STARS Education and Research Alliance

CREATING KNOWLEDGE | TRANSFORMING CARE

Implementing an evidence-based falls prevention programme in Care Homes/ Aged Care facilities.

Professor Pip Logan,

THE UNIVERSITY OF QUEENSLAND AUSTRALIA

Metro North Health | Queensland Government

Acknowledgement of Country

We acknowledge the Traditional Owners and their custodianship of the lands on which we meet.

We pay our respects to their Ancestors and their descendants, who continue cultural and spiritual connections to Country.

We recognise their valuable contributions to Australia and global society.

STARS RAP Artwork

Why

421,000 older people living in UK care homes, 15,000 homes

Falls account for **40%** of all injury deaths that occur in care homes

Falls are at least **three times** more frequent in care homes than in a community dwelling

One in ten care home residents who fall sustain a **fracture**

60-80% of residents are cognitively impaired

Falls risk assessments but no-evidence based interventions

"An unexpected event in which residents come to rest on the ground or floor"
World Health Organisation 2024

The Action Falls care home programme

- Aimed at adults living in care homes/ long term residential facilities
- Delivered by care home staff trained to use Action Falls
- Risk Assessment and Action Checklist


CARE OF THE OLDER PERSON

Thinking falls – taking action: a falls prevention tool for care homes

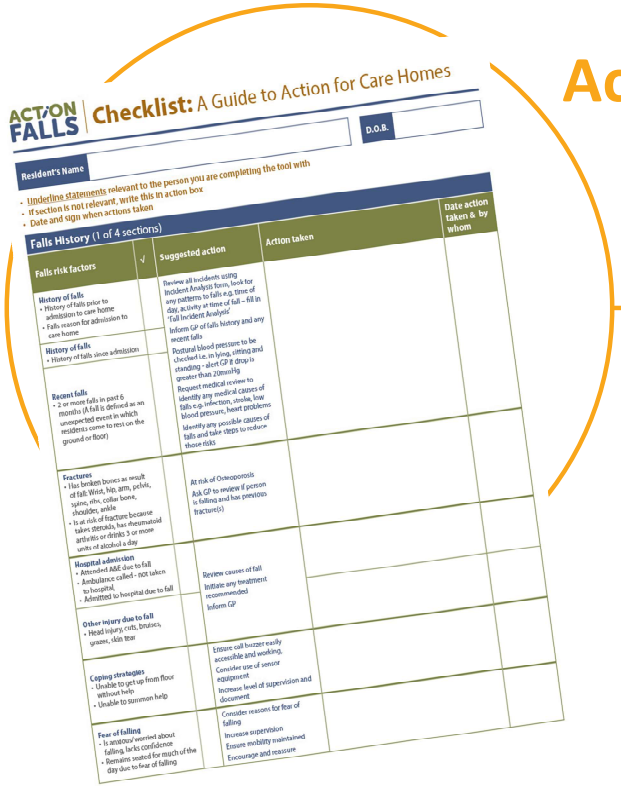
Kate Robertson, Pip Logan, Marie Ward, Julia Pollard, Adam Gordon, Wynne Williams, Julie Watson

Method

Development of the GtACH

- Training with certificate
- Poster to put up in the home
- Free App
- Ongoing support via phone from trainer
- Community of practice

Key Components of the Action Falls Programme


ACTION FALLS | Checklist: A Guide to Action for Care Homes

Resident's Name

D.O.B.

