Quality Standards

Delirium

Care for Adults

Provincial Geriatrics Leadership Ontario

Ontario Health

About This Quality Standard

The following quality standard addresses care for adults age 18 years or older who are at risk for delirium or who are experiencing symptoms of delirium. It includes people who are in hospital (including emergency departments, acute and critical care, complex continuing care facilities and rehabilitation hospitals, and preoperative clinics), those transitioning from hospital to home, and those in long-term care homes and other community settings.

This quality standard focuses on the identification, assessment, prevention, and management of delirium across all health care professions.

What Is a Quality Standard?

Quality standards outline what high-quality care looks like for conditions or processes where there are large variations in how care is delivered, or where there are gaps between the care provided in Ontario and the care patients should receive. They:

- Help patients, families, and caregivers know what to ask for in their care
- Help health care professionals know what care they should be offering, based on evidence and expert consensus
- Help health care organizations measure, assess, and improve their performance in caring for patients

Quality standards are developed by Ontario Health, in collaboration with health care professionals, patients, and caregivers across Ontario.

For more information, contact qualitystandards@ontariohealth.ca.

Values That Are the Foundation of This Quality Standard

This quality standard was created, and should be implemented, according to the Patient Declaration of Values for Ontario. This declaration "is a vision that articulates a path toward patient partnership across the health care system in Ontario. It describes a set of foundational principles that are considered from the perspective of Ontario patients, and serves as a guidance document for those involved in our health care system."

These values are:

- Respect and dignity
- Empathy and compassion
- Accountability
- Transparency
- Equity and engagement

Acknowledging the Impact of Colonization

Health care professionals should acknowledge and work toward addressing the historical and present-day impacts of colonization in the context of the lives of Indigenous Peoples throughout Canada. This work involves being sensitive to the impacts of intergenerational and present-day traumas and the physical, mental, emotional, and social harms experienced by Indigenous people, families, and communities, as well as recognizing their strength and resilience. This quality standard uses existing clinical practice guideline sources developed by groups that may not include culturally relevant care or acknowledge traditional Indigenous beliefs, practices, and models of care.

Quality Statements to Improve Care

These quality statements describe what high-quality care looks like for people at risk for delirium or who are experiencing symptoms of delirium.

Quality Statement 1: Identification of Risk Factors for Delirium

On initial contact with the health care system, people are assessed for risk factors for delirium, especially when they present to hospital or long-term care. Any risk factors for delirium are documented in their health record and at transitions in care, and are communicated to the person, their family and caregivers, and their health care team.

Quality Statement 2: Interventions to Prevent Delirium

People at risk for delirium receive interventions to prevent delirium that are tailored to their individual needs and care setting.

Quality Statement 3: Early Screening for Delirium

People presenting to hospital with any risk factors for delirium, or who have an acute change in behaviour or cognitive function during a hospital stay or in a long-term care home or in the community, are screened for delirium in a timely manner by a health care professional who is trained in screening for delirium using standardized, validated tools. The person and their family and caregivers are asked about any acute changes in the person's behaviour or cognitive function.

Quality Statement 4: Education for People With Delirium, Family, and Caregivers

People who are at risk for delirium or who have delirium (as well as their family and caregivers) are offered education about delirium.

Quality Statement 5: Management of Delirium

Based on the results of a comprehensive assessment, people with delirium have a multicomponent interprofessional management plan to address the causes and manage the symptoms of delirium.

Quality Statement 6: Antipsychotic Medication

Only people who are in severe distress from symptoms of delirium or at immediate risk of harm to themselves or others are considered for antipsychotic medication use. These medications are always used in combination with first-line management strategies. If antipsychotic medication is started, it is reviewed daily and discontinued as soon as the clinical situation allows.

Quality Statement 7: Transitions in Care

At transitions in care, people with current or resolved delirium (as well as their family and caregivers) are given information related to delirium and its management. This information is communicated to those involved in the person's circle of care and documented in the health record at transitions in care.

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Scope of This Quality Standard

This quality standard addresses care for adults age 18 years or older who are at risk for delirium or who are experiencing symptoms of delirium. It includes people who are in hospital (including those in emergency departments, acute and critical care, complex continuing care facilities and rehabilitation hospitals, and preoperative clinics), those transitioning from hospital to home, and those in long-term care homes and other home and community settings.

The quality standard focuses on the identification, assessment, prevention, and management of delirium across all health care professions.

Some of the statements in this standard may apply to people who develop delirium at end of life—one of many common symptoms associated with a progressive, life-limiting illness. For specific guidance on the management of people living with a serious, life-limiting illness (and for their family and caregivers), see our quality standard *Palliative Care*.

This quality standard does not apply to people with confusion related to withdrawal from alcohol (see our quality standard *Problematic Alcohol Use and Alcohol Use Disorder*). This quality standard does not include guidance on the management of specific health complications secondary to delirium (e.g., falls, immobility, pressure injuries; see our quality standard *Pressure Injuries*).

Why This Quality Standard Is Needed

Delirium is an acute disorder of attention, awareness, and altered mental status.[1] It develops over a short period of time (usually hours to a few days) and tends to fluctuate in severity during the course of a day.[1] Other key clinical features of delirium include disorganized thinking, altered level of consciousness, disorientation, memory impairment, perceptual disturbances (illusions or hallucinations) and delusions, increased or decreased psychomotor activity, and disturbance of the sleep–wake cycle.[2]

People with delirium can present with hypoactive or hyperactive forms.[3] In the hypoactive form, people present as lethargic, withdrawn, and sleepy, and their delirium often goes unrecognized by clinicians and caregivers.[4] The hyperactive form is characterized by restlessness, agitation, being hyperalert, and often hallucinations and delusions. Many people may fluctuate between the two forms (mixed delirium).[3]

A number of health conditions—including neurocognitive, mood, anxiety, and psychotic disorders—may mimic delirium and cause it to be overlooked or misdiagnosed.[5] Distinguishing between these disorders can be especially difficult when people do not have family or caregivers available to provide knowledge of the person's baseline mental status and when the changes occurred. Delirium can be easily overlooked in people living with dementia because some of the symptoms overlap, and many people have both conditions (22% to 89% of people in the community and hospital have both).[6-8]

Although delirium may be caused by a single factor, it is more commonly the result of a combination of predisposing factors that make the person vulnerable (e.g., older age, coexisting medical conditions, dementia or cognitive impairment, depression, problems with hearing and vision) and exposure to acute precipitating factors or stresses (e.g., medications, malnutrition, acute illness, use of physical restraints, use of a bladder catheter, pain, sleep interruptions, surgery).[7,9,10] In up to 30% of cases, no cause can be found.[11,12]

Delirium is very common in older people in the hospital setting: overall occurrence rates range from 29% to 64%.[9] Settings with the highest incidence rates include intensive care (19% to 82%), post-surgical care (11% to 51%), palliative care (42% to 88%), and long-term care or post-acute care (20% to 22%).[9,13] The prevalence of delirium in the community setting is lower (1% to 2%), but its onset usually requires emergency care.[9] Delirium is present in 8% to 17% of older people who present at the emergency department.[9]

Delirium is an acute medical emergency that requires prompt recognition and treatment of underlying causes.[14,15] Delirium has been identified as the third most common harmful event experienced by people admitted to Canadian hospitals.[16] It has been associated with increased mortality across multiple care settings, including the emergency department,[17] hospital acute care[18] and intensive care units,[9,19,20] and long-term care homes.[21] Delirium is also linked to prolonged hospital length of stay and increased placement in long-term care homes after hospitalization.[9,22,23] Delirium can be a stressful and frightening experience for the person and their family and caregivers, as well as for their health care providers.[24,25]

An episode of delirium is often associated with decreased functional independence and cognitive decline (i.e., worsening of pre-existing cognitive impairment or dementia and increased risk of new-onset dementia).[9,22,26-28] Prolonged delirium, in which the symptoms persist at or beyond discharge from hospital, may occur in 29% to 55% of

patients.[27] As many as 30% have persistent symptoms 6 months after discharge from hospital.[29]

Despite the obvious burdens to individuals and to the health care system, delirium is often unrecognized, misdiagnosed as another disorder, or misattributed to dementia.[2,7,30] Indeed, delirium is recognized in only about one-third of cases.[5] However, early identification of risk factors is important because delirium can be prevented in 30% to 40% of cases,[9,31,32] using preventive interventions.[33,34] Guidelines support screening for those at risk,[7,28,30] and tailored interventions can prevent and manage delirium.[7,11,28,30,35] When symptoms of delirium are not identified early, assessment and treatment of the underlying causes and implementation of multicomponent management strategies are delayed.

