

# Early Detection of Delirium in Acute Care for the Elderly

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## Background and Purpose

- The prevalence of delirium is estimated to be up to 42% of hospitalized elders (Kukreja, Gunther & Popp, 2015).
- Fifty-five percent of all patients hospitalized at project site in fiscal year 2019 were 65 or older, as compared to an average of 46% across all hospitals in the state of Maryland (Maryland health services cost review commission, 2019).
- Delirium is potentially reversible with early detection if the identified precipitants are treatable (Bush et al., 2017).
- A large number of cases of delirium are missed or misdiagnosed due to under recognition of the syndrome and lack of routine effective screening practices in health care settings (Bush et al., 2017).
- Best evidence supports the use of the CAM (Wong, 2010). The CAM is the most widely used method worldwide, used in over 5,000 original studies and was developed to be used by non-psychiatrically trained clinicians and researchers (Inouye, 2016).
- Delirium is highly prevalent in patients aged 65 and older, yet nursing use of screening tools in this population is lower on acute care floors that care for patients of all ages as compared to the ACE unit, which exclusively cares for only patients 65 and older.
- The purpose of this quality improvement project is to implement and evaluate an EPIC 65 and older nursing care plan intervention to increase nursing delirium screening and decrease the incidence rate of delirium in patients aged 65 and older on 4 Medical.

## Aims

- AIM 1:** Daily nursing compliance with use of delirium screening tools in patients 65 and older in acute care will increase by implementing an EPIC 65 and older nursing care plan when assessed at the 4, 8, and 12 week intervals as compared to baseline.
- AIM 2:** The incidence of delirium in patients 65 and older in acute care will decrease by implementing an EPIC 65 and older nursing care plan specific to patients aged 65 when assessed at the 4, 8, and 12 week intervals as compared to baseline.

