



Public Health  
England

# What is frailty and why it is important

Tony Moran  
North West Knowledge and Intelligence Team

Cancer Outcomes Conference 2013



Public Health  
England

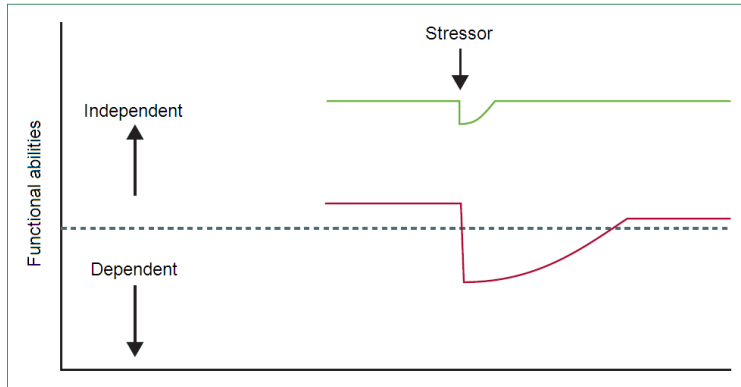
## Contents

- Definitions of frail and frailty
- Prevalence and measurement
- Use in oncology



Public Health  
England

Figure 1: Vulnerability of frail elderly people to a sudden change in health status after a minor illness



Clegg A, Young J, Iliffe S, Olde Rikkert M, Rockwood K. Frailty in elderly people. *Lancet* 2013; 381: 752–62.

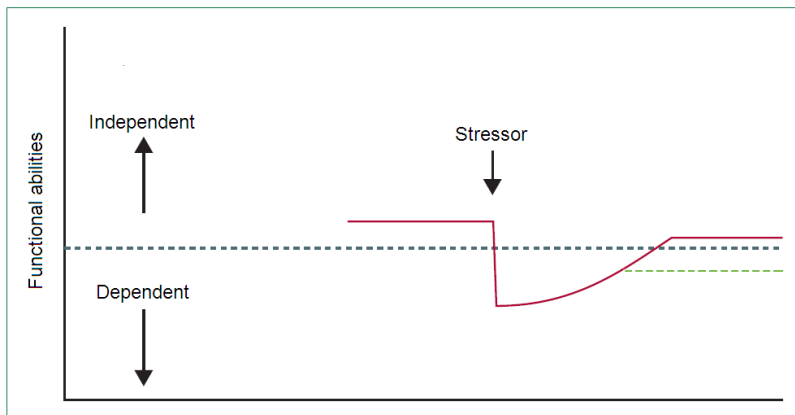
3

What is frailty and why it is important



Public Health  
England

Figure 2: Non recovery of independence



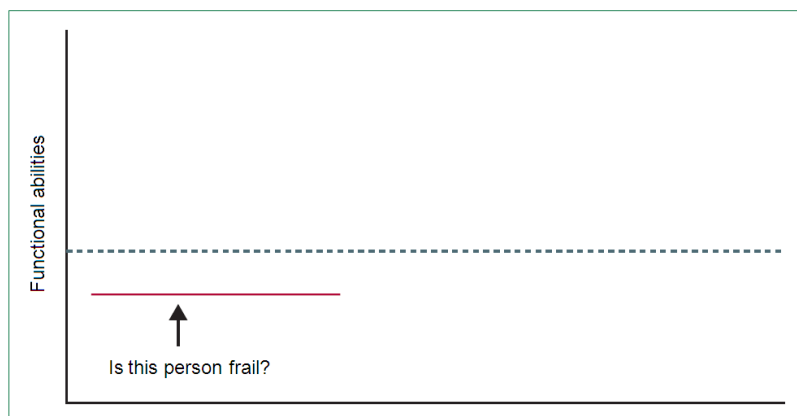
4

What is frailty and why it is important



Public Health  
England

## Figure 3: Dependent without stressor



5

What is frailty and why it is important



Public Health  
England

## Inconsistency of definition of frail

“In the geriatric medicine setting, frailty is not considered to be the endpoint of the continuum of fit to completely dependent; rather it represents a state where a individual is independent but at high risk of developing disability”

Puts MTE, Hardt J, Monette J, Girre V, Springall E, Alibhai SMH. Use of Geriatric Assessment for Older Adults in the Oncology Setting: A Systematic Review. *J Natl Cancer Inst* 2012; 104:1133–1163.

6

What is frailty and why it is important



Public Health  
England

## Problems with definition of frailty

- Specific syndrome v general condition
- Include more than the frail?

