CARDIO-GERIATRIA NEI SETTING RESIDENZIALI

9 MAGGIO 2025

ore 15.00 | Sala BENACO ASC Cremona Solidale

Sindromi geriatriche e patologie cardiache: correlazione ed evoluzione

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Azienda Speciale Cremona Solidale

UNIVERSITÀ DEGLI STUDI DI BRESCIA

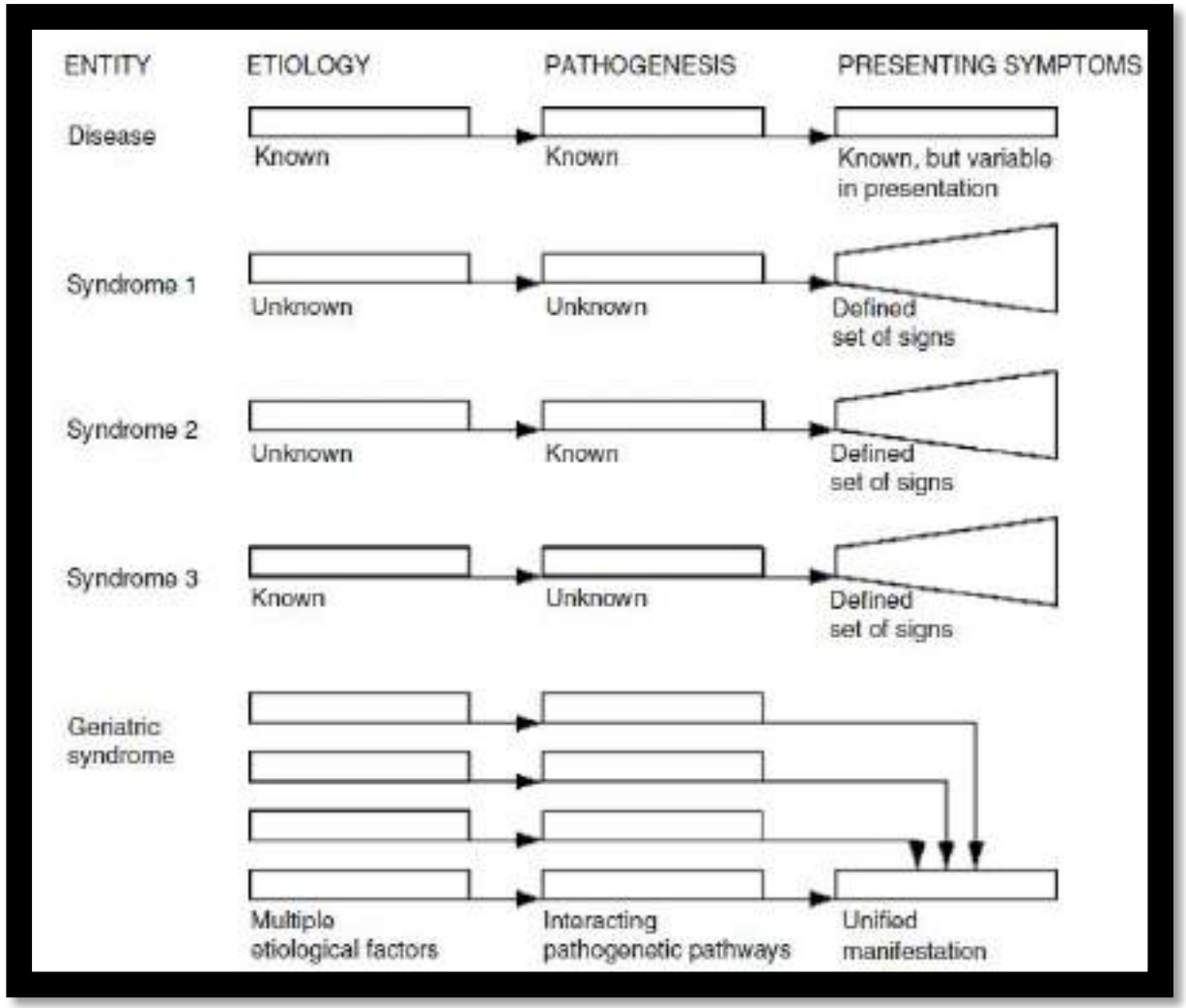
CREMONA SOLIDALE
AZIENDA SPECIALE COMUNALE PER I SERVIZI ALLA PERSONA

Outline

1. Sindromi geriatriche
2. Cosa ci dicono le LG cardiologiche?
3. Fragilità e patologie CV
4. Modelli possibili

Geriatric Syndromes: Clinical, Research, and Policy Implications of a Core Geriatric Concept

Sharon K. Inouye, MD, MPH,† Stephanie Studenski, MD,‡§ Mary E. Tinetti, MD,‖ and George A. Kuchel, MD¶*



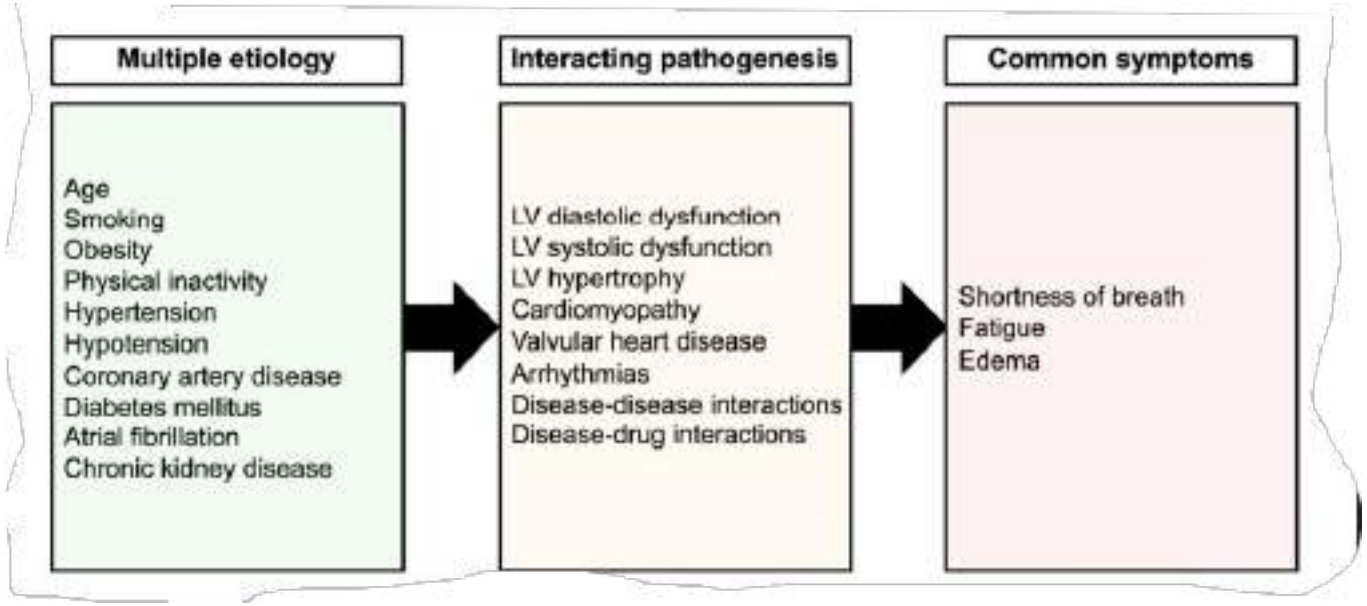
JAGS 55:780–791, 2007

Atrial Fibrillation as a Geriatric Syndrome: Why Are Frailty and Disability Often Confused? A Geriatric Perspective from the New Guidelines

by **Crescenzo Testa** [1,2], **Marco Salvi** [1,2,*], **Irene Zucchini** [1,2], **Chiara Cattabiani** [1], **Francesco Giallauria** [3], **Laura Petraglia** [3], **Dario Leosco** [3], **Fulvio Lauretani** [1,2,*] and **Marcello Maggio** [1,2]

