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advantAGE
MANAGING FRAILTY

Advantage State of the Art Report

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Final Conference of ADVANTAGE Joint Action
27th November 2019, Brussels.



Aims

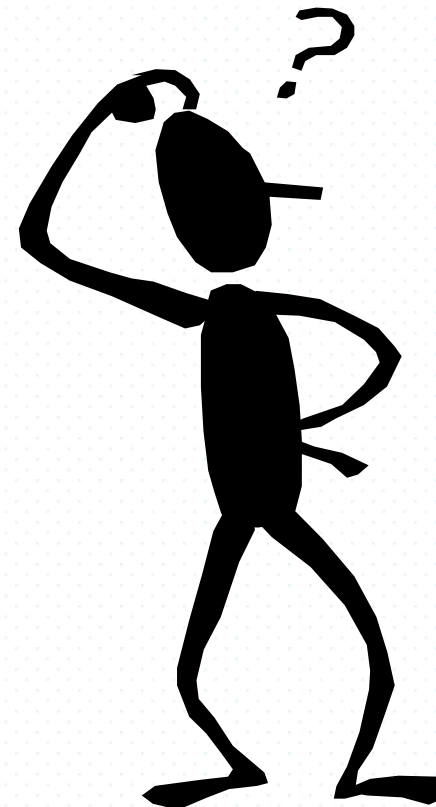
To summarise and analyse the evidence on frailty:

Four sources

- Original peer-reviewed articles - published 2002 to 2017
- Grey literature
- Good practices identified at European level
- EU funded projects.

Search conducted from February to October 2017

- ❖ **Medline via PubMed**
- ❖ Embase
- ❖ CINAHL
- ❖ Cochrane
- ❖ Up to date
- ❖ Opengrey
- ❖ Scopus
- ❖ Web of Science



Topics by Work Packages

WP	
WP4	Frailty definition Relationship with chronic diseases and multimorbidity Individual screening and diagnosis
WP5	Epidemiology Population screening, monitoring and surveillance
WP6	Prevention Clinical management and treatment: nutrition, physical activity, drugs and ICT
WP7	Health and social care models to manage frailty
WP8	Education/training of the workforce Research



Specific issues analysed

	Papers identified	Papers analysed
Definition of frailty	494	74
Relation with chronic diseases	2,282	25
Prevalence and incidence	2,948	63
Individual screening and diagnosis	6,611	52
Prevention	391,910	31
Clinical management	67,462	27
Nutrition	39,885	28
Physical activity	620,043	25
Drugs	28,796	25
ICTs	124,634	33
Population screening	1,186	3
Surveillance	751	0
Monitoring	451	0
Trajectories and transitions	862	3
Integrated care models	1,065	43
Intermediate/transitional care	1,984	133
Education/Training	1,914	0
Research	610	71
Total	1,293,888	636



Collaboration with other experts

- Topic-specific SoAR reports reviewed by Expert Panel, Mahon, Sep 2017.
- SoAR first published 2017, then updated in 2019
- Systematic review on Transitional Care and Intermediate Care
- Delphi with IFIC Special Interest Group on Intermediate Care
- Delphi with EuGMS on Multi-professional Capabilities



Updated State of the Art Report

- ❖ Introduction
- ❖ Methods
- ❖ Results – answers to 14 questions
- ❖ 16 Key messages
- ❖ Annexes



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Updated state of the art report on the prevention and management of frailty

