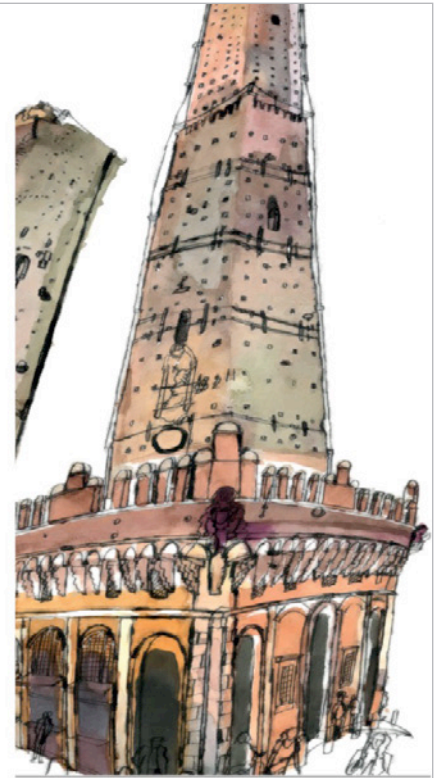


“  
**ANTICOAGULAZIONE**

Attualità cliniche e di laboratorio.  
Aspetti sociali

**In cosa consiste e come  
si rivela la cosiddetta  
“fragilità” dell’anziano**



UNIVERSITÀ  
CATTOLICA  
del Sacro Cuore

Graziano Onder  
Policlinico A. Gemelli  
Università Cattolica del Sacro Cuore  
Roma

## Conflitto di interessi

Relatore per: Mylan, Nutricia

Consulente per: Novo Nordisk, MSD

# Fragilità

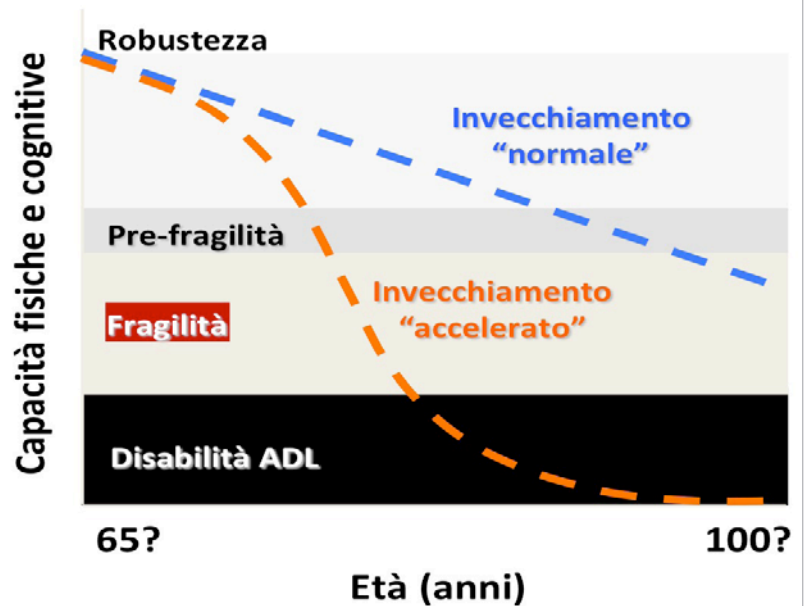
- Cosa è?
- Come si misura?
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- Trattamento delle malattie croniche e fragilità
- Fibrillazione atriale e fragilità
- Come approcciare la fragilità?

# Fragilità

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# Fragilità: definizione

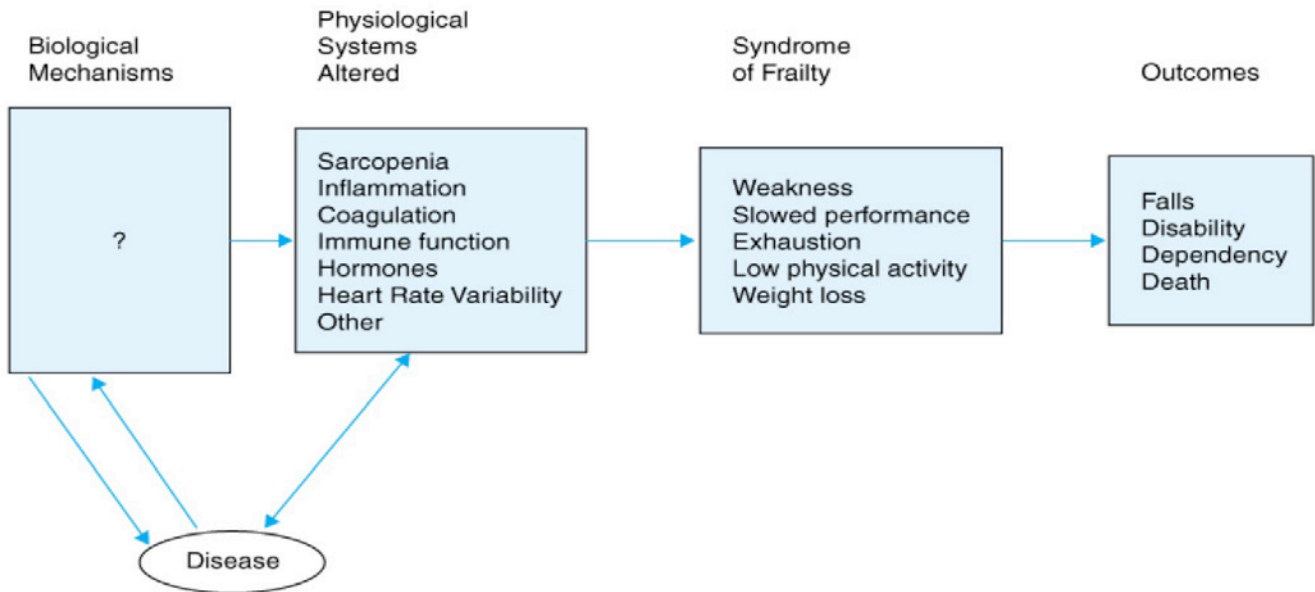
- Sindrome multifattoriale, determinata dalla **riduzione della fisiologica riserva funzionale** e della capacità di resistere a eventi stressanti ambientali (capacità di omeostasi)
- Comporta un **aumentato rischio di eventi clinici**: disabilità, ospedalizzazione, istituzionalizzazione, morte



