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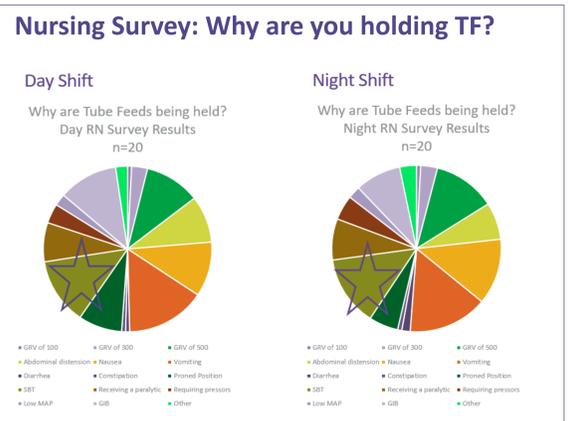
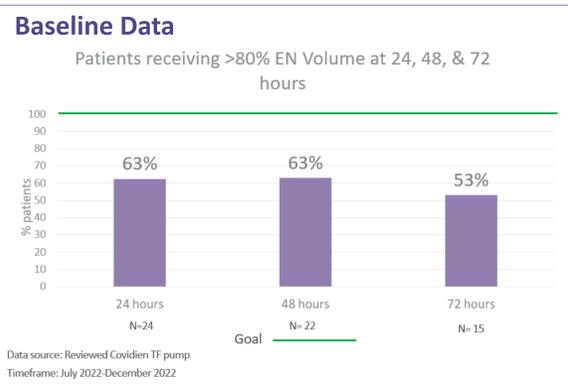
**Process Owner**  
Arielle Belove

**Team Members:** Arielle Belove, Jaclyn Clemens, Valarie Chudzinski, Mat Huidobro, Jason Harris, Dr. Alok Patel

Increased tube feed delivery at 24 and 48 hours by 12% through incorporating the dietitian into ICU rounds and stopping the practice of holding tube feeds at 5am in preparation for spontaneous breathing trials.

## BACKGROUND

There is an increase in holding tube feeds (TF) in the ICU, leading to patients receiving less than the prescribed TF ordered. The American Society of Enteral and Parenteral Nutrition recommend meeting >80% of estimated energy needs once TF has reached goal. Initial data showed that 63% of patients were meeting >80% of their goal volume at 24 and 48 hours and 53% were meeting >80% of their goal volume at 72 hours.



The #2 reason for TF holding, after vomiting, was for spontaneous breathing trials.

## METHODS

The “5 Why Analysis” exercise was used to get to the root cause of the increase in TF holds around spontaneous breathing trials.

Event: Optimizing Enteral Nutrition Delivery in the ICU		Event Date: 4/27/23
<b>Define the problem:</b>	There is an increase in holding of EN in the ICU, leading to patients receiving less than the prescribed TF ordered.	
<b>WHY 1 Primary cause(s)</b>	Night RN turns off TF around 4 or 5 am	
<b>WHY 2</b>	This practice was used before we had 24hr intensivist coverage.	
<b>WHY 3</b>	Have the feeds off a couple hours, undergo SBT, and then extubate if able upon intensivist arriving to the unit	
<b>WHY 4</b>	Goal was to extubate early in the day to see if patient would need reintubation before the intensivist left for the day	

### Highlighted Process Issues and Solutions

Barriers to achieving >80% goal TF volume	Solutions	Implementation Date
<b>Holding TF at 5am in preparation for a Spontaneous Breathing Trial (SBT) later that day</b>	Reviewed Clinical Nutrition, Nursing, and Respiratory policies to make sure there were no policies already in place regarding timing of holds on TF prior to SBT	March 2023
	RD started attending daily ICU rounds (Mon-Friday)	3/20/2023
	RN survey developed and sent out to RN day and night staff and results reviewed with ICU manager and Clinical Practice Specialist	3/2023-4/2023
	Obtain buy in from all intensivists to stop the 5am TF holds	4/2023-5/2023
	Rounding with Day and Night RN staff to stop the 5 am TF holds	6/2023
	Clinical Practice Alert (CPA) created and shared with ICU nursing staff	6/30/2023
	Go live of new process -> Stop the 5am TF holds	7/3/2023

## RESULTS

A comparison of pre and post intervention data shows a 12% improvement at 24 and 48 hours. There was a decrease of 3% at 72 hours. Given the small sample size of the post-intervention data, this is likely not reflective of the impact these interventions will have on improving TF delivery.

### Comparison of Post Intervention Data vs. Baseline Data



Metric	Goal	Control Limit	Control Measurement				
			Review Process	Frequency	Process Owner	Threshold for Action	
% of Tube Feed delivered (goal >80%)	100%	90%	ICU RD to pull and review summary report from EDW	Monthly	ICU RD	2 consecutive months below the control limit	Pull together work group to identify barriers/opportunities
			Presented to the Nutrition Support committee	Quarterly			
			Volume EN delivered discussed at ICU rounds	Mon-Fri			
% of 5am TF holds	0%	10%	ICU RD to review EDW report of 5am holds	Monthly	ICU RD	2 consecutive months below the control limit	Schedule meeting with ICU RN educator/ ICU manager to review need for RN education/review

## CONCLUSIONS

**Project Highlights:** There was limited data to reflect on post interventions, however, we are moving in the right direction!

### Impacted Groups:

- Patients: Positively impacting our intubated ICU patients by feeding them more
- Nurses: One less step in the night shift RN workflow
- Interdisciplinary team: Encouraged more collaboration between RD, MD and RN

## REFERENCE

McClave, S. A., Taylor, B., Martindale, R. G., Warren, M., Johnson, D. R., Braunschweig, C. L., McCarthy, M. S., Davanos, E., Rice, T. W., Cresci, G., Gervasio, J. M., Sacks, G. S., Roberts, P. R., & Compher, C. (2016). Guidelines for the provision and assessment of nutrition support therapy in the adult Critically Ill patient. *Journal of Parenteral and Enteral Nutrition*, 40(2), 159–211. <https://doi.org/10.1177/0148607115621863>