Int. J. Environ. Res. Public Health **2025**, *22*(2), 179;

HEART FAILURE: A GERIATRIC SYNDROME



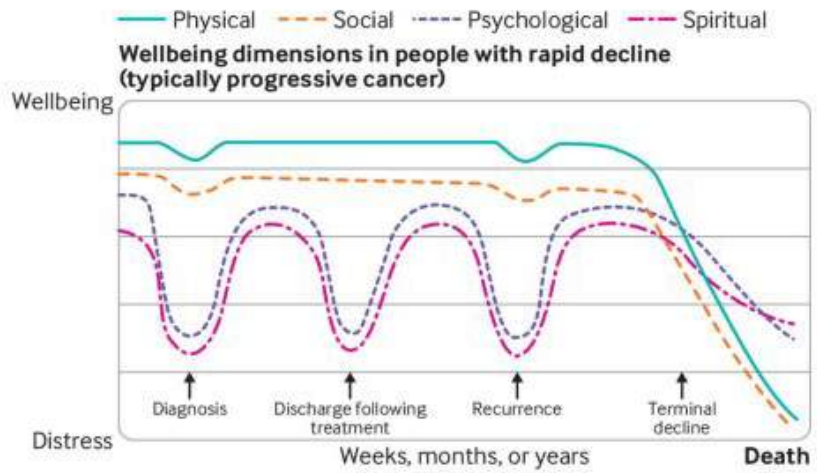
Heart Fail Clin. 2017 July ; 13(3): 427–444. doi:10.1016/j.hfc.2017.02.002.

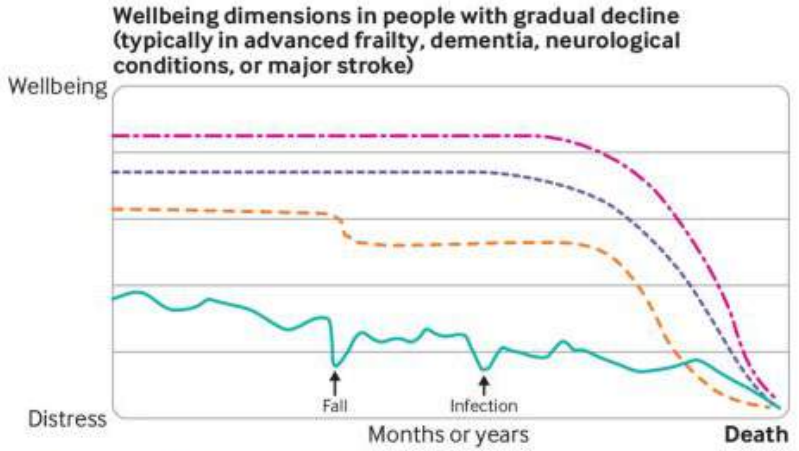
BMJ 2024

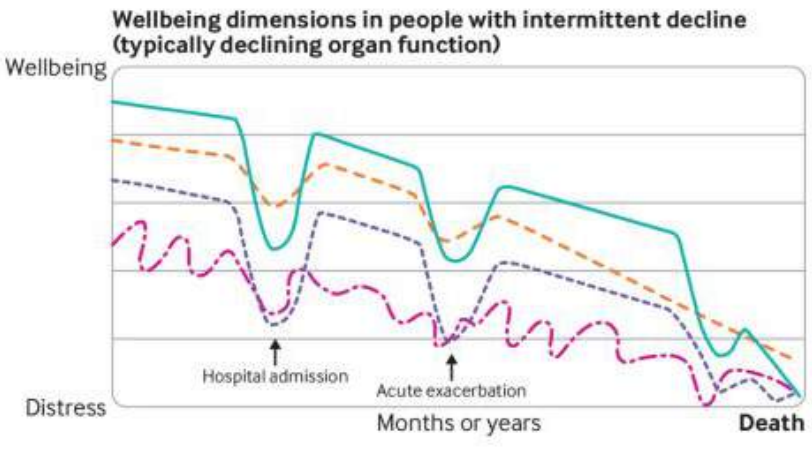
PRACTICE POINTER

Using illness trajectories to inform person centred, advance care planning

Scott A Murray,[1] Kirsty Boyd,[1] Sebastien Moine,[1,2] Marilyn Kendall,[1] Stella Macpherson,[1,3] Geoffrey Mitchell,[4] Jordi Amblàs-Novellas[5]







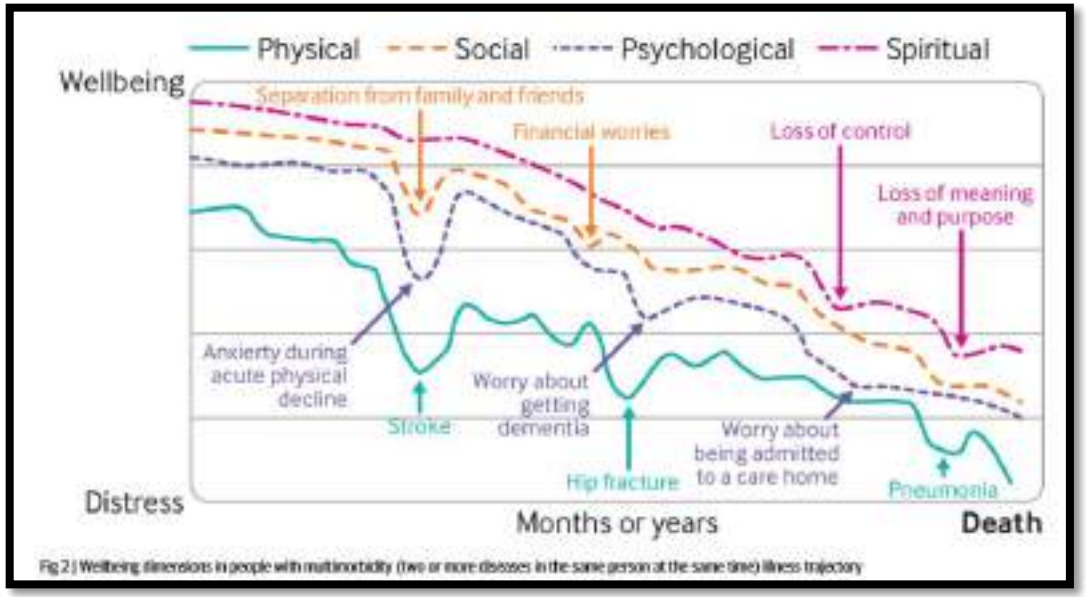


Fig 2 | Wellbeing dimensions in people with multimorbidity (two or more diseases in the same person at the same time) illness trajectory

Original Study

Multimorbidity Patterns and 5-Year Mortality in Institutionalized Older Adults

Table 1
Characteristics of the Study Population at Baseline in the Whole Sample and by Gender

