

Liverpool GP Hot Topics – 23rd February 2019:

DeCompensation in older people: Frailty Syndrome

mohammad somauroo

Consultant Geriatrician

Royal Liverpool and Broadgreen University Hospitals



Objectives

1

Concept of frailty
syndrome

2

Polypharmacy

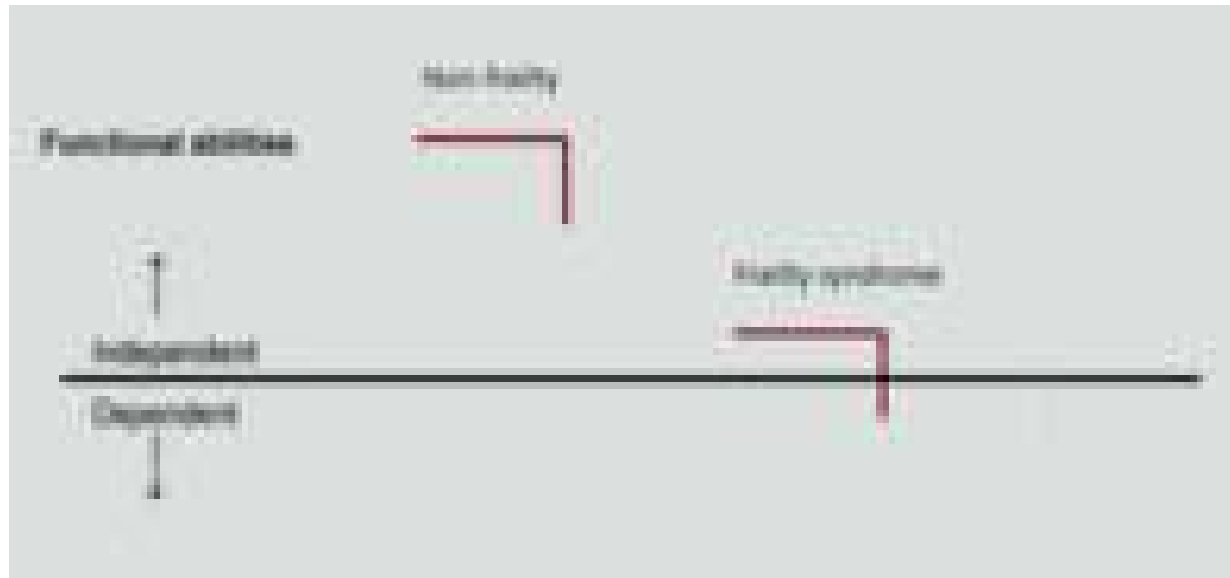
3

The Liverpool Community
Frailty Pathway

Definition

The phenotype of frailty develops as a consequence of a **decline in physiological reserves** resulting in a **vulnerability to sudden changes in health** triggered by **relatively minor stressor events**

Impact of frailty on function



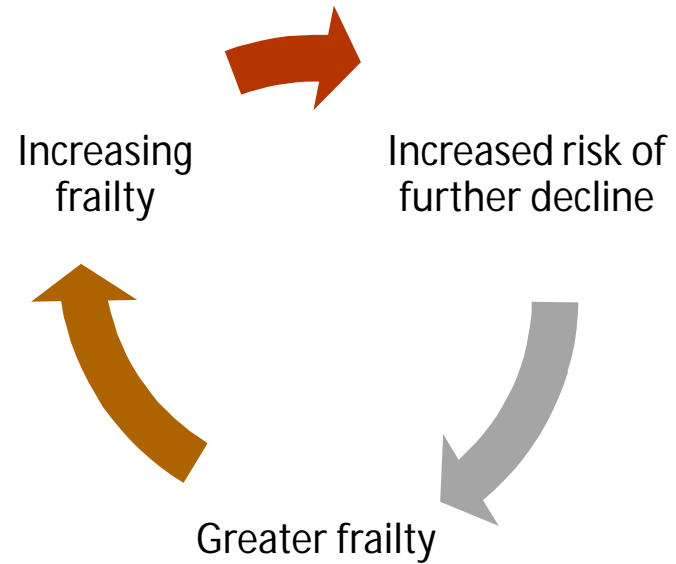
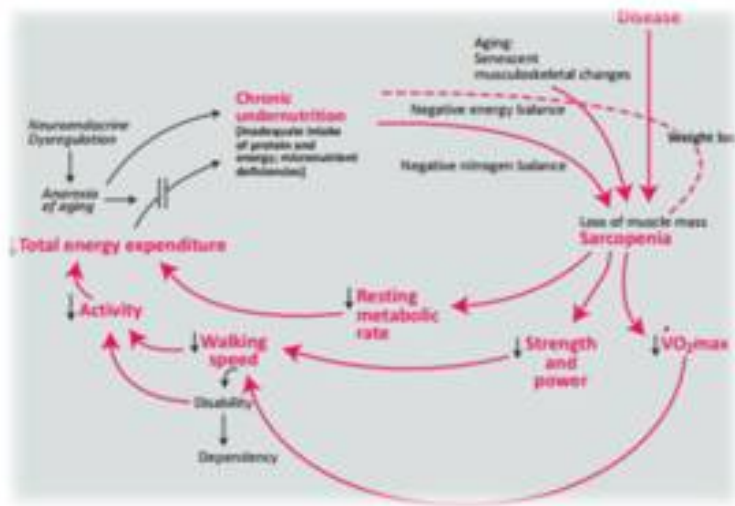
How is the frailty syndrome recognised?

