

## Quality Improvement (QI) Strategies to prevent falls in older adults: A systematic review and network meta-analysis

### Summary

Effective falls prevention quality improvement strategies are multi-faceted. They include components targeting patients (such as education and reminders), as well as components targeting clinicians (such as team changes, case management and staff education) that are designed to increase risk prevention efficacy and/or minimize risk of fall injury.

### Implications

Team changes may reduce risk of injurious falls; patient education may reduce the risk of fractures; and a combination of case management, patient reminders, and staff education may reduce risk of falls.

**Reference:** Tricco AC, Thomas SM, Veroniki AA, et al. Quality improvement strategies to prevent falls in older adults: a systematic review and network meta-analysis. *Age and Ageing*. 2019 [Epub ahead of print.]

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### What is the current situation?

- Falls remain a common occurrence in older adults.
- There is a quality of care gap because of a lack of information on how best to implement high quality evidence to prevent falls and injuries.

### What is the objective?

- To identify the most effective quality improvement (QI) strategy (single or multi-component) for preventing falls in older adults through a systematic review and network meta-analysis.

### How was the review conducted?

- MEDLINE, EMBASE, Cochrane Central Register of Controlled Trials, and Ageline were searched from inception to April 2017, after having the search strategy developed and peer-reviewed by experienced librarians.
- Randomized controlled trials were included if they examined at least one of 13 QI strategies (adapted from US Agency for Healthcare Research and Quality) in patients aged 65 years or older from any setting (community, long-term care, etc.)
- Study selection, data abstraction, and risk of bias assessment were all conducted by two independent reviewers, and discrepancies were addressed by a third reviewer.
- Random-effect network meta-analysis was conducted if connected networks included 10 or more RCTs, and pairwise meta-analysis was conducted for all outcomes.

### What did the review find?

- After screening 10,650 titles and abstracts, and 1210 full-text articles, we included 126 RCTs with 84,307 participants.
- Falls prevention QI strategies include targeting both patients and clinicians through various mechanisms to reduce risk of falls in older adults.
- A combination of case management, patient reminders and staff education may reduce fall risk in older adults.
- Team changes (modifying structure of primary healthcare team) may reduce the risk of injurious falls, and patient education may reduce the risk of fall-related fractures.
- These results can be tailored according to decision-maker preferences and resource availability.