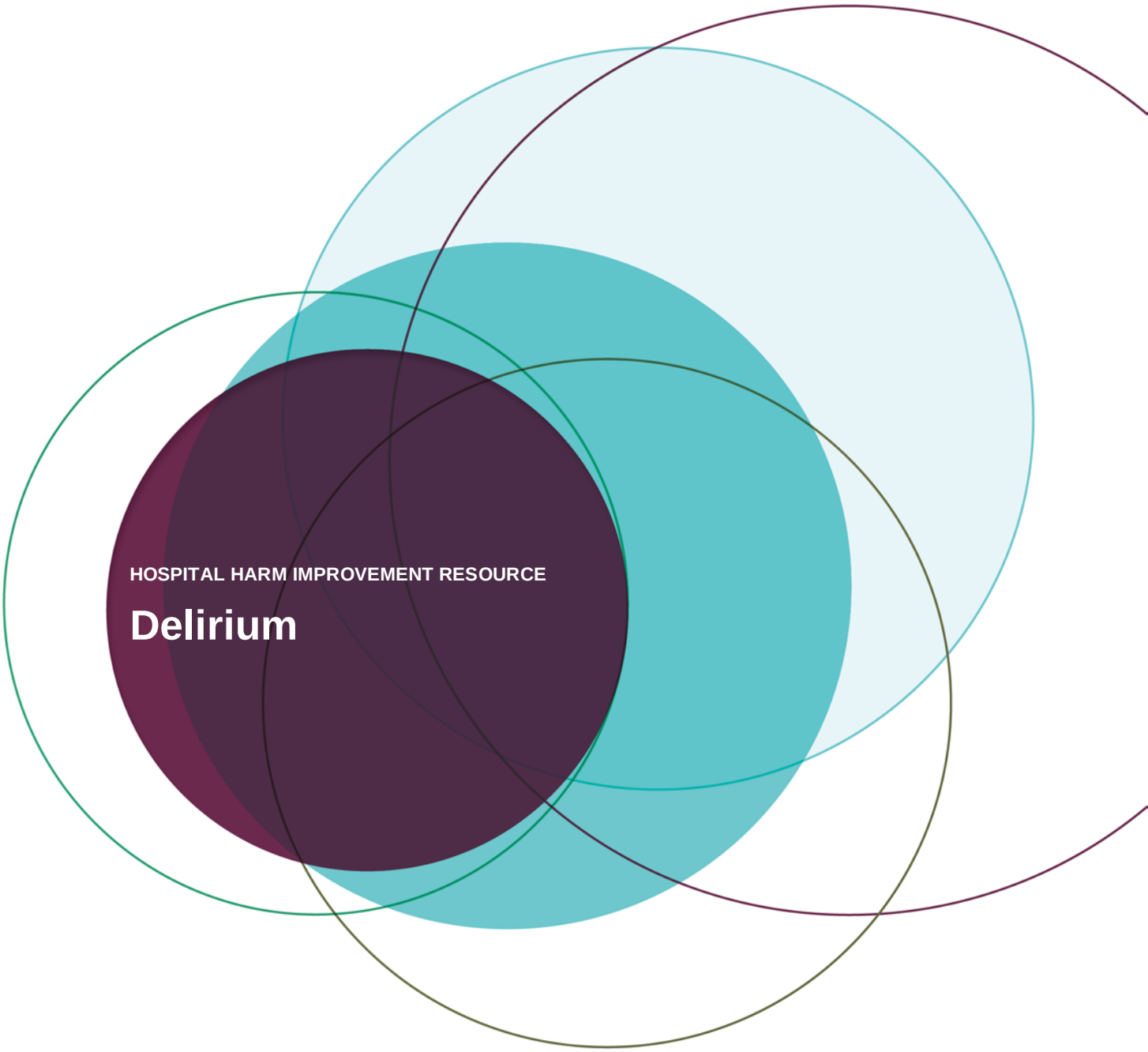

HOSPITAL HARM IMPROVEMENT RESOURCE

Delirium

cpsi icsp
Canadian Patient Safety Institute
Institut canadien pour la sécurité des patients

ACKNOWLEDGEMENTS

The Canadian Institute for Health Information and the Canadian Patient Safety Institute have collaborated on a body of work to address gaps in measuring harm and to support patient safety improvement efforts in Canadian hospitals.

The Hospital Harm Improvement Resource was developed by the Canadian Patient Safety Institute to complement the Hospital Harm measure developed by the Canadian Institute for Health Information. It links measurement and improvement by providing resources that will support patient safety improvement efforts.