- Clinical diagnosis
- Syndrome

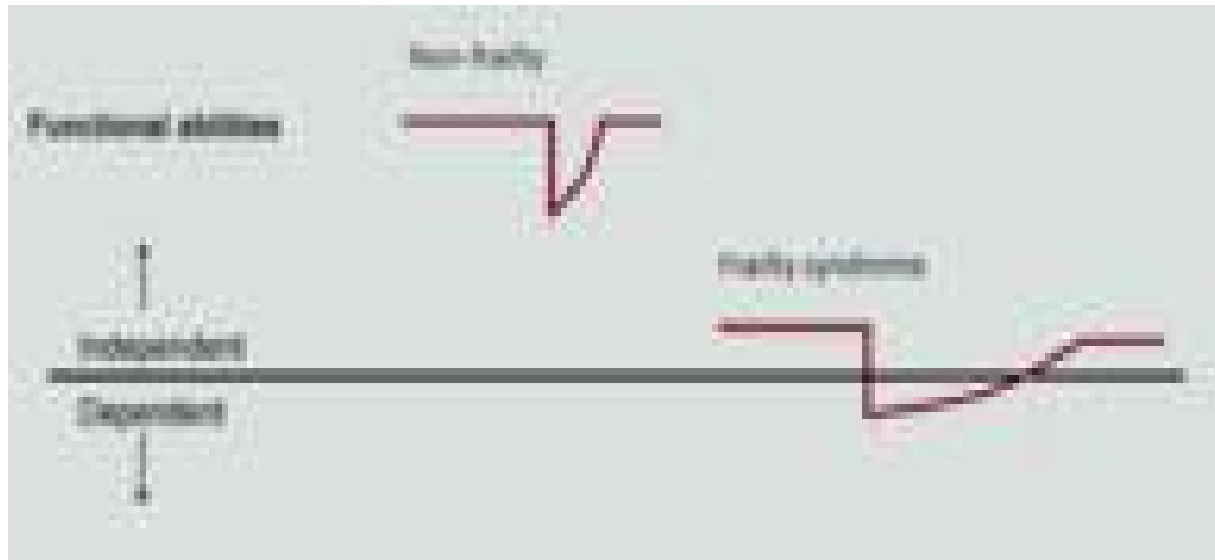
Frailty phenotypes

- Sarcopenia (loss of muscle mass and strength)
- Reduced appetite
- Reduced bone strength
- Fatigue and slowness
- Increased risk of falls
- Poor physical health leading to recurrent illnesses

The frailty cycle



Natural history of frailty syndrome



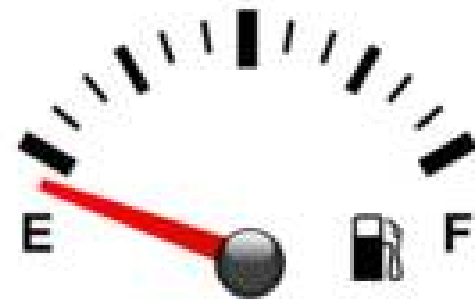
How would you explain frailty to patients?



Frailty
syndrome



Effectiveness of treatment



Can frailty syndrome be '*treated*'?

- Physical activity



Can frailty syndrome be '*treated*'?

- Polypharmacy



Objectives

2 Polypharmacy

Polypharmacy

- The use of **multiple medications** by a patient

Polypharmacy

Associated with:

- Increased risk for an **adverse drug event**
- Increased risk of **hospital admission**
- Decreased **physical** and **cognitive** abilities

Risk factors for adverse drug events among nursing home residents.

Field TS, Garwitz JH, Acom J, McCormick G, Jain S, Eckler M, Benzer M, Bates DW
Arch Intern Med. 2001;161(13):1626

Health outcomes associated with polypharmacy in community-dwelling older adults: a systematic review.

Field TS, Cleary J, Towle V, Goldstein MC, Thattaianga M, Martin DC
J Am Geriatr Soc. 2014 Dec;62(12):2091-73.

