Developing a Delirium Clinical Care Pathway: Improving Patient Outcomes and Safety

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Background

Delirium, a common and often preventable complication in hospitalized patients, is associated with increased morbidity, mortality, and prolonged hospital stays. Developing a standardized clinical care pathway can enhance early recognition, prevention, and management of delirium. This poster aims to outline the key components of a delirium care pathway and discuss its potential benefits.
The Perioperative Clinical Practice Council at Salinas Valley Health Medical Center had noted the need to improve post-operative delirium management. After assessing the scope of the problem throughout the medical center, the house-wide Delirium Task Force, convened by the Practice Council, began work to develop and implement a Delirium Clinical Care Pathway.

Methods

A multidisciplinary task force, including physicians, nurses, and pharmacists, was convened to develop a delirium care pathway. The task force conducted a comprehensive review of literature using the search terms with appropriate Boolean operators: "delirium," "acute care," "hospital-acquired delirium," "assessment," "cognitive impairment," "deliriogenic," "geriatric," "length of stay," "morbidity," and "mortality." Articles included four practice or professional association guidelines, two systematic reviews, two research articles, one best practice statement, four expert reviews or opinions, and four contextual sources totaling 17 evidence sources. A University of California San Francisco (UCSF) age-friendly program was consulted. The task force created a pathway, which incorporated these evidence sources, validated assessment tools, and input from stakeholders. The proposed practice change involving five key components include:

1. Risk Assessment: Implementing a validated delirium risk assessment tool to identify patients at high risk. Three tools were adopted: AWOL for risk assessment; Nursing Delirium Assessment Screen (NuDeSc); and Confusion Assessment Method for the ICU/CCU (CAM-ICU) for actual delirium occurrence assessment.
2. Early Detection: Establishing protocols for routine delirium screening and prompt recognition. The patient will be screened for delirium risk at first point of contact with nursing in the Emergency Department, Outpatient Surgery (OPS), and other ambulatory admitting areas, or the inpatient unit.
3. Prevention Strategies: Implementing interventions to reduce delirium risk factors, such as adequate hydration, sleep, and medication management. A sunrise sunset protocol and a quiet menu were implemented that consisted of non-pharmacologic nursing interventions that staff can utilize for high-risk patients. A comprehensive education plan was implemented from August to September 2023 for all clinical and non-clinical staff to facilitate awareness of the delirium pathway. A community page on STARnet, the organization's intranet site, was also made to be a repository of resources for the Delirium Clinical Care Pathway. As family and patient education is important, patient education brochures, care notes, and information on the organization's website were developed to facilitate this.
4. Management: Providing standardized guidelines for the treatment of delirium, including environmental modifications, pharmacotherapy, and supportive care. Delirium order sets were developed for the medical management of patients who developed active delirium.
5. Monitoring and Evaluation: Continuously monitoring the effectiveness of the pathway and making necessary adjustments. The Delirium Task Force and Champions will continue to advocate the use of the pathway. Collaboration with informatics and the Quality Department is currently being done to evaluate compliance and clinical outcomes. The Delirium Task Force and Champions are hoping that the pathway becomes a cornerstone for age-friendly care in the organization.

Results

The development of a delirium care pathway resulted in a standardized approach to the prevention, diagnosis, and management of delirium. This pathway can improve patient outcomes by reducing the incidence of delirium, shortening hospital stays, and improving functional recovery. Additionally, it can enhance communication among healthcare providers and ensure consistent care across the organization. Continued collaboration with the Quality Department and Clinical Informatics is needed to obtain data on process and outcome measures that will support future work on the pathway. As education of staff was an integral piece of implementation, the program went live with 95% of the nursing staff having attended the delirium in person class and physicians having participated in one of two classes held by the physician champions.

The pathway went live in October 2023, and Figures 1 and 2 show outcomes on process measures reflecting consistent use of the delirium order sets and delirium screening assessment documentation screens. In March 2024, a Delirium Awareness Day communication, verification of AWOL screening during pre-admission testing, and a follow-up survey from education has led to a marked increase in risk screening. The stability in ongoing surveillance and order set usage from this period may also point to a standardization of the delirium care pathway in the workflow.

Figure 1

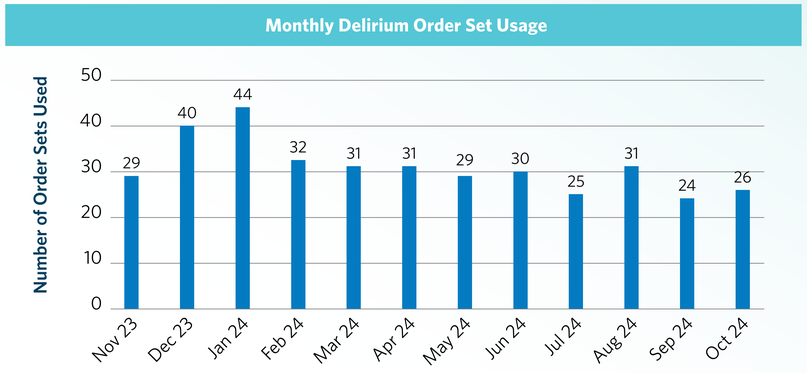
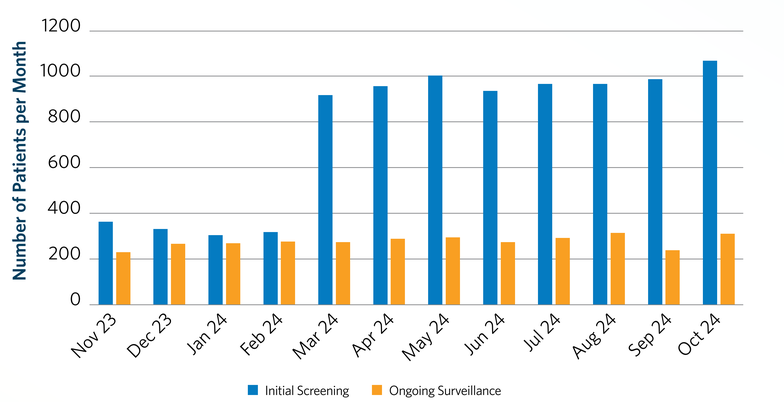


