

## Valpreventie in de ziekenhuizen: update op basis van de World Falls Guidelines

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## Valincidenten in Ziekenhuizen

- ▣ 40% tot 60% van alle incidenten binnen het ziekenhuis zijn valincidenten
- ▣ 1,4 tot 17,9 valincidenten per 1000 verpleegdagen
- ▣ 2% tot 17% valt minstens 1 keer tijdens de opname
  - 8% tot 44% valt meerdere keren

(NVKG richtlijn, 2004; Nyberg et al., 1995; Oliver et al., 2004; Oliver et al., 2006; Schwendimann ... Milisen, 2006)

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## Valincidenten in Ziekenhuizen

### ▣ Hospital setting

- Sample = 34,927 patients with 3,842 falls
- 2,512 (7.2%) patients fell at least once
  - ▣ 1,804 (71.8%) fell only once
  - ▣ 708 (28.2%) fell twice or more, accounting for 53% of all falls
- Geriatric department (24.8%), internal medicine (8.8%), surgery (1.9%)
- Falls per 1,000 patient-days adjusted by age
  - ▣ Geriatric department (10.7), internal medicine (9.6), surgery (3.2)

(Schwendimann ... Milisen, Gerontology, 2008)

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Volledige richtlijn op  
[www.valpreventie.be](http://www.valpreventie.be)



### Boek Acco

Milisen, K., Lambert, M., Van Den Noortgate, N., Baeyens, JP., Boonen, S., Coolens, P., Coussement, J., Daniels, H., De Coninck, L., Delbaere, K., De Paepe, L., Lesage, V., Lemper, JC, Petermans, J., Pieters, R., Schoevaerdts, D., Swine, C., Dejaeger, E. (2009).

**Valpreventie bij Geriatrische patiënten opgenomen in het Ziekenhuis.**

Acco, Leuven, België. ISBN 978-90-334-7187-2

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Age and Ageing 2022; 51: 1–12  
<https://doi.org/10.1093/ageing/afac077>

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## REVIEW

# Interventions to reduce falls in hospitals: a systematic review and meta-analysis

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## Study interventions

Age and Ageing 2022; 51: 1–12  
<https://doi.org/10.1093/ageing/afac077>

- ▣ Single intervention:
  - Education of patients or clinicians
  - Environment modifications
    - ▣ e.g. flooring, lighting, ramps, signs
  - Assistive devices
    - ▣ e.g. callbell, alert bracelet, bedalarm, tractionsocks, walkingframe, stick, chairassist, lowered bed, technologies

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## Study interventions

Age and Ageing 2022; 51: 1–12  
<https://doi.org/10.1093/ageing/afac077>

- ▣ Single intervention:
  - Rehabilitation, physiotherapy, physical activities, or other therapeutic exercises delivered in hospital
  - Medication review / management
  - Dietary modification, including vitamins

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## Study interventions

Age and Ageing 2022; 51: 1–12  
<https://doi.org/10.1093/ageing/afac077>

- ▣ Single intervention:
  - servicemodels, leadership, policies or procedures to prevent falls
    - ▣ E.g. post-fallteam 'huddles/debriefs', falls reports at nursing handover, auditing and reporting monthly falls

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## Study interventions

Age and Ageing 2022; 51: 1–12  
<https://doi.org/10.1093/ageing/afac077>

- ▣ Multifactorial interventions
  - Combination of two or more approaches
  - Usually based on multifactorial assessment (≠ screening)

