

# PEPuP Utilization in ICU

Leanne Stephens, MS, RD, LDN

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# AIM Statement

- ▶ By March 2018 we will improve delivery of nutrition to our critically-ill tube-fed patients in the ICU by implementing sustainable strategies to encourage utilization of the PEPuP protocol. Ninety percent of our critically-ill patients for whom enteral nutrition is appropriate will receive early enteral nutrition within 48 hours of intubation/ICU admission. For our patients where tube feeds are held  $\geq 2$  hours, we will have an increase in utilization of PEPuP from 5% to 50%.

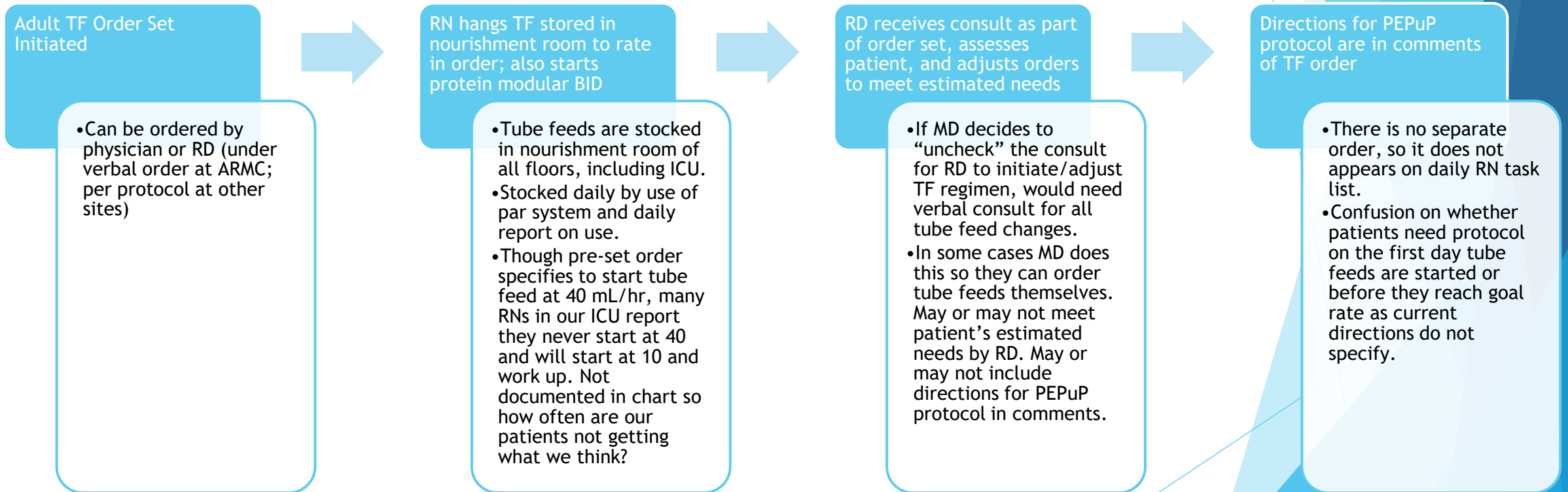
Heyland D. et al. Implementing the PEP uP Protocol in Critical Care Units in Canada: Results of a Multicenter, Quality Improvement Study. *JPEN*.2015 Aug;39(6):698-706.



# Change Management

- The team members that volunteered to participate in the project are very supportive of PEPuP and improving use of it in the ICU.
- However, they were open about their lack of knowledge about it and feeling uncomfortable with implementing it.
- There is also support from pharmacists and several intensivists.
- There are also RNs that are seem skeptical of protocol and not yet behind its implementation. Reviewed original study and results on its safety for the patients. Will continue to discuss and provide encouragement/information as needed.

# PLAN: Process Mapping



# PLAN: Process Mapping Continued

Tube feeds are held either by MD order or RN discretion.