DISCHARGE ABSTRACT DATABASE (DAD) CODES INCLUDED IN THIS CLINICAL CATEGORY:

A05: Delirium

Concept	Temporary disturbance in consciousness with changes in cognition identified during a hospital stay.
Selection criteria	
F05.–	Identified as diagnosis type (2)
Codes	**Code descriptions**
F05.–	Delirium, not induced by alcohol and other psychoactive substances

Overview

Delirium is a state of confusion that comes on very suddenly and lasts hours to days. It can cause changes in a person's ability to stay alert, remember, be oriented to time or place, speak or reason clearly. Delirium can be caused by many things including having an infection, recent surgery, various medical conditions, untreated pain, starting, increasing or stopping some medicines, or not eating or sleeping well. Many things can make delirium worse including physical restraints, bed rest, bladder catheters and certain medications (Coalition for Seniors' Mental Health 2017; American Delirium Society 2015).

Delirium is a common problem in hospitalized ICU patients. It is sometimes not recognized or is misdiagnosed as another condition such as dementia or depression. Patients who experience delirium in the hospital (compared to patients without delirium) are more likely to:

- Stay longer in the hospital and have more hospital associated complications.
- Experience higher mortality rates in the hospital and up to six to 12 months later.
- Lose physical function in the hospital and need long-term care after the hospital.
- Develop dementia or similar types of cognitive impairment even if the delirium clears.

  (American Delirium Society 2015).

Delirium can be prevented. The most important step in delirium management is early recognition and prevention making it an important strategy for quality improvement (Safer *Healthcare Now!* 2013).

Goal

To improve the early detection and reduce the incidence of delirium in at risk hospitalized patients in intensive and general care units through implementation of standardized delirium screening and prevention strategies.

Importance to Patients and Families

Delirium can also be referred to as "sundowning" or "ICU psychosis" (American Delirium Society 2015). It may be frightening to family members who are often more aware of the changes in a family member's mental status than are the care providers. With the proper care, delirium can be prevented or minimized *(Safer Healthcare Now!,* 2013). Family involvement, particularly in critical care, does not reduce delirium incidence but improves psychological recovery (Black 2011).

Patient Story

Let's Respect

Mr. Graham was admitted to hospital with dysphagia and weight loss. He was very confused and uncooperative, believing that staff were trying to poison him. On admission, Mr. Graham's wife explained that he had Alzheimer's disease and described to staff how he usually presented and what he was able to do for himself. She also advised that he had recently been admitted in a confused state to another hospital. Mr. Graham was in fact in the early stages of dementia and had retained good insight into his problems. To many people, he would not usually have appeared 'confused' because of his good social skills.

Unfortunately, the diagnosis of 'dementia' became dominant in his hospital notes, to the degree that this prevailed over his presenting health problems. Despite the details his wife had given, it was assumed that all of Mr. Graham's confusion was due to his dementia and that this was 'normal' and therefore did not warrant further investigation. Mrs. Graham did not feel that all her husband's confusion was due to his dementia, but staff did not seem to be listening, and so she contacted their mental health liaison nurse. The nurse's assessment revealed that Mr. Graham was suffering from anaemia and she recommended further investigation.

It was found that he had indeed been admitted to another local hospital just two months earlier with the same problem. He had received four units of blood and his delirium improved. Mr. Graham received a further blood transfusion and much of his confusion cleared, but his haemoglobin levels were not maintained, and he continued to lose weight due to his difficulty with swallowing. By now, Mr. Graham had become very quiet and subdued. Further investigations eventually followed, and Mr. Graham was found to have a malignant growth in his oesophagus. He died in hospital two weeks later.

Mr. Graham's case demonstrates the dangers of failing to recognise Delirium in people who have dementia and subsequently denying them the assessment and care they are entitled to.

It also shows the importance of listening to those who know the patient well. The need for improved communication and further training and education for hospital staff is also indicated by this case (Let's Respect 2006).

Clinical and System Reviews, Incident Analyses

Given the broad range of potential causes of Delirium, clinical and system reviews should be conducted to identify potential causes and determine appropriate recommendations.

Occurrences of harm are often complex with many contributing factors. Organizations need to:

1. Measure and monitor the types and frequency of these occurrences.
2. Use appropriate analytical methods to understand the contributing factors.
3. Identify and implement solutions or interventions that are designed to prevent recurrence and reduce risk of harm.
4. Have mechanisms in place to mitigate consequences of harm when it occurs.

