



Falls prevention

09/12/2022

Sara Vandervelde & prof. dr. Koen milisen

Our Agenda

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Introduction

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Guidelines for falls prevention

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Centre of Expertise on Falls and
Fracture Prevention Flanders

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“It takes a child one year to acquire independent movement and ten years to acquire independent mobility. An old person can lose both in one day”

Professor Bernard Isaacs (1924 – 1995)

Introduction

Population → ageing

Multimorbidity & frailty

Highly care-dependent older persons

Number of falls increases with age-related biological change → ageing population

Substantial increase of falls and related injuries

Introduction

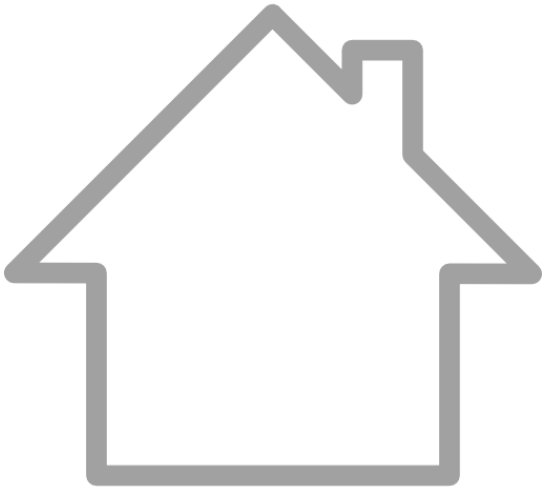


± 30-70% older adults 65+ fall annually

15-40% recurrent fallers

Cognitive impairment: risk of falls increases up to **70%**

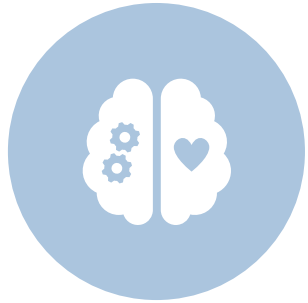
Introduction



± 24-40% older adults 65+ fall annually
21-45% recurrent fallers

Introduction

Consequences of a fall



Psychological consequences

- Fear of falling
- Social isolation
- Depression
- ...



Physical consequences

- Minor injuries (bruises, contusions or lacerations)
- Severe injuries (head trauma or hip fractures)



Economic impact

Introduction

United States → falls leading cause of injury-related death (65+)

646,000 fatal falls

37.3 million non-fatal fall related injuries

Direct medical costs in United States

\$50 billion (\pm 99% non-fatal falls)



“The world’s population is ageing. Falls and related injuries are increasingly common, making their prevention and management a critical global challenge”

(Montero-Odasso et al., 2022)

“a fall is an event which results in a person coming to rest inadvertently on the ground or floor or other lower level. Falls, trips and slips can occur on one level or from a height”

(World Health Organisation, 2021)

Bob Saget's fatal fractures possibly caused by fall on carpeted floor, incident report says

Mike Schneider | Associated Press



Koningin Paola. © BELGA

Koningin Paola breekt arm tijdens val en moet wekenlang herstellen



In een video laat Jacques namelijk zien hoe hij die precies gebroken heeft

Jacques Vermeire laat in ludiek filmpje zien hoe hij zijn schouder gebroken heeft

Nicole (76) van 'Nicole & Hugo' overleden nadat ze thuis ten val kwam



Nicole Josy, bekend van het zangduo 'Nicole & Hugo', is donderdag overleden. Dat bevestigt haar manager. Nicole werd net 76, ze overleed na een val thuis.



https://www.instagram.com/reel/CaMpzsxFwg2/?utm_source=ig_web_copy_link

Women fall more than men?

Yes

No

I do not
know

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Restraints help to prevent fall incidents

Yes

No

I do not
know

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Older persons with a hip fracture have a higher mortality rate?

Yes

No

I do not know

Multifocal glasses are recommended to prevent falls?

Yes

No

I do not
know

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Guidelines for falls prevention

World guidelines for Falls Prevention and Management for Older Adults

! Montero-Odasso M, van der Velde N, Martin FC, **Petrovic M**, Tan MP, Ryg J, ... **Milisen K**, ... **Nieuwboer A**, ... **Vlaeyen E**, et al. World guidelines for falls prevention and management for older adults: a global initiative. *Age and Ageing*. 2022;51(9).