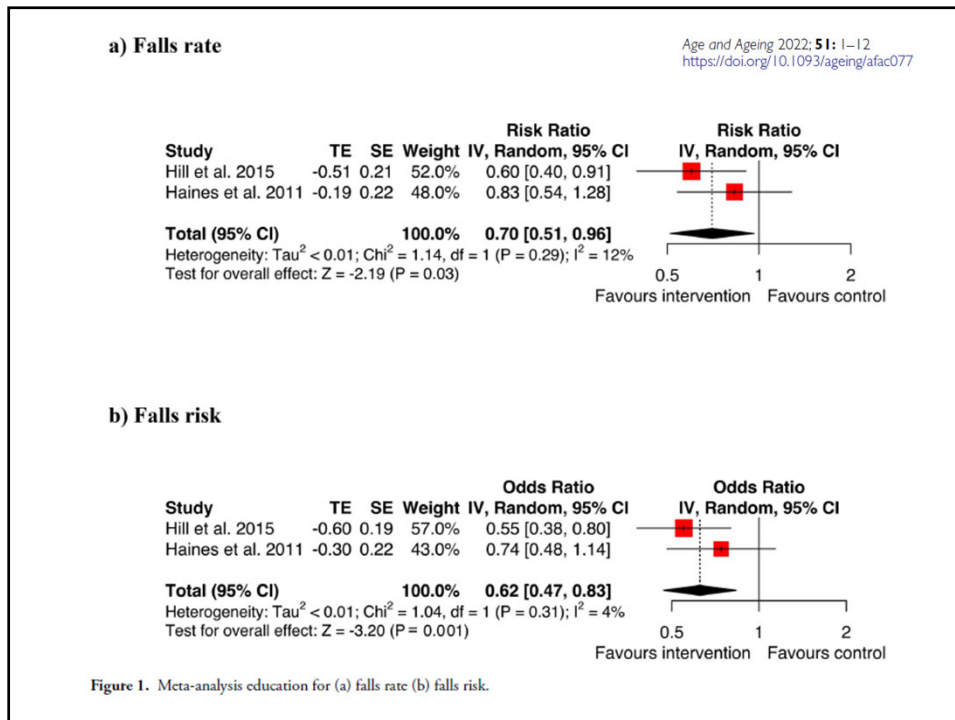
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## Conclusions

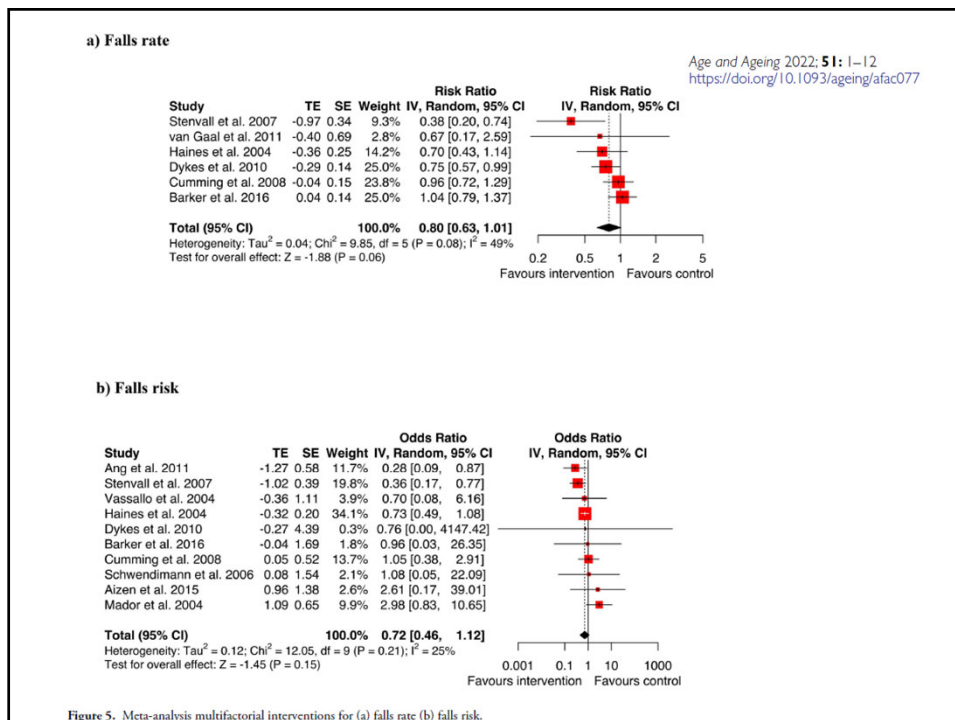
Age and Ageing 2022; 51: 1–12  
<https://doi.org/10.1093/ageing/afac077>

- ▣ Patient and staff education can reduce hospital falls
- ▣ Multi-factorial interventions had a tendency towards producing a positive impact
- ▣ Chairalarms, bedalarms, wearable sensors and use of scored risk assessment tools (e.g. screening) were not associated with significant fall reductions