Consulting with a medical specialist (i.e., geriatrician, geriatric psychiatrist) for older people who are undergoing emergency surgery can reduce the occurrence of delirium.[28] Compared with usual care (reactive geriatric assessment), preoperative assessment and postoperative follow-up by a geriatrician have been shown to reduce the incidence of delirium by over one-third and reduce severe delirium by over one-half in people with a hip fracture.[32]

When there are barriers to communication (e.g., language discordance, or hearing or speech impairments) delirium is more difficult to identify because many of the instruments used to screen for delirium rely on the ability to communicate. Barriers to communication can also hinder people's understanding of specific information related to delirium and its ongoing management.

The Senior Friendly Hospital Strategy in Ontario has identified improvements in practices related to delirium, but also some variation in the spread of these practices within and among participating Ontario hospitals (135 hospitals across the province).[36] As part of a broader strategy to improve the care of older adults who are hospitalized, the Senior Friendly Care (sfCare) Framework has been supporting best practices related to delirium.[15,37] Following the implementation of the sfCare Framework, the percentage of participating hospitals reporting delirium screening and detection practices increased from 62% in 2011 to 92% in 2014.[36] Hospitals reporting delirium prevention and management strategies increased from 62% in 2011 to 88% in 2014.[36] Despite these improvements, in 2014, only 36% of participating hospitals reported spreading screening and detection practices across the entire organization, and only 23% reported spreading prevention and management practices across the entire organization.

Regional disparities also exist for access to specialty geriatric services and other providers who may have special expertise in identifying and managing delirium.[38]

How to Use This Quality Standard

Quality standards inform patients, clinicians, and organizations about what high-quality care looks like for health conditions or processes deemed a priority for quality improvement in Ontario. They are based on the best evidence.

Guidance on how to use quality standards and their associated resources is included below.

For Patients

This quality standard consists of quality statements. These describe what high-quality care looks like for adults with delirium.

Within each quality statement, we've included information on what these statements mean for you, as a patient.

In addition, you may want to download this accompanying patient guide on delirium to help you and your family have informed conversations with your health care providers. Inside, you will find questions you may want to ask as you work together to make a plan for your care.

For Clinicians and Organizations

The quality statements within this quality standard describe what high-quality care looks like for adults with delirium.

They are based on the best evidence and designed to help you know what to do to reduce gaps and variations in care.

Many clinicians and organizations are already providing high-quality evidence-based care. However, there may be elements of your care that can be improved. This quality standard can serve as a resource to help you prioritize and measure improvement efforts.

Tools and resources to support you in your quality improvement efforts accompany each quality standard. These resources include indicators and their definitions (Appendix 1) to help you assess the quality of care you are delivering and identify gaps in care and areas for improvement. While it is not mandatory to use or collect data when using a quality standard to improve care, measurement is key to quality improvement.

There are also a number of resources online to help you, including:

- Our patient guide on delirium, which you can share with patients and families to help them have conversations with you and their other health care providers. Please make the patient guide available where you provide care
- Our measurement resources, which include our measurement guide of technical specifications for the indicators in this standard, and our "case for improvement" slide deck to help you to share why this standard was created and the available data behind it
- Our *Getting Started Guide*, which includes links to templates and tools to help you put quality standards into practice. This guide shows you how to plan for, implement, and sustain changes in your practice
- Quorum, an online community dedicated to improving the quality of care across Ontario. This is a place where health care providers can share information, inform, and support each other, and it includes tools and resources to help you implement the quality statements within each standard
- Quality Improvement Plans, which can help your organization outline how it will improve the quality of care provided to your patients, residents, or clients in the coming year

How the Health Care System Can Support Implementation

As you work to implement this quality standard, there may be times when you find it challenging to provide the care outlined due to system-level barriers or gaps. These challenges have been identified and documented as part of the development of the standard, which included extensive consultation with health care professionals and lived experience advisors and careful review of available evidence and existing programs. Many of the levers for system change fall within the purview of Ontario Health, and as such we will continue to work to address these barriers to support the implementation of quality standards. We will also engage and support other provincial partners, including the Ministry of Health or other relevant ministries, on policy-level initiatives to help bridge system-level gaps.

In the meantime, there are many actions you can take on your own, so please read the standard and act where you can.

How to Measure Overall Success

The Delirium Quality Standard Advisory Committee identified some overarching goals for this quality standard. These goals were mapped to indicators that can be used to monitor the progress being made to improve care for adults with delirium in Ontario. Some indicators are provincially measurable, while some can be measured using only locally sourced data.

Collecting and using data associated with this quality standard is optional. However, data will help you assess the quality of care you are delivering and the effectiveness of your quality improvement efforts.

We realize this standard includes a lengthy list of indicators. We've given you this list so you don't have to create your own quality improvement indicators. We recommend you identify areas to focus on in the quality standard and then use one or more of the associated indicators to guide and evaluate your quality improvement efforts.

See Appendix 1 for additional details on how to measure these indicators and our measurement guide for more information and support.

Indicators That Can Be Measured Using Provincial Data

- Rate of delirium among people admitted to hospital, with onset during their stay
- Percentage of people with delirium who are discharged from hospital to home and who report feeling that they were involved in care delivery and discharge planning as much as they wanted to be

Indicators That Can Be Measured Using Only Local Data

- Percentage of people at risk for delirium who have interventions to prevent delirium documented in their care plan
- Percentage of people with delirium who have a multicomponent interprofessional management plan to address the causes and manage the symptoms of delirium

Quality Statements to Improve Care: The Details

1

Identification of Risk Factors for Delirium

On initial contact with the health care system, people are assessed for risk factors for delirium, especially when they present to hospital or long-term care. Any risk factors for delirium are documented in their health record and at transitions in care, and are communicated to the person, their family and caregivers, and their health care team.

Sources: Canadian Coalition for Seniors' Mental Health, 2014[28] | National Institute for Health and Care Excellence, 2019[30] | Registered Nurses' Association of Ontario, 2016[7]

Definitions

Initial contact: Initiation of care or first contact with the health care system.

Risk factors for delirium: If any of these key risk factors are present, the person is at risk for delirium[5,7,30]:

- Age 65 years or older
- Cognitive impairment and/or dementia
- Current hip fracture (broken hip)
- Severe illness (a clinical condition that is deteriorating or is at risk for deterioration)
- Previous delirium
- Problematic alcohol or substance use

Rationale

Some people may be at risk for delirium and need to be identified so that health care providers, family, and caregivers can monitor them closely and put effective interventions in place to prevent delirium (quality statement 2).[7] This is important because delirium is frequently unrecognized or missed in routine clinical care, and it has potentially serious consequences, including increased risk of cognitive and functional decline and death.[7,30]

Documentation of a person's risk factors for delirium in their health record and communication about these risk factors with the health care team, the patient, and their family and caregivers are key to raising awareness, watching for early signs and symptoms of delirium, and putting interventions in place to prevent or promptly manage delirium.[7]

What This Quality Statement Means

For Patients

At your first contact with the health care system, you should be assessed to see if you are at risk for delirium. This is especially important when you arrive at a hospital or a long-term care home. This is so your care team can try to stop delirium from happening.

For Clinicians

Assess people for risk factors for delirium on initial contact with the health care system. This is especially important for those who present to hospital or long-term care. Document any risk factors for delirium in the person's health record (including baseline preadmission information) and communicate those risk factors to the health care team, the person, and their family and caregivers. Risk factors should also be clearly documented at transitions in care (e.g., via clinical handover notes, discharge summaries, transition plans, and referrals).

For Health Services Planners

Ensure that training, systems, processes, and resources are in place for health care providers to perform risk assessments for delirium on people's initial contact with the health care system. Ensure that systems and processes are in place to communicate any risk factors for delirium and document them in the person's health record (including baseline preadmission information) and at transitions in care.

1 **Identification of Risk Factors for Delirium**

Ensure that health care providers are knowledgeable about assessing patients for risk factors for delirium on initial contact.

QUALITY INDICATORS: HOW TO MEASURE IMPROVEMENT FOR THIS STATEMENT

- Percentage of people presenting to hospital who are assessed for risk factors for delirium on initial contact
- Percentage of people presenting to long-term care who are assessed for risk factors for delirium on initial contact
- Local availability of electronic integrated health records in which delirium risk factors are documented and communicated between providers

Measurement details for these indicators, as well as indicators to measure overarching goals for the entire quality standard, are presented in Appendix 1.

2

Interventions to Prevent Delirium

People at risk for delirium receive interventions to prevent delirium that are tailored to their individual needs and care setting.

