



Episode 2.1 Show NotesFrailty

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Learning Outcomes

Knowledge:

- To understand the 2 main theories of frailty definition (Fried/Phenotype and Rockwood/deficit accumulation)
- To be able to know the benefits of risk assessment

Skills:

- To be able to know when and how to identify patients who are frail/pre frail
- To be able to identify situations when frailty can be assessed

Attitudes:

- To understand that frailty is not a subjective opinion but a scientific condition
- To understand that not all frail patients are thin or cachectic
- To recognise the benefits of frailty recognition

Definitions:

Formal / Scientific Definition:

"A state of increased vulnerability to stressors due to age-related declines in physiologic reserve across neuromuscular, metabolic, and immune systems"

Walston et al. Research agenda for frailty in older adults: toward a better understanding of physiology and etiology: summary from the American Geriatrics Society/National



Institute on Aging Research Conference on Frailty in Older Adults. J Am Geriatr Soc. 2006 Jun;54(6):991-1001.

Practical Definition:

Frailty is not age, disability or having multiple long term conditions. Frailty is a clinical syndrome whereby the person gradually loses the ability to maintain their homeostasis.

Many definitions though neglect the cognitive and social elements which are so important, if you have good cognition and social support those deficits may not be so apparent

Frailty leads onto a whole host of potential complications - many of which are covered in previous and future episodes of our podcast- e.g. Dehydration (ep8) Delirium(ep2), Inadequate nutrition (in series 2), Skin breakdown, pressure ulcers, Lowered resistance to infection, Falling (ep 5 and in series 2).

Heath H, Phair L (2011) Frailty and its significance in older people's nursing. Nursing

Standard. 26, 3, 50-55. Date of acceptance: July 1 2011

There are two main schools of thought at the moment about the way to look for frailty.

Fried:

Fried's definition is much more simple and is based around 5 characteristics of the patient and was based on a study of 5,300 people from the cardiovascular health study population and 4-7 years of follow up.

To have frailty a patient need 3 or more of:

- O unintentional weight loss (10 lbs in past year),
- O self-reported exhaustion,
- O weakness (grip strength),
- O slow walking speed,
- O and low physical activity
- Being frail was an independent predictor (over 3 years) of falls, worsening mobility or ADL disability, hospitalization, and death.
- Having 1 or 2 showed risk for progression rehabilitation may address this decline and could therefore be reversible (ref needed).





Fried et al. Frailty in older adults: evidence for a phenotype. J Gerontol A Biol Sci Med Sci. 2001 Mar; 56(3): M146-56.

These are all quite easily measureable. Of them all gait speed is probably the *useful* on its own and a speed of <1m/s is predictive of poorer health outcomes.

Gabor Abellan Van Kan et al. Gait speed at usual pace as a predictor of adverse outcomes in community-dwelling older people an International Academy on Nutrition and Aging (IANA) Task Force. J Nutr Health Aging. 2009 Dec;13(10):881-9.

Rockwood:

The second way of looking at frailty is best explained with this quote from the article:

'As people age, they too experience problems that can accumulate. As deficits (symptoms, signs, illnesses, disabilities) accumulate, people become more susceptible to adverse health outcomes, including worse health and even death. This state of increased risk of adverse health outcomes is indistinguishable from the idea of frailty, so deficit accumulation represents another way to define frailty'.

This leads onto the idea of a frailty index... You look at the maximum possible 'deficits' and work out how many your own patient has - which will give you a fraction - or index. The maximum practical score is 0.7.

A deficit is something that is more common as you get older and confers a poor outcome (i.e hypertension would count, but not white hair).

Rockwood K, Mitniski A. Frailty defined by deficit accumulation and geriatric medicine defined by frailty Clin Geriatr Med. 2011 Feb;27(1):17-26..

There have been 3 recent advances / resources to take note of:

1) The electronic frailty index:

The eFI uses routine data to identify older people with mild, moderate and severe frailty, with robust predictive validity for outcomes of mortality, hospitalisation and nursing





home admission. Routine implementation of the eFI could enable delivery of evidence-based interventions to improve outcomes for this vulnerable group.

Clegg et al. Development and validation of an electronic frailty index using routine primary care electronic health recorddata. Age Ageing. 2016 May;45(3):353-60.

2) Frailsafe:

Frailsafe is a bit like 'fallsafe' that we talked about in the falls episode (Series 1 Ep 5) Frailsafe is a safety checklist and is being implemented in a number of sites in the UK using QI methodology. They developed a tool which was designed as being able to be simple to use, cheap and effective. In the episode we hear from some members of the frailsafe team from Brighton.

http://www.frailsafe.org.uk/

3) The GP frailty tool kit:

The GP toolkit pulls information from Fit for Frailty which was published by the British Geriatric Society and it suggests using the Clinical Frailty Scale to assess patients for every consultation in patients >75 years. The whole toolkit is really good actually and contains some paperwork for a basic CGA and also the Start-Stopp criteria.

GP toolkit for supporting people with frailty

Fit for frailty. BGS 2014

Exercise can help in frailty. Here are two trials it's worth having a look at and debating with colleagues:

Lord et al. The effect of group exercise on physical functioning and falls in frail older people living in retirement villages: a randomized, controlled trial. J Am Geriatr Soc. 2003

Dec;51(12):1685-92.

Binder et al. Effects of exercise training on frailty in community-dwelling older adults: results of a randomized, controlled trial. J Am Geriatr Soc. 2002 Dec;50(12):1921-8.





Curriculum Mapping:

This episode covers the following areas (n.b not all areas are covered in detail in this single episode):

Curriculum	Area	
NHS Knowledge Skills Framework	Suitable to support staff at the following levels: Personal and People Development: Levels 1-3 Service Improvement: Level 1 - 2	
Foundation curriculum	1.3 C 2.1 F 7.9 II	Continuity of care Patient as centre of care Interactions with different specialities and other Parofessions Long-term conditions
Core Medical Training	Team working and patient safety Management of long term conditions and promoting self-care Communication with colleagues and cooperation Evidence and guidelines Geriatric Medicine	
GPVTS program	Section 2.03 The GP in the Wider Professional Environment	
ANP (Draws from KSF)	Section 6 Section 32	





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