	All, N = 4131	Men, n = 1229	Women, n = 2902
Age, y, mean (SD)	84.25 (8.44)	80.57 (8.60)	85.81 (7.86)
Men	1229 (29.75)	—	—
Women	2902 (70.25)	—	—
sADLH*			
Low disability (<4)	2105 (50.96)	707 (57.53)	1398 (48.17)
High disability (≥4)	2026 (49.04)	522 (42.47)	1504 (51.83)
Dementia	2549 (61.70)	675 (54.92)	1874 (64.58)
Parkinson disease	346 (8.38)	123 (10.01)	223 (7.68)
Cerebrovascular disease	940 (22.75)	316 (25.71)	624 (21.50)
Ischemic heart disease	1563 (37.84)	473 (38.49)	1090 (37.56)
COPD	824 (19.95)	324 (26.36)	500 (17.23)
Heart failure	742 (17.96)	215 (17.49)	527 (18.16)
Neurotic stress-related disease	1239 (29.99)	286 (23.27)	953 (32.84)
Depression	1288 (31.18)	314 (25.55)	974 (33.56)
Schizophrenia	201 (4.87)	91 (7.40)	110 (3.79)
Cancer	363 (8.79)	143 (11.64)	220 (7.58)
Diabetes	916 (22.17)	317 (25.79)	599 (20.64)
Arrythmia	162 (3.92)	55 (4.48)	107 (3.69)
Atrial fibrillation	160 (3.87)	55 (4.48)	105 (3.62)
Visual impairment	1217 (29.46)	326 (26.53)	891 (30.70)
Hearing impairment	1108 (26.82)	307 (24.98)	801 (27.60)
Hip fracture	228 (5.52)	50 (4.07)	178 (6.13)
Hypertension	692 (16.75)	165 (13.43)	527 (18.16)
Osteoarthritis	114 (2.76)	18 (1.46)	96 (3.31)
Other MSK diseases	231 (5.59)	69 (5.61)	162 (5.58)
Other neurologic diseases	100 (2.42)	29 (2.36)	71 (2.45)
Thyroid disease	98 (2.37)	9 (0.73)	89 (3.07)
Skin ulcer	1072 (25.95)	315 (25.63)	757 (26.09)
Mean number of diseases	3.91 (1.93)	3.80 (1.94)	3.96 (1.92)

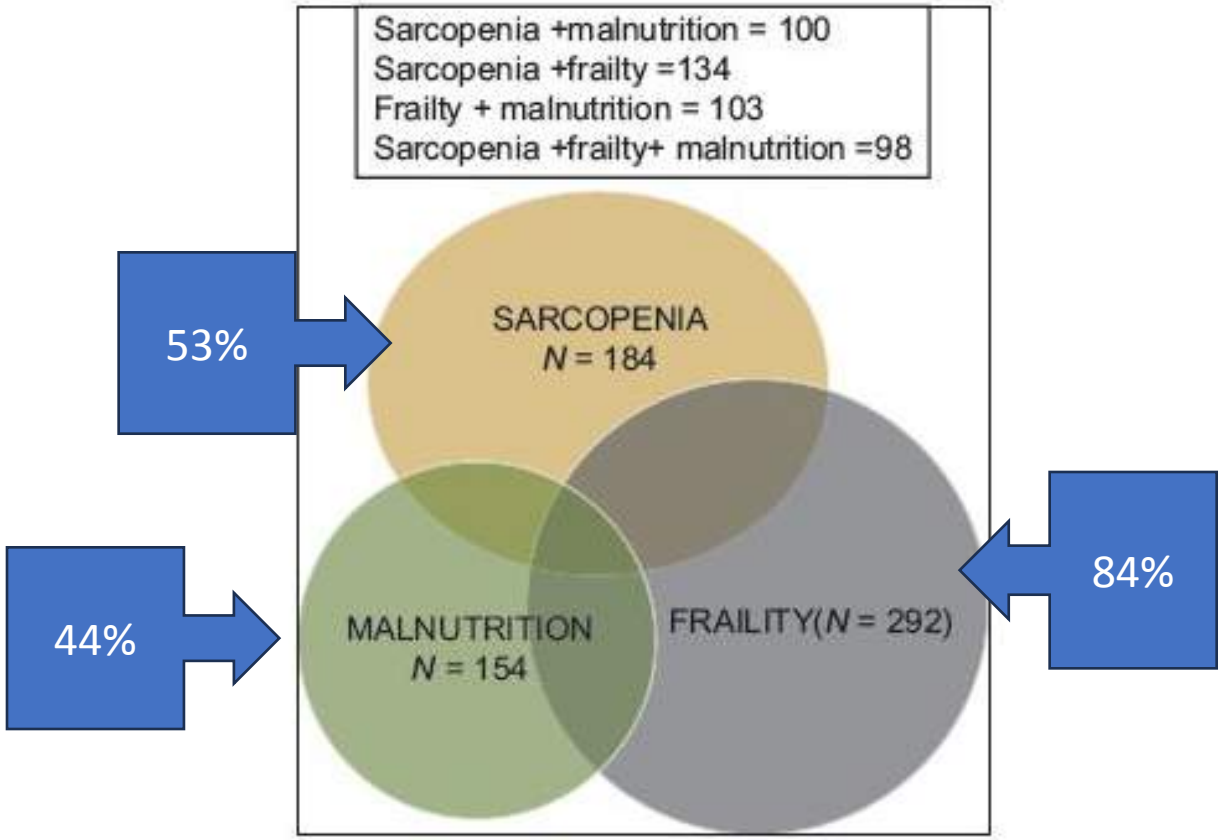
POLYPHARMACY APPROPRIATENESS IN ITALIAN LONG-TERM CARE FACILITIES: THE NATIONWIDE PRESCRIPTION DAY POINT SURVEY

	Pooled estimate (95%CI)	ICC	Missing
Age	84.7 (84.0-85.3)	0.08	0
Sex (Female)	73.7% (71.3%-75.9%)	0.04	7
Time In LTCF (at least 1 year)	71.0% (66.8%-74.9%)	0.16	0
Reduced Food Intake	15.4% (12.6%-18.7%)	0.17	720
Hypoacusia or Deafness	12.9% (10.4%-15.7%)	0.19	0
Hypovisus or Blindness	7.5% (7.5%-7.5%)	0.37	0
Number Of ADLs Lost	4.4 (4.3-4.6)	0.10	626
Lost ≥1 ADL	96.2% (94.6%-97.3%)	0.24	626
Frailty-NH Criteria	6.7 (6.4-6.9)	0.10	820
Frailty (≥8 Frail-NH Criteria)	49.7% (44.6%-54.9%)	0.16	820
No. Of Unique Drugs	7.7 (7.3-8.2)	0.24	0
≥5 Drugs	84.8% (81.3%-87.7%)	0.21	0
≥10 Drugs	24% (19.8%-28.7%)	0.23	0
Delirium (Any) on index day	0.4% (0.2%-1.1%)	0.57	0
Fever on index day	0.7% (0.3%-1.5%)	0.44	0
Urinary Tract Infection on index day	0.6% (0.2%-1.4%)	0.48	0
Dementia	48.2% (39.6%-57%)	0.41	0
Cerebrovascular disease	27.2% (22.5%-32.3%)	0.24	0
Depression	19.1% (16.4%-22.2%)	0.13	0
Diabetes	19.7% (17.7%-21.9%)	0.05	0
Heart Failure	6.3% (6.3%-6.3%)	0.28	0
Chronic Kidney Disease	11.4% (9.3%-13.9%)	0.16	0
Hypertension	55.5% (51.3%-59.7%)	0.12	0
Chronic Liver Disease	2.6% (1.8%-3.8%)	0.23	0