Sources: American Geriatrics Society, 2014[35] | Canadian Coalition for Seniors' Mental Health, 2014[28] | National Institute for Health and Care Excellence, 2019[30] | Registered Nurses' Association of Ontario, 2016[7] | Scottish Intercollegiate Guidelines Network, 2019[11]

Definition

Tailored interventions to prevent delirium: Multicomponent interventions tailored to the person's individual needs and care setting, based on an assessment for clinical factors that may contribute to the development of delirium, such as cognitive impairment, disorientation, dehydration, constipation, hypoxia, infection or other acute illness, immobility or limited mobility, pain, effects of medication, poor nutrition, sensory impairment, and sleep disturbance.[7,30] Interventions may include[6]:

- Reorienting the person as to the current day, month, and year
- Ensuring that hearing and visual aids are working and being used
- Encouraging regular visits from family and friends as possible
- Ensuring that the person has adequate fluid intake
- Ensuring that the person has food provided (if permitted) throughout the day
- Encouraging the person to walk or, if this is not possible, engage in range-of-motion exercises
- Avoiding the movement of people within and between clinical units or rooms unless absolutely necessary
- Providing appropriate lighting (e.g., daylight when possible, minimize light at night) and clear signage (e.g., a 24-hour clock, a calendar)
- Introducing cognitively stimulating activities (e.g., reading, listening to music, doing crossword puzzles)

- Identifying and treating infections
- Avoiding unnecessary urinary catheterization
- Establishing a toileting routine
- Reviewing pain management
- Carrying out a medication review
- Ensuring that the person's dentures are available
- Reducing noise during sleep periods
- Avoiding medical or nursing interventions during sleep periods
- Monitoring older people (over age 60 years) undergoing general anesthesia lasting more than an hour to avoid deep anesthesia[11,35]
- Consulting with a medical specialist (i.e., geriatrician, geriatric psychiatrist) for older people undergoing emergency surgery[28]
- Avoiding physical restraints

These interventions are provided by an interprofessional team of health care providers who are competent in delirium prevention and management.[6] The above interventions should be implemented for patients who are at risk for delirium (quality statement 1), and for those who have delirium (quality statement 5).[39]

Rationale

Delirium is a complex condition, and many factors can contribute to its onset.[7] However, delirium can be prevented in up to 30% to 40% of people at risk, using preventive interventions.[33,34] Such measures can also prevent complications (such as falls and pressure injuries) and reduce length of stay in hospital,[9,40] but many hospitals and long-term care facilities do not have prevention programs in place, or they do not consistently implement or adhere to their programs.[9,40]

Plans for prevention should be developed by an interprofessional team in collaboration with the person and their family and caregivers.[7,28,30]

What This Quality Statement Means

For Patients

If you are at risk for delirium, your health care team should take steps to reduce your chances of getting delirium, taking into account your specific needs. This care may include a combination of things, such as:

- Reminding you what day, month, and year it is
- If you wear glasses or hearing aids, making sure you have them and that they are working
- Encouraging regular visits from family and friends as possible
- Making sure you have enough to eat and drink throughout the day
- Helping you move around as much as possible
- Encouraging you to stimulate your mind (read, listen to music, do crossword puzzles)
- Making you as comfortable as possible
- Managing any pain you may have

For Clinicians

Provide people at risk for delirium with a range of tailored interventions to prevent delirium, taking into account their individual needs and the clinical setting.[30] Discuss the proposed interventions with the person and their family and caregivers, and encourage them to be involved.

For Health Services Planners

Ensure that training, systems, processes, and resources are in place in hospitals, long-term care homes, and community-based settings so that health care providers can provide tailored interventions to prevent delirium for those at risk. Ensure that people who are at risk for delirium and their family and caregivers have access to health care providers who are trained in providing interventions to prevent delirium.

QUALITY INDICATOR: HOW TO MEASURE IMPROVEMENT FOR THIS STATEMENT

- Percentage of people at risk for delirium who have interventions to prevent delirium documented in their care plan

Measurement details for this indicator, as well as indicators to measure overarching goals for the entire quality standard, are presented in Appendix 1.

3

Early Screening for Delirium

People presenting to hospital with any risk factors for delirium, or who have an acute change in behaviour or cognitive function during a hospital stay or in a long-term care home or in the community, are screened for delirium in a timely manner by a health care professional who is trained in screening for delirium using standardized, validated tools. The person and their family and caregivers are asked about any acute changes in the person's behaviour or cognitive function.

Sources: Advisory committee consensus (timing) | American Geriatrics Society, 2014[35] | Canadian Coalition for Seniors' Mental Health, 2014[28] | National Institute for Health and Care Excellence, 2019[30] | Registered Nurses' Association of Ontario, 2016[7] | Scottish Intercollegiate Guidelines Network, 2019[11]

Definitions

Acute change in behaviour or cognitive function: This includes recent (within hours or days) changes or fluctuations in behaviour or thinking. Changes may be reported by the person at risk or by a family member or caregiver, and may affect:[2,30,41]

- Cognitive function (e.g., worsened concentration, slow responses, or confusion)
- Perception (e.g., visual, auditory, or tactile hallucinations, or delusions)
- Physical function (e.g., reduced mobility, reduced movement, restlessness, agitation, changes in appetite, or sleep disturbance)
- Social behaviour (e.g., difficulty with or inability to cooperate with reasonable requests, withdrawal, or alterations in communication, mood, or attitude)

- Alertness (e.g., altered level of alertness or consciousness, such as difficult to rouse and markedly drowsy or sleepy, or hyperalert)

Screened for delirium: This begins with a brief delirium screening assessment using a standardized, validated tool. Delirium may still occur in people with a negative screening result because the condition fluctuates. Health care professionals should not rely on a single delirium screening result during hospital admission.[11]

If a person screens positive with the delirium screening tool, a suitably trained health care professional[11] conducts an assessment using the current diagnostic standard for delirium described in the *International Classification of Diseases* (*ICD-10*)[42] or the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM-5*).[1]

Timely manner: For people presenting to hospital with risk factors for delirium, screening for delirium should occur within 2 hours of presentation (advisory committee consensus), and at least daily thereafter.[7,30] For people who have an acute change in behaviour or cognitive function during a hospital stay, in a long-term care home, or in the community, screening for delirium should occur immediately after these are observed or reported (advisory committee consensus).

Trained health care professional: A doctor, nurse, or other health care professional with appropriate training and competence in screening for delirium.

Standardized, validated tools: Many tools are available to screen for probable delirium in different settings. Examples of validated delirium screening tools include:

- Delirium Triage Screen (DTS) for the emergency department and inpatient hospital settings (outside of the intensive care unit)[43,44]
  - If the DTS is positive, a more specific delirium assessment is needed to rule in delirium (e.g., one of the Confusion Assessment Method tools or the Arousal, Attention, Abbreviated Mental Test 4, Acute change tool, below). If the DTS is negative, then delirium is ruled out at that point in time
- Confusion Assessment Method (CAM) tools:
  - Confusion Assessment Method (CAM)[2,45-47]
  - Confusion Assessment Method for the Intensive Care Unit (CAM-ICU)[47,48]
  - 3-minute diagnostic assessment (3D-CAM)[47,49]
  - Family Confusion Assessment Method (FAM-CAM)[47,50]
  - Brief Confusion Assessment Method (B-CAM)[43]

- Arousal, Attention, Abbreviated Mental Test 4, Acute change (4AT tool)[41]
  - The 4AT tool can be used to screen for probable delirium in emergency department and acute hospital settings. It can also be considered for use in community or other settings to screen people with probable delirium
- Intensive Care Delirium Screening Checklist (ICDSC)[51]

Rationale

In hospital and long-term care settings, delirium is often unrecognized, misdiagnosed as depression or a psychotic disorder, or misattributed to dementia.[2,7,30] Poor recognition of delirium is especially an issue in older people, particularly in those with the hypoactive form of delirium, because it can be more difficult to recognize than hyperactive delirium.[52] However, early screening and detection of delirium is important so that reversible causes can be addressed and supportive care can be put in place as soon as possible to manage symptoms (quality statement 5).[6] A delay in identifying delirium symptoms can result in poor outcomes for patients[30] and significant distress for patients, family, and caregivers.[24,25]

Because delirium is usually identified secondary to the person's main reason for admission to hospital or a long-term care home, it is often not documented in the health record or communicated to the person's care team.[6] Improving communication and documentation related to delirium may help to raise awareness and recognition.

There is also a need to increase awareness and knowledge among health care providers about the importance of early screening for delirium and the availability of standardized, validated tools.

What This Quality Statement Means

For Patients

If you are at risk for delirium when you go to hospital, or if you have a sudden change in behaviour or thinking while you are in hospital or a long-term care home or in the community, your health care team should check to see if you have problems with your memory, thinking, or communicating. You and your family and caregivers should also be asked about any recent changes in your behaviour or thinking.