August 2019

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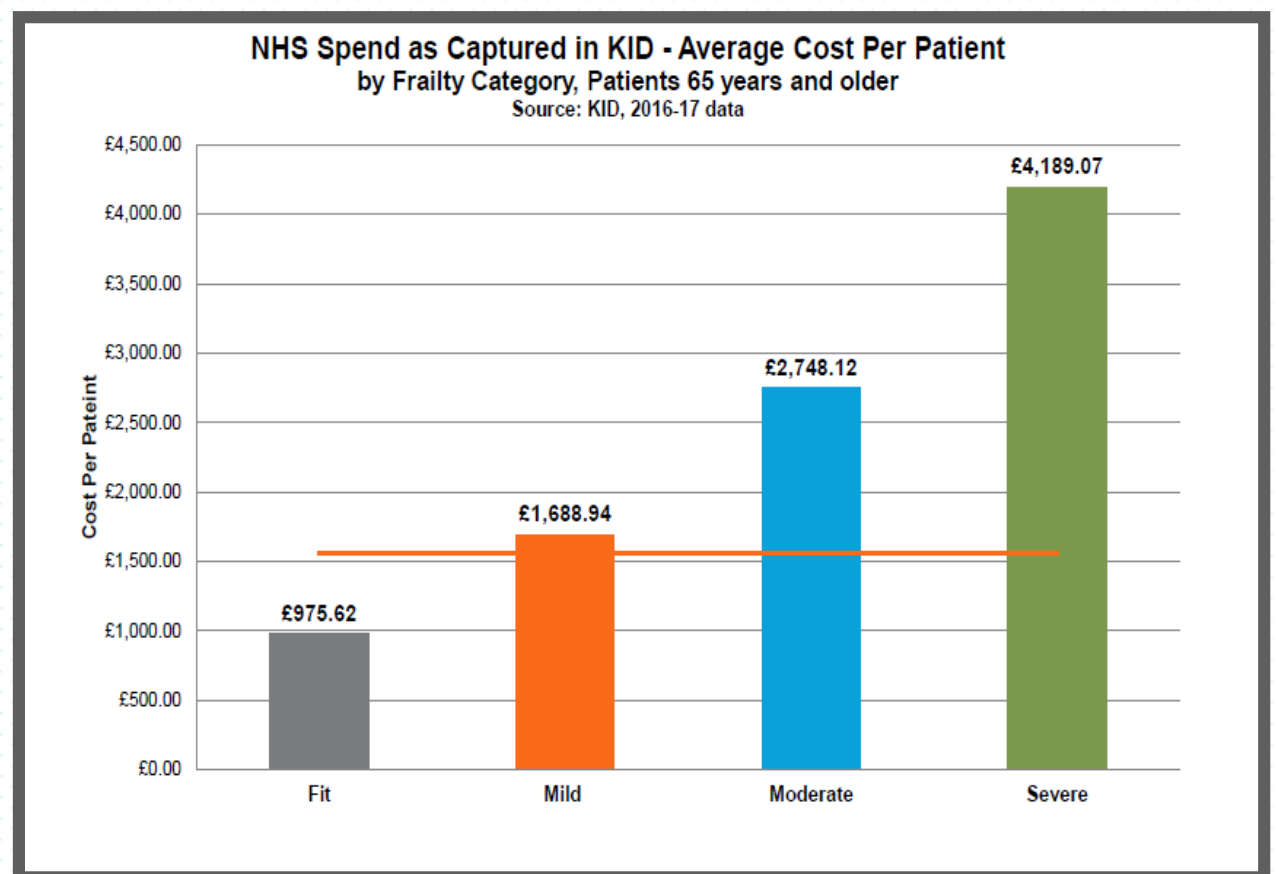