- Underline statements relevant to the person you are completing the tool with
- If section is not relevant, write this in action box
- Date and sign when actions taken

Falls History (1 of 4 sections)

Falls risk factors	√	Suggested action	Action taken	Date action taken & by whom
History of falls • History of falls prior to admission to care home • Falls reason for admission to care home		Review all incidents using Incident Analysis form, look for any patterns to falls e.g. time of day, activity or time of fall – fill in 'Fall Incident Analysis'		
History of falls • History of falls since admission		Inform GP of falls history and any recent falls		
Recent falls • 2 or more falls in past 6 months (A Fall is defined as an unexpected event in which residents come to rest on the ground or floor)		Postural blood pressure to be checked i.e. in lying, sitting and standing - alert GP if drop is greater than 20mmHg Request medical review to identify any medical causes of falls e.g. infection, stroke, low blood pressure, heart problems Identify any possible causes of falls and take steps to reduce those risks		
Fractures • Has broken bones as result of fall: Wrist, hip, arm, pelvis, spine, ribs, collar bone, shoulder, ankle • Is at risk of fracture because takes steroids, has rheumatoid arthritis or drinks 3 or more units of alcohol a day		At risk of Osteoporosis Ask GP to review if person is falling and has previous fracture(s)		
Hospital admission • Attended A&E due to fall • Ambulance called - not taken to hospital. • Admitted to hospital due to fall		Review causes of fall Initiate any treatment recommended Inform GP		
Other injury due to fall • Head injury, cuts, bruises, grazes, skin tear				
Coping strategies • Unable to get up from floor without help • Unable to summon help		Ensure call buzzer easily accessible and working. Consider use of sensor equipment Increase level of supervision and document		
Fear of falling • Is anxious/ worried about falling, lacks confidence • Remains seated for much of the day due to fear of falling		Consider reasons for fear of falling Increase supervision Ensure mobility maintained Encourage and reassure		

Action Falls Checklist (resource)

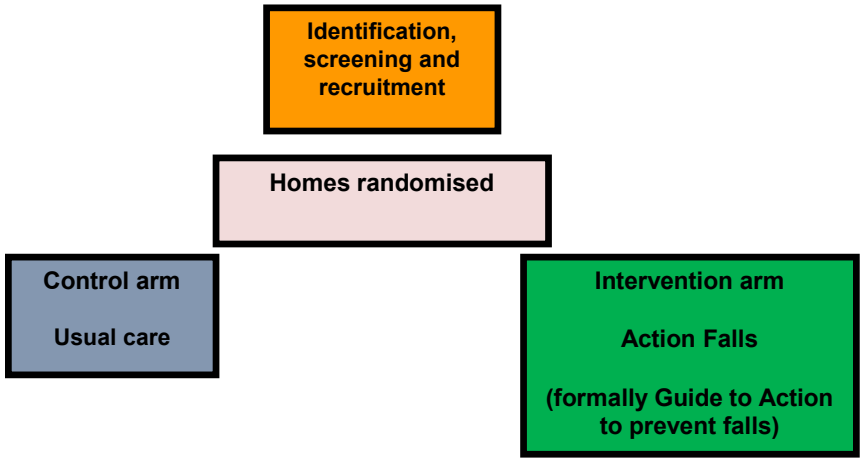
1 hour care home training programme

FinCH (Falls in Care Homes)

A multi-centre cluster randomised controlled trial to evaluate the Guide to Action Care Home fall prevention programme in care homes for older people

https://www.bmj.com/content/375/bmj-2021-066991

FinCH (Falls in Care Homes trial)



Follow- up assessments at 3, 6, 9 & 12 months

Falls
Fall injuries
Fractures
Functional ability using the Barthel Index
Physical activity and mobility using the (PAM-RC)
Quality of Life using EQ5D
Use of services using (AD-SUS-CH)

Process evaluation

6 care homes and 30 interviews

Realist methodology

Training of fall prevention experts, training of care home staff and implementation of the Action Falls observed and assessed

Care home records reviewed to consider broad compliance with Action Falls

Key stakeholders interviewed to explore the experience of introducing Action Falls

Economic evaluation

Use of services using the ADult Service Use Schedule Care Home (AD-SUS-CH)

Quality of life using the
EQ-5D-5L
EQ-5D-5L-P
DEMQOL-U-5D,
DEMQOL-P-4D,

Primary Outcome

The primary trial outcome was the rate of falls per participating resident occurring during the 90-day period between 91- and 180-days post randomisation.