- Practice varies widely by MD and RN.
- Reasons include: procedures, dialysis, baths or repositioning, WUA/SBT when pt agitated, planned extubation, dialysis, GI bleed, aspiration, emesis, abdominal distention, other signs of intolerance
- Found it is NOT always documented in chart when TFs held and why
- No guidelines/directions on managing/improving tolerance

PEPuP protocol identified to be needed

- Completely nurse-driven. No reminders or specific orders in chart.
- Taught in system-wide nursing academy for newly-hired RNs. However, many other things also taught in Academy and can get lost.
- No regular practice or discussion regarding PEPuP afterwards.
- Discomfort with protocol so often not used.

RN calculates new TF rate until midnight to provide goal daily volume

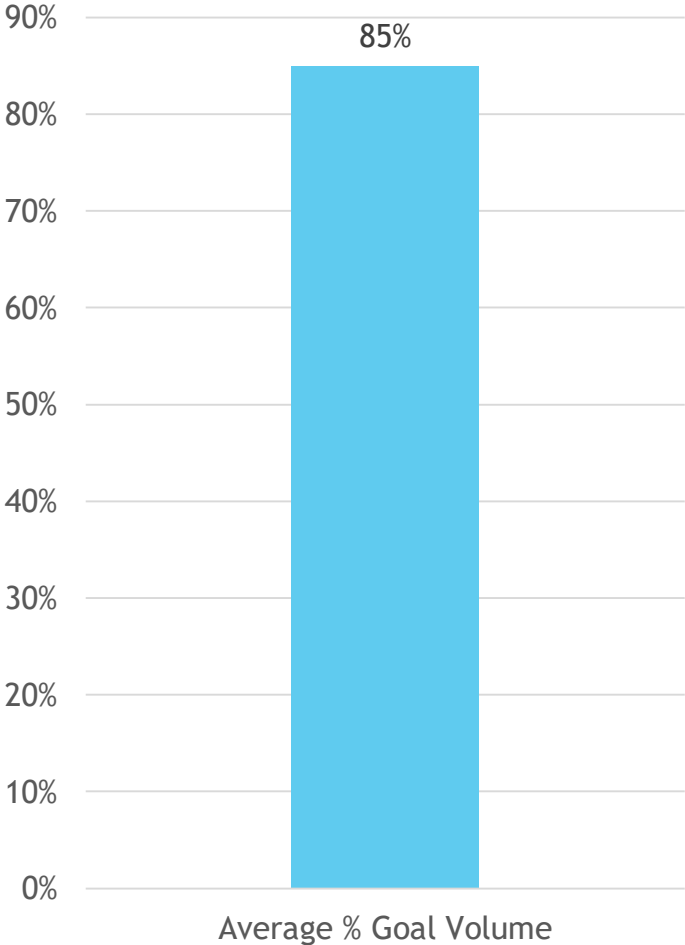
- Difficulty with calculating by hand due to limited use of math on daily basis (chart calculates every other rate/drip in ICU).
- In side bar there is link to spreadsheet that will calculate for RN, but many do not know how to find it.
- Concern that calculated rate will be “too much” and patient will not tolerate, even though note specifies maximum of 150 mL/hr

PEPuP successfully implemented and patient receives new goal volume until midnight