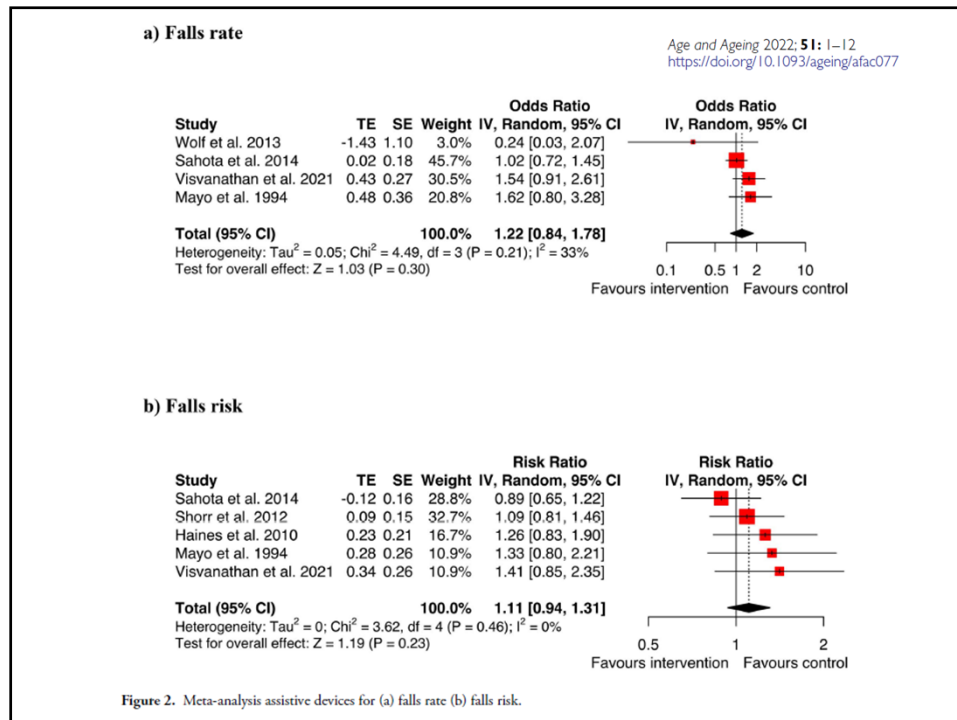
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DOI: 10.1111/jgs.17125

**BRIEF REPORT**

Journal of the  
American Geriatrics Society

## Divesting from a Scored Hospital Fall Risk Assessment Tool (FRAT): A Cluster Randomized Non-Inferiority Trial

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J Am Geriatr Soc. 2021 Sep;69(9):2598-2604.

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## Aim of the study

- ▣ Examine outcomes of disinvestment from completion of a hospital FRAT
  - Control group continued to use the FRAT
  - Experimental group health professionals used clinical reasoning to judge which interventions to implement from a decision support intervention list
- ▣ Hypothesis:
  - disinvesting from a traditional FRAT would not lead to inferior hospital falls outcomes

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## Results & conclusion

**Results:** The experimental clinical reasoning approach was non-inferior to the usual care FRAT that assigned fall risk ratings when compared to a-priori stakeholder derived and sensitivity non-inferiority margins. The mean fall rates were 3.84 falls/1000 bed days for the FRAT continuing sites and 3.11 falls/1000 bed days for experimental sites. After adjusting for historical fall rates at each hospital, the IRR (95%CI) was 0.78 (0.64, 0.95), where  $IRR < 1.00$  indicated fewer falls among the experimental group. There were 4 and 3 serious events in the control and experimental groups, respectively.

**Conclusion:** Replacing a FRAT scoring system with clinical reasoning did not lead to inferior fall outcomes in the short term and may even reduce fall incidence.

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### Key Points

- Falls risk assessment tools (FRATs) have historically been used to screen hospital falls.
- Ceasing FRAT ratings did not increase fall rates in hospitals.

