Improving Compliance with Delirium Interventions through an APRN Consultation

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Learning Objectives

- 1) Describe the role and the impact of an APRN in the treatment of delirium.
- 2) Explain the value of the APRN care plan in eliminating barriers to delirium treatment interventions.

Background

- Most common psychiatric condition seen in hospitals
- Longer length of stay, increased costs, increased mortality, decreased quality of life, and long term cognitive deficits
- ➤ Use a national set of guidelines for treatment and prevention of delirium
 - Mobility promotion, nutrition optimization, cognition, hypoxia management, sensory, medication management, sleep hygiene, infection prevention, and constipation prevention
- Compliance was low with completing interventions with no improvement on treating delirium
- Feedback was gathered from the frontline staff to identify barriers
 - ➤ Cited lack of time, resources, and knowledge in applying interventions
- ➤ Literature suggests APRN Consultations increase compliance with interventions and decrease length of stay and duration of delirium
- ➤ Need to provide real time support to the bedside staff and providers
- > Can have a large clinical and operational impact

We would like to acknowledge our Executive Leaders, contributors, and all the frontline staff who have made this work possible.

Intervention

- Quality Improvement initiative using PDSA methodology
- APRN conducts a consultation on patients screening positive for delirium on one medical unit in an academic medical center hospital
- A pre-survey and two post surveys given to nursing staff to assess their competency and perceived value of delirium interventions
- One 30-minute educational session given to nursing staff prior to beginning consultations
- > APRN Delirium Consultation completed daily for 6 weeks
 - Note in electronic health record
 - Plan of Care with individualized interventions for the specific patient
 - Support for the bedside staff and providers
- Baseline data was compared to data during intervention period
- ➤ OVERALL Goals: To increase comfort and compliance with delirium interventions among the staff, eliminate barriers, and demonstrate the value of an APRN in a consultative role as a key member of the care team. To decrease the length of stay and the duration of delirium.

Table 1 – Nursing Survey

I feel confident in using the NuDESC screening tool for			
delirium.			
I can identify the causes of delirium.			
I feel confident in my ability to provide mobility			
interventions to my patients based off of the Bundle			
recommendations.			
I feel confident in my ability to provide hypoxia			
interventions to my patients based off of the Bundle			
recommendations.			
I feel confident in my ability to provide nutrition			
interventions to my patients based off of the Bundle			
recommendations.			
I feel that I have all the tools and resources I need to			
provide delirium interventions to my patients.			
I observe the impact delirium interventions can have on			
my patients.			
I see value in providing delirium interventions to my			
patients.			
*I see value in having an APRN consultation and care			
plan.			
*Please rate your readiness to learn new			
interventions/initiatives for your patients on a scale 1-5			

1= not ready or open, 5= very ready and open

*not statistically significant

Table 2 – Intervention Elements

	Process Metric	Results
Mobility		
	Percentage of time a form of mobility was documented	Z= -2.12, p=.03*
	Percentage of time patient was mobilized (excluding bedrest, refused)	Z= -1.73, p=.09
Нурохіа		
	Percent of pulse oximetry readings below 89%	Z=8.06, p<.001*
	Percent of pulse oximetry readings recovered to >90% within 5 minutes	Z=.64, p=.52
Nutrition		
	Percent of patients who are malnourished	Z=03, p=.98
	Percent of patients with MST completed within 24 hours	Z=1.04, p=.65
	Average hours from admission to an oral supplement ordered	t(300)=52, p=.60, two- tailed
	*statistically significant	

Outcomes and Impact

- ➤ Baseline data gathered for 6 weeks prior to intervention
- ➤ Data gathered for the 6 weeks of intervention period
- The 3 nursing surveys demonstrated a large statistically significant improvement in their competency and finding value in an APRN delirium consultation
- ➤ Sample included 18 patients
 - ➤ Average length of consultation was 43 minutes and about 2.9 visits per patient
 - ➤ LOS for delirious patients decreased from 10.4 days to 7.7 days (p=.07), savings of 2.7 days per patient
 - ➤ Decrease in duration of delirium from 26.5% of their stay to 16.9% (p<0.00)
 - ➤ Mobility and hypoxia intervention compliance increased (p=0.09, p=0.03, p<0.01)
 - ➤ Other process metric interventions did not improve
 - ➤ Most delirium was present on admission



These results illustrate the value of an APRN in a consultation role and demonstrate a cost savings of \$379,080 annually on one unit by decreasing the LOS by 2.7 days per patient with delirium.

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