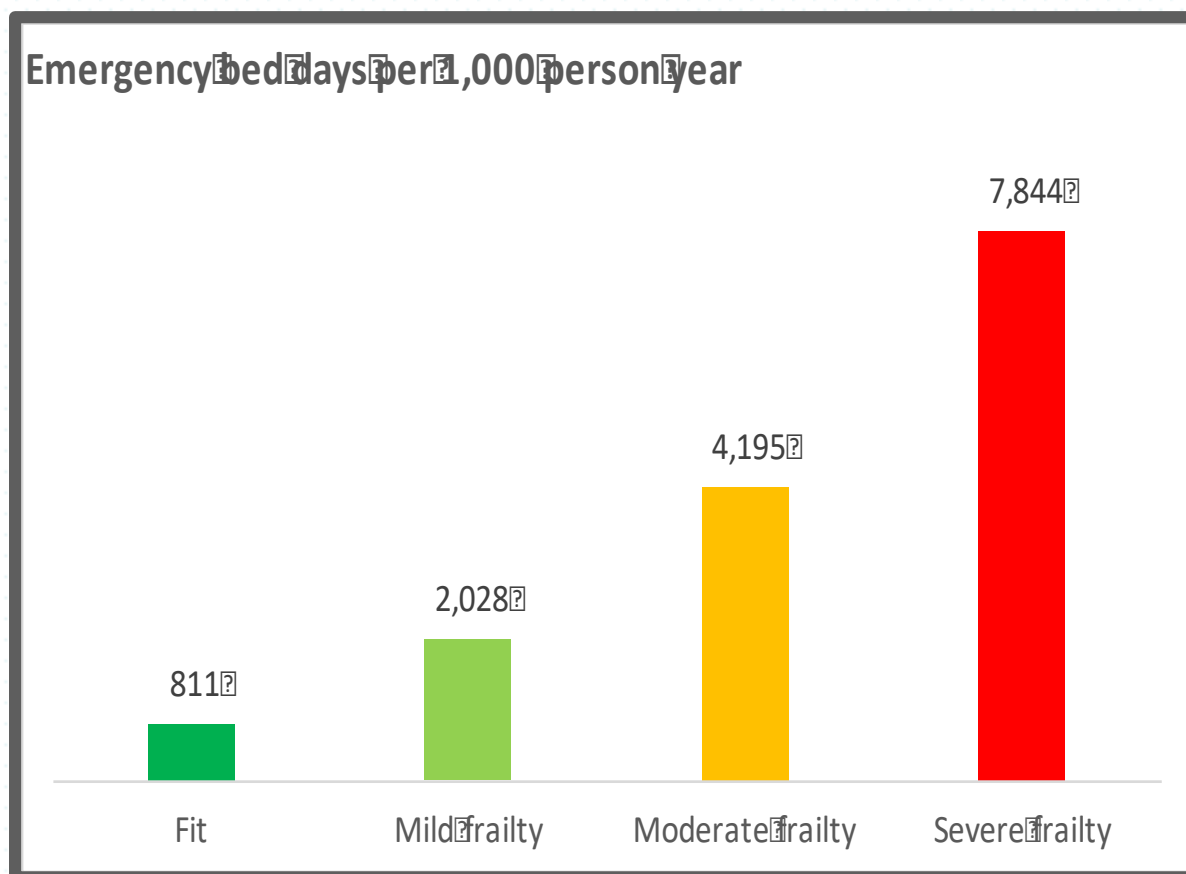
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Frailty Matters