## Frailty definition -WHO

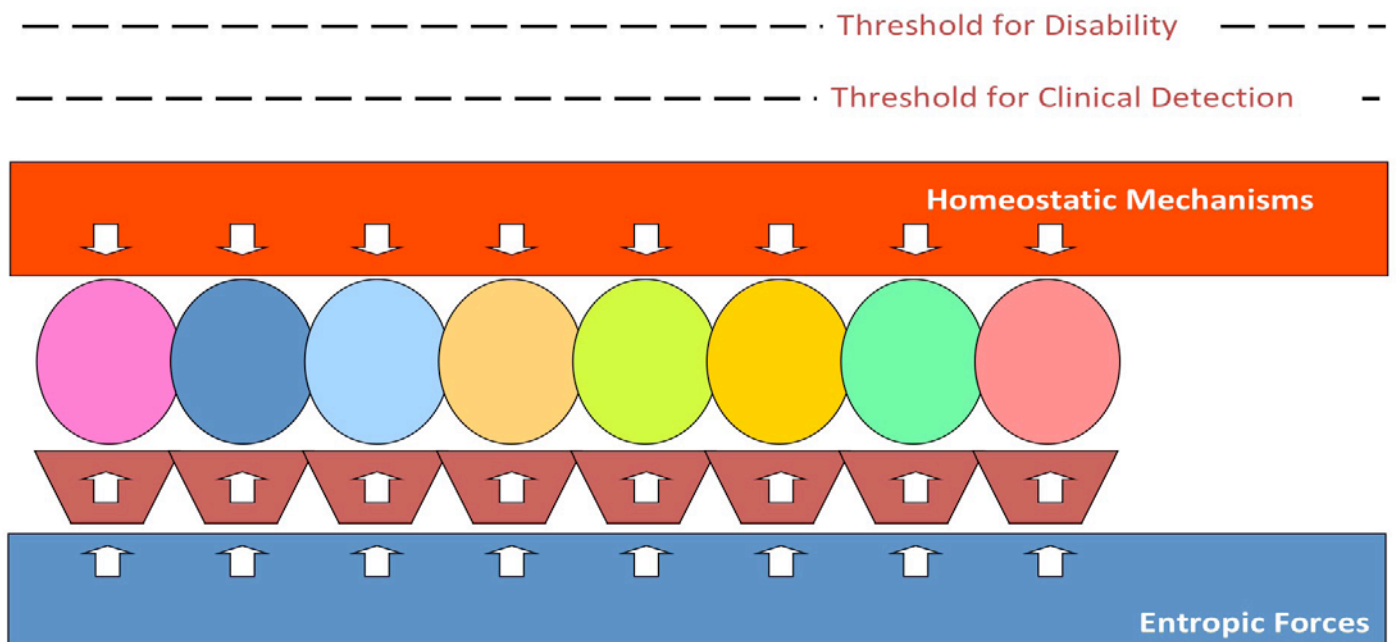
*Frailty is a progressive **age-related decline in physiological systems** that results in **decreased reserves of intrinsic capacity**, which confers extreme **vulnerability** to stressors and increases the risk of a range of **adverse health outcomes**.*