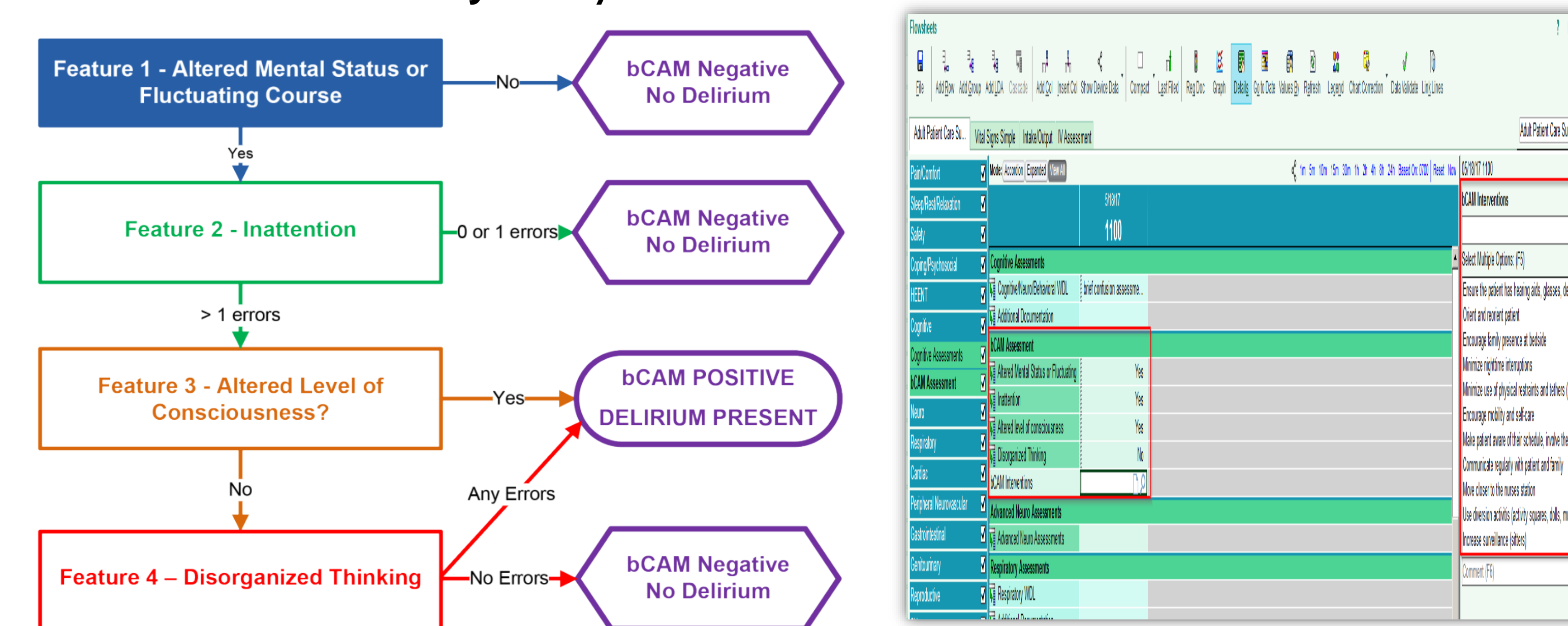
## Methods

### Project Design and setting

The design of this project is a retrospective chart review with pre and post comparison. The environment where the project took place is at a large (380-bed) non-profit medical center in the Mid-Atlantic region, on a 33 bed acute care medical floor.