Frailty is not an inevitable consequence of ageing, it may be prevented and treated to foster a longer and healthier life and delay or reverse disability.

Frailty has a clear negative impact on the costs of health services.

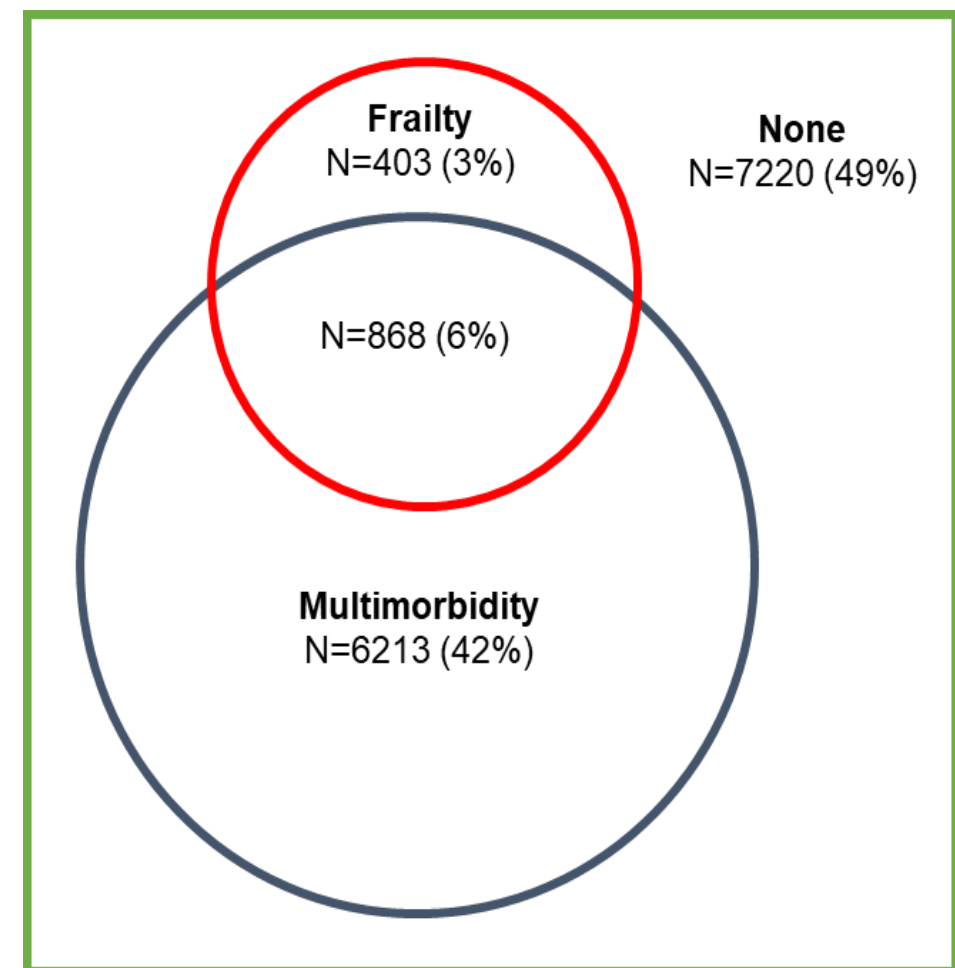


Frailty and multimorbidity

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Frailty is often present with other conditions:

- ❖ CHD - 19%
- ❖ Diabetes - 13%
- ❖ COPD - 19%
- ❖ Stroke - 21%
- ❖ Osteoarthritis - 16%
- ❖ Hypertension – 14%
- ❖ Multimorbidity – 16%



**What really affects quality of life is function and not disease,
and the best predictor of function is frailty.**

Definition and Prevalence

A progressive age-related decline in physiological systems that results in decreased reserves of intrinsic capacity, which confers extreme vulnerability to stressors and increases the risk of a range of adverse health outcomes (WHO 2015).



**Prevalence around 18% in over 65 years old
(12% in community-dwellers and 45% in hospital / institution settings)**

O'Caoimh R et. Annali dell'Istituto Superiore di Sanità, 54(3):226–238. doi:10.4415/ANN_18_03_10

Recommendations

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- Collect information on frailty prevalence, incidence and transitions in frailty status over time based on appropriate samples of individuals selected from different settings (including community dwelling and hospitalized / institutionalized individuals) with detailed analysis of different risk groups (i.e. by age, sex, socioeconomic status, etc.) and frailty level of severity
- Advocate for inclusion of questions for the detection of frailty in the European Health Survey and ongoing and planned longitudinal studies
- Advocate for the inclusion of a specific code for frailty in the International Classification of Diseases.

Screening Tools

- ❖ Quick to administer (no more than 10 minutes);
- ❖ Do not require special equipment
- ❖ Validated for screening

- Clinical Frailty Scale (CFS);
- Edmonton Frail Scale (EFS);
- FRAIL Index;
- Inter-Frail;
- Prisma-7;
- Sherbrooke Postal Questionnaire;
- Short Physical Performance Battery (SPPB);
- Vulnerable Elders Survey (VES-13);
- Study of Osteoporotic Fractures Index (SOF);
- eFI
- Gait Speed.