# The pathway of frailty



Hazzard's Geriatric Medicine and Gerontology, 6° Edition

# Homeostatic Perfection

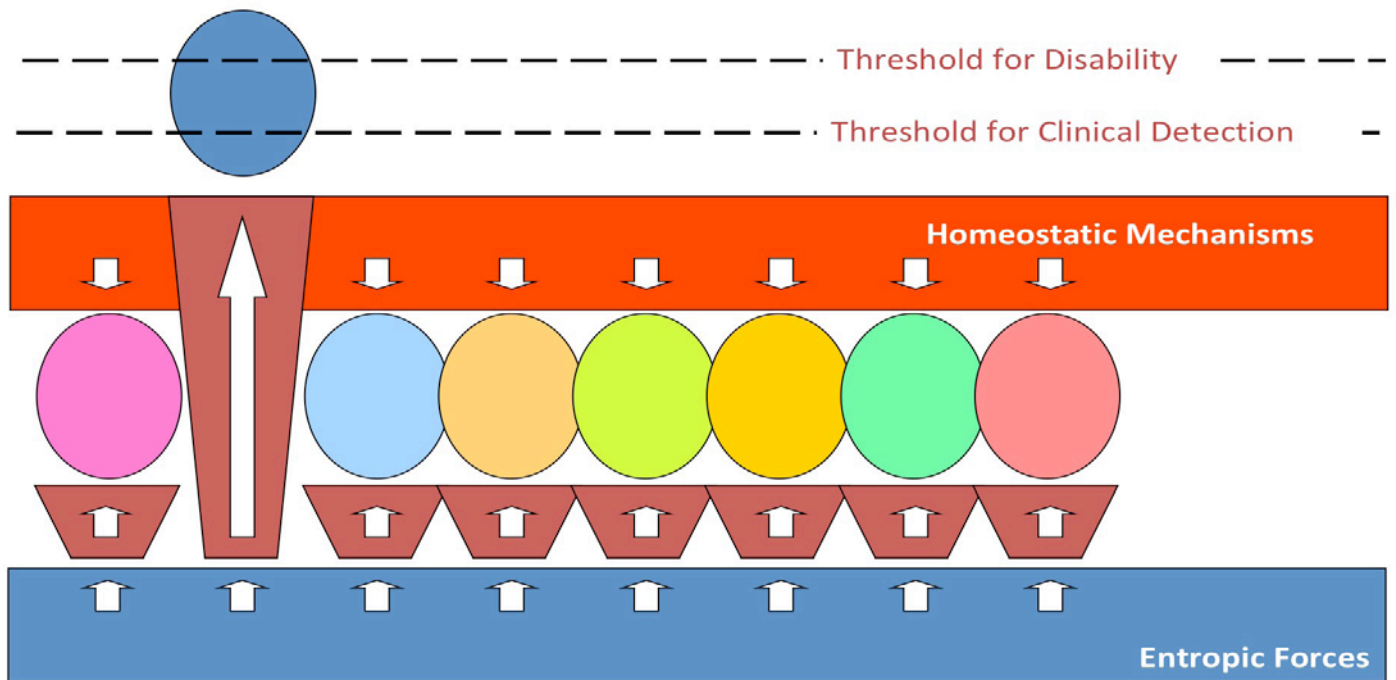


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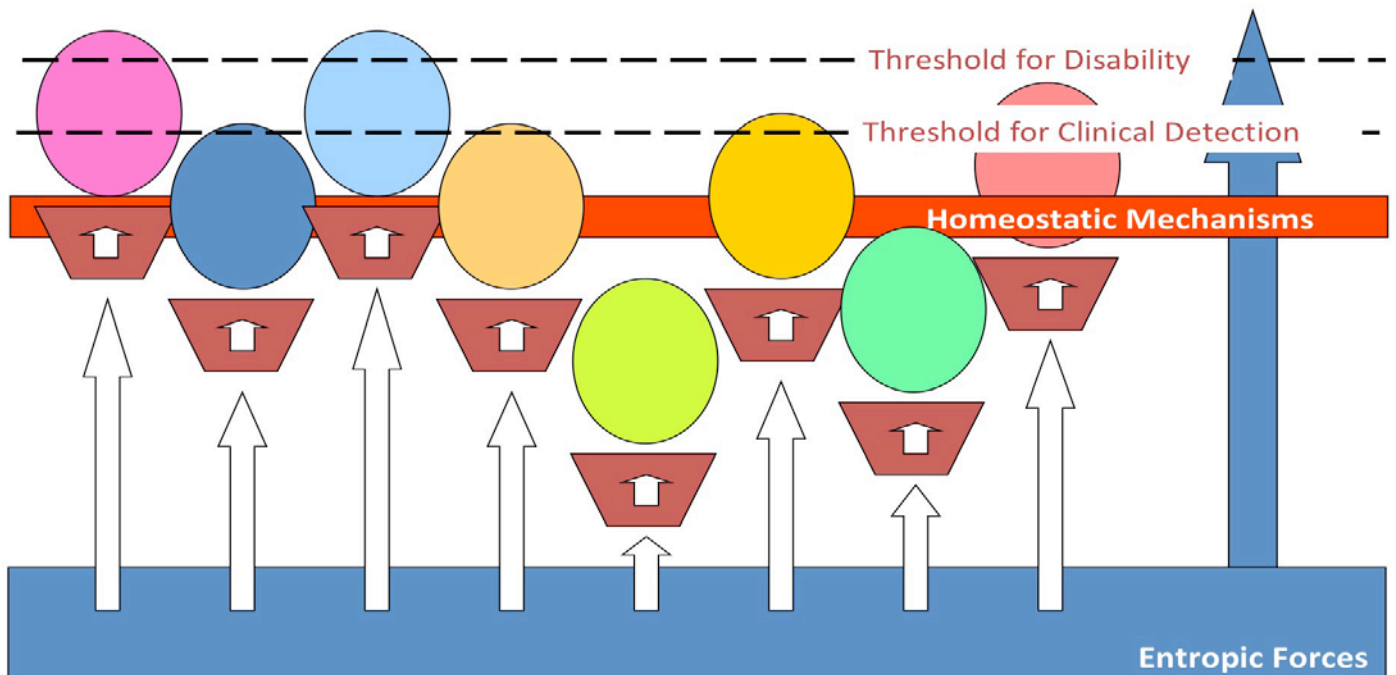
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# Disease in Young-Middle Age