Guidelines for falls prevention

World guidelines for Falls Prevention and Management for Older Adults

- A steering committee and a worldwide multidisciplinary group of experts and stakeholders, including older adults
- Geriatrics and gerontological societies
- Recommendations from 11 topic-specific working groups (WGs), 10 ad-hoc WGs and a WG dealing with the perspectives of older adults
 - 'Falls in Hospitals and Nursing Homes'
 - 'Falls in Parkinson's Disease and Related Disorders'
- Key messages

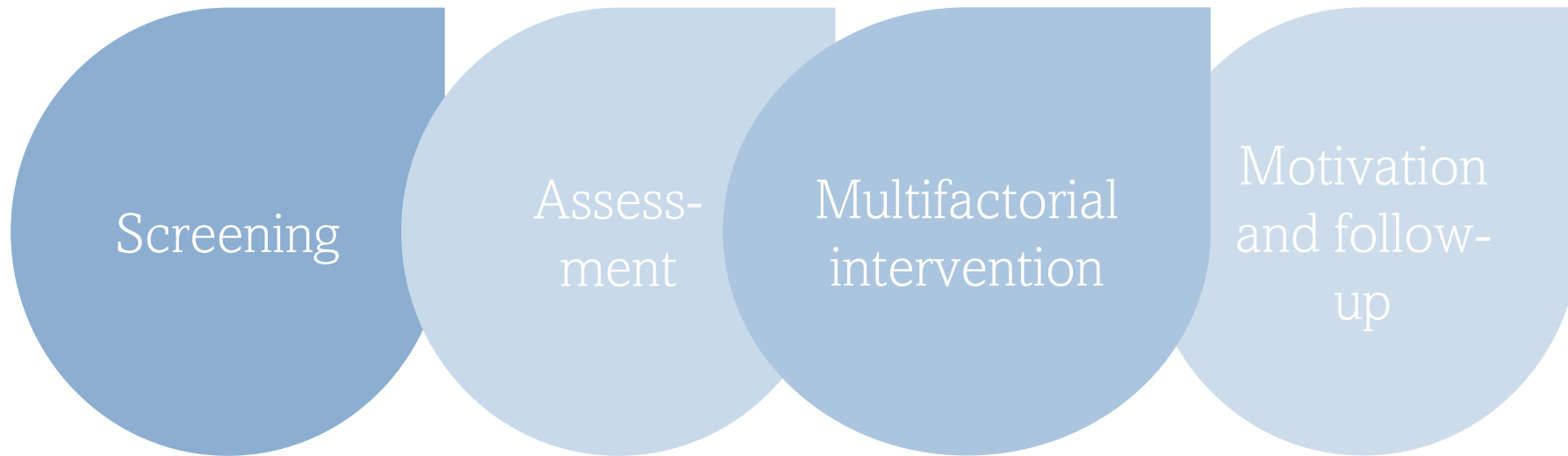
Guidelines for falls prevention

Centre of Expertise on Falls and Fracture Prevention

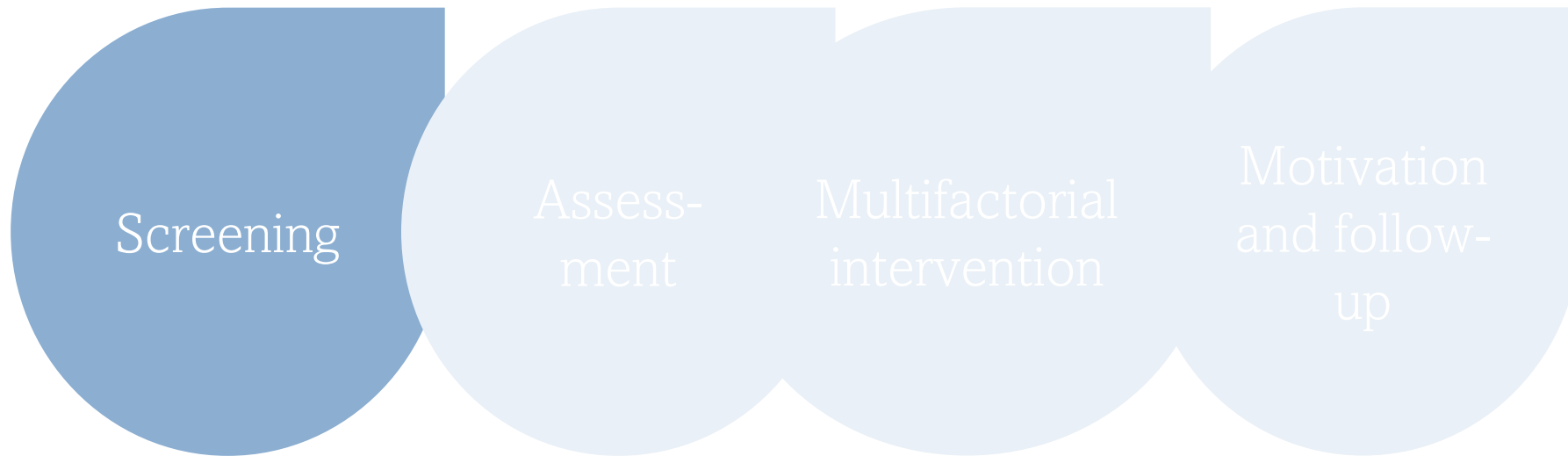
- Guideline for nursing homes **UPDATE**
- Guideline for community setting