Clinical Frailty Scale*

 <p>1 Very Fit – People who are robust, active, energetic and motivated. These people commonly exercise regularly. They are among the fittest for their age.</p>	 <p>7 Severely Frail – Completely dependent for personal care, from whatever cause (physical or cognitive). Even so, they seem stable and not at high risk of dying (within ~ 6 months).</p>
 <p>2 Well – People who have no active disease symptoms but are less fit than category 1. Often, they exercise or are very active occasionally, e.g. seasonally.</p>	 <p>8 Very Severely Frail – Completely dependent, approaching the end of life. Typically, they could not recover even from a minor illness.</p>
 <p>3 Managing Well – People whose medical problems are well controlled, but are not regularly active beyond routine walking.</p>	 <p>9 Terminally Ill - Approaching the end of life. This category applies to people with a life expectancy <6 months, who are not otherwise evidently frail.</p>
 <p>4 Vulnerable – While not dependent on others for daily help, often symptoms limit activities. A common complaint is being “slowed up”, and/or being tired during the day.</p>	<p>Scoring frailty in people with dementia</p> <p>The degree of frailty corresponds to the degree of dementia. Common symptoms in mild dementia include forgetting the details of a recent event, though still remembering the event itself, repeating the same question/story and social withdrawal.</p> <p>In moderate dementia, recent memory is very impaired, even though they seemingly can remember their past life events well. They can do personal care with prompting.</p> <p>In severe dementia, they cannot do personal care without help.</p>
 <p>5 Mildly Frail – These people often have more evident slowing, and need help in high order IADLs (finances, transportation, heavy housework, medications). Typically, mild frailty progressively impairs shopping and walking outside alone, meal preparation and housework.</p>	<p>* 1. Canadian Study on Health & Aging, Revised 2008. 2. K. Rockwood et al. A global clinical measure of fitness and frailty in elderly people. CMAJ 2005;173:489-495.</p>
 <p>6 Moderately Frail – People need help with all outside activities and with keeping house. Inside, they often have problems with stairs and need help with bathing and might need minimal assistance (cuing, standby) with dressing.</p>	

*Cesari M, Nobili A, Vitale G (2016). European Journal of Internal Medicine, 35:1-9.
doi:10.1016/j.ejim.2016.07.021*

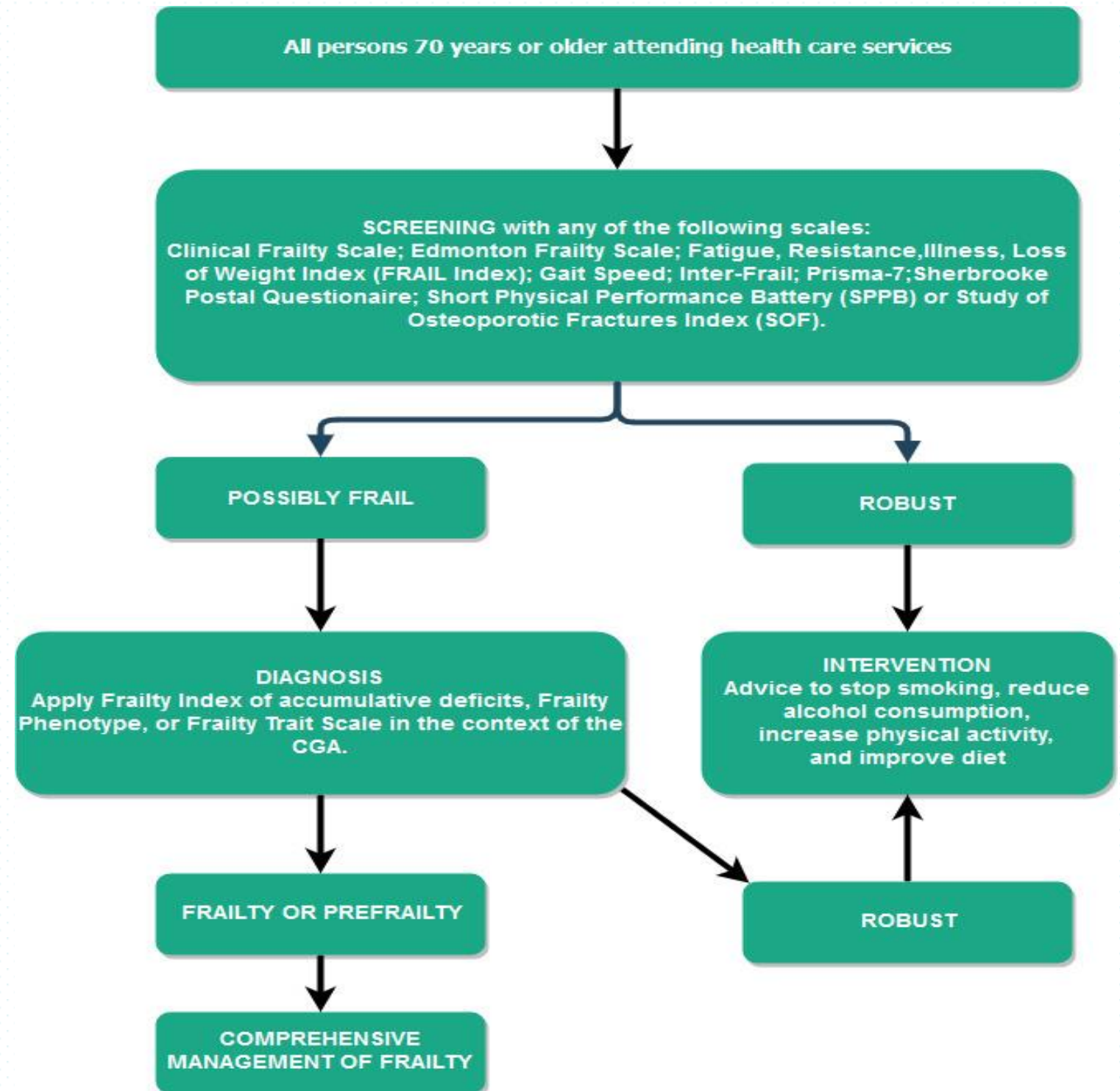
*Dent E, Kowal P, Hoogendijk EO (2016). European Journal of Internal Medicine, 31:3-10.
doi:10.1016/j.ejim.2016.03.007*