Figure 2



We developed a 3-question survey (see Table 1) to assess nurses' confidence surrounding delirium care, which was administered at baseline (before the course or pre-course), immediately after (post-course), and 6 months after the delirium education class. The survey was on a Likert Scale of 1-10, with "1" being least confident and "10" being fully confident. Compared to the mean baseline scores of 5.6, 6.2, and 5.8 for questions 1, 2, and 3, respectively, results immediately post-class increased to a mean of 8.7 for all three questions. At 6 months post-course, scores dropped to 7.2, 7.0, and 7.6 for questions 1, 2, and 3, respectively (see Figures 3, 4, and 5). Respondents also had the opportunity to enter responses in an open comment section. In the open comments, respondents mentioned not having sufficient hands-on practice with caring for a patient who is in active delirium. This lack of consistent exposure to these patients may be one of the reasons why scores dropped at 6 months after the education.

Table 1

Confidence Survey Questions
1. How confident are you assessing the risk level for delirium?
2. How confident are you in assessing for active delirium?
3. How confident are you in implementing interventions to decrease the risk of active delirium?

Figure 3

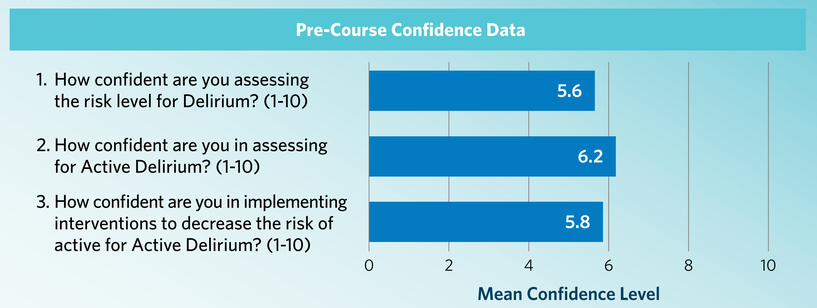


Figure 4

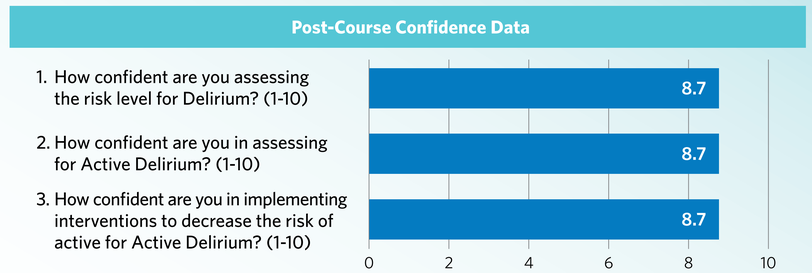
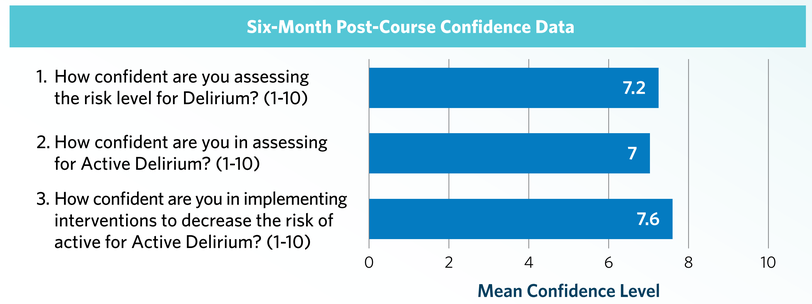


Figure 5



Conclusions

Implementing a delirium clinical care pathway is essential for improving patient outcomes and safety. By providing a structured approach to the prevention, diagnosis, and management of delirium, healthcare organizations can enhance the quality of care for patients at risk. By enacting a pathway, a systematic approach to the prevention, early detection, and management of delirium had multiple benefits. Early detection improves patient outcomes through timely interventions, which leads to shorter hospital stays, improved clinical metrics, and enhanced patient comfort and quality of life. Validated assessment tools improves efficient care coordination, allowing staff to feel more capable of managing a frequently occurring clinical condition, especially with specific patient populations and care settings. A limitation of this initiative was that we could not reliably compare pre- and post-intervention outcomes related to the delirium pathway implementation thus limiting our ability to demonstrate the impact of the delirium pathway on patient-level outcomes.

References

Scan here for the full literature review