3400 patients, in 82 LTCFs

Malara A et al, under submission 2025

Converging Pathways: Exploring the Interplay of Malnutrition, Sarcopenia, and Frailty in Nursing Home Residents: A Cross-sectional Study



Yogesh M , 2023

The Journal of nutrition, health and aging
Volume 23, Issue 3, March 2019, Pages 293-298

Article

Assessing Frailty in Chinese Nursing Home Older Adults: A Comparison between the Frail-NH Scale and Frailty Index

F. Ge [1], Minhui Liu [1,2] ✉, Siyuan Tong [1], Y. Lu [1], S.L. Szanton [2,3]

Frailty Index

Hypertension (1=yes, 0=no)	**Obesity (BMI) (≥ 28=1, 24.0～27.9=0.5, 18.5～23.9=0)**
Chronic renal failure (1=yes, 0=no)	Constipation (1=yes, 0=no)
Chronic obstructive pulmonary disease (1=yes, 0=no)	Pressure ulcers (1=yes, 0=no)
Heart failure (1=yes, 0=no)	Anemia (1=yes, 0=no)
Cancer (1=yes, 0=no)	Visual impairment (1=yes, 0=no)
Stroke (1=yes, 0=no)	Hearing impairment (1=yes, 0=no)
Parkinson (1=yes, 0=no)	Slow walking speed (1=yes, 0=no)
Atrial fibrillation (1=yes, 0=no)	Falls (1=yes, 0=no)
Gastrointestinal problems (1=yes, 0=no)	Unintentional weight loss (1=yes, 0=no)
Thyroid disorders (1=yes, 0=no)	Difficulties taking a bath or shower (1=yes, 0=no)
Diabetes mellitus (1=yes, 0=no)	Dressing difficulties (1=yes, 0=no)
Psychiatric disease (1=yes, 0=no)	Difficulties with personal hygiene (1=yes, 0=no)
Gastrointestinal or liver disease (1=yes, 0=no)	Difficulties with transfer (1=yes, 0=no)
Musculoskeletal diseases (1=yes, 0=no)	Eating problems (1=yes, 0=no)
Depression (PHQ-9 ≥ 5) (1=yes, 0=no)	Difficulties with urinary incontinence (1=yes, 0=no)
Dementia (MMSE) (≤ 14=1, 15～23=0.5, ≥ 24=0)	Difficulties with fecal incontinence (1=yes, 0=no)
Malnutrition (MNA-SF) (<11=1, ≥ 11=0)	Polypharmacy (≥ 5) (1=yes, 0=no)

Deficit
Cognitive impairment or dementia
Severe disability
Cerebrovascular disease
Solid neoplasm
COPD, emphysema and chronic bronchitis
Ischemic heart disease
Heart failure
Chronic kidney disease
Atrial fibrillation
Parkinson's disease and parkinsonism
Previous hip fracture
Anemia
Partial/total financial support for medical expenses
Oxygen prescription in the last 6 months
Any hospital overnight staying in the last 6 months
Chronic ulcers of the skin
Bradycardias and rhythm conduction disorders
Other neurological diseases*
Constipation
Prescription of LMWH in the last 6 months
Peripheral vascular diseases
Nutritional problems
Diabetes
Schizophrenia and other delusional diseases
Edema

etection among primary
r patients
he Primary Care Frailty
-FI)

,2,8✉, Alberto Zucchelli[1,3,8], Graziano Onder[4,5], Laura Fratiglioni[1,2],
aga[1,2], Alessandra Marengoni[1,3], Ettore Marconi[6], Iacopo Cricelli[6],
[7], Roberto Bernabei[4,5], Claudio Cricelli[7] & Francesco Lapi[7]✉

			SNAC-K		
0 persons/year	Unadjusted HR (95% CI)	Age, sex, and geographic area adjusted HR (95% CI)	Incidence rate Deaths per 1000 persons/ year	Unadjusted HR (95% CI)	Age and sex adjusted HR (95% CI)
	Ref	*Ref*	18.8	*Ref*	*Ref*
	2.7 (2.6–2.8)	1.65 (1.61–1.70)	75.9	4.0 (3.49–4.59)	1.99 (1.73–2.30)
	6.7 (6.5–6.9)	2.97 (2.88–3.06)	176.0	9.25 (7.91–10.8)	3.28 (2.77–3.87)
	14.0 (13.5–14.5)	5.05 (4.88–5.23)	254.0	13.5 (11.0–16.7)	4.41 (3.54–5.49)

Table 5. Hazard ratios (HR) and 95% confidence intervals (95%CI) for mortality by frailty categories in HSD and SNAC-K, over all the available follow-up. *HSD* Health Search Database, *SNAC-K* Swedish National Study on Aging and Care in Kungsholmen.

< 0.07 (robusto)
0.07 to < 0.14 (fragilità lieve)
0.14 to < 0.21 (fragilità moderata)
≥ 0.21 (fragilità grave)

https://frailty-index-geriatria.netlify.app/

Clinical Frailty Scale*

1 **Very Fit** – People who are robust, active, energetic and motivated. These people commonly exercise regularly. They are among the fittest for their age.

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.

3 **Managing Well** – People whose **medical problems are well controlled,** but are **not regularly active** beyond routine walking.

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.

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.

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.

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).

8 **Very Severely Frail** – Completely dependent, approaching the end of life. Typically, they could not recover even from a minor illness.

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**.

* 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.