Flow guideline for community setting



Flow guideline for community setting



Screening

“Screening is done to detect potential health disorders or diseases in people who do not have any symptoms of disease. The goal is early detection and lifestyle changes or surveillance, to reduce the risk of disease, or to detect it early enough to treat it most effectively”

Screening

Community setting

An assessment of fall risk factors and management should be performed in persons older than 65 years:

- who present with a fall or
- report at least one injurious fall or
- two or more noninjuries falls or
- report or display unsteady gait or balance

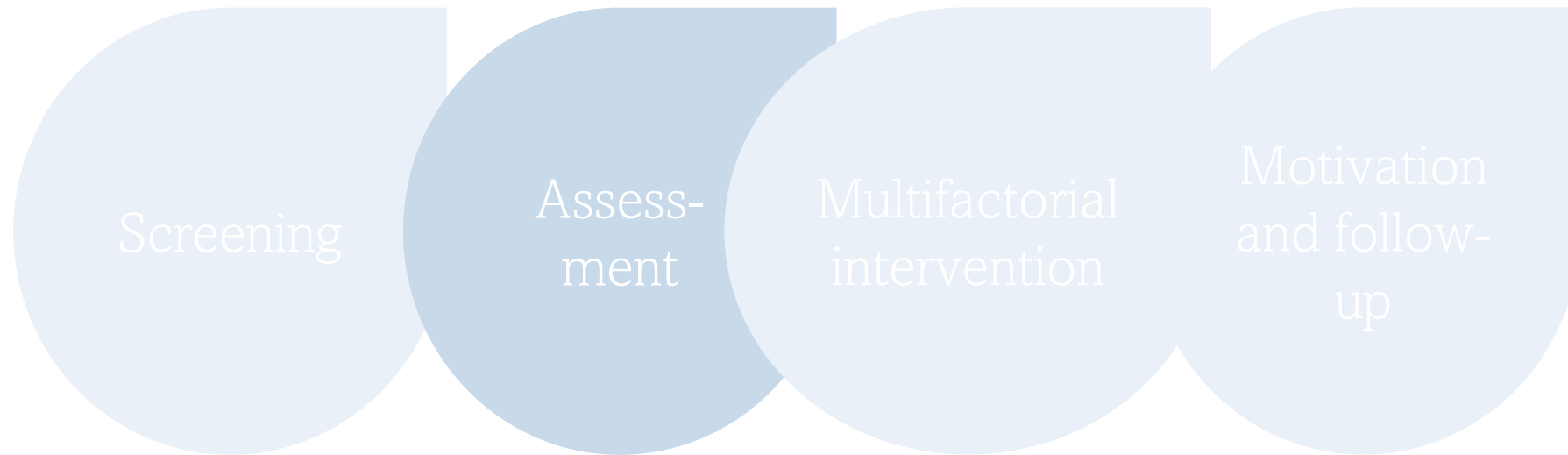
“Estimates of risk of future falls can be done
by trained clinicians with simple resources”

(Montero-Odasso et al., 2022)