Algorithm for clinical management

Three-steps:

- 1) Screening
- 2) Diagnosis
- 3) CGA

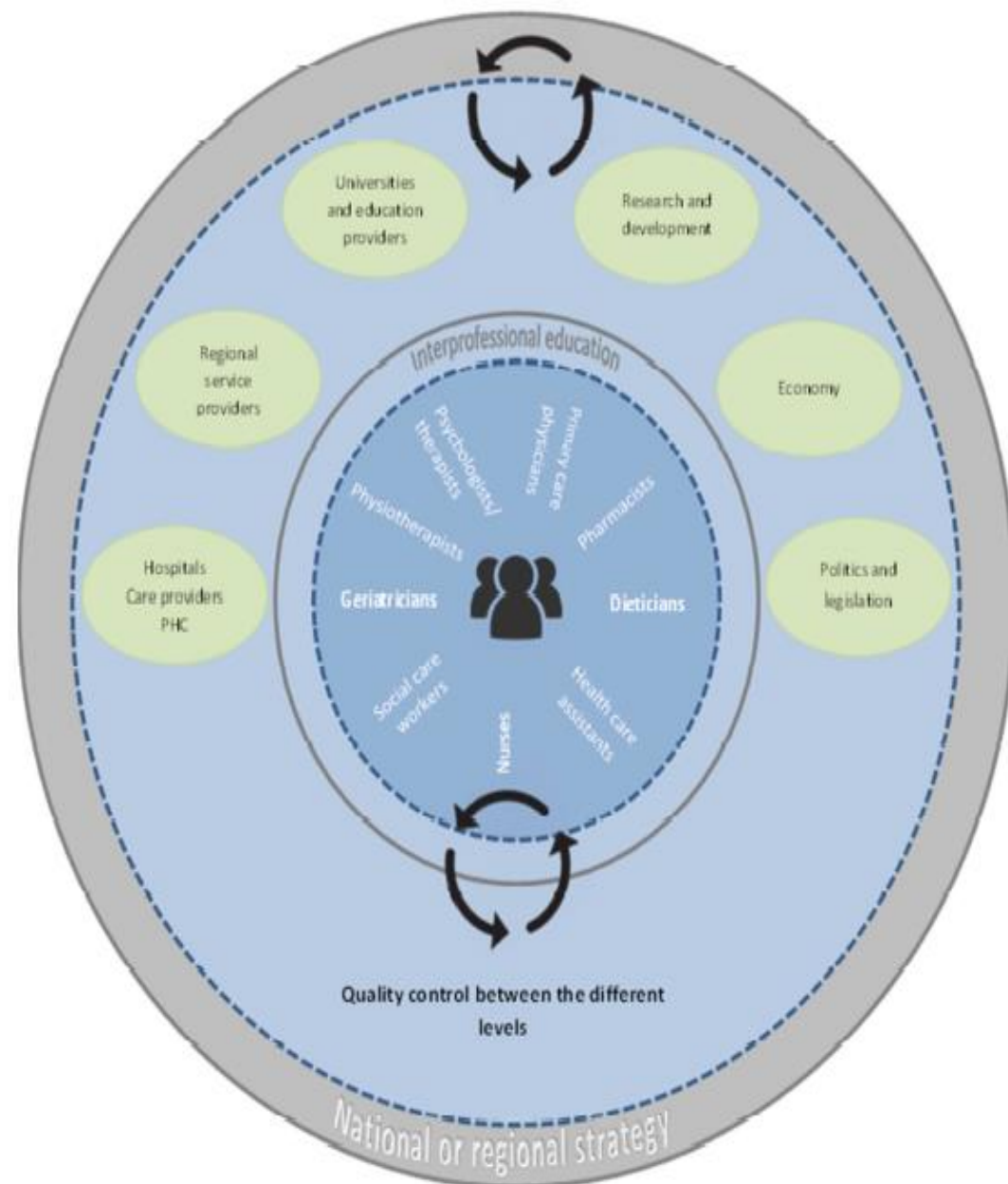
Comprehensive Geriatric Assessment of individual's needs, personalised care plan and multidimensional interventions