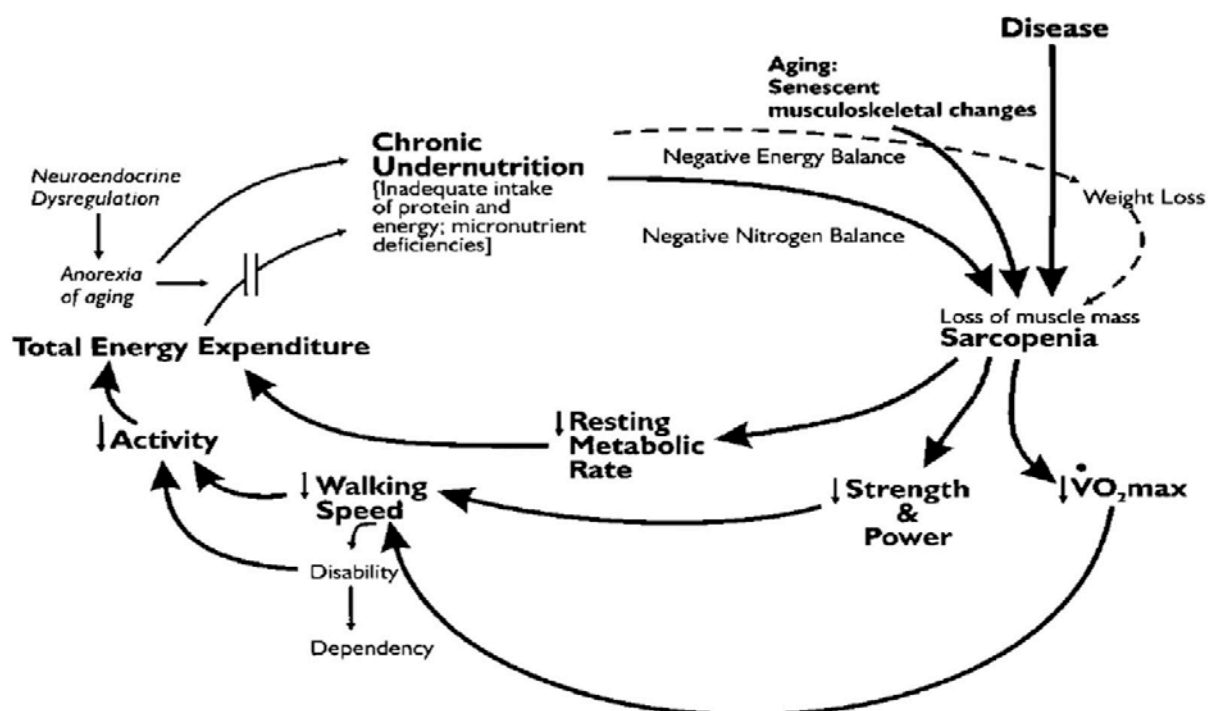
# Frailty



# Fragilità

- Cosa è?
- Come si misura?
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- Come approcciare la fragilità?

## Cycle of frailty



Fried L J Gerontol A Biol Sci Med Sci 2001

# Fried criteria – Fragilità fisica

## FRAILTY CRITERIUM

Shrinking  
Weakness  
Poor endurance and energy  
Slowness  
Low physical level of activity

## CHARACTERISTIC

Weight loss  
Low grip strength  
Poor endurance and energy  
Self-reported exhaustion  
Walking speed  
Kcal expended per wk  
Level of physical activity

Fried L J Gerontol A Biol Sci Med Sci 2001

# CSHA - Frailty Index

## Appendix 1: List of variables used by the Canadian Study of Health and Aging to construct the 70-item CSHA Frailty Index

- Changes in everyday activities
- Head and neck problems
- Poor muscle tone in neck
- Bradykinesia, facial
- Problems getting dressed
- Problems with bathing
- Problems carrying out personal grooming
- Urinary incontinence
- Mood problems
- Feeling sad, blue, depressed
- History of depressed mood
- Tiredness all the time
- Depression (clinical impression)
- Sleep changes
- Restlessness
- Memory changes
- Seizures, partial complex
- Seizures, generalized
- Syncope or blackouts
- Headache
- Cerebrovascular problems
- History of stroke
- History of diabetes mellitus
- Arterial hypertension