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Clinical Frailty Scale

Acute Frailty Network

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The FRAIL-NH scale

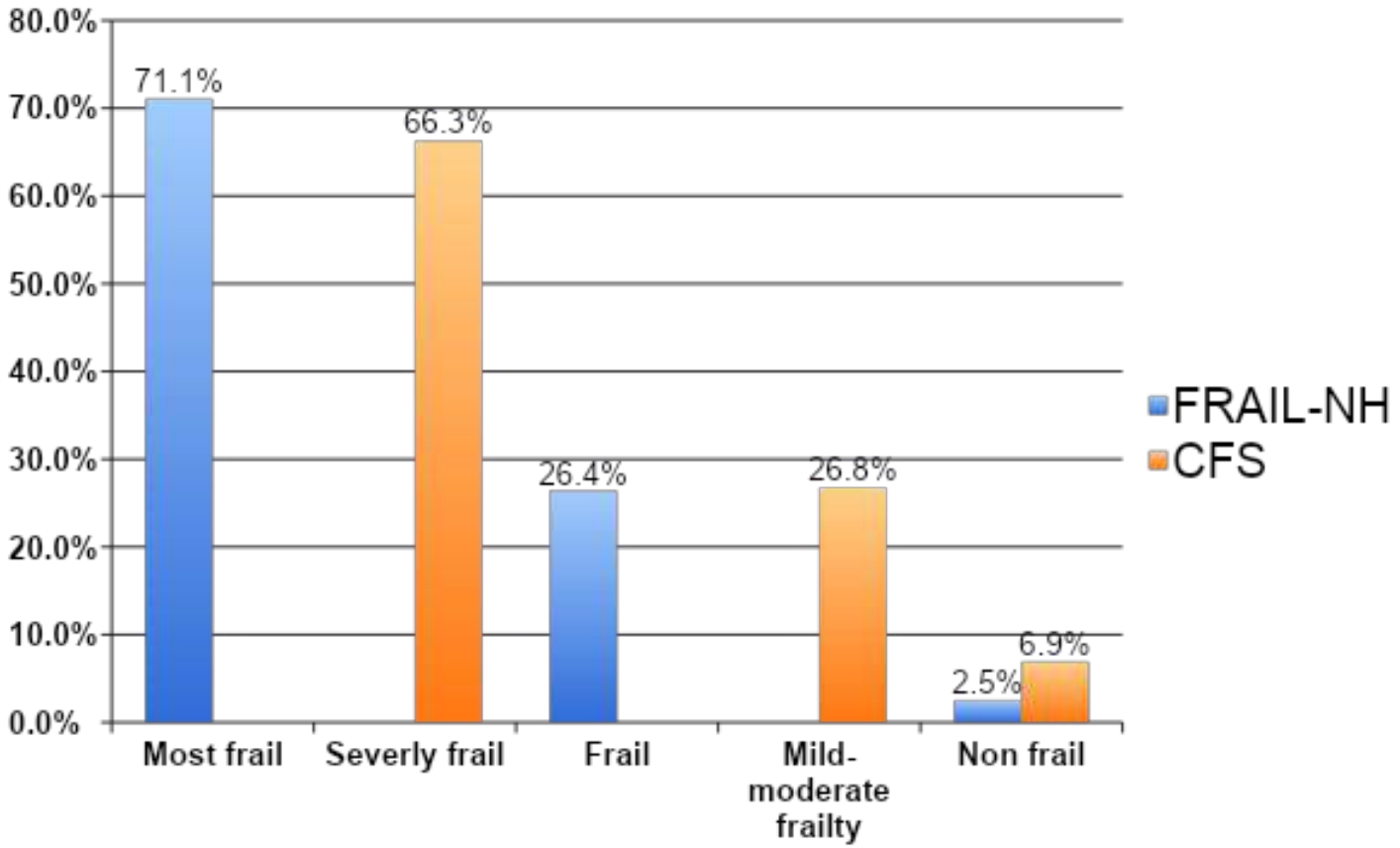
Item		Level	
	0	1	2
Energy	Good/excellent	Fair	Poor
Transferring	Moves in and out of bed or chair unassisted. Mechanical transfer aids are acceptable	Needs help moving from bed to chair or requires complete transfer	Needs help in moving from bed to chair or requires complete transfer and Katz score <3
Mobility	Goes out	Able to get out of bed or chair but does not go out	Bed or chair bound
Continence	Exercises complete self-control over urination and defecation	Partial or total bowel or bladder incontinence	Partial or total bowel or bladder incontinence and Katz score < 3
Weight loss (last 3 months)	No weight loss	1-3 kg or does not know	> 3kg
Feeding	Gets food from plate into mouth without help. Preparation of food may be done by another person	Needs partial or total help with feeding or requires parental feeding	Needs partial or total help with feeding or requires parental feeding and Katz score <3
Dressing	Gets clothes from closets and drawers and puts on clothes and outer garments complete with fasteners. May have help with tying shoes	Needs help with dressing self or needs to be completely dressed	Needs help with dressing self or needs to be completely dressed and Katz score <3

- **Nonfrail (0-1 points)**
- **Frail (2-5 points)**
- **Most frail (6 points)**

Kaehr E J Am Med Dir Assoc. 2015

Frailty in Nursing Homes—A Prospective Study Comparing the FRAIL-NH and the Clinical Frailty Scale

Franz J. Grosshauser MD [a,*], Daniel Schoene PhD [b,c], Eva Kiesswetter PhD [d], Cornel C. Sieber MD [a,e], Dorothee Volkert PhD [a]



JAMDA 23 (2022) 1717.e1–1717.e8

Table 1
Residents' Characteristics in the Total Sample and Stratified by Frailty Status According to the FRAIL-NH Scale and the Clinical Frailty Scale (CFS)

	Total (n = 246)	FRAIL-NH				CFS			
		Nonfrail (0 or 1 Point) (n = 6)	Frail (2-5 Points) (n = 65)	Most Frail (≥6 Points) (n = 175)	*P* Value	Not Frail (1-4 Points) (n = 17)	Mild to Moderately Frail (5 or 6 Points) (n = 66)	Severely Frail (≥7 Points) (n = 163)	*P* Value
Female sex, n (%)	165 (67.1)	4 (66.7)	44 (67.7)	117 (66.9)	>.99	11 (64.7)	46 (69.7)	108 (66.3)	.862
Age, years, mean (SD)	83.6 (8.3)	75.3 (6.0)	82.9 (7.2)	84.2 (8.6)	.025	81.7 (5.4)	82.9 (7.6)	84.2 (8.8)	.331
Barthel Index, points*, median (IQR)	10 (0-35)	92.5 (84-96)	55 (37.5-70)	5 (0-10)	<.001	75 (60-90)	50 (30-65)	5 (0-10)	<.001
Number of drugs, median (IQR)	6.9 (3.1)	3.67 (3.4)	6.74 (2.9)	7.11 (3.1)	.023	7.4 (3.7)	7.3 (3.2)	6.7 (3.0)	.402
Dementia, n (%)									
Severe	113 (45.9)	0 (0.0)	6 (9.2)	107 (61.2)	<.001	0 (0.0)	0 (0.0)	113 (69.3)	<.00
Mild	100 (40.7)	3 (50.0)	46 (70.8)	51 (29.1)		0 (0.0)	62 (93.9)	38 (23.3)	
No	33 (13.3)	3 (50.0)	13 (20.0)	17 (9.7)		17 (100.0)	4 (6.1)	12 (7.4)	
Depression, n (%)									
Severe	60 (24.4)	0 (0.0)	2 (3.1)	58 (33.1)	<.001	0 (0.0)	1 (1.5)	59 (36.2)	<.001
Mild	91 (37.0)	3 (50.0)	33 (50.8)	55 (31.4)		11 (64.7)	38 (57.6)	42 (25.8)	
No	95 (38.6)	3 (50.0)	30 (46.1)	62 (35.5)		6 (35.3)	27 (4.9)	62 (38.0)	
Urinary incontinence, n (%)									
Yes	171 (69.5)	0 (0.0)	10 (15.4)	161 (92.0)	<.001	2 (11.8)	15 (22.7)	154 (94.5)	<.001
Temporarily	52 (21.1)	0 (0.0)	39 (60.0)	13 (7.4)		8 (47.1)	35 (53.0)	9 (5.5)	
No	23 (9.4)	6 (100.0)	16 (24.6)	1 (0.6)		7 (41.2)	16 (24.2)	0 (0.0)	
Mobility, n (%)									
Bed-/chairbound	113 (45.9)	0 (0.0)	0 (0.0)	113 (64.6)	<.001	0 (0.0)	0 (0.0)	113 (69.3)	<.001
Moving around	121 (49.2)	3 (50.0)	56 (86.2)	62 (34.5)		11 (64.7)	60 (90.9)	50 (30.7)	
Going out of ward	12 (4.9)	3 (50.0)	9 (13.8)	0 (0.0)		6 (35.3)	6 (9.1)	0 (0.0)	
BMI, mean (SD)	25.0 (5.2)	26.5 (4.1)	26.2 (4.7)	24.7 (5.4)	.11	26.4 (4.7)	26.2 (5.2)	24.5 (5.2)	.049
MNA-SF status, n (%)									
Malnourished (score 0-7)	62 (25.2)	0 (0.0)	4 (6.2)	58 (33.1)	<.001	0 (0.0)	6 (9.1)	56 (34.4)	<.001
At risk (score 8-11)	150 (61.0)	2 (33.3)	40 (61.5)	108 (61.7)		8 (47.1)	42 (63.6)	100 (61.3)	
Normal (score 12-14)	34 (13.8)	4 (66.7)	21 (32.3)	9 (5.2)		9 (52.9)	18 (27.3)	7 (4.3)	

BMI, body mass index; IQR, interquartile range; MNA-SF, Mini Nutritional Assessment–Short Form.
The following statistical tests were performed: χ^2 test for categorical variables; analysis of variance for normally distributed continuous variables; Kruskal-Wallis test for nonnormally distributed continuous variables.
*Basic activities of daily living, scored as 0 (completely dependent) to 100 (completely independent).