### Why Does this Paper Matter?

Falls risk assessment tools (FRATs) have been used routinely in hospitals world-wide, despite a lack of evidence of benefit. We conducted a cluster randomised non-inferiority disinvestment trial that demonstrated that ceasing routine use of FRATs to assign falls risk ratings did not increase hospital falls.

*J Am Geriatr Soc.* 2021 Sep;69(9):2598-2604.

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*Age and Ageing* 2022; **51**: 1–36  
<https://doi.org/10.1093/ageing/afac205>

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### GUIDELINE

## World guidelines for falls prevention and management for older adults: a global initiative

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## Recommendations WG 5

### Falls in Hospitals (and Care Homes)

- We recommend that hospitalised older adults >65 years of age have a multifactorial falls risk assessment. We recommend against using scored falls risk screening tools in hospitals for multifactorial falls risk assessment in older adults. 2B
- We recommend that tailored education on falls prevention should be delivered to all hospitalised older adults (≥65 years of age) and other high-risk groups. 1A
- We recommend that personalised single or multidomain falls prevention strategies based on identified risk factors or behaviours (or situations) be implemented for all hospitalised older adults (≥65 years of age), or younger individuals identified by the health professionals as at risk of falls. 1C (Acute care) & 1B (Sub-acute care)

*Age and Ageing* 2022; **51**: 1–36  
<https://doi.org/10.1093/ageing/afac205>

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## Recommendations WG 2

### Polypharmacy, Fall Risk Increasing Drugs

- We recommend assessing for fall history and the risk of falls before prescribing potential fall risk increasing drugs (FRIDs) to older adults. 1B
- We recommend the use of a validated, structured screening and assessment tool to identify FRIDs when performing a medication review or medication review targeted to falls prevention in older adults. 1C
- We recommend that medication review and appropriate deprescribing of FRIDs should be part of multidomain falls prevention interventions. 1B
- We recommend that in long-term care residents, the falls prevention strategy should always include rational deprescribing of fall-risk-increasing drugs. 1C

*Age and Ageing* 2022; **51**: 1–36  
<https://doi.org/10.1093/ageing/afac205>

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## Praktijkrichtlijn valpreventie bij geriatrische patiënten opgenomen in het ziekenhuis

### Overzicht

- A. Case finding
- B. Multifactoriële evaluatie
- C. Multifactoriële interventies
- D. Transfer van informatie bij ontslag

(Milisen et al. 2009)

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## A. Case finding

- “Screening / risicoinschattingsinstrumenten” ?
  - STRATIFY
  - Morse Fall Scale
  - Hendrich Fall Risk Modiel I & II
  - Conley scale
  - ...
- Geen van de ontwikkelde instrumenten is voldoende sensitief en specifiek !!

(Milisen et al; 2007; Nice guidelines, 2013; CBO guidelines, in press; Matarese et al., 2015, World Falls Guidelines 2022)

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## A. Case finding

### Nice guideline (2013)

- Gezien het beperkte bewijs kan er geen risicoschattinginstrument gebruikt worden voor het opsporen van patiënten met een verhoogd valrisico
  
- hoog-risicopatiënten in het ziekenhuis
  - “alle” patiënten boven 65 jaar
  - patiënten tussen 50 en 65 jaar en oww onderliggende (medische) aandoening als hoog-risicopatiënt ingeschat door een clinicus

Falls: assessment and prevention of falls in older people  
 Nice clinical guideline 161  
[guidance.nice.org.uk/cg161](http://guidance.nice.org.uk/cg161)

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World Guidelines for  
**Falls Prevention and Management  
 for Older Adults**  
 A Global Initiative

**Key message #7**

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.

#WorldFallsGuidelines Find out more:  
[www.bgs.org.uk/WFG2022](http://www.bgs.org.uk/WFG2022)

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## A. Case finding Belgische richtlijn

- Hoog risico ~
  - Opgenomen voor **val, recente val** (< 6 maanden) of **gevallen tijdens ziekenhuisverblijf**
  - **BIJ ALLE OUDEREN**
    - **Klinische indruk** van ervaren lid van het multidisciplinaire team (eg. geriater, VPK, ergo, kiné, ...)