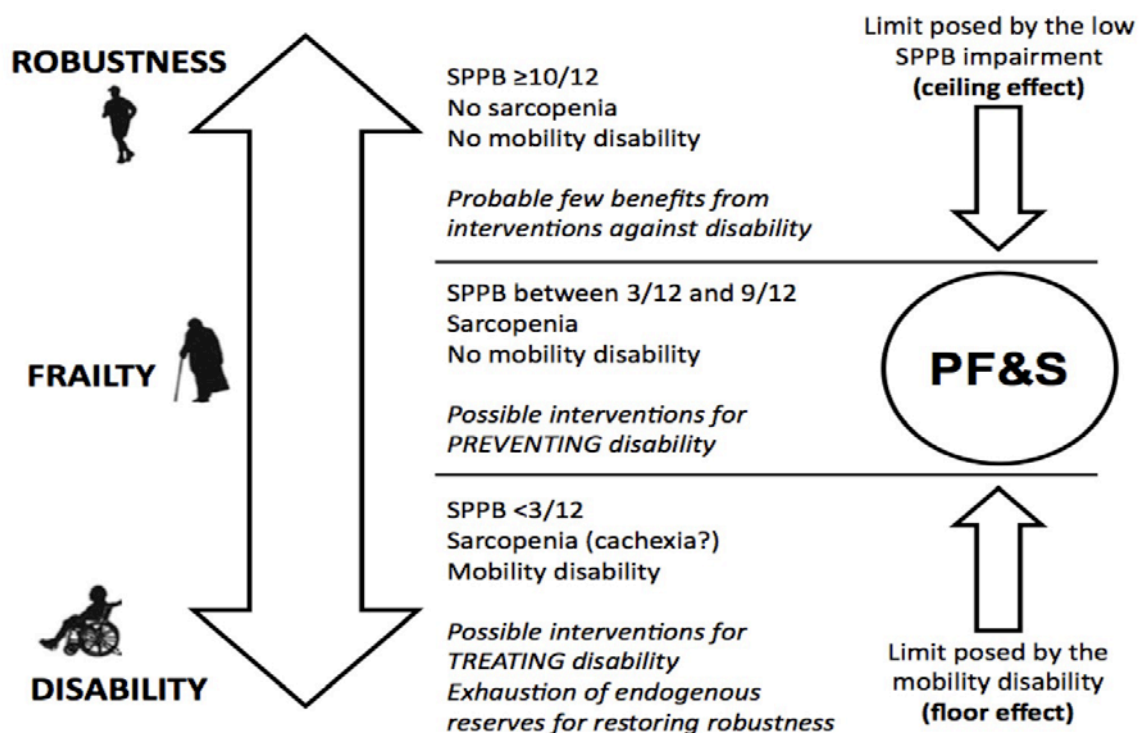
## Somma di deficit, sintomi e/o malattie

- Gastrointestinal problems
- Problems cooking
- Sucking problems
- Problems going out alone
- Impaired mobility
- Musculoskeletal problems
- Bradykinesia of the limbs
- Poor muscle tone in limbs
- Poor limb coordination
- Poor coordination, trunk
- Poor standing posture
- Irregular gait pattern
- Falls
- Onset of cognitive symptoms
- Clouding or delirium
- Paranoid features
- History relevant to cognitive impairment or loss
- Family history relevant to cognitive impairment or loss
- Impaired vibration
- Tremor at rest
- Postural tremor
- Intention tremor
- History of Parkinson's disease
- Family history of degenerative disease
- Arrhythmia
- Congestive heart failure
- Lung problems
- Respiratory problems
- History of thyroid disease
- Thyroid problems
- Skin problems
- Malignant disease
- Breast problems
- Abdominal problems
- Presence of snout reflex
- Presence of the palmomental reflex
- Other medical history

Rockwood et al CMAJ 2005

# Come misurare la fragilità

1. CHS/Frailty criteria
2. Frailty Index of accumulative deficits (FI-CD)
3. Frailty Index from CGA
4. Study of Osteoporotic Fractures Index (SOF)
5. Edmonton Frailty Scale
6. FRAIL Index
7. Clinical Frailty Scale
8. MPI
9. Tilburg Frailty Index
10. Prisma-7
11. Groningen Frailty Indicator
12. *Sharebrooke Postal Questionnaire*
13. *Gerontopole Frailty Screening tool*
14. Kihon Check list
15. *Inter-Frail*
16. FiND
17. Physical Frailty and Sarcopenia
18. FRAIL-NH
19. Frailty Trait Scale
20. SPPB
21. Velocità del cammino