### Sample

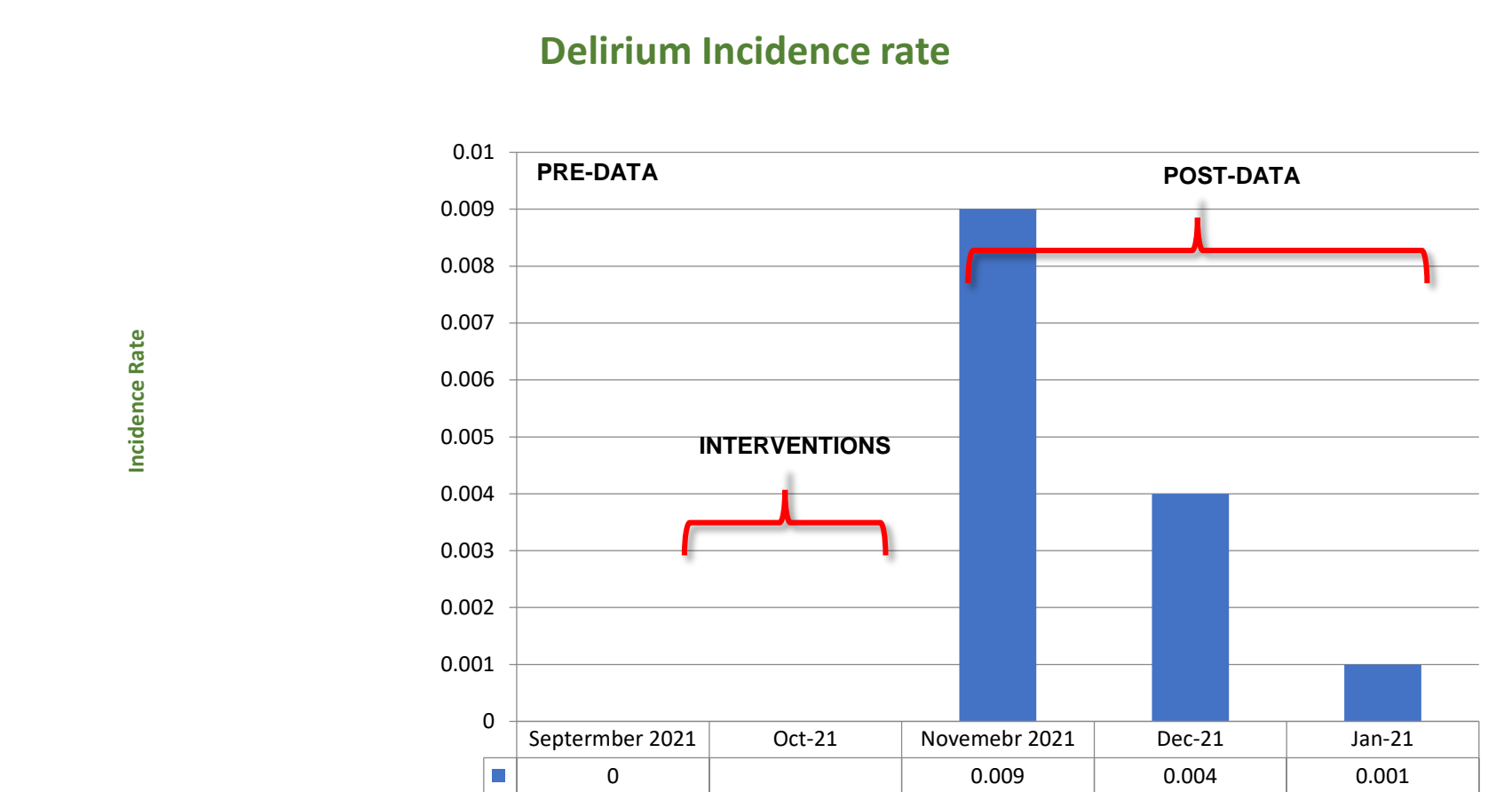
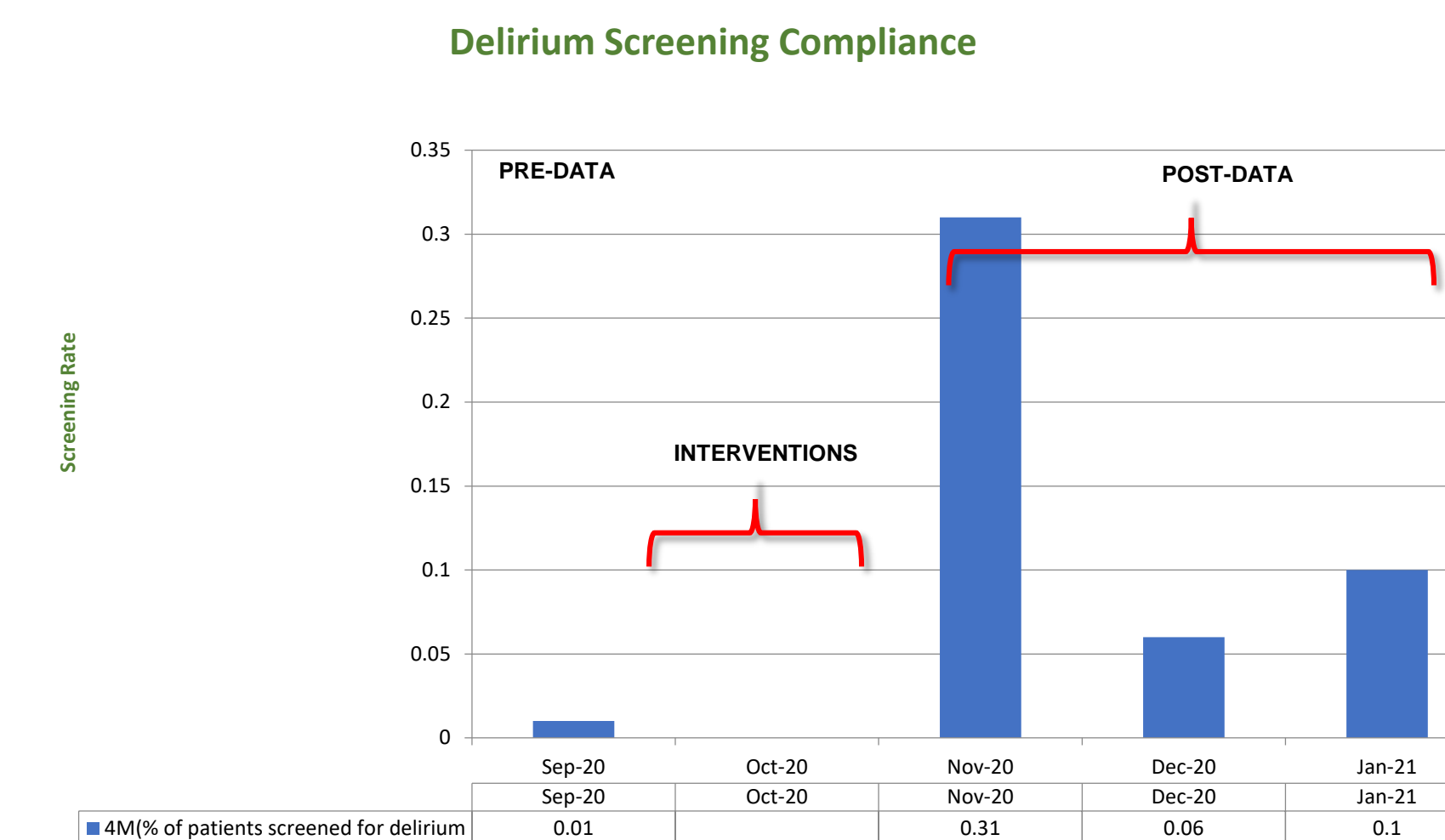
The sample participants/population consisted of all hospitalized patients aged 65 or older admitted to a 33 bed acute care medical floor at a mid-Atlantic suburban medical institution. A convenience sample of all patients aged 65 and older, currently hospitalized on this floor were included in this study. The only exclusion criteria was age less than 65. In September, the daily average number of patients on the floor that were 65 and older was 13; In November, 16; In December, 15 and in January 18. See Table 1. 233 charts were reviewed in the month of September, 224 in the month of November, 232 in the month of December, and 279 were reviewed in January.



