8.2 Percentage of older patients that are appropriately assessed for risk of medication-related falls.

Purpose

This indicator addresses the effectiveness of processes for identifying risk of and preventing medication-related falls in older hospitalised patients.

Background and evidence

Falls are major contributors to poor outcomes in older people, including trauma, serious injury, and accidental death. The incidence and prevalence of falls have grown in the past decade with the ageing of the global population, despite increasing implementation of strategies that focus on fall prevention.

A third of the community-dwelling population aged 65 years and older fall in any given year and a third of these fall again within the next year.[1] Older hospitalised patients have an especially high prevalence of falls, resulting in longer hospital stays and increasing costs for the individual and health care system.[2] The National Safety and Quality Health Service (NSQHS) Standards 2nd edition, in particular the Comprehensive Care Standard, require health service organisations providing services to patients at risk of falls to have systems that are consistent with best-practice guidelines for falls prevention.[3] Falls occurring in hospital which result in a fracture or intracranial injury are considered a hospital-acquired complication (HAC) by the Australian Commission on Safety and Quality in Health Care (ACQSHC).[4]

Falls are associated with polypharmacy (use of 5 or more medicines). Exposure to specific drug classes (mainly cardiovascular and psychoactive medications) has also been shown to increase falls risk and are commonly referred to as fall-risk-increasing drugs (FRIDs).[5,6]

Examples of FRIDs include antipsychotics, antidepressants, anxiolytics/sedatives, dopamine D2 agonists, opioids, anticholinergic drugs, antihistamines, antivertigo drugs, hypoglycaemics, beta-blocker eye drops, antihypertensives, antiarrhythmics, digoxin, nitrates and other vasodilators.[7]

There are a number of different validated Falls Risk Assessment Tools (vFRATs) used in Australian hospitals[8] but they do not adequately measure and categorise degree of risk of medication-related falls. Medication use is one of the most modifiable risk factors for falls. The Medication-related falls risk assessment tool (MFRAT) developed by the NSW Therapeutic Advisory Group (TAG) can be used to stratify the degree of risk of medication-related falls and recommended actions according to risk category in the event health service organisations do not have a locally-approved tool.

Key definitions

Older patients refers to all patients aged 65 years and over.
Note: Other age definitions may be appropriate for some high risk patient groups e.g. 50 years and older for Aboriginal and Torres Strait Islander people, residents of aged care facilities or patients with low literacy skills.[9,10]

Appropriately assessed for risk of medication-related falls means that there is explicit documentation in the medical record (or in another designated place as determined by local policy) of the patient's risk of medication-related falls, including the degree of risk of falls (high, moderate or low risk) and the identified FRIDs.

Table 1: Requirements for appropriate assessment for risk of MEDICATION-RELATED falls

• Documentation of the risk category assigned to the patient after using a risk assessment tool for medication-related falls. An example of a risk assessment tool for medication-related falls (MFRAT) can be found at here. Alternatively, facilities may use a locally approved tool. (N.B. completion of a vFRAT alone does not assess risk of medication-related falls).

AND
• Documented rationale for risk category:
  ○ Documentation of the names of any identified FRID(s) (including those that the patient has had temporarily withheld during hospital admission)
  OR
  ○ Documentation of an absence of any FRIDs.
 	
All relevant information used for categorisation should be documented.
 	
(Note: a local risk assessment tool may use or include other reasons to determine medication-related risk categorisation).

AND • Completion by one or more health care professionals trained/credentialed (according to local policy) to identify FRIDs
AND • Completion by the end of the next calendar day after admission.

Data collection for local use

Please refer to the section *Using the National Quality Use of Medicines Indicators for Australian Hospitals* for guidance on sample selection, sample size, measurement frequency and other considerations.

Inclusion criteria: Patients aged 65 years and over, or other ages for high risk groups as appropriate, admitted to hospital for greater than 24 hours.

Exclusion criteria: Patients with length of stay less than 24 hours from the time of hospital admission, patients cared for in the emergency department.

Recommended data sources: Validated falls risk assessment tools and management plans, medical records, medication charts and medication management plans or reconciliation forms, if available.

As lists of FRIDs may vary between and within health service organisations or change over time, it is recommended that prior to auditing, the auditor documents the medicines against which they will audit. The AMH Aged Care Companion has a section that discusses medicines that may contribute to risk of falls.[7] The NSW TAG MFRAT lists common FRIDs.

The data collection tool (DCT) for NSW TAG QUM Indicator 8.2 assists data collection and provides automatic indicator calculation.

