# THE COST OF INACTION: STRENGTHENING NUTRITION IN FRAILTY GUIDELINES ACROSS EUROPE

**Authors: Mohede I[1], Dular A[1], Alderson D[2], Ricci M[2], Tchoukouaha T[2]**

[1]Danone Nutricia Research, Hoofddorp, Netherlands, [2]Cogentia Healthcare Consulting, Cambridge, Cambridgeshire, UK

## Background and aims

- Frailty in older adults increases the risk of falls, fractures, and healthcare burden.
- Frailty increases vulnerability to even minor physical challenges, making falls both more likely and more harmful.
- As the population ages, costs are rising: for example, in the UK, fragility fractures cost over £1.8 billion annually[6].
- Similarly, in the Netherlands, falls among older adults already cost €1.5 billion annually, projected to rise to €5 billion by 2050[7].
- International guidance[1] recommends multimodal interventions, including nutritional support as a key cost-effective component of frailty management.
- Yet it remains unclear to what extent national frailty and/or fall-prevention guidelines across Europe effectively incorporate and operationalise nutritional interventions, highlighting a critical gap with significant cost and outcome implications.

## Objective

- To assess whether national frailty and/or fall-prevention guidelines integrate nutrition as an actionable strategy and provide practical implementation guidance.

## Methods

- National frailty and/or fall-prevention guidelines and geriatrics-society recommendations (2015–2024) from France, Germany, Italy, Spain, the UK, and the Netherlands were reviewed.
- Guidelines were assessed against seven predefined criteria: frailty definition, screening recommendation, screening tool, nutritional assessment, nutritional intervention, care setting, and implementation strategy.
- A comparative rating table (Figure 1) was developed to identify cross-country patterns and inconsistencies.

## Results

- Across the six countries reviewed, nutrition was included in most guidelines but not consistently operationalised into specific, funded interventions.
- France, Italy, and Germany provide structured frailty guidance through the comprehensive geriatric assessment (CGA), yet implementation mechanisms are limited.
- Spain, the UK, and the Netherlands include national or regional prevention frameworks

**Table 1: Comparative assessment of national frailty guidelines (2015–2024) across six European countries, evaluated against seven predefined criteria**

| | Descriptive | | | | Evaluative | | |
|---|---|---|---|---|---|---|---|
| | **Frailty Definition** | **Screening Tool** | **Care Setting** | **Screening Recommendation** | **Nutritional Assessment** | **Nutritional Intervention** | **Implementation Strategy** |
| **France[2]** | *Clear clinical definition (HAS 2013)* | *6-item frailty grid + MNA* | *Covers community + hospital* | *Early detection in primary care* | *MNA part of CGA* | *Dietary advice ("alimentation adaptée")* | *No national roll-out or funding plan* |
| **Germany[3]** | *Frailty via geriatric criteria* | *G8 / TRST used* | *Hospital focus only* | *Mandatory CGA screening inpatient* | *Nutrition listed as CGA domain* | *Intervention left to clinician* | *No national strategy* |
| **Italy[4]** | *No national frailty definition;* | *Uses MPI prognostic index* | *Principles across settings; inpatient detail strongest* | *Case-based CGA use* | *Mentioned indirectly in CGA* | *No specific guidance* | *No implementation plan* |
| **Spain[5]** | *WHO-based definition* | *SPPB / FRAIL / Fried* | *All levels incl. community* | *Proactive primary-care screening* | *Included in assessment* | *Personalised diet ± ONS + Vit D* | *National consensus; implementation via regions* |
| **UK[6]** | *Recognised clinical condition* | *eFI / CFS* | *Primary + secondary care* | *Mandatory GP case-finding* | *Acknowledged but not routine* | *Mentioned; not structured* | *Mandated via GP contract* |
| **Netherlands[7,8]** | *Multi-domain approach used in practice (e.g., TFI)* | *GFI / TFI / PRISMA-7* | *Community + integrated care* | *Selective early detection* | *Malnutrition screening in local pathways* | *Dietitian referral via care networks.* | *National "chain-of-care approach"* |