### Intervention and data collection procedures

Baseline delirium screening rates and delirium incidence rates were collected during the month of September 2020. During the month of October 2020, staff nurses were educated on delirium and the 65 and older EPIC care plan that auto-drops delirium screening into their daily flowsheets (see Figure 2). Nurses were educated by an e-learning module and in-person briefings were also held during nursing huddles at change of shift. In October of 2020, there were 41 staff nurses on this unit with no traveling or agency nurses. All 41 staff nurses were assigned the e-learning educational module. In October, 35 RNs completed the module (86%). 13% completed the module late (after implementation). 100% of the nursing staff did the module. Post implementation data was collected 30 days post intervention during the month of November, 60 days post intervention during the month of December, and 90 days post intervention during the month of January.

## Results



### Findings for Aim 1

In the month of September (baseline) the Delirium screening rate was 1%. In November, after implementation the screening rate was 31%, In December, the screening rate was 6% and in January the screening rate was 10%. There was a statistically significant difference in the number of patients screened in November ( $p=.000$ ), December ( $p=.004$ ) and January ( $p=.000$ ) when compared to baseline by chi square analysis.

### Findings for Aim 2

In the month of September (baseline) the Delirium positivity rate was 0%. In November, after implementation the positivity rate was .9%, In December, the positivity rate was .4% and in January the positivity rate was .1%. There no statistically significant difference in the number of patients that screened positive for delirium in November ( $p=.424$ ), December ( $p=.361$ ) and January ( $p=.112$ ) when compared to baseline by chi square analysis. **Limitations** Unfortunately, the project was limited by the COVID-19 epidemic resulting in significant nursing staff (travelers and floaters not part of education) and bed changes on the unit to allow for a large number of COVID-19 patients in the middle of the project implementation

## Conclusions and Dissemination

Implementing the 65 and older care plan resulted in a clinically and statistically significant increase in the number of patients 65 and older that were screened for delirium and received interventions for delirium prevention, however there was no clinical or statistical difference in the incidence rates of delirium after the care plan intervention. Project design AIM #2 was not well constructed, as measuring a true delirium incidence rate proved to be very difficult because not every patient was screened. Moving forward, the project can be sustained by continuing to educate new staff on the importance of delirium screening, early interventions and the reasoning behind including screening in the daily care plan. Future initiatives could examine nursing staff knowledge and attitudes concerning delirium screening as well as potential barriers to screening that differ between units. There is large potential to achieve clinical significance in future endeavors when not hindered by competing priorities like COVID-19. The results were shared at this project site via the annual Nursing Grand Rounds. This conference meeting was held virtually and had over 80 attendees. Additional consideration is being given to journal publication.