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Screening and Intervention to Prevent Falls and Fractures in Older People

PRESENTING QUESTION

How does community screening and therapeutic prevention strategies reduce the incidence of falls in older people?

INTERVENTION

Clinical guidelines have suggested that preventing falls should reduce the incidence of fractures among older people, and recommend strategies to prevent falls. The clinical effectiveness and cost-effectiveness of a brief falls-risk screening questionnaire, sent by mail, followed by exercise program or multifactorial intervention targeted to persons at increased risk of falls were assessed, as compared with no screening in older adults in the community. All participants received advice by mail.



COMPARATOR

Placebo

OUTCOMES

Based on this study, advice by mail, brief falls-risk screening, and a targeted exercise or multifactorial intervention to prevent falls did not result in fewer fractures than advice by mail alone.



TIMEFRAME

Study Design: Pragmatic, Three-Group, Cluster RCT

SYNOPSIS

Study selection included 9803 persons 70 years of age or older from 63 general practices across England: 3223 were assigned to advice by mail alone, 3279 to fall-risks screening and target exercise in addition to advice by mail, and 3301 to falls-risk screening and targeted multifactorial fall prevention in addition to advice by mail. The fallsrisk screening was designed as a questionnaire, and sent to the exercise and multifactorial fall-prevention groups. Completed screening questionnaires were returned by 2925 of the 3279 participants (89%) in the exercise group and by 2854 of the 3301 participants (87%) in the multifactorial fall-prevention group. Of the 5779 participants from both these groups who returned questionnaires, 2153 (37%) were considered to be at increased risk for falls and were invited to receive the intervention. Fracture data were available for 9802 of the 9803 participants. Screening and targeted intervention did not result in lower fracture rates; the rate ratio for fracture with exercise as compared with advice by mail was 1.20 (95% confidence interval [CI], 0.91 to 1.59), and the rate ratio with multifactorial fall prevention as compared with advice by mail was 1.30 (95% CI, 0.99 to 1.71). The exercise strategy was associated with small gains in health-related quality of life and the lowest overall costs. There were three adverse events (one episode of angina, one fall during a multifactorial fall-prevention assessment, and one hip fracture) during the trial period.

KEY TAKEAWAY

- Advice by mail, screening for fall risk, and a targeted exercise or multifactorial intervention to prevent falls did **not** result in fewer fractures than advice by mail alone
- Measuring falls was retrospective reporting through surveys, which can be limited by underreporting but likely did not affect the estimate of the intervention effect

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