(Milisen et al 2009)

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## A. Case finding

- Geen hoog valrisico:
  - **ALTIJD** informatie geven over **valpreventie**
  - (zie brochure op [www.valpreventie.be](http://www.valpreventie.be))
- **Herevalueer**
  - wekelijks
  - indien fysieke toestand verandert
  - indien patiënt valt

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## B. Multifactoriële evaluatie

### VALGESCHIEDENIS

- ▣ **Frequentie** in de laatste 6 maanden?
  
- ▣ Evalueer **omstandigheden** van laatste valincident(en)
  - Prodromen
  - Activiteit
  - Oorzaak (struikelval, weggeleden, evenwichtsstoornis, bewustzijnsverlies, door de benen gezakt, of andere)
  - Locatie
  - Tijdstip (voormiddag, namiddag, avond, nacht)
  - Gevolgen

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## B. Multifactoriële evaluatie

= Evaluatie van **7 risicofactoren** bij personen met verhoogd risico

1. Evenwicht, mobiliteit en spierkracht
2. Medicatie
3. Mentale status
4. Valangst
5. Orthostatische hypotensie
6. Zicht
7. Voeten en schoeisel

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## C. Multifactoriële interventies

### STANDAARD MAATREGELEN

- Geef **aandacht** aan
  - zelfredzaamheid, continëntie, veilige omgeving, veilige transfers, oriëntatie van de patiënt, aangepaste hulpmiddelen, voldoende inname Ca en Vit D, onderliggende aandoeningen, ...
- **Beperk** gebruik van **fixatiemateriaal**
- Algemene **informatie/educatiefolder** aan de patiënten geven !!

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## C. Multifactoriële interventies

### SPECIFIEKE MAATREGELEN

#### C. Multifactoriële interventies

##### Interventie voor **aanwezige risicofactoren**

1. Evenwicht, mobiliteit en spierkracht
2. Medicatie
3. Mentale status
4. Valangst
5. Orthostatische hypotensie
6. Zicht
7. Voeten en schoeisel

Gesloten, plat,  
stevig schoeisel  
Podoloog - ORT

Oogarts

Oefenprogramma  
F-pathologie  
Hulpmiddelen

Medication  
reconciliation &  
review

Delierpreventie & R/  
Geheugenkliniek  
Gerontopsychiatrie

Risicoidentificatie  
Bewegen  
Personenalarm

D/ & R/

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## STOPPFall instrument

(Seppala et al. Age Ageing 50(4): 1189–1199, 2021)

- ❑ Instrument is veelomvattender qua valrisicoverhogende medicatie dan algemene internationale instrumenten, zoals STOPP/START en Beers Criteria.
- ❑ STOPPFall geeft in tegenstelling tot STOPP/START ook advies hoe je medicatie het beste kan afbouwen en waar je op moet letten tijdens het afbouwen
- ❑ [online gratis beschikbaar](#)

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## STOPPFall instrument

(Seppala et al. Age Ageing 50(4): 1189–1199, 2021)

Choose a medication class to see the decision advice for withdrawing the medication among fallers

Benzodiazepines

Antidepressants

Antipsychotics

Opioids

Antiepileptics

Diuretics

Centrally-acting  
antihypertensives

Vasodilators used in  
cardiac diseases

Alpha-blocker antihypertensives

Alpha-blockers for benign  
prostate hyperplasia

Sedative antihistamines

Medications for overactive bladder  
and urge incontinence

Start over

Back



AMSTERDAMS  
UNIVERSITEITSFONDS



ZonMw

<https://kik.amc.nl/falls/decision-tree/>

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## C. Multifactoriële interventies

### BIJKOMENDE MAATREGELEN

- ▣ **Ca en Vit D supplementen**
  - Enkel bij personen met risico op vit D deficiëntie
  - 800 E vit D/dag
  - 1200 mg Ca/dag
- ▣ Aandacht voor opsporen en behandelen **osteoporose**
- ▣ (Heupprotectoren)
  - Patiënt moet voldoende therapietrouw zijn
  - In de literatuur geen consensus

(AGS, 2001; Masud & Morris, 2001; NVKG richtlijn, 2004, World Falls Guidelines 2022)

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## C. Multifactoriële interventies