Clinical interventions

- ❖ Structured multicomponent **exercise (endurance, flexibility, balance, and resistance training)** at low to moderate intensity, in 30 to 45 minute sessions, three times a week. Followed or substituted by strength training: minimum of 8 weeks and medium to high exercise load (from 8 to 12 repetitions, from 30% - 60-70% of maximum intensity).
- ❖ Assess and optimise **nutrition** (Mini Nutritional Assessment). For BMI ≥ 30 kg/m², and age 65 to 80 years, advise a moderate weight loss of 8-10% of body weight over 6 months always combined with exercise to maintain muscle mass.
- ❖ Consider **Vitamin D supplementation** with doses of 20 to 25 µg/day (800 a 1000 IU/day) for people at high risk of falls or fracture and with a 25-OH vitamin D level < 30 ng/ml.
- ❖ Minimise risk from **inappropriate drugs and polypharmacy** (Beers criteria, STOPP/START or Laroche criteria).
- ❖ **ICT solutions** to enable self-management and promote independence.

Workforce Development



European framework

Multi-professional capability framework for prevention and management of frailty - collaboration between Advantage and EuGMS

4 Domains

- ❖ Understand Frailty;
- ❖ Identification of Frailty;
- ❖ Person-centred collaborative working;
- ❖ Managing Frailty and its Prevention

13 subdomains and capabilities

Further Research

Areas that will benefit from further EU research and funding.

- ❖ Assessment of risk factors
- ❖ Biobanks to identify frailty biomarkers
- ❖ Environmental issues
- ❖ Nutrition and vitamin D therapy
- ❖ Appropriate polypharmacy
- ❖ ICT solutions
- ❖ Intermediate care services
- ❖ Scaling up interventions
- ❖ Cost effectiveness of models of care