**Endorsed by EMA**

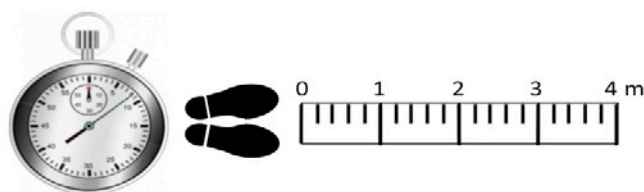
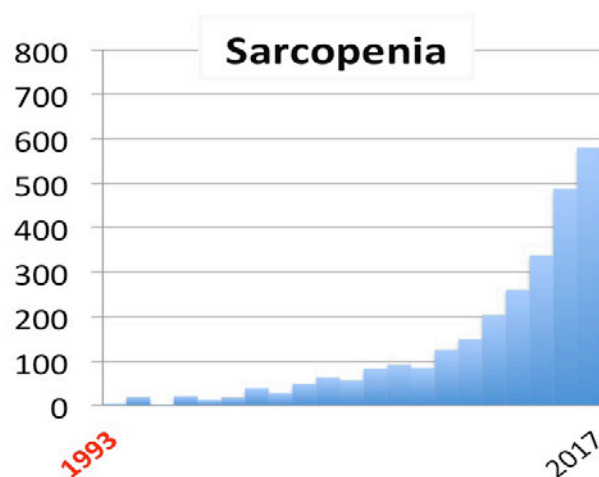
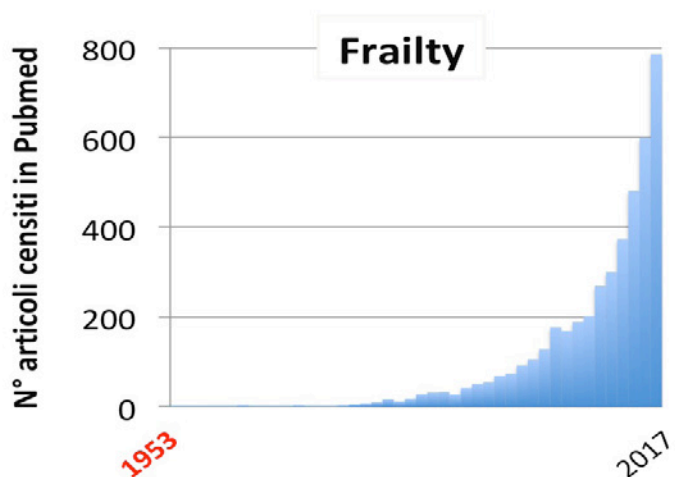
Cesari M, et al. *Aging Clin Exp Res* 2017;29:81-8



# Fragilità

- Cosa è?
- Come si misura?
- **Perchè è importante?**
- Trattamento delle malattie croniche e fragilità
- Fibrillazione atriale e fragilità
- Come approcciare la fragilità?

## Frailty & sarcopenia, due best seller



# Joint actions - 3rd EU Health Programme Managing Frailty: the ADVANTAGE initiative



**46 Institutions**      **22 countries**

## Aims:

1. to build a common understanding on frailty in the EU
2. to provide models of care that will allow to face the challenge using a **common framework**

State of the art



Develop and  
implementation of  
practices in the EU



Recommendation  
Roadmap

**Position Statement - Roadmap**

## Perché è importante?

1. E' una condizione molto frequente

- ✓ Dal 2% al 60% in anziani in comunità
- ✓ Una recente review stima una prevalenza dell'11% negli ultra65enni

## Perché è importante?

1. E' una condizione molto frequente
2. Ha un impatto importante sugli outcomes clinici e sulla qualità della vita
3. E' frequentemente associata alle malattie croniche

## Perché è importante?

1. E' una condizione molto frequente
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3. E' frequentemente associata alle malattie croniche

*BPCO -18%*

*Cardiopatía isch. – 17%*

*CV disease - 21%*

*Iipertensione arteriosa - 13%*

*Anemia - 24%*

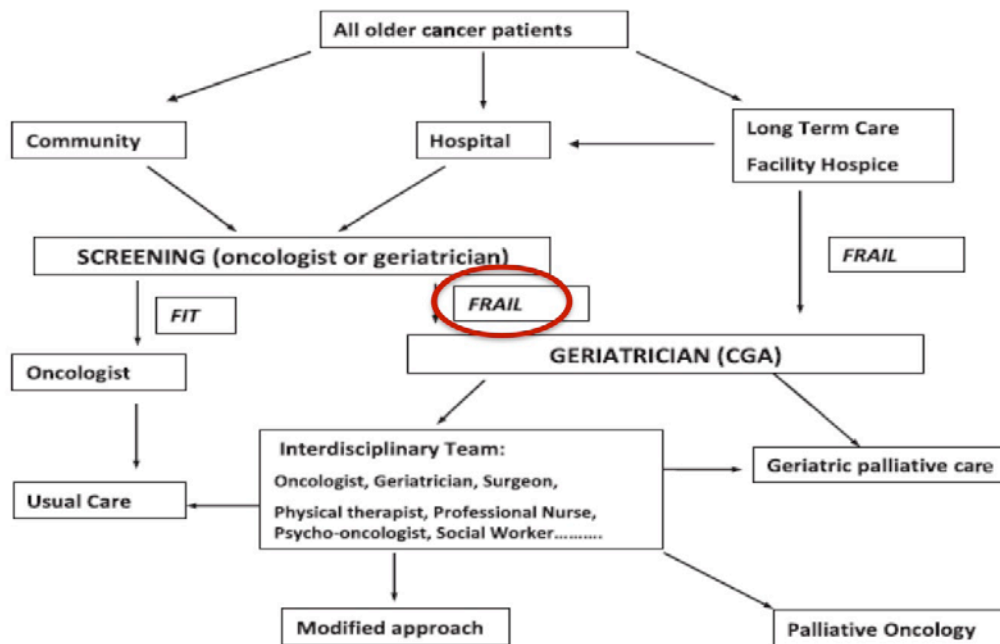
## Perché è importante?