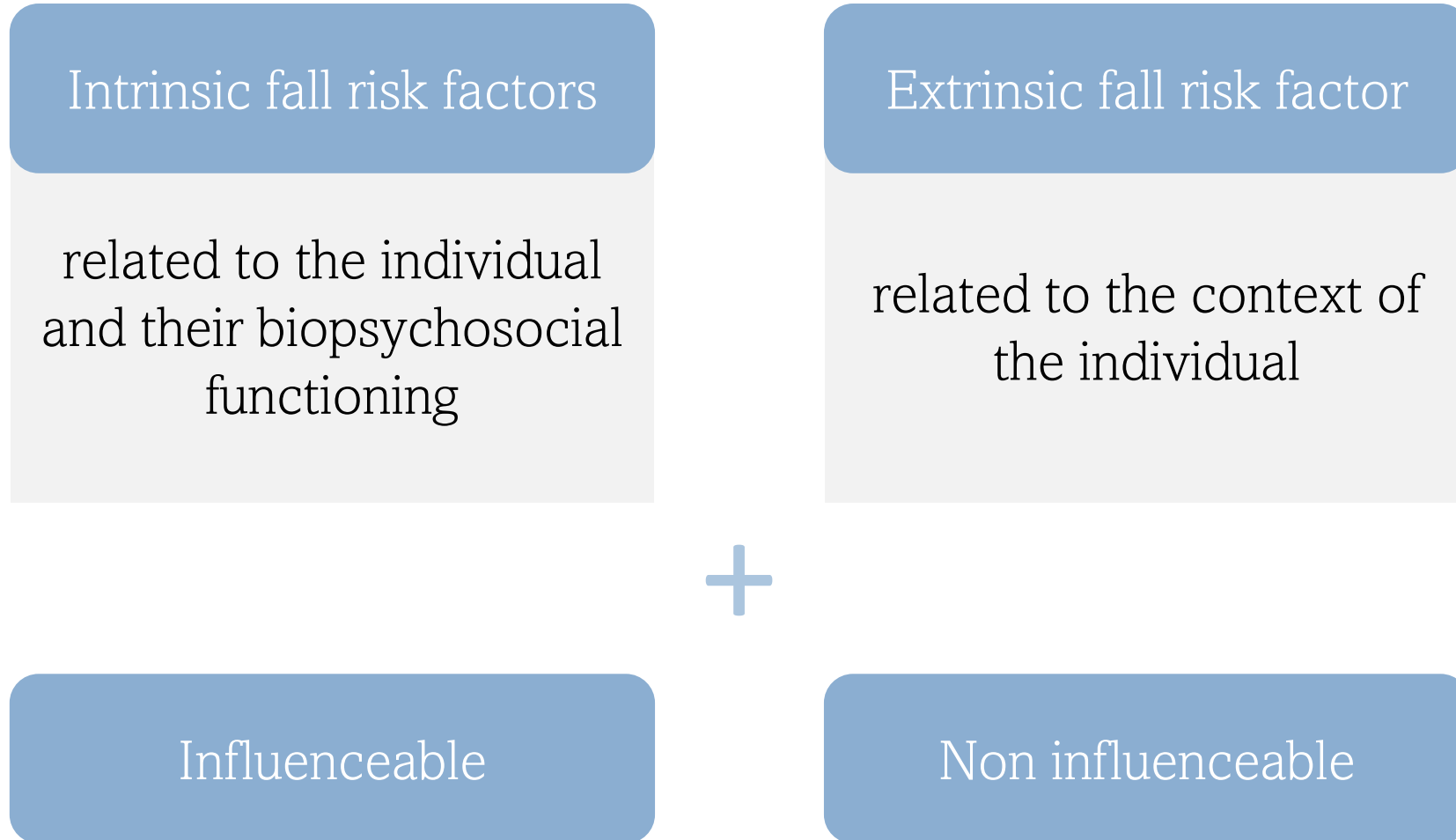
“In care home and hospital settings, all older adults should be considered as high risk and a standard comprehensive assessment with multifactorial interventions should be considered”

(Montero-Odasso et al., 2022)

Flow guideline for community setting



Flow guideline for community setting



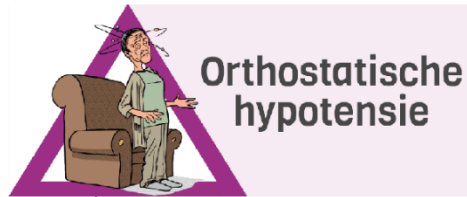
Flow guideline for community setting

Influenceable fall risk factors		Non influenceable fall risk factors	
Intrinsic	Extrinsic	Intrinsic	Extrinsic
n= 9	n= 3	n= 2	n= 0