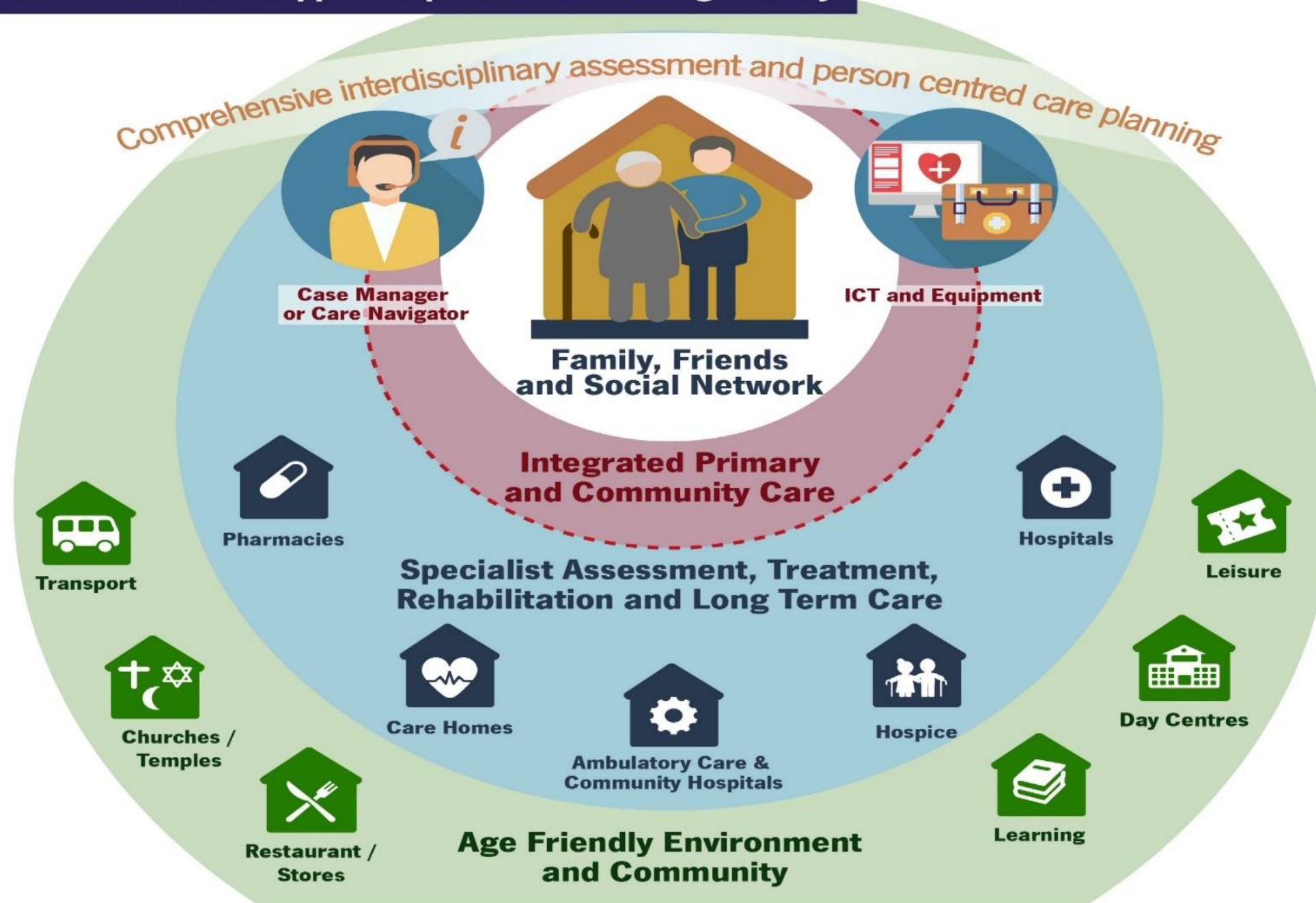


Integrated Care for Frailty

- a single entry point – generally in Primary Care
- simple screening tools in all settings
- comprehensive assessment and individualised care plans
- tailored interventions by MDT – at home and in hospital
- case management and coordination across providers
- effective transitions across teams / care settings
- information sharing and technology enabled care
- policies and procedures for eligibility and care delivery

Frailty Prevention Approach

Integrated model of care and support to prevent and manage Frailty



Animation



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Thank You

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