Data collection for inter-hospital comparison

This indicator may be suitable for inter-hospital comparison. In this case, definitions, sampling methods and guidelines for audit and reporting need to be agreed in advance in consultation with the coordinating agency.

Indicator calculation

$$\frac{\text{Numerator}}{\text{Denominator}} \times 100\%$$

Numerator = Number of older patients that have a documented medication-related falls risk assessment identifying degree of risk.

Denominator = Number of older patients in sample.

Limitations and interpretation

This indicator only measures assessment at one point in time (within approximately 24 hours of hospital admission). However, preventable risk of inappropriate polypharmacy may continue or increase during hospitalisation and repeat assessment and intervention may be required.

There may be variation in the location of documented risk assessments. It is recommended that sites determine useful local data sources prior to auditing and consider collecting data about the location of this documentation to inform quality improvement as well as any future repeat auditing.

This indicator focuses on falls risk related to medicines use and other risk factors identified in completion of vFRATs will still require intervention whether FRIDs are present or not.

This indicator does not assess the quality of the risk assessment e.g. documentation may not accurately identify relevant FRIDs and measures only one component of the strategies designed to reduce falls in hospitalised patients. Results should be interpreted in the context of the overall performance in falls prevention strategies at the organisational level.

Collecting data regarding the names of identified FRIDs and/or different patient groups (e.g. patients admitted to specific wards such as stroke rehabilitation wards, geriatric wards, orthopaedic wards; or patients admitted under a specific team/specialty; or those admitted due to medication-related harm) may inform post-audit interventions (this may be documented in the 'Comments' column of the DCT).

Some performance monitoring and/or quality improvement projects may wish to include additional risk criteria or limit the patient sample e.g. patients with specific conditions, prescribed certain medication classes, or under the care of a specific specialty.

See NSW TAG QUM Indicators 8.1 *Percentage of older patients that are appropriately assessed for risk of harm from inappropriate polypharmacy* and 8.3 *Percentage of older patients that are appropriately assessed for risk of medication-related impairment of cognitive and/or physical function* for further information regarding the management of older patients at high risk of other types of medication-related harms.
Available here: https://www.nswtag.org.au/qum-indicators/

References

1. Tinetti ME, Speechley M, Ginter SF. Risk factors for falls among elderly persons living in the community. *N Engl J Med.* 1988;319(26):1701-1707.
2. Bates DW, Pruess K, Souney P, Platt R. Serious falls in hospitalized patients: correlates and resource utilization. *Am J Med.* 1995;99(2):137-143.
3. Australian Commission on Safety and Quality in Health Care (ACSQHC). National Safety and Quality Health Service Standards. 2nd ed. 2017. https://www.safetyandquality.gov.au/sites/default/files/migrated/National-Safety-and-Quality-Health-Service-Standards-second-edition.pdf.
4. Australian Commission on Safety and Quality in Health Care (ACSQHC). Hospital-Acquired Complication - 2. Falls Resulting in Fracture or Intracranial Injury. 2018. https://www.safetyandquality.gov.au/sites/default/files/migrated/SAQ7730_HAC_Factsheet_Falls_LongV2.pdf.
5. van der Velde N, Stricker B, Pols H, van der Cammen T. Risk of falls after withdrawal of fall-risk-increasing drugs: a prospective cohort study. *Br J Clin Pharmacol.* 2007;63(2):232-237.
6. Bennett A, Gnjidic D, Gillett M, et al. Prevalence and impact of fall-risk-increasing drugs, polypharmacy, and drug-drug interactions in robust versus frail hospitalised falls patients: a prospective cohort study. *Drugs Aging.* 2014;31(3):225-232.
7. Australian Medicines Handbook Aged Care Companion. 2020. https://agedcare.amh.net.au/chapters/musculoskeletal/fall-prevention?menu=hints
8. Australian Commission on Safety and Quality in Health Care (ACSQHC). Preventing falls and harm from falls in older people. 2009. https://www.activeandhealthy.nsw.gov.au/assets/pdf/Hospital_Guidelines.pdf.
9. Australian Institute of Health and Welfare (AIHW). Older Australians at a glance. 2017; https://www.aihw.gov.au/reports/older-people/older-australia-at-a-glance/contents/summary. Accessed Aug 30, 2018.
10. Scottish Government Polypharmacy Model of Care Group. Polypharmacy guidance, realistic prescribing 3rd edition. 2018. https://www.therapeutics.scot.nhs.uk/wp-content/uploads/2018/04/Polypharmacy-Guidance-2018.pdf.