INSTITUTO NACIONAL DE GERIATRÍA

Evidence-to-recommendations table

Falls are the leading cause of injury in older people aged 65 years and over. Between 30% and 40% of community-dwelling adults aged 65 years or older fall at least once per year. Therefore, prevention of falls in older people at risk of falling is important.

Do the desirable effects outweigh the undesirable effects?

Fifty-nine trials (which included 13 264 randomized participants) tested the effect of exercise on falls in older people. Trials were based on multimodal exercise interventions and combined two or more of the following components: (a) gait, balance and functional training; (b) strength and resistance training; (c) flexibility; (d) t'ai chi; (e) general physical activity; and (f) endurance. The interventions were delivered in groups or individually.

Moderate-quality evidence suggests that multimodal exercise, delivered in groups or individually, reduces the occurrence of falls in older people at risk of falls. Sixteen trials (3622 participants) examined the effectiveness of multi-component group exercise interventions. The mean age of the participants ranged from 69 to 88 years, and the mean age in 94% of the trials was over 70 years. All reviewed trials were from high-income countries. Duration of follow-up ranged from 3.5 to 36 months. Overall, the intervention achieved a statistically significant reduction in the rate of falls (Rate ratio: 0.71, 95% CI: 0.63 to 0.82). Eight trials delivered individual exercise interventions at the participants' homes. The mean age of the participants ranged from 74.7 to 84.1 years, and the mean age in the majority of trials was over 80 years. The duration of the trials ranged from 7.5 to 24 months. Overall, home-based interventions achieved a statistically significant reduction in the rate of falls (Rate ratio: 0.68, 95% CI: 0.58 to 0.80). One trial, which examined balance and strength training included in daily life activities, showed a statistically significant reduction in the rate of falls (Rate ratio: 0.21, 95% CI: 0.06 to 0.71).

There is limited moderate-quality evidence that t'ai chi training may reduce the risk of falls in older people. However, the benefit of t'ai chi exercise (in terms of reduction in the rate of falls) was experienced by the subgroup who were not selected for a higher risk of falling, while there was no effect in the group selected for a higher risk of falling. Thus, t'ai chi training seems to be more effective in people who are not at high risk of falling.

Adequate low-quality evidence suggests that multifactorial interventions reduce the rate of falls in older people at risk of falls. Nineteen reviewed trials investigated the benefit of multifactorial interventions (assessment and referral or provision of active interventions). The mean age of the participants ranged from 73.1 to 80.6 years and the proportion of women participants in the trials ranged from 49% to 100%. Only one study originated from a middle-income country (Thailand), while the

other 18 trials were conducted in high-income countries, mainly Australia, Canada, China, Denmark, Finland, the Netherlands, the Province of Taiwan, the United Kingdom of Great Britain and Northern Ireland and the United States of America. Multifactorial interventions integrating assessments with individualized interventions, usually involving a multidisciplinary team, were effective in reducing the rate of falls in older people at risk of falls (Rate ratio: 0.77, CI: 0.67 to 0.86).

There is limited moderate-quality evidence to suggest that home safety assessment and tailored interventions reduce the rate of falls in older people at risk of falls. Six RCTs (4208 participants) investigated the effectiveness of home safety interventions to reduce the rate of falls and the risk of falling. The mean age of the trial participants was more than 75 years. The follow-up period ranged from 3 to 18 months. Overall, home safety assessments and modification interventions were effective in reducing the rate of falls (Rate of falls: 0.62, 95% CI: 0.5 to 0.77). Furthermore, in a post hoc analysis, home safety interventions delivered by an occupational therapist were more effective than interventions delivered by other health care professionals.

There is very limited low-quality evidence suggesting that medication reviews and modification or withdrawal of medication reduce the risk of falls in older people. The results of one trial showed that withdrawal of psychotropic medication was effective in reducing the rate of falls (Rate ratio: 0.34, 95% CI: 0.16 to 0.73). In another study, an educational programme for general practitioners on medical review and treatment modification was found to be ineffective in reducing rate of falls.

Fuente:

World Health Organization. (2017). Integrated care for older people: guidelines on community-level interventions to manage declines in intrinsic capacity. World Health Organization. https://www.who.int/ageing/health-systems/icope/evidence-centre/ICOPE-evidence-profile-falls.pdf?ua=1