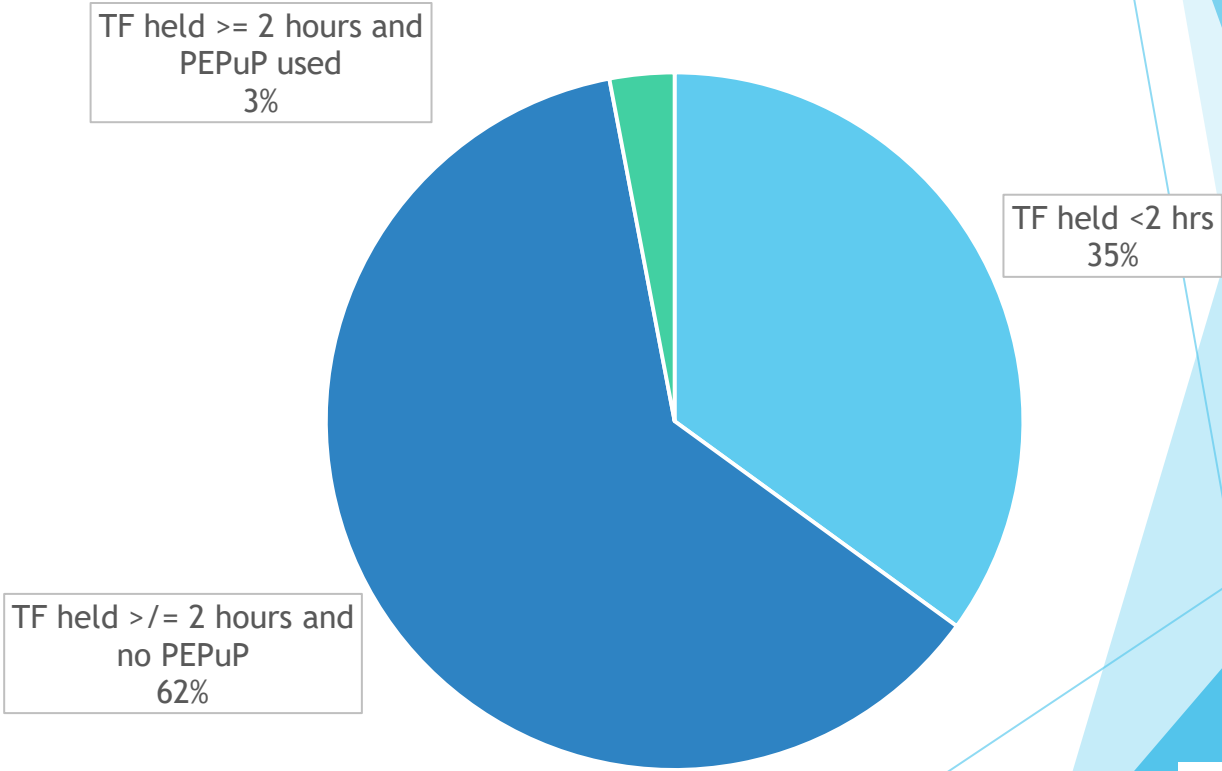
- Details on tube feeding not typically passed in report.
- RNs unsure when tube feeds were held, how long, or whether they are currently on PEPuP rate as it is not documented in chart.
- Night shift concerned that there is not reminder at midnight to reset to goal rate, so it continues on for a few hours before they remember.

# Collected Baseline Data

### Baseline % Goal Daily TF Volume Achieved



### Baseline PEPuP Utilization



# DO

- Host PEPuP table at Fall Skills Check-off events for ICU RNs (poster on PEPuP, sample PEPuP scenario/calculation, feeding pump to show how to look at history, laptop with “playground” to show how it looks in chart)
- Contact IT to get spreadsheet that calculates PEPuP rate placed on desktops of all ICU computers (other spreadsheets/calculators RNs use regularly are there)
- Daily reminders with RNs directly after rounds to utilize PEPuP if needed and check-in to help with calculating (request by team members)
- Place PEPuP reminder on computers in ICU (may only be able to keep short-term)
- Long-term ideal goals
  - Have details of PEPuP utilization and goal TF volume received in chart for all to see and so reports can be run
  - Have PEPuP reminders in worklist for RNs (possibility to trigger when they enter that tube feeds are held in MAR and again at midnight to reset rate)

# STUDY

- In March 2019, we will collect data to assess outcome of our pilot.
- Will assess utilization rate of PEPuP and % goal volume tube feeds received for patients.
- Will share outcomes with team for discussion and further planning as needed.



# ACT

- Depending on findings from March 2019 team will decide on implementing current plan permanently or repeating PDSA cycle.
- Once a successful plan is found, results can be shared with system-wide RDs and RNs to help benefit other ICUs in our health system.

# DASHBOARD

- ▶ With current method of data collection, will plan on creating dashboard to send to team members every 6 months.
- ▶ If there is a way to track utilization of PEPuP and % goal daily tube feed volume received in chart or through a report, could likely monitor more frequently with team (every 1-2 months).
- ▶ Once we are able to achieve our goals for an entire year and PEPuP protocol is part of our “culture” in the ICU, will likely decrease monitoring to yearly or as needed.

# LESSONS LEARNED

- ▶ Importance of teamwork and collaboration
- ▶ Out of sight, out of mind
- ▶ If it's not documented, it's like it didn't happen

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