1. E' una condizione molto frequente
2. Ha un impatto importante sugli outcomes clinici e sulla qualità della vita
3. E' frequentemente associata alle malattie croniche
4. Può modificare i percorsi e gli obiettivi di cura della malattie croniche

## Fragilità

- Cosa è?
- Come si misura?
- Perché è importante?
- **Trattamento delle malattie croniche e fragilità**
- Fibrillazione atriale e fragilità
- Come approcciare la fragilità?

# Assessment and treatment of elderly patients with cancer



Balducci L Surg Oncol. 2010

# Treatment of chronic diseases in frailty

Problem	Consequences	Potential solutions
Exclusion of frail persons from studies	Uncertainties about the efficacy and safety of treatment in frail persons	<ul style="list-style-type: none"> <li>• Inclusion of frail patients in RCTs</li> <li>• Evidence from observational studies</li> </ul>
Reduced life expectancy in frail persons	Reduced/absent beneficial effects	<ul style="list-style-type: none"> <li>• Assess life expectancy</li> <li>• Evaluate risk-benefit ratio of treatments</li> </ul>
Increased susceptibility to iatrogenic events due to intensive treatment	Higher rate of adverse drug events	<ul style="list-style-type: none"> <li>• Periodic therapeutic review and reconciliation</li> <li>• Evaluate risk-benefit ratio of treatments</li> <li>• Focus treatment on specific goals</li> </ul>
Functional deficits associated with frailty	Poor medication adherence; Medication errors	<ul style="list-style-type: none"> <li>• Assess the capacity of patients to self-manage their medication regimen</li> <li>• Focus treatment on health priorities</li> <li>• Adjust communication strategies</li> <li>• Use of tools to improve adherence</li> <li>• Reduce number medications and medication regimen complexity</li> </ul>

# Fragilità

- Cosa è?
- Come si misura?
- Perché è importante?
- Trattamento delle malattie croniche e fragilità
- **Fibrillazione atriale e fragilità**
- Come approcciare la fragilità?

## Prevalence of frailty and AF

1st author (Year)	Mean age $\pm$ SD	Prevalence of frailty in FA
Bo (2016)	81.6 (range $\geq$ 65)	<b>Frail=75.4%</b>
Induruwa (2017)	87 (range $>$ 75)	Frail=67.3%
Kim (2017)	79.4	Frail=33.2%
Mlynarska (2017)	72.7 $\pm$ 6.73	Frail=59.8%
Nguyen (2017)	85.5 $\pm$ 6.2	Frail=50.5%
Nguyen (2016)	84.7 $\pm$ 7.1	Frail=53.3%,
Perera (2009)	82.7 $\pm$ 6.3	Frail=64%

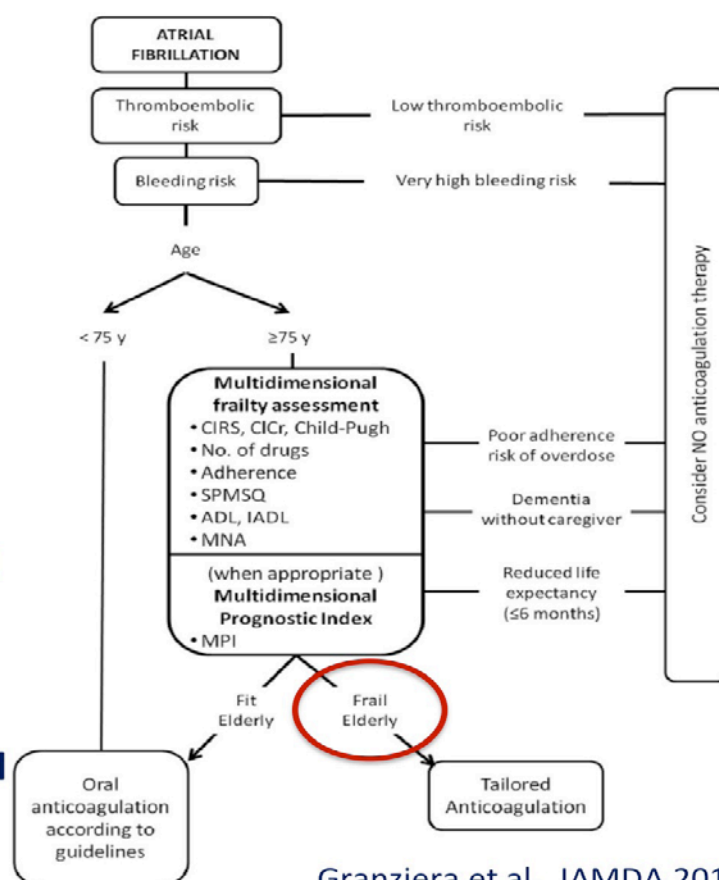
# Association between frailty and AF

Parameter	Odds ratio	95% CI		Coefficient	p value
		Lower	Upper		
Age	1.08	1.01	1.15	0.08	0.011
Sex	0.87	0.33	2.30	-0.13	0.875
AF	4.09	1.51	11.07	1.41	0.005
Hypertension	1.66	0.55	4.98	0.51	0.359
Diabetes	2.01	0.72	5.59	0.70	0.179
AMI	0.95	0.31	2.93	-0.47	0.935
Stroke	2.04	0.55	7.52	0.71	0.280
HF	2.94	0.75	11.52	1.08	0.120

Frailty dependent variable. AF: atrial fibrillation; AMI: acute myocardial infarction; HF: heart failure. p values <0.05 were considered significant.