Table 3
Adverse Health Events During 12-Month Follow-Up in the Total Sample and Stratified by the Frailty Status According to the FRAIL-NH Scale and the Clinical Frailty Scale (CFS)

	Total (n = 246)	Frail-NH			CFS		
		Nonfrail (0 or 1 Point) (n = 6)	Frail (2-5 Points) (n = 65)	Most Frail (≥6 Points) (n = 175)	Not Frail (1-4 Points) (n = 17)	Mild to Moderately Frail (5 or 6 Points) (n = 66)	Severely Frail (≥7 Points) (n = 163)
Mortality, n (%)	79 (32.1)	0 (0.0)	13 (20.0)	66 (37.7)	2 (11.8)	12 (18.2)	65 (39.9)
Hospital admissions, n	191	1	33	157	5	39	147
Days in hospital, n	850	4	142	704	17	177	656
No admission, n (%)	132 (53.7)	5 (83.3)	42 (64.6)	85 (48.6)	14 (82.4)	39 (59.1)	79 (48.5)
1 admission, n (%)	50 (20.3)	1 (16.7)	14 (21.5)	35 (20.0)	2 (11.8)	15 (22.7)	33 (20.2)
≥2 admissions, n (%)	64 (26.0)	0 (0.0)	9 (13.9)	55 (31.4)	1 (5.9)	12 (18.2)	51 (31.3)
Falls*, n	158	4	68	86	11	78	69
Mobile residents, n	133	6	65	62	17	66	50
Nonfaller, n (%)	51 (38.4)	3 (50.0)	24 (36.9)	24 (38.7)	10 (58.8)	19 (28.8)	22 (44.0)
Single faller, n (%)	30 (22.6)	2 (33.3)	21 (32.3)	7 (11.3)	4 (23.5)	22 (33.3)	4 (8.0)
Recurrent faller, n (%)	52 (39.1)	1 (16.7)	20 (30.8)	31 (50.0)	3 (17.6)	25 (37.9)	24 (48.0)

*Refers only to mobile residents.

Quali trattamenti in relazione al grado di fragilità?

	Fit	Prefrailty	Frailty	End-Stage Frailty
Frailty Score	Fried frailty phenotype, 0 points Deficit-accumulation frailty index of <0.10 Score on Clinical Frailty Scale, 1–3	Fried frailty phenotype, 1 or 2 points Deficit-accumulation frailty index of 0.10 to <0.20 Score on Clinical Frailty Scale, 4	Fried frailty phenotype, 3 or 4 points Deficit-accumulation frailty index of 0.20 to <0.55 Score on Clinical Frailty Scale, 5–7	Fried frailty phenotype, 5 points Deficit-accumulation frailty index of ≥0.55 Score on Clinical Frailty Scale, 8 or 9
Goal	Increase physiological reserve	Increase physiological reserve	Preserve physiological reserve and prevent avoidable stressors	Provide comfort
Lifestyle	Exercise and physical activity High-quality diet Social engagement	Exercise and physical activity High-quality diet (protein intake) Social engagement	Less intense exercise may be better tolerated High-quality diet (protein intake) Social engagement	Physical activity as tolerated Diet as tolerated Social engagement as tolerated
Disease Management	Apply disease-based guidelines	Apply disease-based guidelines	Consider trade-off between disease and treatment burden	Deescalate treatments
Preventive Care	Vaccination Cancer screening	Vaccination Cancer screening	Vaccination Individualize cancer screening (time to benefit vs. remaining life expectancy)	Vaccination Stop cancer screening
Interventions for Frailty		Treat reversible causes of frailty Exercise and physical activity Nutritional counseling and supplementation CGA and multidisciplinary intervention Comprehensive medication review	Treat reversible causes of frailty Rehabilitation (PT and OT) Nutritional counseling and supplementation CGA and multidisciplinary intervention Comprehensive medication review	Comprehensive medication review
Patient Engagement	Patient-centered goal	Patient-centered goal	Patient-centered goal	Patient-centered goal
Social Support	Social support (family and caregiver)	Social support (family and caregiver	Social support (family and caregiver)	Social support (family and caregiver)

N Engl J Med 2024;391:538-48.

Outline

1. Sindromi geriatriche
2. Cosa ci dicono le LG cardiologiche?
3. Fragilità e patologie CV
4. Modelli possibili

ESC European Society of Cardiology
European Heart Journal (2024) 45, 3314–3414
https://doi.org/10.1093/eurheartj/ehae176

2024 ESC Guidelines for the management of atrial fibrillation developed in collaboration with the European Association for Cardio-Thoracic Surgery (EACTS)

2023 ACC/AHA/ACCP/HRS Guideline for the Diagnosis and Management of Atrial Fibrillation: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines

Circulation. 2024;149:e1–e156. DOI: 10.1161/CIR.0000000000001193

Specificità nei residenti in RSA?

9.13. AF-CARE in older, multimorbid, or frail patients

ACC/AHA/ACCP/HRS ????

ESC European Society of Cardiology
European Heart Journal (2024) 45, 3314–3414
https://doi.org/10.1093/eurheartj/ehae176

2024 ESC Guidelines for the management of atrial fibrillation developed in collaboration with the European Association for Cardio-Thoracic Surgery (EACTS)

9.13. AF-CARE in older, multimorbid, or frail patients

- **Multimorbidity** is the coexistence of two or more medically diagnosed diseases in the same individual.
- **Frailty** is defined as a person more vulnerable and less able to respond to a stressor or acute event, increasing the risk of adverse outcomes.
- **The prevalence of frailty** in AF varies due to different methods of assessment from 4.4% to 75.4%, and AF prevalence in the frail population ranges from 48.2% to 75.4%
- **Atrial fibrillation in frail patients is associated with less use of OAC and lower rates of management with a rhythm control strategy**
- **Oral anticoagulation initiation in older, frail multimorbid AF patients has improved since the introduction of DOACs, but is still lower in AF patients at older age** (OR, 0.98 per year; 95% CI, 0.98–0.98), **with dementia** (OR, 0.57; 95% CI, 0.55–0.58), or frailty (OR, 0.74; 95% CI, 0.72–0.76).

ESC European Society of Cardiology
European Heart Journal (2021) 42, 3599–3726
doi:10.1093/eurheartj/ehab368

ESC GUIDELINES

2021 ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure

ESC European Society of Cardiology
European Heart Journal (2023) 44, 3627–3639
https://doi.org/10.1093/eurheartj/ehad195

ESC GUIDELINES

2023 Focused Update of the 2021 ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure

AHA/ACC/HFSA CLINICAL PRACTICE GUIDELINE

2022 AHA/ACC/HFSA Guideline for the Management of Heart Failure: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines

Specificità nei residenti in RSA?

13.4 Frailty, cachexia, sarcopenia

Frailty

16 Gaps in evidence

(9) **Non-CV comorbidities**

i. RCTs addressing cachexia and/or sarcopenia and/or frailty and showing the impact of treatment on QOL and/or outcome

2022 AHA/ACC/HFSA Guideline for the Management of Heart Failure: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines

Frailty

Table 33. Evidence Gaps and Future Research Directions

Efficacy and safety of nutritional and food supplementation in patients with HF and frailty and malnutrition.