To develop a more in-depth understanding of the care delivered to patients, chart audits, incident analyses and prospective analyses can be helpful in identifying quality improvement opportunities. Links to key resources for conducting chart audits and analysis methods are included in the Hospital Harm Improvement Resources Introduction

If your review reveals that your cases of delirium are linked to specific processes or procedures, you may find these resources helpful:

- American Delirium Society. https://www.americandeliriumsociety.org/
- Australian Commission on Safety and Quality in Health Care: Delirium Clinical Care Standard. https://www.safetyandquality.gov.au/publications-and-resources/resource-library/delirium-clinical-care-standard-improve-care-and-prevention
- Canadian Coalition for Seniors' Mental Health. http://www.ccsmh.ca/projects/delirium/
- Critical Care Medicine; Clinical Practice Guidelines for the Prevention and Management of Pain, Agitation/Sedation, Delirium, Immobility, and Sleep Disruption in Adult Patients in the ICU. (2018) https://journals.lww.com/ccmjournal/fulltext/2018/09000/Clinical_Practice_Guidelines_for_the_Prevention.29.aspx
- European Delirium Association. http://www.europeandeliriumassociation.org/
- National Institutes for Clinical Excellence (NICE) https://www.nice.org.uk/
    - Delirium: prevention, diagnosis and management Clinical guideline (Published 2010, updated 2019) https://www.nice.org.uk/guidance/cg103
    - Delirium in adults Quality standard (2014) https://www.nice.org.uk/guidance/qs63
- Registered Nurses Association of Ontario (RNAO) - Delirium, Dementia, and Depression in Older Adults: Assessment and Care (2016). https://rnao.ca/bpg/guidelines/assessment-and-care-older-adults-delirium-dementia-and-depression
- *Safer Healthcare Now!* Prevention and management of Delirium: Getting Started Kit. Canadian Patient Safety Institute, 2013. http://www.patientsafetyinstitute.ca/en/toolsResources/Pages/Delirium-Resources-%E2%80%8BGetting-Started-Kit.aspx

MEASURES

Vital to quality improvement is measurement, and this applies specifically to implementation of interventions. The chosen measures will help to determine whether an impact is being made (primary outcome), whether the intervention is actually being carried out (process measures), and whether any unintended consequences ensue (balancing measures). In selecting your measures, consider the following:

- Whenever possible, use measures you are already collecting for other programs.

- Evaluate your choice of measures in terms of the usefulness of the final results and the resources required to obtain them; try to maximize the former while minimizing the latter.
- Try to include both process and outcome measures in your measurement scheme.
- You may use different measures or modify the measures described below to make them more appropriate and/or useful to your particular setting. However, be aware that modifying measures may limit the comparability of your results to others.
- Posting your measure results within your hospital is a great way to keep your teams motivated and aware of progress. Try to include measures that your team will find meaningful and exciting (IHI 2012).

Global Patient Safety Alerts

Global Patient Safety Alerts provides access and the opportunity to learn from other organizations about specific patient safety incidents including alerts, advisories, recommendations and solutions for improving care and preventing incidents. Learning from the experience of other organizations can accelerate improvement.

Recommended search terms:

- Delirium
- Confusion
- Amnesia
- ICU Psychosis

Success Stories

Covenant Health

Covenant Health has implemented a data collection tool and processes to ensure 100 per cent of intensive care unit (ICU) patients are screened for Delirium. Delirium is very difficult to recognize in a critical care setting and very often goes undiagnosed. The most important step in Delirium management is early recognition. When Alberta Health Services asked its Edmonton zone to standardize and implement Delirium screening, the team at Covenant Health's Misericordia Hospital site, along with other teams in Edmonton, looked for help from the *Safer Healthcare Now!* Delirium and Medication Reconciliation Collaborative to improve care for critically ill patients.

To increase Delirium awareness for staff on the unit, Covenant Health created and put into practice a comprehensive education program. From this program came strategies to arm families of Delirium patients with support and information. The team has also developed noise reduction strategies to minimize sleep disturbance for patients in the ICU and a mobilization protocol to ensure that patients are out of bed when appropriate. A new pain assessment tool is under development for intubated patients who cannot express their pain level.

The Covenant Health team included the nurse practitioner, educator, supervisor, manager, pharmacist, respiratory therapist and two physiotherapists – all instrumental in the development

of Delirium reduction strategies and making the mobilization protocol a reality. A physician group provided support in the ongoing management of appropriate medications.

“The Covenant Health team has made huge strides in implementing a significant change in practice and improved care,” says Kim Scherr, Nurse Practitioner. “Our efforts to manage and prevent delirium have had a positive impact on the health and quality of life for countless ICU patients.” (*Safer Healthcare Now!* One pager, 2013)

Safer Elder Care' Delirium Prevention Program - HSO Health Standards Organization

Of the patients admitted to Halton Healthcare’s Oakville Hospital, 65 per cent are aged 65 and over; among this group, those 85 and over represent the fastest growing age group in the Halton Region. Clinical staff at Halton Healthcare Services (HHS) recognized the unique needs of this population, and initiated an interdisciplinary Delirium prevention project in 2007 which would later evolve into the Hospital Elder Life Program (HELP) in 2016. The Hospital Elder Life Program (HELP) is designed to prevent delirium by keeping hospitalized seniors oriented to their surroundings, meeting their needs for nutrition, fluids, and sleep, and keeping them mobile within the limitations of their physical condition.

(Health Standards Organization, Leading Practices Library, 2010).

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