Supplemental File 1. Preliminary List of Developed Quality Statements and PMs

Screening

Quality Statements

1. All older adults (≥ 65 years of age) presenting to the ED will be identified as high-risk for delirium and assessed for other delirium risk factors[i], including:
    - Cognitive impairment (past or present)/ dementia
    - Current fragility fracture (e.g., hip fracture), limb disfunction, or geriatric trauma
    - Severe illness with (or at risk for) deterioration
    - Nursing home residence
    - Hearing impairment
    - History of stroke

2. Older adults (≥ 65 years of age) presenting to the ED will be screened for delirium using the 4AT tool within **x** hours of arrival, and at least daily afterwards.

Performance Measures

Quality Statement 1:
Structure
Evidence of local structures, such as a prompt, checkbox, or automatic flag in the ED (electronic) health record to identify people at high-risk of developing delirium (including older age); (yes/no). (PM_01)

Process
Proportion of older adults presenting to the ED documented as being at risk for delirium on arrival; (%). (PM_02)

Proportion of older ED patients with documented assessment for other delirium risk factors upon initial assessment; (%). (PM_03)

Quality Statement 2:
Structure
Evidence of the ready availability of the 4AT tool in the ED setting (e.g., tool embedded in ED health record); (yes/no). (PM_04)

Process
Proportion of older adults presenting to the ED with a documented delirium screening using the 4AT within **x** hours of arrival; (%). (PM_05)

Proportion of older ED patients with a documented 4AT screening at least once every 24 hours; (%). (PM_06)

[i] Original list had two separate quality statements for identifying all older adults as at risk, then assessing older adults for other delirium risk factors. These were combined into one based on Study Steering Group feedback prior to finalizing the Delphi questionnaire and commencing the study (i.e., final quality statement N = 10).

Diagnosis

Quality Statement

3. Older ED patients who have a positive screen for delirium will have an assessment and diagnosis by a trained healthcare professional (which can be the same person completing the screening) and have this diagnosis documented in their health record and written in a discharge letter (when applicable).

Performance Measures

Process

Proportion of older ED patients with a positive screen for delirium who have a formal diagnosis clearly documented in their health record; (%). (PM_07)

Proportion of older ED patients who are diagnosed with delirium and discharged from the ED that have a discharge letter written in their record stating the diagnosis; (%). (PM_08)

Risk Reduction

Quality Statements

4. Older adults (≥ 65 years of age) presenting to the ED will received a range of tailored interventions to prevent delirium based on an assessment of clinical factors, including:
    - Orientation/reorientation
    - Providing pain management
    - Promoting sleep hygiene
    - Optimizing hydration and nutrition
    - Optimizing of oxygen saturation
    - Mobilizing as soon as possible
    - Addressing infection
    - Regulating bladder and bowel function while avoiding unnecessary catheterization
    - Providing visual/hearing aids as necessary (i.e., sensory optimization)

5. Older ED patients will have a medication review completed by an experienced healthcare professional.

6. Unnecessary transfers or moves within the ED will be avoided for older ED patients.

Performance Measures

Quality Statement 4:

Structure

Evidence of a readily available delirium protocol or care pathway for older ED patients to assess for clinical risk factors and tailor appropriate interventions to reduce the risk of delirium; (yes/no). (PM_09)

Process

Proportion of older ED patients who are assessed for clinical risk factors or delirium; (%). (PM_10)

Proportion of older ED patients who receive a range of tailored interventions (based on a clinical risk factor assessment) to reduce the risk of delirium; (%). (PM_11)

Quality Statement 5:
Structure
Evidence a readily available tool to aid in the review and identification of medications that may increase the risk of delirium (e.g., BEERS criteria or STOPP/START criteria); (yes/no). (PM_12)

Process
Proportion of older ED patients who have a medication review completed and documented by an experienced healthcare professional; (%). (PM_13)

Quality Statement 6:
Number of recorded transfers or moves an older ED patient has while in the ED; (count: aggregate reporting using descriptive statistics). (PM_14)

Management

Quality Statements

7. Older ED patients with a positive screen for delirium will have a systematic assessment to identify & treat possible causes of delirium:
    - First, consider acute, life-threatening causes of delirium, including: low oxygen levels, low blood pressure, low glucose level, and drug/alcohol intoxication or withdrawal;
    - Second, identify other potential causes (e.g., medications, acute illness) noting multiple causes are common;
    - Third, optimize physiology and manage concurrent conditions.

8. Older ED patients with delirium will have a multicomponent management plan initiated while in the ED, including:
    - Cognitive engagement and reorientation
    - Promoting mobilization
    - Reviewing and adjusting medications
    - Promoting sleep hygiene
    - Providing visual and hearing aids (as necessary)
    - Regulating bladder and bowel function
    - Avoiding unnecessary stimuli (e.g., placing patient in care space with reduced noise)

9. Older ED patients with delirium who are distressed/agitated or are a risk to themselves or others are not given antipsychotic medication (e.g., haloperidol) unless de-escalation techniques are ineffective or inappropriate.

10. Older ED patients with delirium and their family members/caregivers will be given information that explains the condition that meets the needs (cultural, language, cognitive) of the person; and family members/caregivers will be encouraged to be involved in delirium care, e.g., aiding in cognitive engagement and reorientation of the patient.

Performance Measures
Quality Statement 7: **Structure** Evidence of a readily available delirium care pathway in the ED for the documentation of a systematic assessment; (yes/no). PM_15) **Process** Proportion of older ED patients with a positive delirium screen who have a documented systematic assessment to identify causes of delirium; (%). (PM_16) **Quality Statement 8:** **Structure** Evidence of a readily available delirium care pathway in the ED for the documentation of a multicomponent management plan; (yes/no). (PM_17) **Process** Proportion of older ED patients with delirium who have a multicomponent management plan documented for the treatment of delirium; (%). (PM_18) **Structure** Evidence of local structures available within the ED for older adults with delirium to be placed in a care space with decreased unnecessary stimuli; (yes/no). (PM_19) **Process** Proportion of older ED patients with delirium who are placed in a care space with decreased unnecessary stimuli; (%). (PM_20) **Quality Statement 9:** **Process** Proportion of older ED patients with delirium who have been given an antipsychotic medication (e.g., haloperidol) who were documented as being a risk to themselves or others and it is also documented that de-escalation techniques were ineffective or inappropriate; (%). (PM_21) **Quality Statement 10:** **Structure** Evidence of a readily available communication tools (e.g., information pamphlets) in the ED to provide older adults with delirium and their family members/caregivers information that explains the condition; (yes/no). (PM_22) Evidence of information available in English, French, and other languages suited to local demographics (e.g., Indigenous languages) using plain language (e.g., Grade 6 reading level); (yes/no) (PM_23) **Process** Proportion of older ED patients with delirium who are given information explaining the condition; (%). (PM_24)