Polidoro *et al* (2016) reported a fourfold odd of frailty in persons with AF compared to those without AF, after adjustment

The main clinical trials rarely include frail elderly... we identified some areas that should be taken into account both before starting and when discontinuing anticoagulation: **comorbidities, polypharmacotherapy, adherence, cognitive impairment, mobility and monitoring barriers, nutritional status and swallowing disorders, risk of falls, and reduced life expectancy.** We also suggest a **multidimensional algorithm...**



Granziera et al. JAMDA 2015

# Fragilità

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Time to face the challenge of multimorbidity. A European perspective from the joint action on chronic diseases and promoting healthy ageing across the life cycle (JA-CHRODIS)



Graziano Onder <sup>a,b,\*</sup>, Katie Palmer <sup>b</sup>, Rokas Navickas <sup>c,d</sup>, Elena Jurevičienė <sup>c</sup>, Federica Mammarella <sup>a,b</sup>, Mirela Strandzheva <sup>e</sup>, Piermannuccio Mannucci <sup>f</sup>, Sergio Pecorelli <sup>b</sup>, Alessandra Marengoni <sup>b,g</sup>, on behalf of the, Joint Action on Chronic Diseases and Promoting Healthy Ageing across the Life Cycle (JA-CHRODIS)

Patients with MM at high risk (target for intervention):

- Disease patterns
- Low socioeconomical status
  - Low income
  - Poor social support
- Poor physical function
- Mental health problems
  - Depression
  - Cognitive impairment

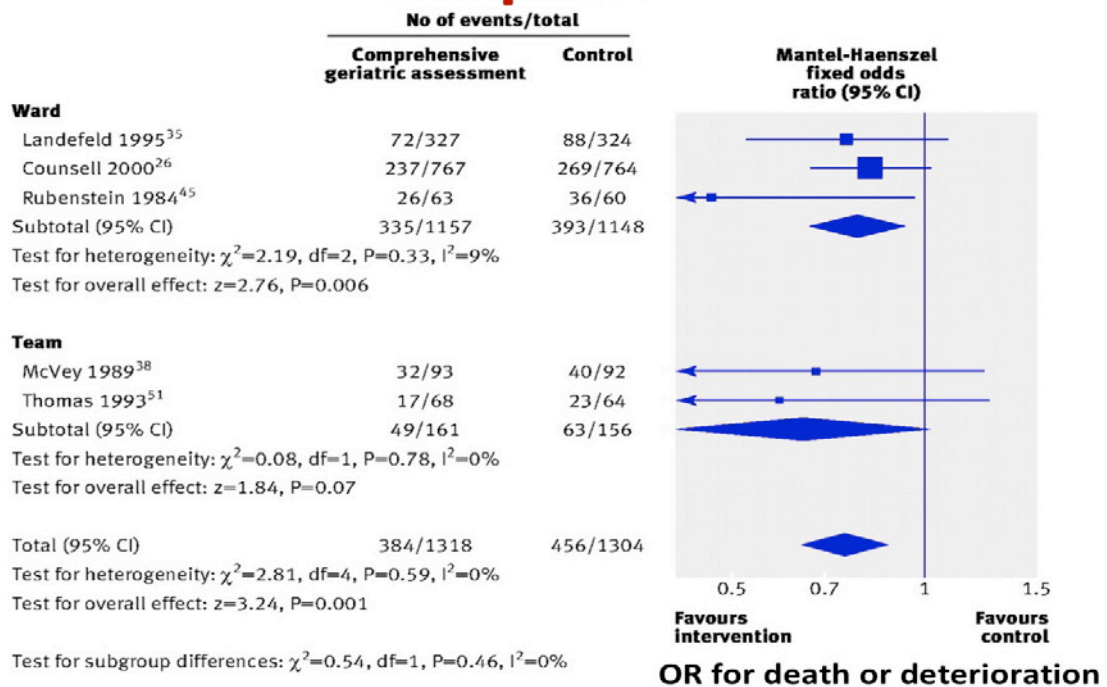
**Need of comprehensive assessment and intervention**

Monographic issue  
Eur J Intern Med 2015





# CGA for older adults admitted to hospital



Full text - FREE  
BMJ

Ellis G BMJ 2011 Oct 27;343:d6553

## Frailty assessment – Conclusions WP4 JA ADVANTAGE

...the gold standard for diagnosing the functional status of the person (that includes frailty status) is the comprehensive geriatric assessment (CGA). It is therefore important, when screening is positive, to perform a CGA and to diagnose frailty by the use of validated scales, derived from the CGA...

**advantAGE**  
MANAGING FRAILTY

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# Conclusioni

- La fragilità è una condizione comune e associata a peggiori outcomes clinici
- E' frequente nei pazienti con fibrillazione atriale
- La presenza di fragilità può modificare i percorsi di trattamento di alcune patologie croniche
- La CGA rappresenta un approccio validato per il trattamento della fragilità