The primary outcome for the cost-effectiveness analysis was the cost per fall averted and the primary outcome for the cost–utility analysis was the incremental cost per quality adjusted life-year.

Analysis

The number of falls per resident was compared between arms using a negative binomial regression model (generalised estimating equation).

Interviews were analysed using the thematic approach and Normalisation Process Theory.

Baseline Characteristics

	Overall n=1657	GTACH n=775	Usual Care n=882
Age at consent to FinCH (years): mean (SD)	85.04 (9.28)	86.03 (8.64)	84.16 (9.74)
Male: N (%)	532 (32.1%)	231 (29.8%)	301 (34.1%)
Consent: Resident	387 (23.4%)	186 (24.0%)	201 (22.8%)
Consultee	1270 (76.6%)	589 (76.0%)	681 (77.2%)
Time in care home (months): median (IQR)	18.6 (8.3 – 36.4)	18.8 (8.1 – 36.5)	18.1 (8.6 – 35.8)
Recorded diagnosis: Dementia N (%)	1109 (67.0%)	506 (65.4%)	603 (68.4%)
Diabetes	320 (19.3%)	150 (19.4%)	170 (19.3%)
Stroke	262 (15.8%)	118 (15.2%)	144 (16.3%)
CHD	234 (14.1%)	100 (12.9%)	134 (15.2%)
Mean (SD) number of falls per person 3 months prior to baseline	0.71 (1.82)	0.61 (1.57)	0.79 (2.02)
Number of medications in period 3 months prior to baseline on			
None	0	0	0
One to three	56 (3.4%)	26 (3.4%)	30 (3.4%)
Four or more	1601 (96.6%)	749 (96.6%)	852 (96.6%)
Physical activity (PAM-RC) score at baseline: mean (SD)	8.61 (6.09)	8.57 (5.95)	8.66 (6.21)
Activities of Daily Living (Barthel) score at baseline: mean (SD)	8.57 (6.05)	8.86 (6.12)	8.30 (5.99)
DEMQOL self-completion at baseline	0.82 (0.16)	0.83 (0.16)	0.81 (0.16)
DEMQOL proxy at baseline	0.74 (0.12)	0.74 (0.12)	0.74 (0.12)
EQ-5D-5L self-completion at baseline	0.49 (0.36)	0.52 (0.36)	0.46 (0.35)
EQ-5D-5L proxy at baseline	0.35 (0.37)	0.36 (0.37)	0.34 (0.36)

Results - Falls

Over the period of the primary outcome assessment the fall rate was 6.0/1000 residents in the GtACH group and 10.4/1000 residents in the usual care group

	GtACH			Usual Care			Unadjusted		Adjusted for baseline falls	
	N at risk	N falls	Fall rate	N at risk	N falls	Fall rate	IRR (95% CI)	p-value	IRR (95% CI)	p-value
pre-randomisation*	773	0.61 (1.57)	6.97 (17.67)	882	0.79 (2.02)	9.48 (24.14)				
0 – 90 days	708	0.55 (1.36)	6.93 (20.56)	826	0.88 (2.37)	10.24 (27.26)	0.6 (0.49,0.73)	<0.001	0.74 (0.60,0.92)	0.006
91 – 180 days	630	0.49 (1.13)	6.04 (14.02)	712	0.89 (2.60)	10.38 (29.52)	0.57 (0.45,0.71)	<0.001	0.63 (0.52,0.78)	<0.001
181 – 270 days	547	0.60 (1.29)	7.28 (16.67)	633	0.73 (1.85)	9.21 (28.77)	0.85 (0.69,1.05)	0.128	0.91 (0.74,1.12)	0.369
271 – 360 days	502	0.55 (1.14)	6.22 (12.88)	573	0.79 (2.37)	9.22 (27.36)	0.79 (0.60,1.03)	0.078	0.93 (0.71,1.22)	0.614

Results – economic evaluation

The base-case incremental cost per fall averted was £190.62.

The cost per participant was £108.

The incremental costs per EQ-5D-5L-P and DEMQOL-P-U based QALY were £4544 and £20 889, respectively.