### BIJKOMENDE MAATREGELEN

#### **Vermijd vrijheidsbeperkende maatregelen**

- ▣ Fysieke fixatie = een middel van de **laatste keuze**
- ▣ Een patiënt kan enkel worden gefixeerd als:
  - geen alternatief aanwezig is
  - wanneer gevreesd wordt voor de veiligheid van de patiënt en/of die van anderen
  - in levensbedreigende situaties het goede verloop van een behandeling in het gedrang komt

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## C. Multifactoriële interventies

### BIJKOMENDE MAATREGELEN

#### ▣ Bij fixatie:

- Voorzie **verhoogd toezicht**
- Kies fixatiemateriaal aangepast aan ernst van de toestand
- Breng het **materiaal correct en veilig** aan
- Zorg voor maximaal **comfort**
- Zorg dat **bedalarmsysteem bereikbaar** is
- Doe dit **zo kort mogelijk** en herevalueer regelmatig
- Evalueer **uitlokkende factoren** van het gedrag dat fixatie nodig maakt

(Gallinagh et al., 2002; Capezuti, 2004; Cotter, 2005; Boocock et al., 2006; Milisen et al., 2006)

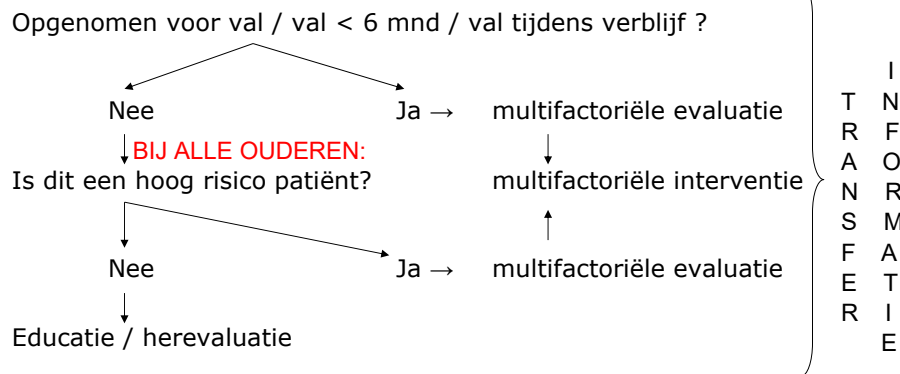
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## D. Transfer van informatie bij ontslag

- ▣ **Doel:** een goede doorstroming van informatie naar de thuissetting, revalidatiesetting of WZC
- ▣ Alle info in het **ontslagdocument** o.a.:
  - Hoog risico patiënt?
  - Is patiënt gevallen?
    - Wanneer
    - Waarom
  - Resultaten van assessment
  - Interventies en resultaten
  - Verder te zetten behandeling

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## Flow chart



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Volledige richtlijn op  
[www.valpreventie.be](http://www.valpreventie.be)



### Boek Acco

Milisen, K., Lambert, M., Van Den Noortgate, N., Baeyens, JP., Boonen, S., Coolens, P., Coussement, J., Daniels, H., De Coninck, L., Delbaere, K., De Paepe, L., Lesage, V., Lemper, JC, Petermans, J., Pieters, R., Schoevaerdts, D., Swine, C., Dejaeger, E. (2009).

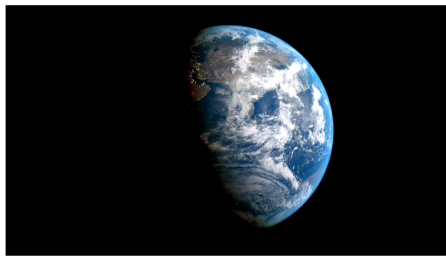
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Acco, Leuven, België. ISBN 978-90-334-7187-2

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<https://worldfallsguidelines.com/>

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Welcome  
Global  
Guidelines  
for Falls in  
Older Adults

A global initiative towards  
falls prevention and  
management

### Our Mission

Creating standardized World Clinical Practice Guidelines for Falls Prevention and Management that can be adapted and used in different settings and countries. Our effort is complementary to existing guidelines and aims to include new scientific discoveries and advances. We are a team of world experts in falls prevention and management spanning 35