For Clinicians

Evaluate people presenting to hospital who are at risk for delirium, or who have acute changes in behaviour or cognitive function during a hospital stay, in a long-term care home, or in the community. Use a standardized, validated tool to screen for probable delirium (e.g., DTS, CAM tools), which can then prompt a more detailed assessment to confirm delirium (e.g., *DSM-5,*[1] *ICD-10*[42]) and consideration of underlying causes (see the definition for "comprehensive assessment" in quality statement 5).[11]

When delirium is confirmed, discuss it with the person and their family and caregivers, communicate it to their care team, assess for underlying causes, and put in place a multicomponent interprofessional management plan (quality statement 5). Document delirium in their health record.[11]

For Health Services Planners

Ensure that training, systems, processes, and resources are in place for health care professionals to support early screening for delirium in people presenting to hospital who are at risk for delirium, and in people who have an acute change in behaviour or cognitive function during a hospital stay, in a long-term care home, or in the community. This includes ensuring that standardized, validated tools are locally available, and that they are used by staff who are trained and competent in their use.

Ensure systems and processes are in place to communicate and document and code the presence of delirium in patients' health records, assess for underlying causes, and put in place a management plan (quality statement 5).

QUALITY INDICATORS: HOW TO MEASURE IMPROVEMENT FOR THIS STATEMENT

- Percentage of people who present to hospital with risk factors for delirium who are screened for delirium
- Percentage of people presenting to hospital with risk factors for delirium who are screened within 2 hours of presentation and at least daily thereafter
- Local availability of health care professionals who have received education and training in screening for delirium using standardized, validated tools

Measurement details for these indicators, as well as indicators to measure overarching goals for the entire quality standard, are presented in Appendix 1.

4

Education for People With Delirium, Family, and Caregivers

People who are at risk for delirium or who have delirium (as well as their family and caregivers) are offered education about delirium.

Sources: Canadian Coalition for Seniors' Mental Health, 2014[28] | National Institute for Health and Care Excellence, 2019[30] | Registered Nurses' Association of Ontario, 2016[7] | Scottish Intercollegiate Guidelines Network, 2019[11]

Definition

Education about delirium: Education should be tailored to the individual needs of patients, families, and caregivers using plain language and visual tools. Education should be provided in a variety of formats, including verbal (face-to-face meetings or phone calls), written, or electronic. Education should[11,30]:

- Explain what delirium is, and that symptoms can fluctuate (i.e., confusion can come and go over the course of a day)
- Inform people that delirium is common and potentially reversible, but that some people may not have a full recovery and can be at risk for longer-term cognitive impairment
- Inform people that delirium arises quickly (within hours or days), signals the need for immediate medical treatment, and can affect people of all ages
- Inform people about how to identify the early symptoms of delirium (quality statement 3)
- Provide training on delirium screening tools for family and caregivers to assist with early identification of delirium (quality statement 3; e.g., FAM-CAM,[47,50] Delirium Detection Questionnaire[53])
- Inform people of the key risk factors for delirium (quality statement 1)

- Inform those having surgery about the increased risk of developing delirium in the perioperative period (during or after surgery)
- Describe people's experiences of delirium
- Encourage people at risk for delirium, as well as their family and caregivers, to tell their health care team or primary care provider (e.g., family doctor, nurse practitioner) about acute changes or fluctuations in behaviour or cognitive function as soon as possible
- Encourage people who have had delirium to share their experiences with their health care team during their recovery
- Provide information about available support groups, if needed
- Advise people about strategies to prevent and/or manage delirium (quality statements 2 and 5)

Rationale

Experiencing delirium can be frightening and distressing for patients, families, and caregivers. Providing information and support to help people better understand delirium, its risk factors, and effective prevention and management can lessen fear, improve understanding, and help people to cope with an episode of delirium.[7]

What This Quality Statement Means

For Patients and Caregivers

Your health care team should offer you education that will help you understand what delirium is, ways to prevent or manage it, and the supports available. They should talk with you about treatments or supports to prevent or manage delirium, and they should encourage your family and caregivers to be involved.

For Clinicians

Offer education about delirium to people at risk for delirium or who have delirium, as well as their family and caregivers. Tailor the information to the person's needs, discuss any interventions being put in place to prevent or manage delirium, and encourage family and caregivers to be involved according to their willingness and capacity (e.g., providing orientation, cognitive stimulation, and reassurance to the person they care for). Ensure that the information provided meets people's cultural, cognitive, and language needs. When needed, ensure an interpreter or advocate is available.

For Health Services Planners

Ensure that training, systems, processes, and resources are in place in hospitals, long-term care homes, and community-based settings so that health care providers can provide education about delirium in response to the needs of people who are at risk for delirium or who have delirium, as well as their family and caregivers.

QUALITY INDICATORS: HOW TO MEASURE IMPROVEMENT FOR THIS STATEMENT

- Percentage of people who are at risk for delirium or who have delirium (as well as their family and caregivers) who report receiving education about delirium
- Local availability of education programs about delirium for people who are at risk for delirium or who have delirium, as well as their family and caregivers

Measurement details for these indicators, as well as indicators to measure overarching goals for the entire quality standard, are presented in Appendix 1.

5

Management of Delirium

Based on the results of a comprehensive assessment, people with delirium have a multicomponent interprofessional management plan to address the causes and manage the symptoms of delirium.

Sources: American Geriatrics Society, 2014[35] | Canadian Coalition for Seniors' Mental Health, 2014[28] | National Institute for Health and Care Excellence, 2019[30] | Registered Nurses' Association of Ontario, 2016[7] | Scottish Intercollegiate Guidelines Network, 2019[11]

Definitions

Comprehensive assessment: This is conducted in collaboration with the person and their family and caregivers to identify the possible underlying causes of delirium (e.g., infection, metabolic imbalances, environmental contributors). It should include the following[11,39]:

- A medical and social history, paying close attention to the person's medication history, their pain management needs, and their nutritional status
- A physical examination
- Relevant investigations, informed by the medical history and physical examination

Multicomponent interprofessional management plan: This plan should be developed by an interprofessional team of health care providers working with the person and their family and caregivers. It should include the following:

- Identifying and addressing the underlying causes of delirium based on the results of a comprehensive assessment by a health care professional

- Multicomponent interventions tailored to the person's needs, type of delirium, and care setting, including interventions to prevent delirium (quality statement 2) and supportive care to manage the symptoms of delirium[14,15]

Rationale

Delirium is an acute medical emergency that requires prompt recognition and treatment of underlying causes.[14,15] This may require referral to an emergency department for immediate investigation of possible causes and treatment.[15]

Early identification and treatment of the causes of delirium may reduce its duration and severity, as well as the risk of complications from it.[30] There are many possible causes or triggers of delirium (e.g., acute illness, infection, surgery, sleep interruptions), so a comprehensive assessment is critical to identifying and addressing those underlying causes. The person and their family or caregivers should be included in the assessment. If a person's delirium does not get better with treatment, the person should be reassessed to see if any underlying problems were missed and to investigate possible dementia (see our *Behavioural Symptoms of Dementia* quality standard).

There is a need for increased awareness and knowledge among health care professionals about assessing people with delirium and identifying the underlying causes as soon as it has been identified.

Some people may require consultation with a specialist physician in geriatrics or geriatric psychiatry, a geriatric nurse practitioner, or a neuropsychologist (e.g., those with severe agitation or distress related to their delirium symptoms, those who are not responding to the standard measures above, those whose diagnosis is in doubt, or older people who are undergoing emergency surgery).[11,28] There are regional variations in access to these services and to health care professionals who have special expertise in assessing and managing delirium.[38]

What This Quality Statement Means

For Patients

If you have delirium, your health care team should work with you and your family and caregivers to find out what is causing your delirium and how to treat it. They may examine you and run tests (for example, blood tests, urine tests, chest x-ray). They may ask about medications you are taking, any recent medication changes, and whether you are in pain. You should receive treatment based on the cause of your delirium (for

example, changing your medication, giving you more fluids to drink, or prescribing antibiotics if you have an infection).

Your care team, including your family and caregivers, should work together to support you (for example, reassuring you, calming you if you are distressed, helping you sleep, reducing noise, and ensuring your basic daily needs are being met).

For Clinicians

Perform and document a comprehensive assessment for people with delirium, in consultation with the person and their family and caregivers. If possible, seek a summary from the person's primary care provider to help inform the assessment. If needed, refer the person to an emergency department for immediate investigation of possible causes and treatment. Start treatment based on the causes identified and the target symptoms of delirium (see the definition of "tailored interventions to prevent delirium" in quality statement 2). Ensure that interventions to prevent delirium (quality statement 2) and environmental modifications are in place, and that the person's basic daily needs and psychological needs are being met.