Table 11. Potential Barriers to Effective HF Self-Care and Example Interventions

Potential Barrier	Example Screening Tools	Example Interventions
Frailty[24]	Fried frailty phenotype	Cardiac rehabilitation Registered dietitian nutritionist evaluation for malnutrition

7.4.1. ICDs and CRTs

Recommendations for ICDs and CRTs Referenced studies that support the recommendations are summarized in the Online Data Supplements		
COR	LOE	Recommendations
3: No Benefit	C-LD	16. For patients whose comorbidities or frailty limit survival with good functional capacity to <1 year, ICD and cardiac resynchronization therapy with defibrillation (CRT-D) are not indicated.[1-9,16-21]

13. GOALS OF CARE

13.1. Palliative and Supportive Care, Shared Decision-Making, and End-of-Life

Recommendations for Palliative and Supportive Care, Shared Decision-Making, and End-of-Life Referenced studies that support the recommendations are summarized in the Online Data Supplements		
COR	LOE	Recommendations
2a	B-R	3. For patients with HF–particularly stage D HF patients being evaluated for advanced therapies, patients requiring inotropic support or temporary mechanical support, patients experiencing uncontrolled symptoms, major medical decisions, or multimorbidity, frailty, and cognitive impairment–specialist palliative care consultation can be useful to improve QOL and relieve suffering.[4-9]

Outline

1. Sindromi geriatriche
2. Cosa ci dicono le LG cardiologiche?
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Frailty and atrial fibrillation: A systematic review

Emanuele R. Villani[a,*], Anita M. Tummolo[a], Katie Palmer[b], Ester Manes Gravina[a], Davide L. Vetrano[a,c], Roberto Bernabei[a], Graziano Onder[a], Nicola Acampora[a]

- **The prevalence of frailty in AF patients ranged from 4.4%–75.4%**
- **AF prevalence in the frail population ranged from 48.2%–75.4%.**

Studi in ospedali e residenti al domicilio
Studi in RSA?

European Journal of Internal Medicine 56 (2018) 33–38

Trends in Anticoagulant Use at Nursing Home Admission and Variation by Frailty and Chronic Kidney Disease Among Older Adults with Atrial Fibrillation

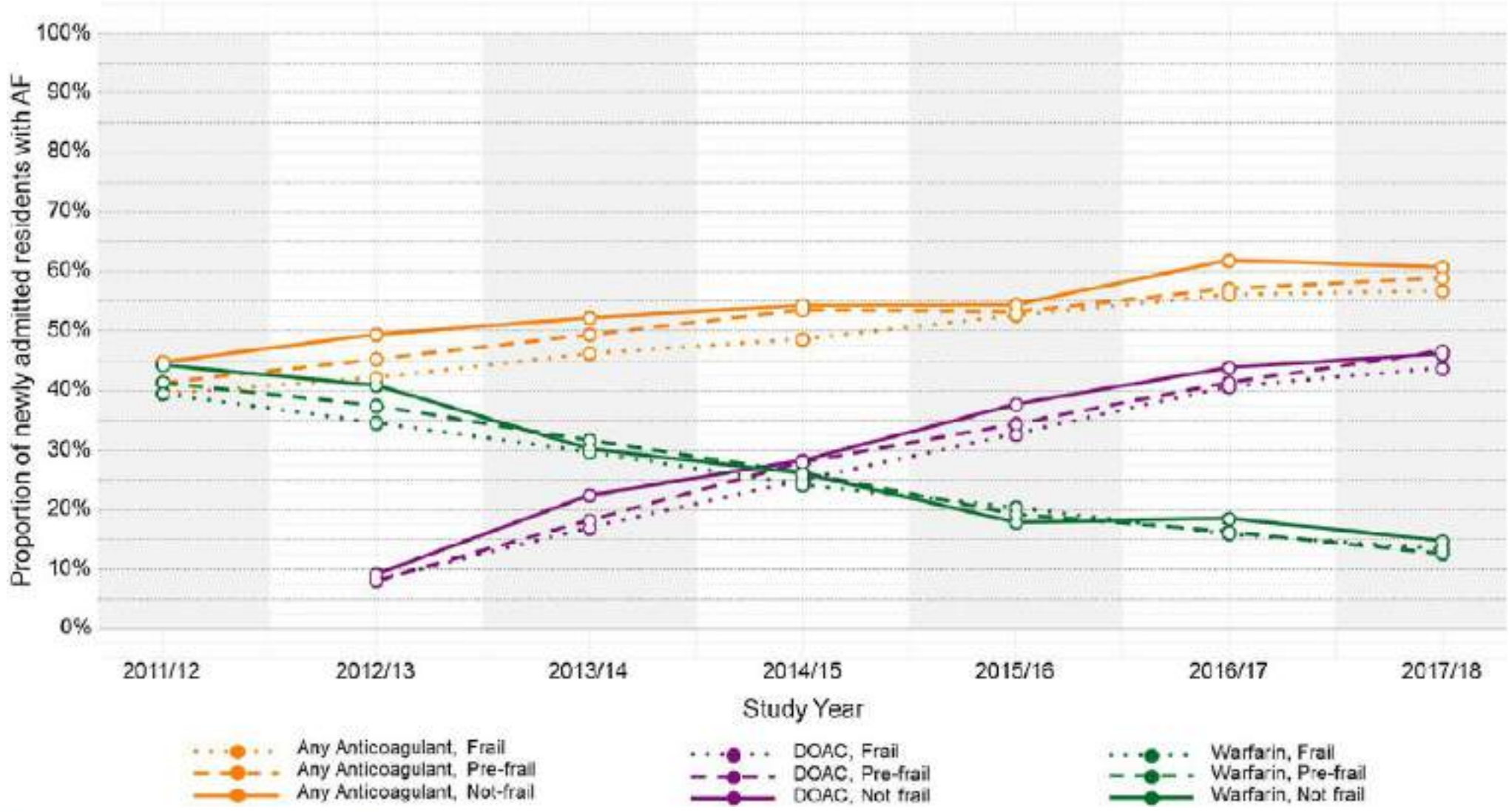
Michael A. Campitelli[1] · Susan E. Bronskill[1,2,3,4] · Anjie Huang[1] · Laura C. Maclagan[1] · Clare L. Atzema[1,2,3,5] · David B. Hogan[6] · Kate L. Lapane[7] · Daniel A. Harris[1,8] · Colleen J. Maxwell[1,6,9]

Table 1 Resident characteristics among those treated/not treated with anticoagulants at NH admission among Ontarians with atrial fibrillation (April 2011–March 2018; $N = 36,466$)

Characteristic	*N* (column %) receiving anticoagulants [*n* = 18,514; 50.8%]	*N* (column %) not receiving anticoagulants [*n* = 17,952; 49.2%]	Std diff
Age group, years			
66–75	1547 (8.4)	1518 (8.5)	0.00
76–85	7060 (38.1)	5990 (33.4)	0.10
86+	9907 (53.5)	10,444 (58.2)	0.09
Sex			
Female	11,395 (61.5)	10,832 (60.3)	0.02
Male	7119 (38.5)	7120 (39.7)	0.02
Frailty category			
Not frail (< 20% of deficits)	3057 (16.5)	2646 (14.7)	0.05
Pre-frail (20–30% of deficits)	6690 (36.1)	6295 (35.1)	0.02
Frail (> 30% of deficits)	8767 (47.4)	9011 (50.2)	0.06
Cognitive performance scale			
Intact or borderline intact	6051 (32.7)	4959 (27.6)	0.11
Mild impairment	4639 (25.1)	4533 (25.3)	0.00
Moderate impairment	6753 (36.5)	7158 (39.9)	0.07
Severe impairment	1071 (5.8)	1302 (7.3)	0.06