Flow guideline for community setting

Intrinsic risk factors

Orthostatic hypotension



Declined sight



Low vit. D level



Urinary incontinence



Declined mobility, balance or muscle strength



Cognitive decline



Fear of falling



Pain



Risky behavior

Flow guideline for community setting

Extrinsic risk factors



Medication



Unsafe environment



Feet & shoes

Flow guideline for community setting

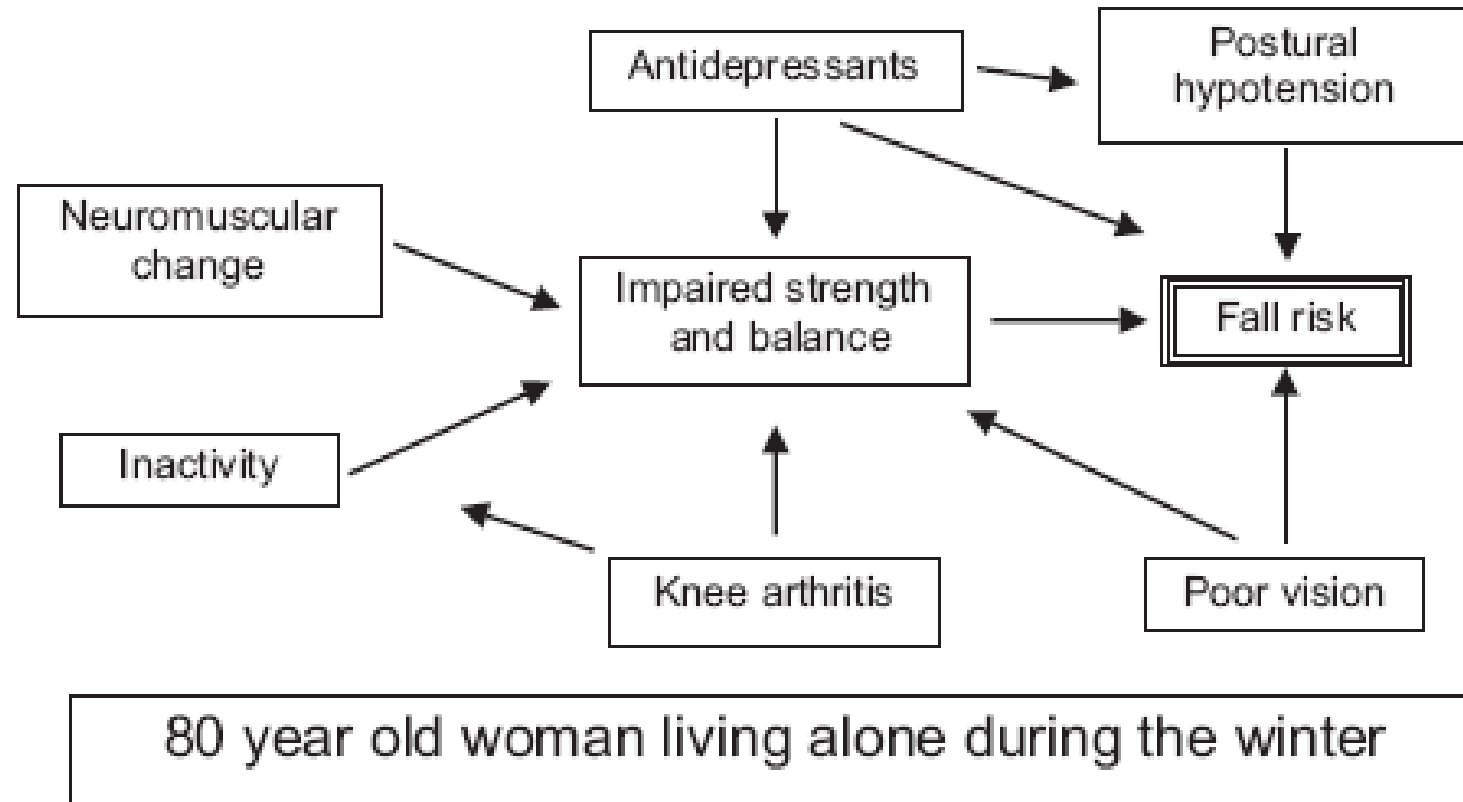
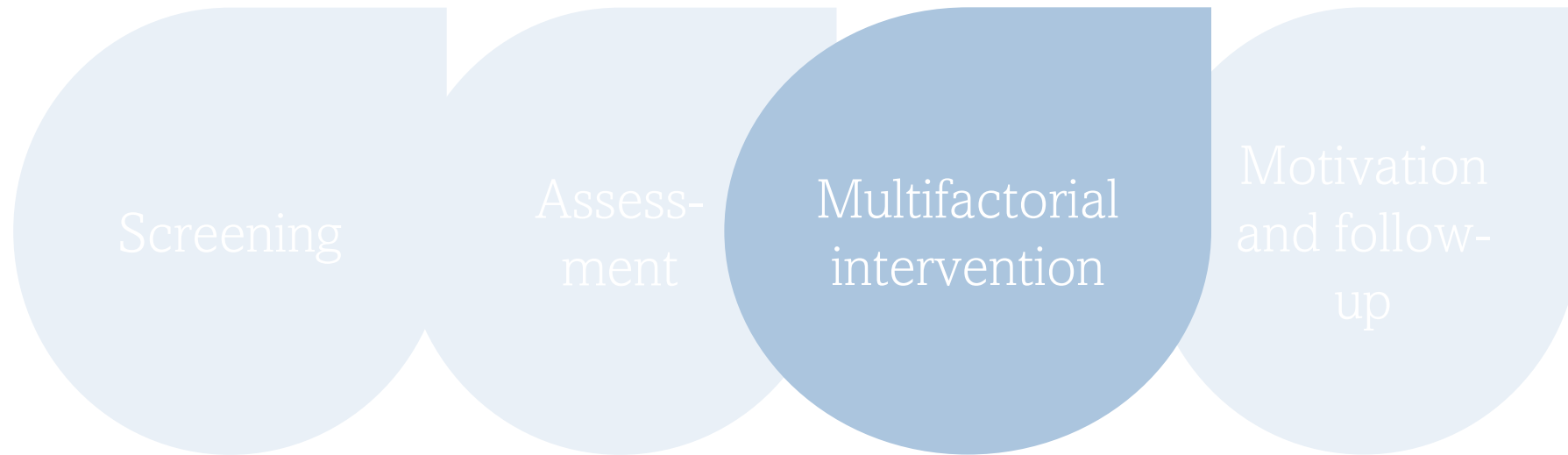