Monitor patients regularly for changes in behaviour or cognitive function, including clinical deterioration.

For Health Services Planners

Ensure that training, systems, processes, and resources are in place in hospitals, long-term care homes, and community-based settings to support health care professionals in determining the causes of delirium based on a comprehensive assessment, and to develop interprofessional management plans to address the causes and manage the symptoms of delirium.

QUALITY INDICATORS: HOW TO MEASURE IMPROVEMENT FOR THIS STATEMENT

- Percentage of people with delirium who have a comprehensive assessment to identify the causes of their delirium
- Percentage of people with delirium who have a multicomponent interprofessional management plan to address the causes and manage the symptoms of delirium

Measurement details for these indicators, as well as indicators to measure overarching goals for the entire quality standard, are presented in Appendix 1.

6

Antipsychotic Medication

Only people who are in severe distress from symptoms of delirium or at immediate risk of harm to themselves or others are considered for antipsychotic medication use. These medications are always used in combination with first-line management strategies. If antipsychotic medication is started, it is reviewed daily and discontinued as soon as the clinical situation allows.

Sources: American Geriatrics Society, 2014[35] | Canadian Coalition for Seniors' Mental Health, 2014[28] | National Institute for Health and Care Excellence, 2019[30] | Registered Nurses' Association of Ontario, 2016[7] | Scottish Intercollegiate Guidelines Network, 2019[11]

Definitions

Severe distress from symptoms of delirium: This refers to distress from the person's experience of psychotic symptoms related to delirium (hallucinations or delusions).

Antipsychotic medication: A second-line management strategy for delirium that is considered only in circumstances when the psychotic symptoms of delirium (e.g., hallucinatory or delusional experiences) are causing the person severe distress; when the person is at immediate risk of harm to themself or others; or to facilitate necessary life-sustaining care that cannot be delivered because of the person's behaviour. It is used mainly to treat the distress related to the experience of hallucinations or delusions, and reduce symptoms of agitation associated with delirium, to keep patients, family, and caregivers safe.

First-line management strategies: These include identifying and addressing the underlying causes of delirium (quality statement 5) and using verbal and nonverbal

techniques to de-escalate the situation if needed,[30] as well as following a multicomponent interprofessional management plan (see definition in quality statement 5) that includes communication and behavioural strategies and environmental considerations (quality statements 2 and 5).

Discontinued: The medication is stopped using a planned and supervised process, including safe tapering where appropriate.

Rationale

There is no consistent evidence demonstrating that using antipsychotic medication in people with delirium leads to a shorter duration of delirium symptoms, less severe symptoms, or resolution of symptoms; indeed, some studies suggest worse clinical outcomes with its use.[54] Antipsychotic medication has been linked to a number of serious adverse effects (e.g., heart attack, abnormal heartbeat, death).[30,55] For people with delirium at end of life, antipsychotic medication can worsen the symptoms.[56] Therefore, antipsychotic medication should not be routinely prescribed in people with delirium and should be considered only in circumstances when the symptoms of delirium (e.g., delusional or hallucinatory experiences) are causing the person severe distress; when the person is at immediate risk of harm to themself or others; or to facilitate necessary life-sustaining care that cannot be delivered because of the person's behaviour.

It is important to balance the risks of prescribing antipsychotic medication against the benefits to the person with delirium and their family and caregivers. If an antipsychotic medication is used, it should be prescribed at the lowest effective dose for the shortest possible duration. First-line management strategies for delirium are always appropriate.

Antipsychotic medication started in the hospital is often continued after discharge without due consideration. For those who may benefit from continuing antipsychotic medication beyond discharge or transfer from hospital, plans need to be made for a medication review and follow-up in long-term care homes and other home and community settings.[11] This should include communication and documentation of an agreed-upon plan with the person's primary care provider and community pharmacist to reduce and discontinue the medication once the delirium has resolved.

What This Quality Statement Means

For Patients

If you have delirium and have severe distress related to your symptoms (e.g., hallucinations, delusions) or if you are at immediate risk of harm to yourself or others, a doctor or nurse may talk with you and your family and caregivers about prescribing an antipsychotic medication at a low dose for a short time. These medications should always be used with other ways to support you (for example, reassuring you, calming you if you are distressed, helping you sleep, reducing noise, and ensuring your basic daily needs are being met). The doctor or nurse should also talk with you and your family and caregivers about the choice of medication, its side effects and benefits, the dose, and how long you will need to take it. If you need to continue taking the medication when you return home, your family doctor and community pharmacist should work together to reduce and stop the medication when you no longer have symptoms.

For Clinicians

For a person with delirium, consider antipsychotic medication only when the symptoms of delirium are causing the person severe distress or placing them at immediate risk of harm to themself or others. If an antipsychotic medication is being considered:

- Weigh the individual risks and benefits before prescribing
- Discuss the choice of antipsychotic medication, the risks and benefits, and the dosage and duration with the person, family, and caregivers
- Use a low dose, closely monitor response (i.e., vital signs, changes in the person's behaviour) before considering any dose increases, and limit use for as short a period as possible
- Avoid using antipsychotic medication, or use it with caution, in people with Parkinson's disease or dementia with Lewy bodies[30]

These medications should always be used in combination with first-line management strategies.

For those who may benefit from continuing antipsychotic medication for delirium beyond discharge or transfer from hospital, work with the primary care provider and community pharmacist to agree on a clear plan for a medication review and follow-up in the community, with the goal of reducing and discontinuing the medication once the delirium has resolved.

For Health Services Planners

Ensure that training, systems, processes, and resources are in place in hospitals, long-term care homes, and community-based settings to support the use of first-line management strategies for delirium and the use of antipsychotic medication only when appropriate (i.e., when symptoms of delirium are causing the person severe distress or placing them at immediate risk of harm to themself or others), including guidance for health care professionals on dosage, duration of therapy, the need for regular review, and tapering and discontinuation.

QUALITY INDICATORS: HOW TO MEASURE IMPROVEMENT FOR THIS STATEMENT

- Percentage of people with delirium who are administered antipsychotic medication without documentation of severe distress from symptoms of delirium, immediate risk of harm to themselves or others, or use of first-line management strategies
- Number of documented review days relative to the total number of days delirium patients are on antipsychotic medication

Measurement details for these indicators, as well as indicators to measure overarching goals for the entire quality standard, are presented in Appendix 1.

7

Transitions in Care

At transitions in care, people with current or resolved delirium (as well as their family and caregivers) are given information related to delirium and its management. This information is communicated to those involved in the person's circle of care and documented in the health record at transitions in care.

Sources: Canadian Coalition for Seniors' Mental Health, 2014[28] | National Institute for Health and Care Excellence, 2019[30] | Scottish Intercollegiate Guidelines Network, 2019[11]

Definitions

Information related to delirium and its management: Specific information relevant to a person's episode of delirium, including the following[6,11,39]:

- Documentation of current or resolved delirium and its current status
- A reminder that symptoms of delirium may persist at or beyond discharge from hospital
- Strategies for managing persistent delirium and for preventing recurrence of delirium
- Description of ongoing treatments related to delirium and any follow-up care
- If an antipsychotic medication has been prescribed, a plan for daily review and when to reduce and discontinue (quality statement 6)
- Arrangements for follow-up care (e.g., primary care provider, medical specialist) or contact details of ongoing health and social support services available in the community, as appropriate

This information is shared at transitions in care with the person, family, caregivers, and everyone involved in the person's care.

Some of this information can reside in the discharge summary or transition plan, which is a written (printed or electronic) document summarizing the person's hospital stay, their diagnoses, interventions performed, and recommended actions (e.g., coordination of care and support for the transition from hospital to home; see our *Transitions Between Hospital and Home* quality standard).[57,58]

Circle of care: This includes those members of the health care team who are included in the individual's implied consent to collect, use, or disclose a person's personal health information for the purpose of providing or assisting in providing health care.[59] The circle of care may also include family members and caregivers whom the patient consents to include in their circle of care, and any substitute decision-makers (see the definition in Appendix 2. Glossary).

Rationale

Effective communication between health care providers across settings (e.g., emergency department, hospital, primary care, home and community care, long-term care) is essential for the ongoing care and recovery of people with delirium.[39]

For many people who experience delirium in hospital, symptoms may persist at or after discharge,[27] and some people may not have full recovery (i.e., there may be cognitive and functional decline) or be at risk for new-onset dementia.[28] For these reasons, it is important that the person's episode of delirium during a hospital stay is clearly documented in their health record at transitions in care and communicated to all involved in their circle of care. This includes any documentation to support transitions in care (e.g., via clinical handover notes, a transition plan, a discharge summary, referrals).