Results - Process evaluation

The base-case incremental cost per fall averted was £190.62.

The cost per participant was £108.

The incremental costs per EQ-5D-5L-P and DEMQOL-P-U based QALY were £4544 and £20 889, respectively.

STARS Education and Research Alliance

ACTION FALLS

FinCH IMP

Aim of the study

To understand the best ways to enable Care Homes to use the Action Falls Programme in day-to-day care

Implementation Study

Support-listen-adapt

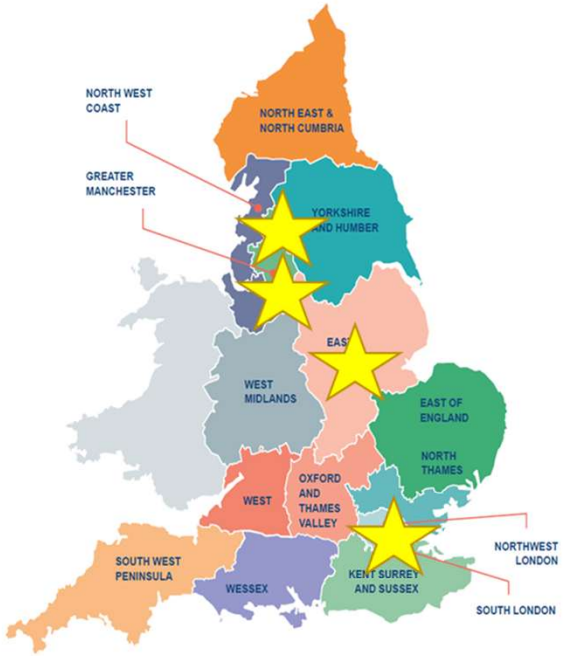
60 Care homes across 4 locations in the UK

Trained over 1000 care home staff in Action Falls

Interviews with care home staff about their experiences

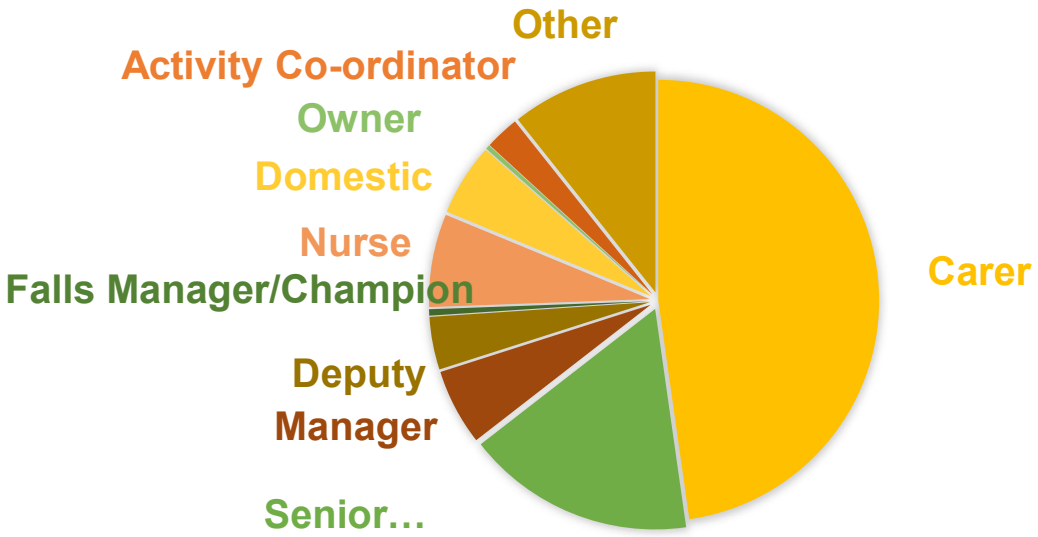
Collecting data from questionnaires, events, records

Updating resources, writing how to use guides, return on investment guides, working with the NHS E, Local Authorities to get wider adoption



