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Problem

- Unintended extubation (UE) rate is a reflection of best practice of airway management in the neonatal intensive care unit (NICU)
- It is defined as UE/invasive ventilator days and is used in NICUs in the United States as a reflection of best practice

Goal

- Goal #1 is to organize deidentified access to the University of Chicago RedCap system to document UEs by the bedside nurse after a short post extubation debrief
- Goal #2 is to document invasive ventilator days as the denominator for UE/Vent days= UE rate
- The best practice rate is < 0.5/100 vent days.

“Intervention Design”

Part 1: Unintended Extubation Data Collection Tool

- **Define unintended extubation**
 - Not part of the plan of care
 - No provider order
- **Identify priority data for ease of use and timely collection**
 - ✓ Date and time of unintended extubation
 - ✓ Medical record number
 - ✓ Activity during unintended extubation
 - ✓ Manual ventilation required?
 - ✓ Reintubation required?
 - ✓ Resuscitation required?
- **Limit discoverability**
 - Worked with med-legal
 - Survey is anonymous
 - User is taken out of the EMR and into RedCap
- **Educate staff on use of tool**
 - *Who* should fill out the tool?
 - *What* constitutes an unintended extubation?
 - *When* should the tool be filled out?
 - *Where* is the tool found?
 - *Why* do I need to report an unintended extubation?
 - *How are we going to create a culture change around unintended extubations?*

“Results to Date”,

L&D Grease Board (Family Birth Center) - Last Refresh Time: 11/9/2018 9:23:48 AM

Refresh Delivery L&D Manager Open Chart Message Log Tx Team Legend Grease Board Default Extubation Data Link Paging Directory

3 messages 0 hidden 1. Anes message 2. New resident message 3. Fellow message

My List (5) CIGN CTCU MTCU Circ - Comer F3BC MotherBaby Consults to Lactation Pregnant - Non

Room/B.	Bed Days	Patient Name	MRN	Age	Birth Wt	Current Wt	Provider Info
8002/A	189	HpTest, Lyric	5005207	33-ye...			
8003/A	183	Sar, Tyra	5004716	31-ye...			
8004/A	282	Sar, Robin	5005664	42-ye...			
8005/A	283	Sar, Lulu	5005663	26-ye...		56.7	
8006/A	176	UATLattice, Earl	5006088	50-ye...			

November 2018:

- *Extubation data link live in EPIC*

November 2019:

- *Invasive ventilator row live in EPIC*

January 2020:

- *Manual counts for 2019 data complete*
- *UE Rate is 0.49/100 vent days*

Conclusions and Next Steps

- Thus far, our UE has been in the best practice range.
- However, we are working to refine the documentation process for each unintended extubation and for total invasive ventilator days

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