**Colour legend:** = Explicit inclusion and operational guidance; = Partial mention or assessment without structured implementation; = Absent or minimal reference.
**Acronyms: CGA** = Comprehensive Geriatric Assessment**; CFS =** Clinical Frailty Scale**; eFI** = Electronic Frailty Index**; FRAIL =** Fatigue, Resistance, Ambulation, Illnesses, Loss of Weight**; G8 = Geriatric 8; GFI** = Groningen Frailty Indicator**; MNA =** Mini Nutritional Assessment**; MPI =** Multidimensional Prognostic Index**; ONS =** Oral Nutritional Supplement**; PRISMA-7 =** 7-item frailty questionnaire**; SPPB** = Short Physical Performance Battery**; TFI =** Tilburg Frailty Indicator**; TRST =** Triage Risk Screening Tool**.**

## Discussion

- Despite broad recognition, nutrition is rarely positioned as a core fall-prevention or frailty-management strategy. Strengthening nutritional assessment and intervention could meaningfully improve outcomes and reduce healthcare burden.
- In the UK, modelling by Public Health England estimated that a coordinated fracture-prevention programme could deliver potential savings of £2.1 million over five years[6]; In the Netherlands, modelling of community-based falls-prevention programmes estimated net savings of €0.2–5.6 million per 100,000 older adults[8], potentially reducing part of the country's projected €5 billion annual fall-related healthcare costs by 2050[7].
- The Netherlands demonstrates strong implementability, with the *Ketenaanpak Valpreventie* (chain-of-care approach) linking primary care, municipalities, and insurers to deliver validated fall-prevention programmes. This coordinated national model shows how preventive guidelines can be translated into scalable local action, providing a blueprint for other European markets to strengthen uptake of multimodal, nutrition-inclusive interventions.

## Conclusion

With the burden of frailty and falls continuing to grow, **now is the time to act**. European health systems should:

- Embed **routine nutritional screening and intervention** within frailty pathways.
- Strengthen **implementation frameworks and funding models** to ensure preventive care is delivered locally.
- Investigate **payment pathways and access barriers** that currently limit uptake of multimodal prevention, including **medical nutrition**.

Future analyses should focus on understanding these barriers and **quantifying both the clinical and economic benefits of full and consistent implementation of prevention guidelines**.

## REFERENCES

1. Haute Autorité de Santé (HAS). Repérage de la fragilité et prévention de la perte d'autonomie chez les personnes âgées vivant à domicile. Paris: HAS; 2013.
2. Deutsche Gesellschaft für Geriatrie (DGG). S3-Leitlinie: Umfassendes Geriatrisches Assessment (CGA). AWMF-Registernr. 084-003; 2023.
3. Società Italiana di Gerontologia e Geriatria (SIGG). Comprehensive Geriatric Assessment in Older People: National Guideline. Aging Clinical and Experimental Research. 2024;36(5):179–187.
4. Ministerio de Sanidad de España. Actualización del documento de consenso sobre fragilidad y caídas en la persona mayor. Madrid: Gobierno de España; 2022.
5. NHS England, Public Health England, Age UK. Falls and Fractures Consensus Statement and Resource Pack. London: NHS England; 2017;
6. RCP FFFAP "State of the nation – England" (2019)
7. VeiligheidNL. Feiten en cijfers valongevallen 65+ 2024. Amsterdam: VeiligheidNL; 2024. VeiligheidNL. Feiten en cijfers valongevallen 65+ 2022. Amsterdam: VeiligheidNL; 2022.
8. Klaassen M, et al. *A societal cost-benefit analysis of falls prevention in community-dwelling older people in the Netherlands.* Health Policy. 2025
9. Cederholm T, et al. ESPEN Guidelines on Clinical Nutrition and Hydration in Geriatrics. Clinical Nutrition. 2019;38(1):10–47.

DANONE ONE PLANET. ONE HEALTH | RESEARCH & INNOVATION