Figure 1. Interaction of risk factors predisposing to falls.

Flow guideline for community setting



Flow guideline for community setting



Flow guideline for community setting

Single component

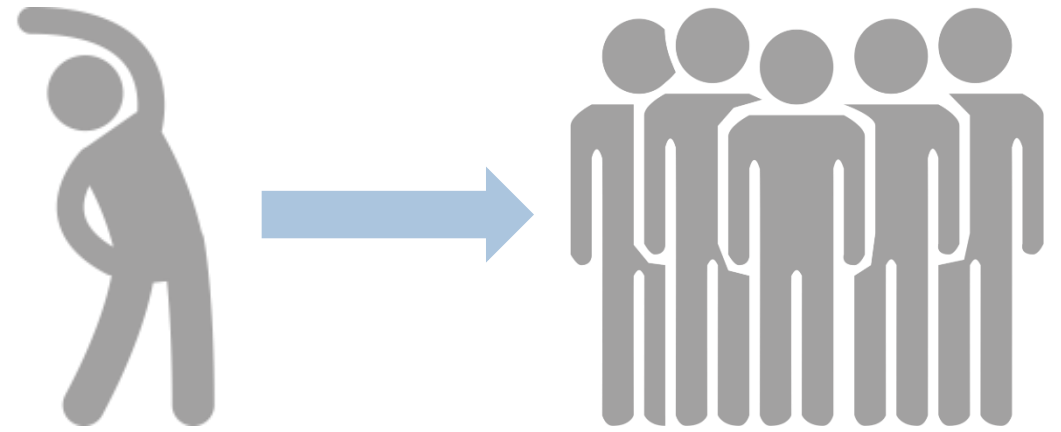
Multicomponent

Multifactorial

Flow guideline for community setting

Single component

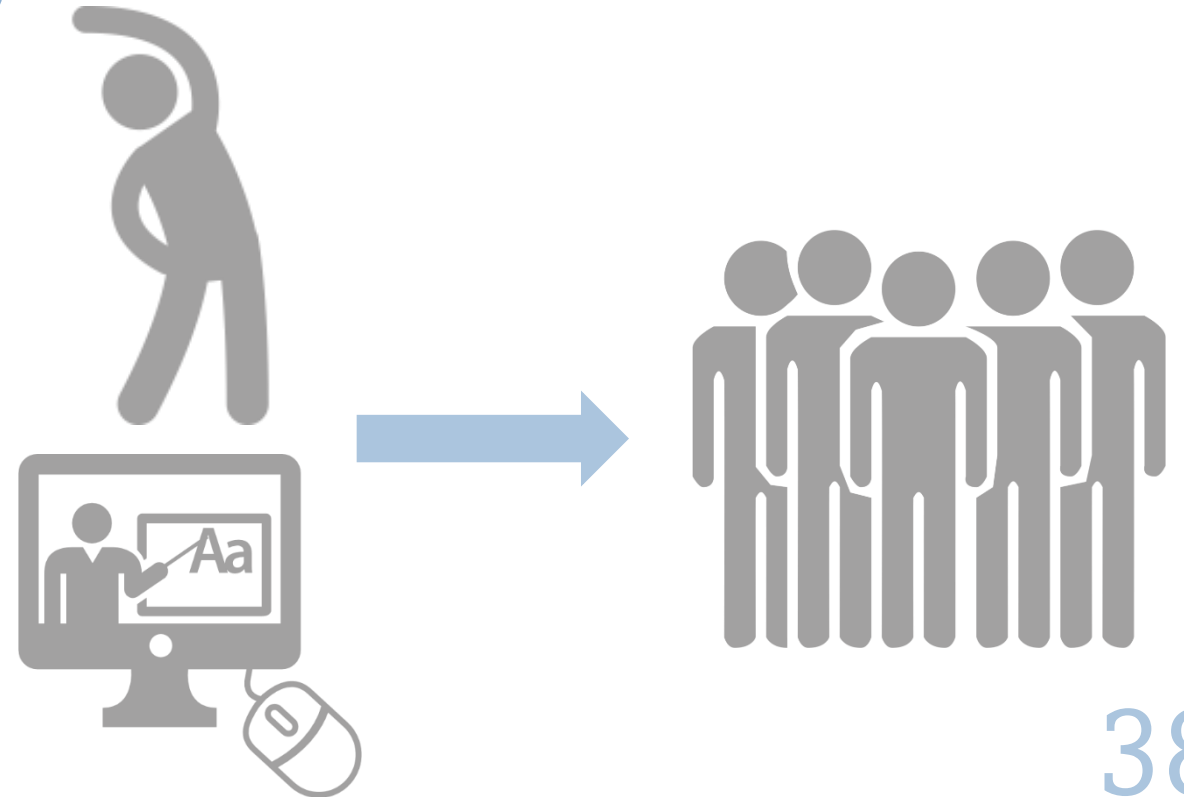
- 1 specific intervention
- Focus on 1 risk factor
- For all older persons