A person's delirium is usually identified secondary to their primary reason for admission to hospital and is often not communicated or documented.[6] Improving documentation and communication may help to raise awareness of delirium among health care providers and ensure that people who are recovering from delirium or who still have delirium receive specific information related to management and appropriate follow-up care when they transition between care settings and providers.

What This Quality Statement Means

For Patients

Your health care team should discuss your episode of delirium with you and your family and caregivers, and describe the care you will need when you move from hospital to home or another care setting (for example, a long-term care home). They should give you information about delirium and develop a management plan with you and your family and caregivers. Your care team should give you information that explains everything you need to know, including:

- Your goals of care and ways to manage your delirium and reduce your risk of having another episode of delirium (such as eating well and drinking plenty of water or other liquids)
- Treatments you may need (such as ways to manage persistent delirium, medications to take, how to take them, what they're for, and why some medications may have stopped)
- Plans for follow-up care (for example, with your primary care provider or a medical specialist) and community support services

You will get a written copy of this information before you leave the hospital. It may be part of something called a patient-oriented discharge summary, or PODS. If you agree, your family and caregivers should also get a written copy. This information should be easy to read and understand, and your care team should offer to explain it to you.

For Clinicians

If you are part of a hospital team, give patients, families, and caregivers a written copy of specific information related to delirium and its ongoing management before the patient leaves hospital or transfers to another health care setting. Communicate this information to all those involved in the patient's circle of care and document in the health record at transitions in care.

Use standardized documentation and coding of delirium in the health record and other documentation to support transitions in care (e.g., via clinical handover notes, transition plans, discharge summaries, referrals).

For Health Services Planners

Ensure that hospitals have systems, processes, and resources in place to give people with current or resolved delirium who are transitioning from hospital to home or to

another care setting or provider a written copy of specific information related to delirium and its management (e.g., via a patient-oriented discharge summary [PODS]).

Ensure that hospitals have systems, processes, and resources in place for standardized documentation and coding of delirium in the health record to report episodes during hospital stays and support transitions in care (e.g., clinical handover notes, transition plans, discharge summaries, referrals).

QUALITY INDICATORS: HOW TO MEASURE IMPROVEMENT FOR THIS STATEMENT

- Percentage of people discharged from hospital to home with current or resolved delirium (as well as their family and caregivers) who report receiving information about delirium and its management at transitions in care
- Percentage of people with delirium discharged from hospital to home with documentation of delirium and its management in their health record to support transitions in care

Measurement details for these indicators, as well as indicators to measure overarching goals for the entire quality standard, are presented in Appendix 1.

Appendices

Appendix 1. Measurement to Support Improvement

The Delirium Quality Standard Advisory Committee identified some overarching goals for this quality standard. These goals were mapped to indicators that can be used to monitor the progress being made to improve care for people with delirium in Ontario. Some indicators are provincially measurable, while some can be measured using only locally sourced data.

Collecting and using data associated with this quality standard is optional. However, data will help you assess the quality of care you are delivering and the effectiveness of your quality improvement efforts.

We realize this standard includes a lengthy list of indicators. We've given you this list so you don't have to create your own quality improvement indicators. We recommend you identify areas to focus on in the quality standard and then use one or more of the associated indicators to guide and evaluate your quality improvement efforts.

To assess equitable delivery of care, you can stratify locally measured indicators by patient socioeconomic and demographic characteristics, such as age, education, gender, income, language, and sex.

Our measurement guide for delirium provides more information and concrete steps on how to incorporate measurement into your planning and quality improvement work.

How to Measure Overall Success

Indicators That Can Be Measured Using Provincial Data

Rate of delirium among people admitted to hospital, with onset during their stay

- Denominator: total number of people admitted to hospital
- Numerator: number of people in the denominator with onset of delirium during their stay
- Data source: Discharge Abstract Database

Percentage of people with delirium who are discharged from hospital to home and who report feeling that they were involved in care delivery and discharge planning as much as they wanted to be

- Denominator: total number of people with delirium who are discharged from hospital to home
- Numerator: number of people in the denominator who report feeling that they were involved in care delivery and discharge planning as much as they wanted to be
- Data sources: Discharge Abstract Database and Canadian Patient Experience Reporting System

Indicators That Can Be Measured Using Only Local Data

Percentage of people at risk for delirium who have interventions to prevent delirium documented in their care plan

- Denominator: total number of people at risk for delirium
- Numerator: number of people in the denominator who have interventions to prevent delirium documented in their care plan
- Data source: local data collection

Percentage of people with delirium who have a multicomponent interprofessional management plan to address the causes and manage the symptoms of delirium

- Denominator: total number of people with delirium
- Numerator: number of people in the denominator who have a multicomponent interprofessional management plan to address the causes and manage the symptoms of delirium
- Data source: local data collection

How to Measure Improvement for Specific Statements

Quality Statement 1: Identification of Risk Factors for Delirium

Percentage of people presenting to hospital who are assessed for risk factors for delirium on initial contact

- Denominator: total number of people presenting to hospital
- Numerator: number of people in the denominator who are assessed for risk factors for delirium on initial contact
- Data source: local data collection

Percentage of people presenting to long-term care who are assessed for risk factors for delirium on initial contact

- Denominator: total number of people presenting to long-term care
- Numerator: number of people in the denominator who are assessed for risk factors for delirium on initial contact
- Data source: local data collection

Local availability of electronic integrated health records in which delirium risk factors are documented and communicated between providers

- Data source: local data collection

Quality Statement 2: Interventions to Prevent Delirium

Percentage of people at risk for delirium who have interventions to prevent delirium documented in their care plan

- Denominator: total number of people at risk for delirium
- Numerator: number of people in the denominator who have interventions to prevent delirium documented in their care plan
- Data source: local data collection

Quality Statement 3: Early Screening for Delirium

Percentage of people who present to hospital with risk factors for delirium who are screened for delirium

- Denominator: total number of people who present to hospital with risk factors for delirium
- Numerator: number of people in the denominator who are screened for delirium
- Data source: local data collection

Percentage of people presenting to hospital with risk factors for delirium who are screened within 2 hours of presentation and at least daily thereafter

- Denominator: total number of people presenting to hospital with risk factors for delirium
- Numerator: number of people in the denominator who are screened within 2 hours of presentation and at least daily thereafter
- Data source: local data collection

Local availability of health care professionals who have received education and training in screening for delirium using standardized, validated tools

- Data source: local data collection

Quality Statement 4: Education for People With Delirium, Family, and Caregivers

Percentage of people who are at risk for delirium or who have delirium (as well as their family and caregivers) who report receiving education about delirium

- Denominator: total number of people who are at risk for delirium or who have delirium (as well as their family and caregivers)
- Numerator: number of people in the denominator who report receiving education about delirium
- Data source: local data collection

Local availability of education programs about delirium for people who are at risk for delirium or who have delirium, as well as their family and caregivers

- Data source: local data collection

Quality Statement 5: Management of Delirium

Percentage of people with delirium who have a comprehensive assessment to identify the causes of their delirium

- Denominator: total number of people with delirium
- Numerator: number of people in the denominator who have a comprehensive assessment to identify the causes of their delirium
- Data source: local data collection

Percentage of people with delirium who have a multicomponent interprofessional management plan to address the causes and manage the symptoms of delirium

- Denominator: total number of people with delirium
- Numerator: number of people in the denominator who have a multicomponent interprofessional management plan to address the causes and manage the symptoms of delirium
- Data source: local data collection

Quality Statement 6: Antipsychotic Medication

Percentage of people with delirium who are administered antipsychotic medication without documentation of severe distress from symptoms of delirium, immediate risk of harm to themselves or others, or use of first-line management strategies

- Denominator: total number of people with delirium
- Numerator: number of people in the denominator who are administered antipsychotic medication without documentation of severe distress from

symptoms of delirium, immediate risk of harm to themselves or others, or use of first-line management strategies
- Data source: local data collection

Number of documented review days relative to the total number of days delirium patients are on antipsychotic medication
- Data source: local data collection

Quality Statement 7: Transitions in Care

Percentage of people discharged from hospital to home with current or resolved delirium (as well as their family and caregivers) who report receiving information about delirium and its management at transitions in care
- Denominator: total number of people discharged from hospital to home with current or resolved delirium (as well as their family and caregivers)
- Numerator: number of people in the denominator who report receiving information about delirium and its management at transitions in care
- Data source: local data collection

Percentage of people with delirium discharged from hospital to home with documentation of delirium and its management in their health record to support transitions in care
- Denominator: total number of people with delirium discharged from hospital to home
- Numerator: number of people in the denominator with documentation of delirium and its management in their health record to support transitions in care
- Data source: local data collection

Appendix 2. Glossary

Caregiver: An unpaid person who provides care and support in a nonprofessional capacity. Caregivers may be family members, friends, or anyone else identified by the person with delirium or at risk for delirium. Other terms commonly used to describe this role include “care partner,” “carer,” “family caregiver,” “informal caregiver,” and “primary caregiver.” We acknowledge that not everyone in this role may identify as a “caregiver.” The caregiver’s role may change over time. Our choice to use “caregiver” does not diminish or negate terms that an individual may prefer.