Results

663 Staff questionnaires
39 Interviews
40 3 Focus groups
12 Quality Improvement Collaborative events



49 care homes (82%) returned falls rate data

5829 recorded falls, 2.34 falls per resident

Homes that did not engage with the Action Falls training had more falls

Care home staff struggled to complete documents but could complete Actions

Training valued and excellent

Care home staff can only cope with one falls prevention programme

Support is needed after the training

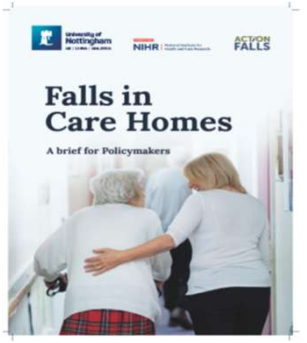
Impact - Changes in practice

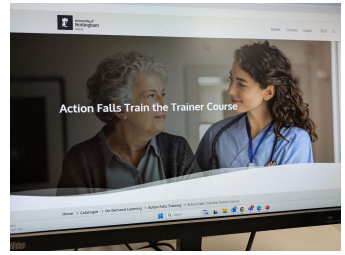
- NHS England Proactive Care Framework Best Practice (https://www.england.nhs.uk/long-read/proactive-care-providing-care-and-support-for-people-living-at-home-with-moderate-or-severe-frailty/)

- Policy document for MPs, Care Quality Commission

- You Tube film available

- On-line training for falls champions






University of Nottingham
ACTION FALLS
Falls in Care Homes
National Implementation Study
FinCH
Background
Action Falls is a falls prevention programme that has been proven to reduce falls in care homes by 43%. It includes training care home staff delivered by Action Falls leads. This study explored what needs to be in place for care homes to use Action Falls.
What we did
We worked in collaboration with:
• Care home staff
• Patient and public contributors
• NHS healthcare professionals
• Commissioners
1657 care home staff were trained from 57 UKcare homes
Data was collected using a mixture of methods
Key messages
Care home manager is pivotal to successful use of Action Falls.
Action Falls is valued and accepted by care home staff providing it replaces, rather than duplicates, other systems.
Training all staff, regardless of role, was well received with an increase in falls knowledge reported.
Shared learning helped care homes use training most effectively and have lower falls rates. This involved staff working collectively and attending training.
Action Falls training needs to be delivered to all new staff.
Follow up support: Once trained, care home staff need an opportunity to work with colleagues or the Action Falls Lead to practice with residents.
Care record systems, which are mostly digital, must include the Action Falls documents.
Cost savings were identified/ promising. In a care home with 50 residents, it may prevent 6 to 7 falls monthly, potentially saving the NHS £2,227 monthly in ambulance call-outs alone. Taking the UK as a whole this would equate to savings of over £1 million.
National policy: Action Falls has been recommended for use in all care homes by NHS England and the World Falls Guidelines.
NHS
Visit www.actionfalls.org
This study was funded by Wessex ARC and supported by East Midlands ARC and Greater Manchester ARC. The views expressed are those of the author(s) and not necessarily those of the NIHR or the Department of Health and Social Care.
FUNDED BY
NIHR | National Institute for Health and Care Research
Researchers: PA Logan[1,2], F Allen[3], J Darby[3], S Burgess[3], S Hodge[3], C Ward[3], L Houten[3], E McManus[3], B Guo[3], K Robinson[3,14], V Hallam[3,4], E Orton[1,15], A Gordon[1,15,16], J Manthorpe[4,16], C Forward[4], D Lasserson[4], C Harris[4], B Hanratty[4,14], P Leighton[5], T Locke[5,6], V Place[6], S Knowles[5,6], K Cobb[7], A Rees[8], L Jones[8], S Quirke[8], L Pyne[9], M Lie[9], D Rowlands[9,6], B Brown[17], P Smith[18].
1 School of Medicine, University of Nottingham, Nottingham, UK. 2 University of Manchester, Manchester, UK. 3 Kings College London, UK. 4 Warwick Medical School, University of Warwick, UK. 5 Newcastle University, Newcastle, UK. 6 Nottinghamshire Healthcare Foundation Trust, Nottingham, UK. 7 Nottingham CityCare Partnership, Nottingham, UK. 8 South East London ICS, UK. 9 Northumbria Healthcare NHS, UK. 10 Bromley Healthcare, UK. 11 White House Care Home, Stockton-on-Tees, UK. 12 Derby and Burton Hospitals NHS Trust. 13 Applied Research Collaboration, East Midlands, UK. 14 Applied Research Collaboration North-East and North Cumbria, UK. 15 Applied Research Collaboration, South London, UK. 16 Nottingham University Hospitals (NHS) Trust, Nottingham, UK. 17 Leicestershire County Council, UK. 18 The Byars, Care Home Manager, UK. 19 Patient Public Involvement Group.
© The University of Nottingham 2024