Flow guideline for community setting

Multicomponent

- 2 or more interventions
- Focus on 2 or more risk factor
- For all older persons



Flow guideline for community setting

Multifactorial

- 2 or more interventions
- Tailored to individual fall risk profile
- Multifactorial falls prevention assessment



Flow guideline for community setting

Multifactorial

- Cochrane review (2018) shows evidence for the ‘efficacy’ of a multifactorial intervention; e.g. reducing the rate of falls with 23% compared to usual care or attention control
- Low-quality evidence for reducing the risk of fall-related fractures and improving health-related quality of life

“Multifactorial interventions
(i.e. a combination of interventions tailored to
the individual), when delivered, are effective
for reducing the rate of falls in high-risk
community-dwelling older adults”

(Montero-Odasso et al., 2022)

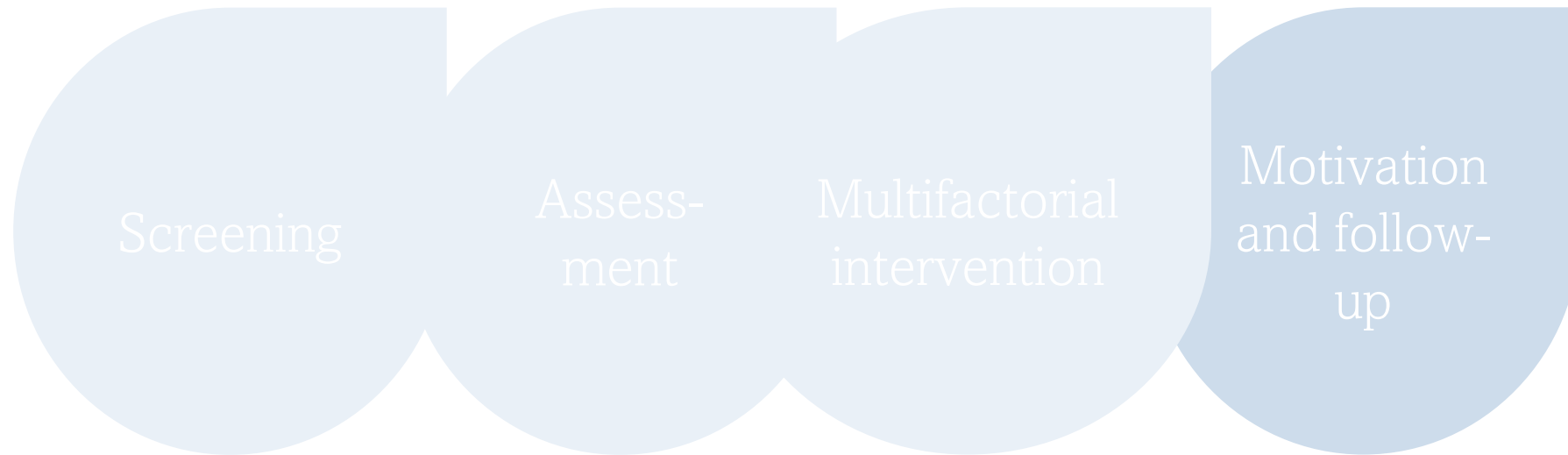
“Modification to the approaches for
assessment and interventions may be needed
for older adults with certain medical
conditions associated with an increased
likelihood of falling”