Family: Family members, friends, or supportive people not necessarily related to the person with delirium. The person with delirium defines their family and who will be involved in their care.

Health care professionals: Regulated professionals, such as registered nurses, nurse practitioners, occupational therapists, pharmacists, physicians (family doctors, specialists), physiotherapists, psychologists, social workers, and speech-language pathologists.

Health care providers: Health care professionals as well as people in unregulated professions, such as administrative staff, behavioural support workers, personal support workers, recreational staff, spiritual care staff, and volunteers.

Health care team: The interprofessional health care team, which includes all individuals who are involved in providing care (including health care providers).

Home: A person’s usual place of residence; this may include personal residences, retirement residences, assisted-living facilities, long-term care homes, hospices, and shelters.

Home and community care providers: Health care providers based in the community, including home and community care providers; managers of retirement residences, assisted-living facilities, and long-term care homes; care coordinators; community pharmacists; and after-hours primary care providers.

Hospital team: All health care providers responsible for providing coordinated care for a person from presenting to hospital and through their transition home. This includes:

- Dietitians
- Mental health and addiction services providers
- Nurses and nurse practitioners
- Occupational therapists
- Personal support workers
- Pharmacists
- Physicians
- Physiotherapists
- Psychologists
- Respiratory therapists
- Social workers
- Speech-language pathologists
- Volunteers

Long-term care: Care provided in a long-term care home (formerly also known as a nursing home).

Primary care provider: A family physician (also called a primary care physician) or nurse practitioner.

Substitute decision-maker: A person who makes care and treatment decisions on another person's behalf if or whenever that person becomes mentally incapable of making those decisions for themself. Capacity may vary from one treatment decision to another.[60] The substitute decision-maker makes decisions based on their understanding of the person's wishes, or, if these are unknown or not applicable, makes choices that are consistent with the person's known values and beliefs and in their best interests.

Transitions in care: These occur when patients transfer between different care settings (e.g., hospital, primary care, long-term care, home and community care) and between different health care providers during the course of an acute or chronic illness.

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References

(1) American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 5th ed. Arlington (VA): The Association; 2013.

(2) Inouye SK, van Dyck CH, Alessi CA, Balkin S, Siegal AP, Horwitz RI. Clarifying confusion: the confusion assessment method. A new method for detection of delirium. Ann Intern Med. 1990;113(12):941-8.

(3) The DSM-5 criteria, level of arousal and delirium diagnosis: inclusiveness is safer. BMC Med. 2014;12:141.

(4) Wong CL, Holroyd-Leduc J, Simel DL, Straus SE. Does this patient have delirium?: value of bedside instruments. J Am Med Assoc. 2010;304(7):779-86.

(5) Oh ES, Fong TG, Hshieh TT, Inouye SK. Delirium in older persons: advances in diagnosis and treatment. J Am Med Assoc. 2017;318(12):1161-74.

(6) National Institute for Health and Care Excellence (NICE). Delirium in adults quality standard [Internet]. United Kingdom: National Institute for Health and Care Excellence (NICE); 2014 [cited 2014 July]. Available from: https://www.nice.org.uk/guidance/qs63

(7) Registered Nurses' Association of Ontario. Delirium, dementia, and depression in older adults: assessment and care [Internet]. Toronto (ON): The Association; 2016 [cited 2019 Aug]. Available from: https://rnao.ca/sites/rnao-ca/files/bpg/RNAO_Delirium_Dementia_Depression_Older_Adults_Assessment_and_Care.pdf

(8) Morandi A, Davis D, Bellelli G, Arora RC, Caplan GA, Kamholz B, et al. The diagnosis of delirium superimposed on dementia: an emerging challenge. J Am Med Dir Assoc. 2017;18(1):12-8.

(9) Inouye SK, Westendorp RG, Saczynski JS. Delirium in elderly people. Lancet. 2014;383(9920):911-22.

(10) Ahmed S, Leurent B, Sampson EL. Risk factors for incident delirium among older people in acute hospital medical units: a systematic review and meta-analysis. Age Ageing. 2014;43(3):326-33.

(11) Scottish Intercollegiate Guidelines Network. Risk reduction and management of delirium [Internet]. Edinburgh (Scotland): NHS Scotland; 2019 [cited 2019 Aug]. Available from: https://www.sign.ac.uk/assets/sign157.pdf

(12) Think delirium: delirium toolkit [Internet]. Scotland: Healthcare Improvement Scotland; 2014 [cited 2020 Jan 23]. Available from: http://www.widgetlibrary.knowledge.scot.nhs.uk/media/WidgetFiles/1010435/Delirium%20toolkit%20v3.1%20testing%20sep%20(web).pdf

(13) Watt CL, Momoli F, Ansari MT, Sikora L, Bush SH, Hosie A, et al. The incidence and prevalence of delirium across palliative care settings: a systematic review. Palliat Med. 2019;33(8):865-77.

(14) Canadian Coalition for Seniors' Mental Health. Clinician's pocket card: delirium assessment and treatment for older adults [Internet]. Markham (ON): The Coalition; 2010 [cited 2020 Jan]. Available from: https://ccsmh.ca/wp-content/uploads/2016/03/Delirium-tool-layout-FINAL.pdf

(15) Regional Geriatric Programs of Toronto. Senior Friendly Care: the SF7 toolkit [Internet]. Toronto: The Programs; 2019 [updated 2019; cited 2019 Nov].

Available from: https://www.rgptoronto.ca/wp-content/uploads/2018/04/SF7-Toolkit.pdf
(16) Chan B, Cochrane D. Measuring patient harm in Canadian hospitals. What can be done to improve patient safety? Ottawa (ON): Canadian Institute for Health Information, Canadian Patient Safety Institute; 2016.
(17) Han JH, Shintani A, Eden S, Morandi A, Solberg LM, Schnelle J, et al. Delirium in the emergency department: an independent predictor of death within 6 months. Ann Emerg Med. 2010;56(3):244-52.
(18) Pitkala KH, Laurila JV, Strandberg TE, Tilvis RS. Prognostic significance of delirium in frail older people. Dement Geriatr Cogn Disord. 2005;19(2-3):158-63.
(19) Ely EW, Shintani A, Truman B, Speroff T, Gordon SM, Harrell Jr FE, et al. Delirium as a predictor of mortality in mechanically ventilated patients in the intensive care unit. J Am Med Assoc. 2004;291(14):1753-62.
(20) Van den Boogaard M, Schoonhoven L, Van der Hoeven JG, Van Achterberg T, Pickkers P. Incidence and short-term consequences of delirium in critically ill patients: a prospective observational cohort study. Int J Nurs Stud. 2012;49(7):775-83.
(21) Marcantonio ER, Kiely DK, Simon SE, Orav EJ, Jones RN, Murphy KM, et al. Outcomes of older people admitted to postacute facilities with delirium. J Am Geriatr Soc. 2005;53(6):963-9.
(22) McCusker J, Cole M, Abrahamowicz M, Primeau F, Belzile E. Delirium predicts 12-month mortality. Arch Intern Med. 2002;162(4):457-63.
(23) Witlox J, Eurelings LS, de Jonghe JF, Kalisvaart KJ, Eikelenboom P, van Gool WA. Delirium in elderly patients and the risk of postdischarge mortality, institutionalization, and dementia: a meta-analysis. J Am Med Assoc. 2010;304(4):443-51.
(24) Breitbart W, Gibson C, Tremblay A. The delirium experience: delirium recall and delirium-related distress in hospitalized patients with cancer, their spouses/caregivers, and their nurses. Psychosomatics. 2002;43(3):183-94.
(25) Partridge JS, Martin FC, Harari D, Dhesi JK. The delirium experience: what is the effect on patients, relatives and staff and what can be done to modify this? Int J Geriatr Psychiatry. 2013;28(8):804-12.
(26) Pandharipande PP, Girard TD, Jackson JC, Morandi A, Thompson JL, Pun BT, et al. Long-term cognitive impairment after critical illness. N Engl J Med. 2013;369(14):1306-16.
(27) Dasgupta M, Hillier LM. Factors associated with prolonged delirium: a systematic review. Int Psychogeriatr. 2010;22(3):373-94.
(28) Canadian Coalition for Seniors' Mental Health. The assessment and treatment of delirium [Internet]. Toronto (ON): The Coalition; 2014 [cited 2019 Aug]. Available from: https://ccsmh.ca/wp-content/uploads/2016/03/2014-ccsmh-Guideline-Update-Delirium.pdf
(29) McCusker J, Cole MG, Dendukuri N, Belzile E. The delirium index, a measure of the severity of delirium: new findings on reliability, validity, and responsiveness. J Am Geriatr Soc. 2004;52(10):1744-9.
(30) National Institute for Health and Care Excellence. Delirium: prevention, diagnosis and management [Internet]. London (UK): The Institute; 2019 [cited 2019 Aug]. Available from: https://www.nice.org.uk/guidance/cg103
(31) Inouye SK, Bogardus ST, Jr., Charpentier PA, Leo-Summers L, Acampora D, Holford TR, et al. A multicomponent intervention to prevent delirium in