Conclusions - Implications

- Staff working in care homes and long-term facilities are able and willing to use Action Falls in the real world
- Implementing Action Falls has the potential to save money for care homes, health and social care services
- Training is key https://store.online.nottingham.ac.uk/product?catalog=1720797369fgpnt
- Action Fall checklist needs to be integrated to care home record systems either digital or paper
- Other Falls prevention programmes will need to be removed
- Policy makers and commissioners of services are key to implementation

The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

STARS Education and Research Alliance
STARS Education and Research Alliance
CREATING KNOWLEDGE | TRANSFORMING CARE
The University Of Queensland AUSTRALIA
Metro North Health | Queensland Government

FiSS | Falls in Stroke Survivors UNITED KINGDOM

FiSS | Falls in Stroke Survivors AUSTRALIA

470 participants in each country, 10 sites, recruiting 2025

Dr Vicky Booth
Prof Pip Logan

Centre for Rehabilitation and Ageing Research
School of Medicine
University of Nottingham

Dr Emmah Doig
Prof Nadine Foster

Surgical Treatment and Rehabilitation Service, Education and Research Alliance
University of Queensland

Thank you

The FinCH research team – pip.logan@nottingham.ac.uk

Frances Allen
Janet Darby
Sandy Burgess
Katie Robinson
Paul Leighton
Boliang Gui
Emma MacManus
Liz Orton
Barbara Hanratty
Michael Fletcher
Peter Smith
Maureen Godfrey
Adam Gordon
Moira Hart
Jane C Horne

Care home residents and families
Care home staff, owners and managers
Patient and Public Involvement members
Stakeholders
NHS and local authority staff
University colleagues
University students and work experience students

The funders
The research was funded by the NIHR Applied Research Collaboration: Health Ageing Dementia and Frailty National Priority Area.The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. This is independent research funded by the National Institute for Health Research (NIHR). The views and opinions expressed by authors are those of the authors and do not necessarily reflect those of the NHS, the NIHR, NETSCC, the ARC programme or the Department of Health and Social Care.

Publications

Thinking falls – taking action: a falls prevention tool for care homes. Robertson K, Logan P, Ward M, Pollard J, Gordon A, Williams W, Watson J. (2012). British Journal of Community Nursing, 17(5), 206-209.

Thinking falls - taking action: a guide to action for falls prevent Robertson K, Logan P, Conroy S, Dods V, Gordon A, Challands L, Smith S, Humpage S, Burn A. (2010). ion. British Journal of Community Nursing, 15(8), 406-410.