(Montero-Odasso et al., 2022)

“Managing many of the risk factors for falls (e.g. gait and balance problems) has wider benefits beyond falls prevention such as improved intrinsic capacities (physical and mental health), functioning and quality of life”

(Montero-Odasso et al., 2022)

Flow guideline for community setting





Motivation

Determine priorities together
with the older person and
family

Flow guideline for community setting



Take into account

- Stage of change
- Barriers and facilitators
- Preferences
- Feasibility

Flow guideline for community setting

Inform:

- Oral and written
- Understandable language
- Adapted to cognitive functioning



Flow guideline for community setting

Always provide follow-up, the intensity of which is tailored to the needs and requirements of the older person

- Immediately after starting intervention
- Multidisciplinary team
- At home or by phone

“Engaging older adults is essential for prevention of falls and injuries: understanding their beliefs, attitudes and priorities about falls and their management is crucial to successfully intervening”

(Montero-Odasso et al., 2022)

Flow guideline for community setting

Multidisciplinary approach

- Every care provider has a specific sub-task
- Refer to other disciplines for certain fall risk factors
- Clear agreements regarding the follow-up of the intervention plan
- Complex? Refer to falls clinic



“Many falls can be prevented. Fall and injury prevention needs multidisciplinary management”

(Montero-Odasso et al., 2022)

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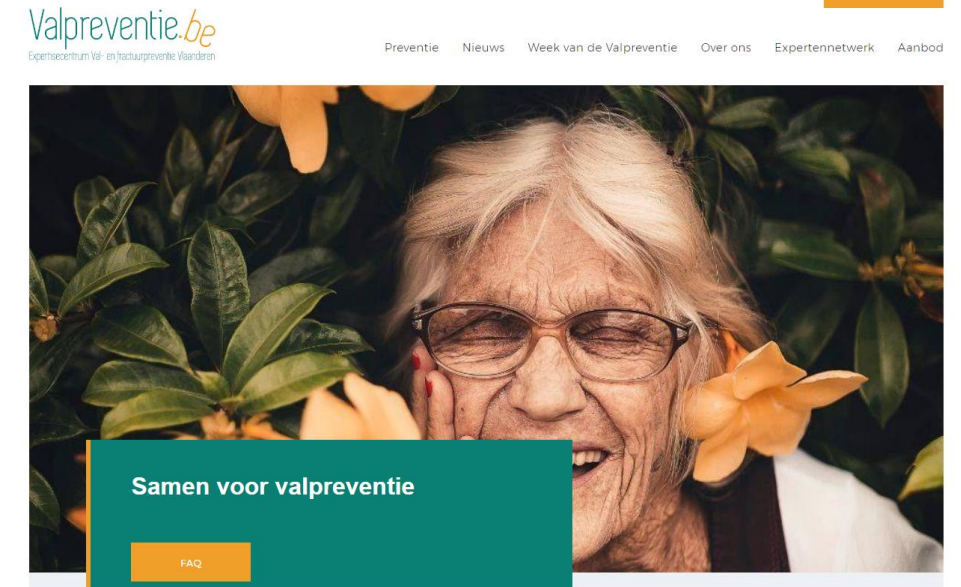
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Conclusion



Centre of Expertise on Falls and Fracture Prevention Flanders

- Since 2008
- Funded by Flemish Government
- 9 partners



Centre of Expertise on Falls and Fracture Prevention Flanders

45 external partners



Centre of Expertise on Falls and Fracture Prevention Flanders



Domain 1: Information and advice

- Website, social media, helpdesk & FAQ, newsletter, policy advice



Domain 2: Development

- Guideline
- Implementation plan nursing homes and community setting
- Flemish Otago-program
- BE-EMPOWERed program



Domain 3: dissemination

- Falls prevention week (24-30 April 2023)



Domain 4: implementation

- Process guidance
- Multidisciplinary training for experts in falls prevention

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Conclusion

- Fall incidents are a significant threat to older people's health: prevention is needed
- Methods / materials are available (e.g. EVV guidelines)
www.valpreventie.be
- Effective interventions? Multifactorial!
- Multidisciplinary collaboration & teamwork
- Involvement of the older person!
- Questions? sara.vandervelde@kuleuven.be

Interesting to read

- Montero-Odasso M, van der Velde N, Martin FC, Petrovic M, Tan MP, Ryg J, et al. World guidelines for falls prevention and management for older adults: a global initiative. *Age and Ageing*. 2022;51(9)
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Thank you

Sara Vandervelde & prof. dr. Koen Milisen

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