hospitalized older patients. N Engl J Med. 1999;340(9):669-76.
(32) Marcantonio ER, Flacker JM, Wright RJ, Resnick NM. Reducing delirium after hip fracture: a randomized trial. J Am Geriatr Soc. 2001;49(5):516-22.
(33) Hshieh TT, Yue J, Oh E, Puelle M, Dowal S, Travison T, et al. Effectiveness of multicomponent nonpharmacological delirium interventions: a meta-analysis. JAMA Intern Med. 2015;175(4):512-20.
(34) Martinez F, Tobar C, Hill N. Preventing delirium: should non-pharmacological, multicomponent interventions be used? A systematic review and meta-analysis of the literature. Age Ageing. 2015;44(2):196-204.
(35) American Geriatrics Society. Clinical practice guideline for postoperative delirium in older adults [Internet]. New York: The Society; 2014 [cited 2019 Aug]. Available from: https://geriatricscareonline.org/ProductAbstract/american-geriatrics-society-clinical-practice-guideline-for-postoperative-delirium-in-older-adults/CL018
(36) Wong K, Tsang A, Liu B. Update on senior friendly hospital care in Ontario [Internet]. Toronto (ON): Regional Geriatric Program of Toronto; 2015 [updated 2018; cited 2018 July 24]. Available from: https://www.rgptoronto.ca/wp-content/uploads/2017/12/SFH_Care_in_Ontario_2015.pdf
(37) Regional Geriatric Programs of Ontario. Senior Friendly Care (sfCare) [Internet]. Toronto (ON): The Programs; 2020 [updated 2020; cited 2020 Jan]. Available from: https://www.rgps.on.ca/initiatives/sfcare/
(38) Hogan DB, Borrie M, Basran JF, Chung AM, Jarrett PG, Morais JA, et al. Specialist physicians in geriatrics—report of the Canadian geriatrics society physician resource work group. Can Geriatr J. 2012;15(3):68.
(39) Australian Commission on Safety and Quality in Health Care (ACSQHC). Delirium clinical care standard [Internet]. Sydney: The Commission; 2016 [cited 2016 July]. Available from: https://www.safetyandquality.gov.au/our-work/clinical-care-standards/delirium-clinical-care-standard
(40) Reston JT, Schoelles KM. In-facility delirium prevention programs as a patient safety strategy: a systematic review. Ann Intern Med. 2013;158(5 Pt 2):375-80.
(41) 4AT rapid clinical test for delirium [Internet]. Edinburgh: Alasdair MacLullich; 2019 [updated unknown; cited 2019 Nov]. Available from: https://www.the4at.com/
(42) World Health Organization. The ICD-10 classification of mental and behavioural disorder. Diagnostic criteria for research. Geneva, Switzerland: The Organization; 1993.
(43) Han JH, Wilson A, Vasilevskis EE, Shintani A, Schnelle JF, Dittus RS, et al. Diagnosing delirium in older emergency department patients: validity and reliability of the Delirium Triage Screen and the Brief Confusion Assessment Method. Ann Emerg Med. 2013;62(5):457-65.
(44) Han JH. Delirium Triage Screen (DTS) instruction manual, version 1.0 [Internet]. Nashville (TN): Vanderbilt University; 2015 [cited 2020 Dec]. Available from: http://www.eddelirium.org/wp-content/uploads/2016/05/DTS-Training-Manual-Version-1.0-09-01-2015.pdf
(45) Han JH, Wilson A, Graves AJ, Shintani A, Schnelle JF, Ely EW. A quick and easy delirium assessment for nonphysician research personnel. Am J Emerg Med. 2016;34(6):1031-6.

(46) Shi Q, Warren L, Saposnik G, Macdermid JC. Confusion assessment method: a systematic review and meta-analysis of diagnostic accuracy. Neuropsychiatr Dis Treat. 2013;9:1359-70.

(47) American Geriatrics Society (AGS) CoCare: Hospital Elder Life Program (HELP), delirium instruments [Internet]. New York: American Geriatrics Society; 2019 [updated 2019; cited 2020 Dec]. Available from: https://help.agscocare.org/table-of-contents/delirium-instruments/H00101

(48) Ely EW, Margolin R, Francis J, May L, Truman B, Dittus R, et al. Evaluation of delirium in critically ill patients: validation of the Confusion Assessment Method for the Intensive Care Unit (CAM-ICU). Crit Care Med. 2001;29(7):1370-9.

(49) Marcantonio ER, Ngo LH, O'Connor M, Jones RN, Crane PK, Metzger ED, et al. 3D-CAM: derivation and validation of a 3-minute diagnostic interview for CAM-defined delirium: a cross-sectional diagnostic test study. Ann Intern Med. 2014;161(8):554-61.

(50) Steis MR, Evans L, Hirschman KB, Hanlon A, Fick DM, Flanagan N, et al. Screening for delirium using family caregivers: convergent validity of the Family Confusion Assessment Method and interviewer-rated Confusion Assessment Method. J Am Geriatr Soc. 2012;60(11):2121-6.

(51) Gusmao-Flores D, Salluh JI, Chalhub RA, Quarantini LC. The confusion assessment method for the intensive care unit (CAM-ICU) and intensive care delirium screening checklist (ICDSC) for the diagnosis of delirium: a systematic review and meta-analysis of clinical studies. Crit Care. 2012;16(4):R115.

(52) Quietly delirious [Internet]. London (UK): BMJ Publishing Group Ltd.; 2017 [updated 2020; cited 2020 Jan]. Available from: https://www.bmj.com/content/357/bmj.j2047/infographic

(53) Shulman RW, Kalra S, Jiang JZ. Validation of the Sour Seven Questionnaire for screening delirium in hospitalized seniors by informal caregivers and untrained nurses. BMC Geriatr. 2016;16:44.

(54) Nikooie R, Neufeld KJ, Oh ES, Wilson LM, Zhang A, Robinson KA, et al. Antipsychotics for treating delirium in hospitalized adults: a systematic review. Ann Intern Med. 2019;171:485-95.

(55) Agar MR, Lawlor PG, Quinn S, Draper B, Caplan GA, Rowett D, et al. Efficacy of oral risperidone, haloperidol, or placebo for symptoms of delirium among patients in palliative care: a randomized clinical trial. JAMA Intern Med. 2017;177(1):34-42.

(56) Finucane AM, Jones L, Leurent B, Sampson EL, Stone P, Tookman A, et al. Drug therapy for delirium in terminally ill adults. Cochrane Database Syst Rev. 2020:004770.

(57) Hahn-Goldberg S, Jeffs L, Troup A, Kubba R, Okrainec K. “We are doing it together”: the integral role of caregivers in a patient's transition home from the medicine unit. PLoS One. 2018;13(5):1-14.

(58) Kwan JL, Morgan MW, Stewart TE, Bell CM. Impact of an innovative inpatient patient navigator program on length of stay and 30-day readmission. J Hosp Med. 2015;10(12):799-803.

(59) Frequently asked questions: Personal Health Information Protection Act [Internet]. Toronto (ON): Information and Privacy Commissioner of Ontario; 2014 [updated 2015 Sep; cited 2020 Feb]. Available from: https://www.ipc.on.ca/wp-content/uploads/2015/11/phipa-faq.pdf

(60) Ontario Palliative Care Network. Key palliative care concepts and terms [Internet]. 2017 [updated Jul 2017; cited 2021 Jan]. Available from: https://www.ontariopalliativecarenetwork.ca/sites/opcn/files/KEY_PALLIATIVE_CARE_CONCEPTS_AND_TERMS.pdf

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Provincial Geriatrics Leadership Ontario (PGLO) is the provincial infrastructure for clinical geriatrics care, and, in collaboration with health professionals providing direct care, provides leadership to advance integrated, person-centred care for older adults living with complex health needs in Ontario and their caregivers.

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