Evaluation of the Guide to Action Care Home fall prevention programme in care homes for older people: protocol for a multi-centre, single blinded, cluster randomised controlled trial (FinCH). Logan PA, McCartney K , Armstrong S , Clarke A , Conroy S , Darby J , Gladman J, Godfrey M, Gordon AL, Irvine L, Leighton P , Mountain G, Robertson K , Robinson K, Sach T , Sims E, Horne JC. East Midlands Research into Ageing Network (EMRAN) Discussion Paper Series ISSN 2059-3341 Issue 25, February 2019

The Falls In Care Home study: A feasibility randomized controlled trial of the use of a risk assessment and decision support tool to prevent falls in care homes Walker GM, Armstrong S, Gordon AL, Gladman J, Robertson K, Ward M, Conroy S, Arnold G, Darby J, Frowd N, Williams W, Knowles S and Logan PA, 2015. Clinical Rehabilitation. 30(10), 972-983

Contamination in complex healthcare trials: the falls in care homes (FinCH) study experience. Robinson K, Allen F, Darby J, Fox C, Gordon AL, Horne JC, Leighton P, Sims E, Logan PA.. BMC Med Res Methodol. 2020 Feb 27;20(1):46. doi: 10.1186/s12874-020-00925-z. PMID: 32106827; PMCID: PMC7047395.

Developing the *React to Falls* resources to support care home staff in managing falls. Robinson KR, Jones K, Balmbra J, Robertson K, Horne J, Logan PA. J Frailty Sarcopenia Falls. 2019 Mar 1;4(1):1-10. doi: 10.22540/JFSF-04-001. PMID: 32300710; PMCID: PMC7155373.

Learning from a successful process evaluation in care homes. Frances Allen, Janet Darby, Marie Cook, Rachel Evley, Maureen Godfrey, Jane Horne, Paul Leighton, Pip Logan, Katie Robinson, *Age and Ageing*, 2021;, afab139, https://doi.org/10.1093/ageing/afab139

What are the views of adults with an intellectual disability (AWID), carers and healthcare professionals on a community falls management programme for AWID: a qualitative interview study in the UK. Robinson K, Logan P, Tucker C, Finlayson J, van der Wardt V, Kilby A, Knowles S, Vanhegan S, Hodgson S, Lidstone N. BMJ Open. 2024 Feb 1;14(2):e069588. doi: 10.1136/bmjopen-2022-069588. PMID: 38307531; PMCID: PMC10836373.

Task Force on Global Guidelines for Falls in Older Adults. New horizons in falls prevention and management for older adults: a global initiative. Montero-Odasso M, van der Velde N, Alexander NB, Becker C, Blain H, Camicioli R, Close J, Duan L, Duque G, Ganz DA, Gómez F, Hausdorff JM, Hogan DB, Jauregui JR, Kenny RA, Lipsitz LA, Logan PA, Lord SR, Mallet L, Marsh DR, Martin FC, Milisen K, Nieuwboer A, Petrovic M, Ryg J, Sejdic E, Sherrington C, Skelton DA, Speechley M, Tan MP, Todd C, van der Cammen T, Verghese J, Kamkar N, Sarquis-Adamson Y, Masud T; Age Ageing. 2021 Sep 11;50(5):1499-1507. doi: 10.1093/ageing/afab076. PMID: 34038522. https://pubmed.ncbi.nlm.nih.gov/34038522/

Multifactorial falls prevention programme compared with usual care in UK care homes for older people: multicentre cluster randomised controlled trial with economic evaluation. Logan PA, Horne JC, Gladman JRF, Gordon AL, Sach T, Clark A, Robinson K, Armstrong S, Stirling S, Leighton P, Darby J, Allen F, Irvine L, Wilson ECF, Fox C, Conroy S, Mountain G, McCartney K, Godfrey M, Sims E. BMJ. 2021 Dec 7;375:e066991. doi: 10.1136/bmj-2021-066991. PMID: 34876412; PMCID: PMC8649897.

A multi-domain decision support tool to prevent falls in older people: the FinCH cluster RCT. Philippa A Logan, Jane C Horne, Frances Allen, Sarah J Armstrong, Allan B Clark, Simon Conroy, Janet Darby, Chris Fox, John RF Gladman, Maureen Godfrey, Adam L Gordon, Lisa Irvine, Paul Leighton, Karen McCartney, Gail Mountain, Kate Robertson, Katie Robinson, Tracey H Sach, Susan Stirling, Edward CF Wilson and Erika J Sims, Health Technol Assess 10.3310/CWIB0236 2021;