn respiratory assessments
- Collaboration with Respiratory Therapy
- Respond quickly to alarms and remember to work *with* CMU!
- IS a continuously aerosolized treatment! Wear the proper PPE!
- Does NOT require negative airflow room,



Please remember to complete your **MEWs scores** by adding **Level of Consciousness** to your vital signs.

This should be **reviewed:**

- **With PCNR**
- **With FULL assessments**
- **With FOCUSED assessments**
- **With a decline in patient condition**

This is a great tool to help us recognize clinical deterioration EARLY and intervene EARLY. It is part of the vital signs and you should be adding the LOC with each vital signs in order to obtain a MEWS score.

What to do with the MEWS score?

Actions to prevent patient deterioration: Depending on the total MEWS, the nurse should consider the following actions to prevent deterioration:

- #1: Verify that all components have been entered so you know your score is accurate.
- **Normal = MEWS 0 to 1:** No additional action steps/interventions required by the nurse.
- **LOW = MEWS 2 to 3:** Nurse reviews patient's condition and discusses findings with provider during rounds. MEWS of 3 nurse considers increasing patient vital signs monitoring and MEWS to 2-hour intervals. If patient remains with MEWS of 3 for three consecutive readings, nurse considers reviewing patient assessment with facilitator.
- **MEDIUM = MEWS 4 to 6:** Nurse reviews patient's condition with facilitator and considers discussing findings with provider during rounds versus more immediate provider notification. Nurse considers increasing patient vital signs monitoring and MEWS to 1-hour intervals.
- **HIGH = MEWS 7 to 8:** Nurse reviews patient's condition with facilitator and/or nursing colleagues. Nurse considers immediate provider notification. Nurse considers activing Rapid Response. Nurse considers increasing patient vital signs monitoring (including oximetry) to every 15-30 minutes or more frequently until patient's vital signs and/or MEWS stabilize and/or patient transferred to a higher level of care.
- **Critical = MEWS > 8:** This potentially constitutes a clinical emergency. Nurse reviews patient's condition with facilitator and/or nursing colleagues. Rapid Response strongly recommended. Immediate provider communication strongly recommended. Nurse considers close (every 5-10 minute) vital signs monitoring (including oximetry) until patient's vital signs and/or MEWS stabilize and/or patient transferred to a higher level of care.

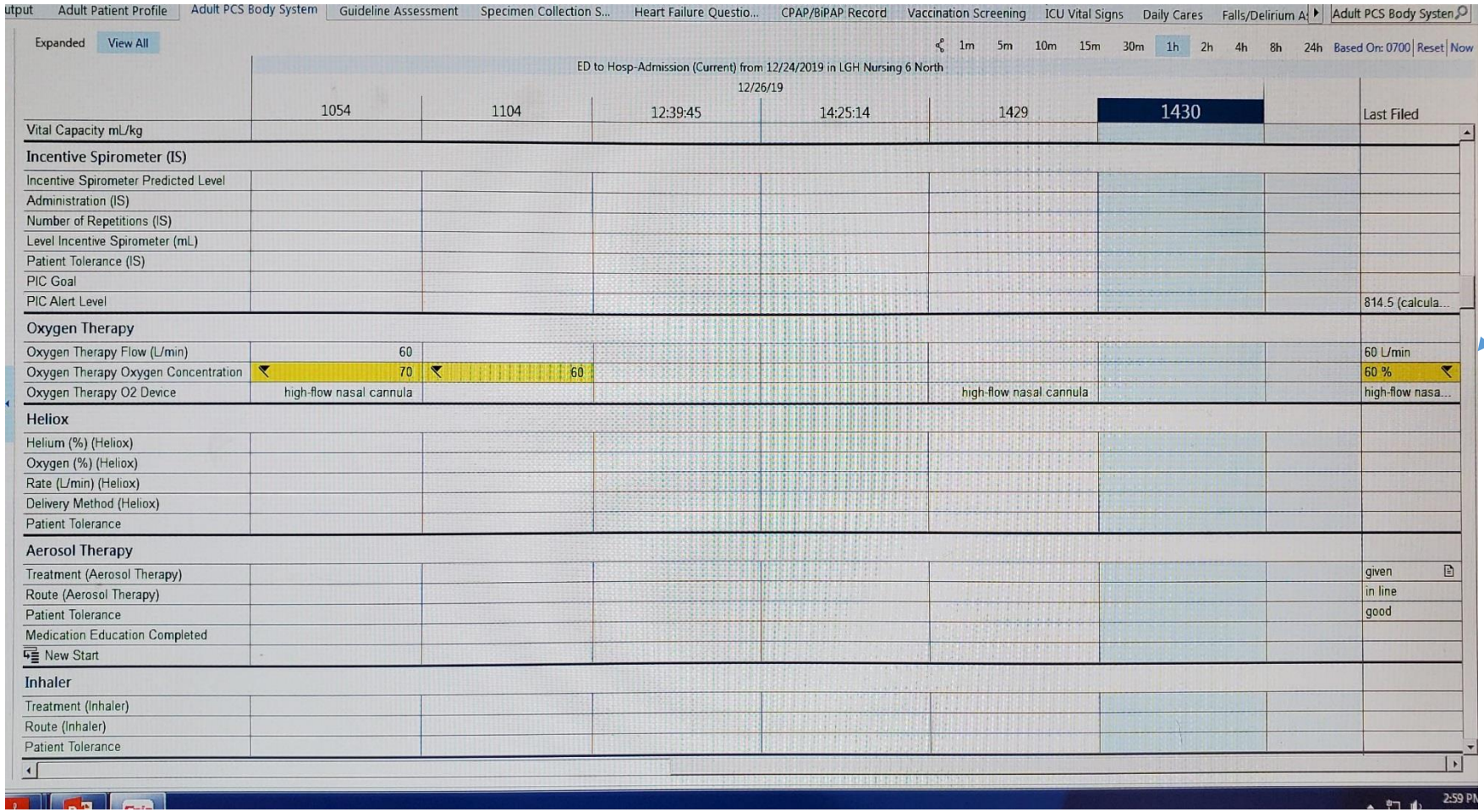
Additional Considerations when assessing clinical deterioration include:

o Communication and collaboration with providers

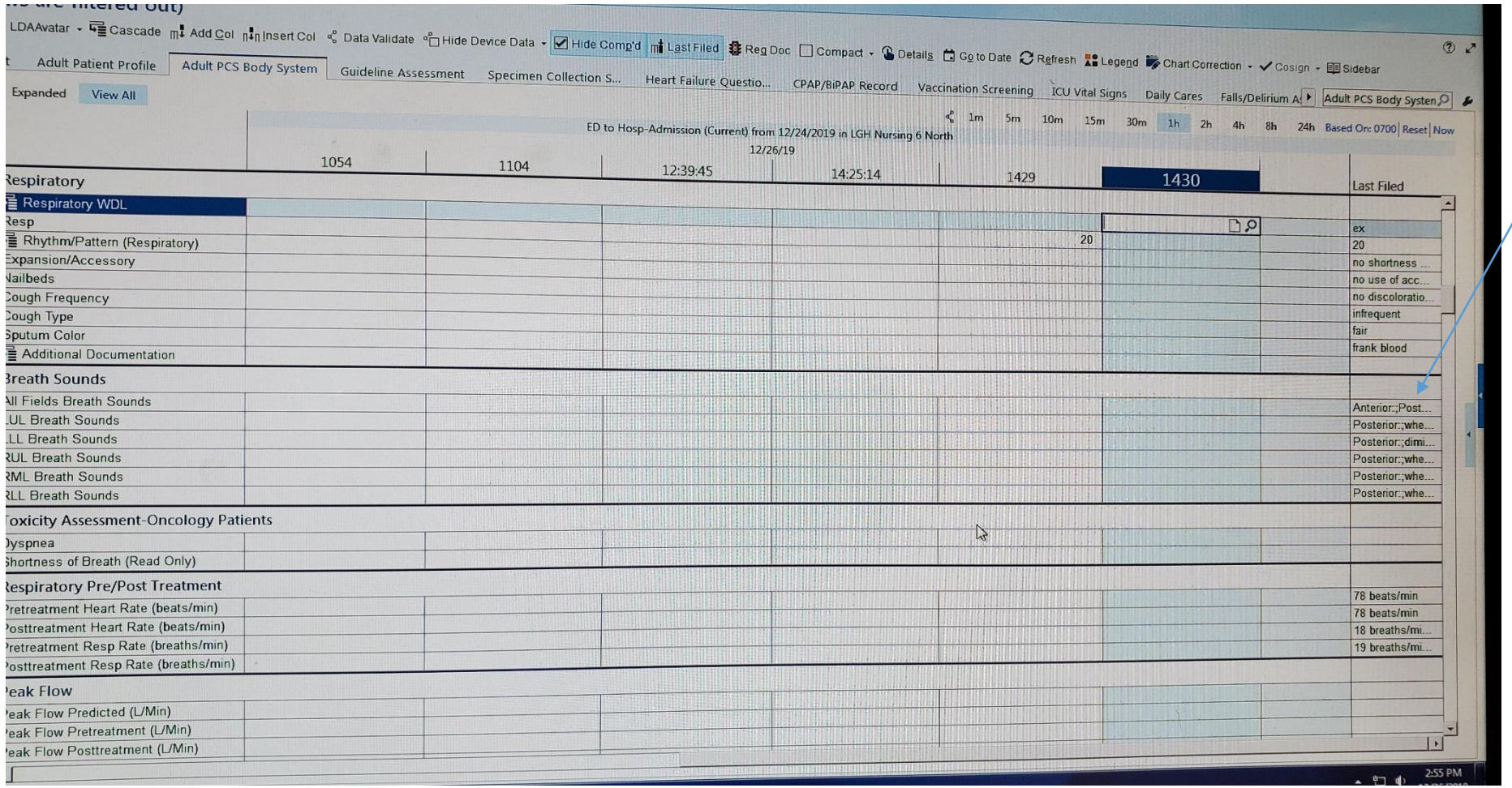
o Calling a Rapid Response

o Code Blue

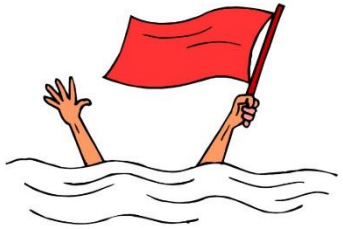
Make sure your O2 delivery method, percent and liters are documented by you or respiratory.



Avoid charting WDLs! Chart the *specifics* of your assessment of *each* lobe.



Things to watch for……



- HAPI
- Rising MEWS scores
- Poorly tolerating mask: Provide support. Check under mask for moisture build-up
- Gastric distention from positive pressure (**rare** at this level)
- Occlusion from secretions or kinks in tubing
- Interruptions in flow from cracked or disconnected tubing
- Hypotension (**rare** at this level) from positive pressure in the thoracic cavity
- Respiratory depression in COPD patients. {That's why we must understand ABGs and acid-base balance}
- ***Rare**, but possible pneumothorax*

- *Oxygen toxicity should NOT be an issue with the less than 50% FiO2 on 8Fred*