Polypharmacy and Frailty syndrome



Compared with non-frail people without polypharmacy, frail people with excessive polypharmacy were **six times** more likely to die during the follow-up period of 2.6 years

Polypharmacy



Appropriate

versus

Problematic

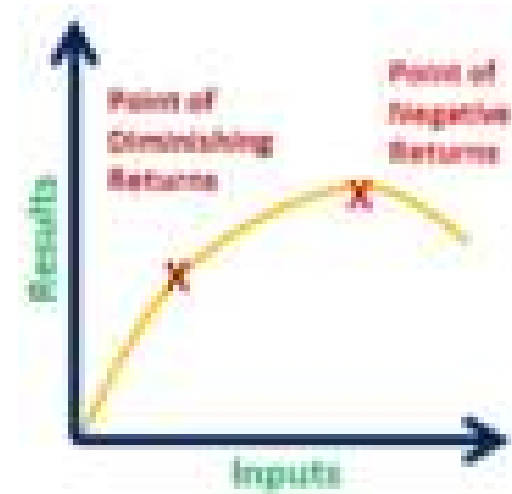
**Polypharmacy
and medicines
optimisation**

Making it safe and sound

Authors
Martin Duerden
Tony Avery
Rupert Payne

Law of diminishing returns

The **absolute benefit** drawn from each additional medicine is expected to **reduce** when **multiple preventative** medications are taken



Diabetes | **Diabetes, Metabolic Syndrome, and Obesity: Targets and Therapy**

Volume 125 | Number 12 | December 2, 2008

ISSN: 0891-2297

Printed in the USA

Copyright © 2008 American Society for Clinical Investigation

DOI: 10.1177/0891229708321111

0891-2297(200812)125:12:1-0

10.1177/0891229708321111

10.1177/0891229708321111

10.1177/0891229708321111

10.1177/0891229708321111

10.1177/0891229708321111

10.1177/0891229708321111

10.1177/0891229708321111

10.1177/0891229708321111

10.1177/0891229708321111

10.1177/0891229708321111

10.1177/0891229708321111

10.1177/0891229708321111

10.1177/0891229708321111

10.1177/0891229708321111

10.1177/0891229708321111

10.1177/0891229708321111

10.1177/0891229708321111

10.1177/0891229708321111

Diabetes Metab Syndr Obes. 2008; 2: 209-211.

Published online 2008 Dec 2

REVIEW PAPER

REVIEW

Amantadine reduces glucagon and enhances insulin secretion throughout the oral glucose tolerance test: central plus peripheral nervous system mechanisms

Fred Lavenex,¹ Sacha de la Cruz,¹ Seth Paulson,² Jeroen Kooze,³ Marco J. Lator,² and Richard Ross²

Review of literature...

- Two controlled trials ^[1,2] and five case reports:
“TSH significantly increased and both free and total T4 decreased with concurrent administration of calcium salts”

1. Singh N, Singh PN, Hershman JM, “Effect of Calcium Carbonate on the Absorption of Levothyroxine,” JAMA, 2000;283:2822-5.
2. Zamfirescu I, Carlson HE, “Absorption of Levothyroxine when Coadministered with Various Calcium Formulations,” Thyroid, 2011, 21(5):483-6.

Objectives

3

The Liverpool Community
Frailty Pathway

The traditional approach...



Community Geriatrics

- Covers the period **before** a medical crisis which may or may not result in admission to hospital, and **after** a medical crisis

Liverpool Community Frailty Pathway

Interface/ Frailty Units



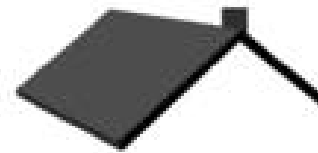
Domiciliary Reviews



Intermediate Care/ Care Homes



Frailty Unit



Frailty Unit



What can a frailty unit offer?

- Comprehensive geriatric assessment by a **multidisciplinary** and **multi-agency** team **early** during an admission

What can a frailty unit offer?

- Discharge to assess

What can a frailty unit offer?

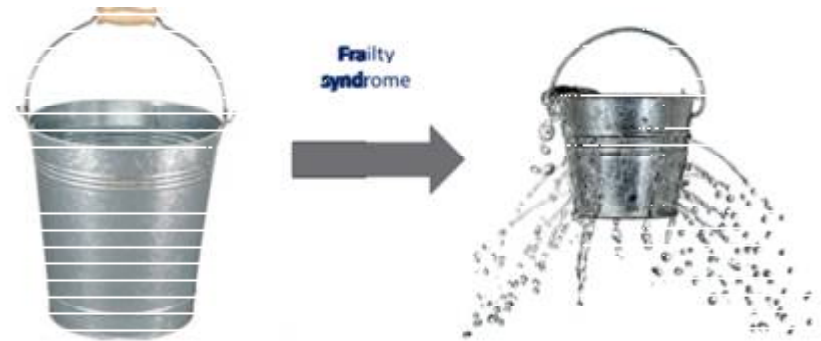
- Community follow up: physicians, nurses, therapists, mental health and social worker

New care paradigm...



Summary

- Importance of making the right diagnosis
- Always question if medications are still needed
- Medication conversions
- Side effects of medications
- Medication interactions



Finally...

- Never stop asking **WHY?**