7

What is frailty and why it is important



Public Health  
England

## Characteristics of proposed syndrome

- Weight loss
- Exhaustion
- Low energy expenditure
- Slow gait
- Weak grip strength

8

What is frailty and why it is important



Public Health  
England

## Sarcopenia = Loss of skeletal muscle

9

What is frailty and why it is important



Public Health  
England

## Mechanism of frailty

- Lifelong accumulation of cellular and molecular damage termed physiological ageing
- Leads to decrease in functional level and reserves

10

What is frailty and why it is important



Public Health  
England

## Prevalence of frailty

- 65 year plus living in the community
- Range: 4% - 59%
- Weighted mean = 10.7%
- 65-69 = 4%; 85 plus = 26%

Collard RM, Boter H, Schoevers RA and Oude Voshaar RC. Prevalence of Frailty in Community-Dwelling Older Persons: A Systematic Review. *J Am Geriatr Soc* 2012; 60(8): 1487-92.



Public Health  
England

## Measure of frailty

- Many different instruments



Public Health  
England

## Canadian Clinical Frailty Scale

- 70 item index including detailed physical examination
- Strong correlation with institutionalisation and survival
- Spectrum from full independence to complete dependency
- Gold standard but not suitable for routine geriatric practice

Rockwood K, Song X, MacKnight C, Bergman H, Hogan DB, McDowell I, Mitnitski A. A global clinical measure of fitness and frailty in elderly people. *CMAJ* 2005; 173 (5): 489-95.

13

What is frailty and why it is important



Public Health  
England

## Other simpler tools

- Questionnaires
- Tests
- Walking speed: good correlation with survival

Studenski S et al. Gait Speed and Survival in Older Adults. *JAMA* 2011; 305(1): 50-8.

14

What is frailty and why it is important



Public Health  
England

## Comprehensive Geriatric Assessment (CGA)

- Standard CGA
- Good correlation with clinical frailty scale, institutionalisation and deaths within a year

Jones DM, Song X, Rockwood K. Operationalizing a Frailty Index from a Standardized Comprehensive Geriatric Assessment. *J Am Geriatr Soc* 2004; 52(11): 1929-33.



Public Health  
England

## Frailty and Cancer

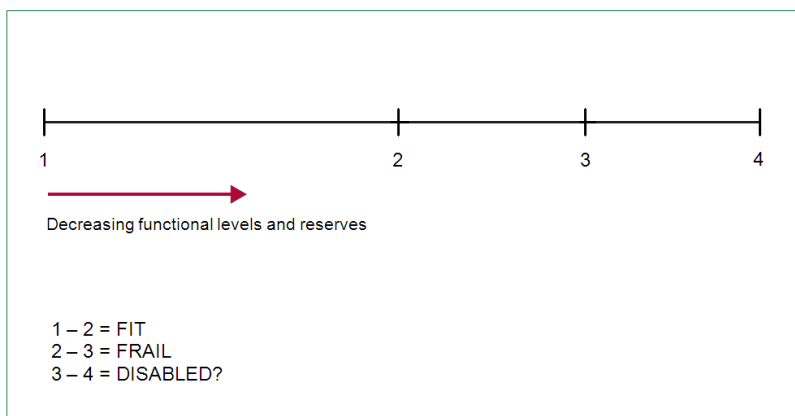
- Both cancer and its treatment are major stressors
- Important to identify frail patients





Public Health  
England

## Figure 4: Identifying frail patients



17

What is frailty and why it is important



Public Health  
England

## Approaches

- Stand-alone tool
- Part of comprehensive geriatric assessment (CGA)

18

What is frailty and why it is important



Public Health  
England

## Domains included in basic CGA

- Functional status
  - IADL
  - ADL
  - Performance status
- Comorbidity
- Socioeconomic issues
- Geriatric syndromes
- Polypharmacy
- Nutrition

19

What is frailty and why it is important



Public Health  
England

## Usefulness in geriatric patients

- Prevent institutionalisation
- Decrease falls
- Increase subjective well being
- Only when action taken to relieve problems identified

20

What is frailty and why it is important



Public Health  
England

## Usefulness in geriatric patients

- Feasible to use in routine practice
- Step-wise process
- Medical and social problems decreased if linked to appropriate services

Cancer Services Coming of Age 2012: DH, Age UK, Macmillan Cancer Support

21

What is frailty and why it is important



Public Health  
England

## Conclusions

- Important to identify frail patients to inform treatment decisions
- Can be done as part of the CGA
- Oncology services should be linked to other services with clear referral pathways

22

What is frailty and why it is important



Public Health  
England

## Recommendation 1

- Work needs to be undertaken to clarify the use of geriatric terms in oncology (and of geriatric terms in geriatrics!)

23

What is frailty and why it is important



Public Health  
England

## Recommendation 2

Further research is needed to

- Assess the impact of CGA on treatment decisions and outcomes
- Agree on the questions and tests to identify frail patients
- Decide the best way of administering CGA in routine oncology practice to maximise joint decision making

24

What is frailty and why it is important



Public Health  
England

## Recommendation 3

Consider widening the remit of the NCIN Co-morbidity Group to cover all patient characteristics that are relevant to decisions on cancer treatment