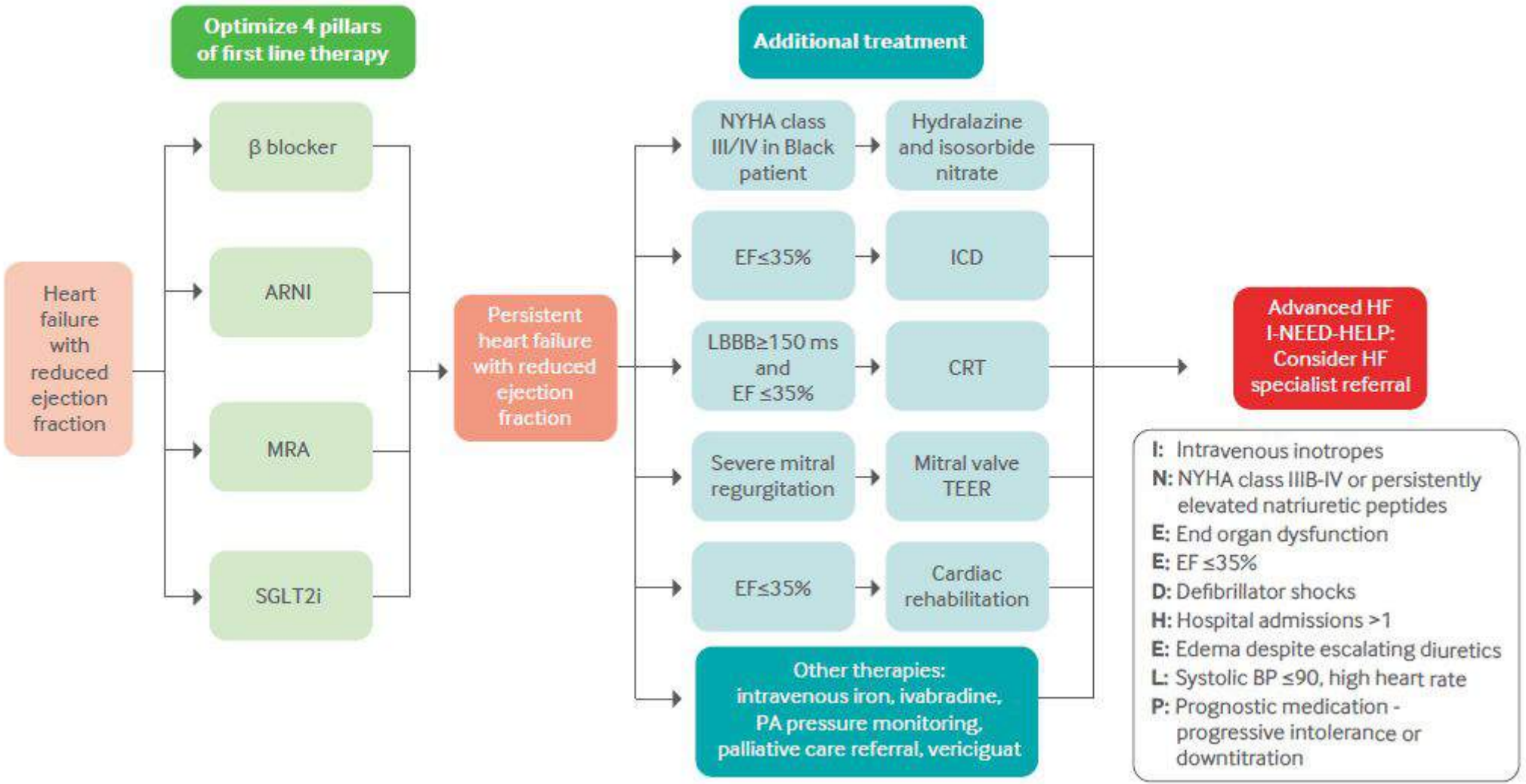
Drugs & Aging (2021) 38:611–623

Andamento terapia anticoagulante e fragilità



Drugs & Aging (2021) 38:611–623

Schematic treatment of heart failure



thebmj | *BMJ* 2024;385:e077025 | doi: 10.1136/bmj-2023-077025

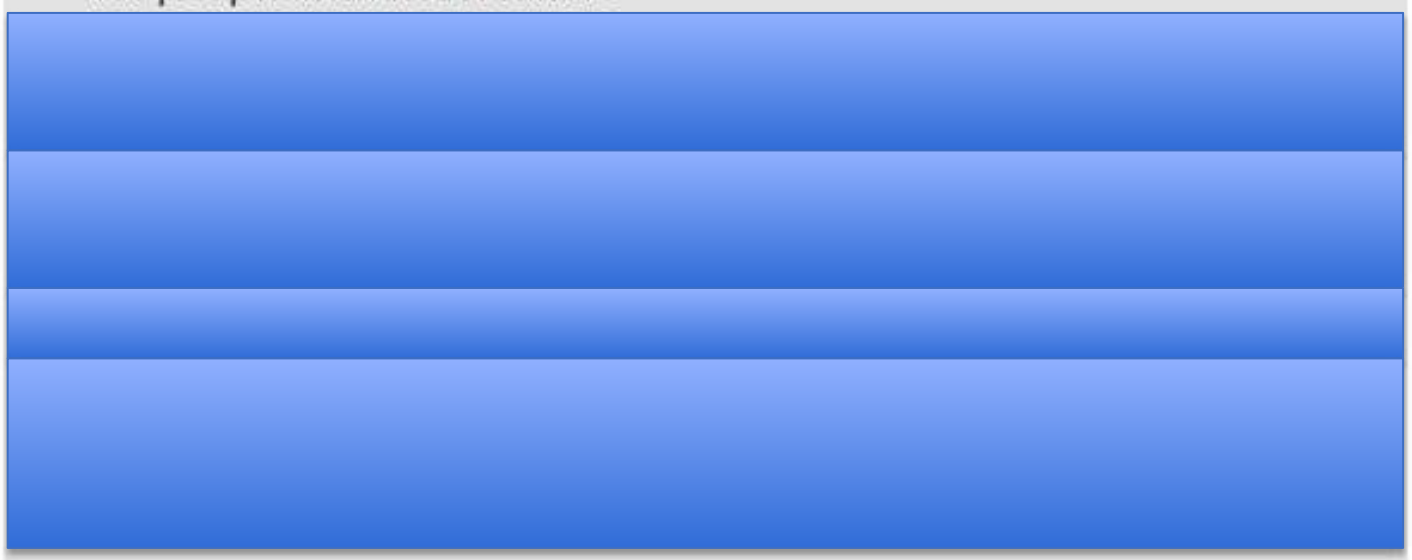
Appropriate management of heart failure in older people with frailty

Guideline directed medical therapy for heart failure for older people with frailty may do more harm than good, say **Henry Woodford and colleagues**

Henry John Woodford, [1] Dan McKenzie, [2] Lucy Mary Pollock[3]

Key messages

- Guidelines recommend treatment with a combination of medications for people with heart failure



Cite this as: *BMJ* 2024;387:e078188
http://doi.org/10.1136/bmj-2023-078188
Published: 26 November 2024

Outline

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2024 EUROPEAN SOCIETY OF HYPERTENSION CLINICAL PRACTICE GUIDELINES

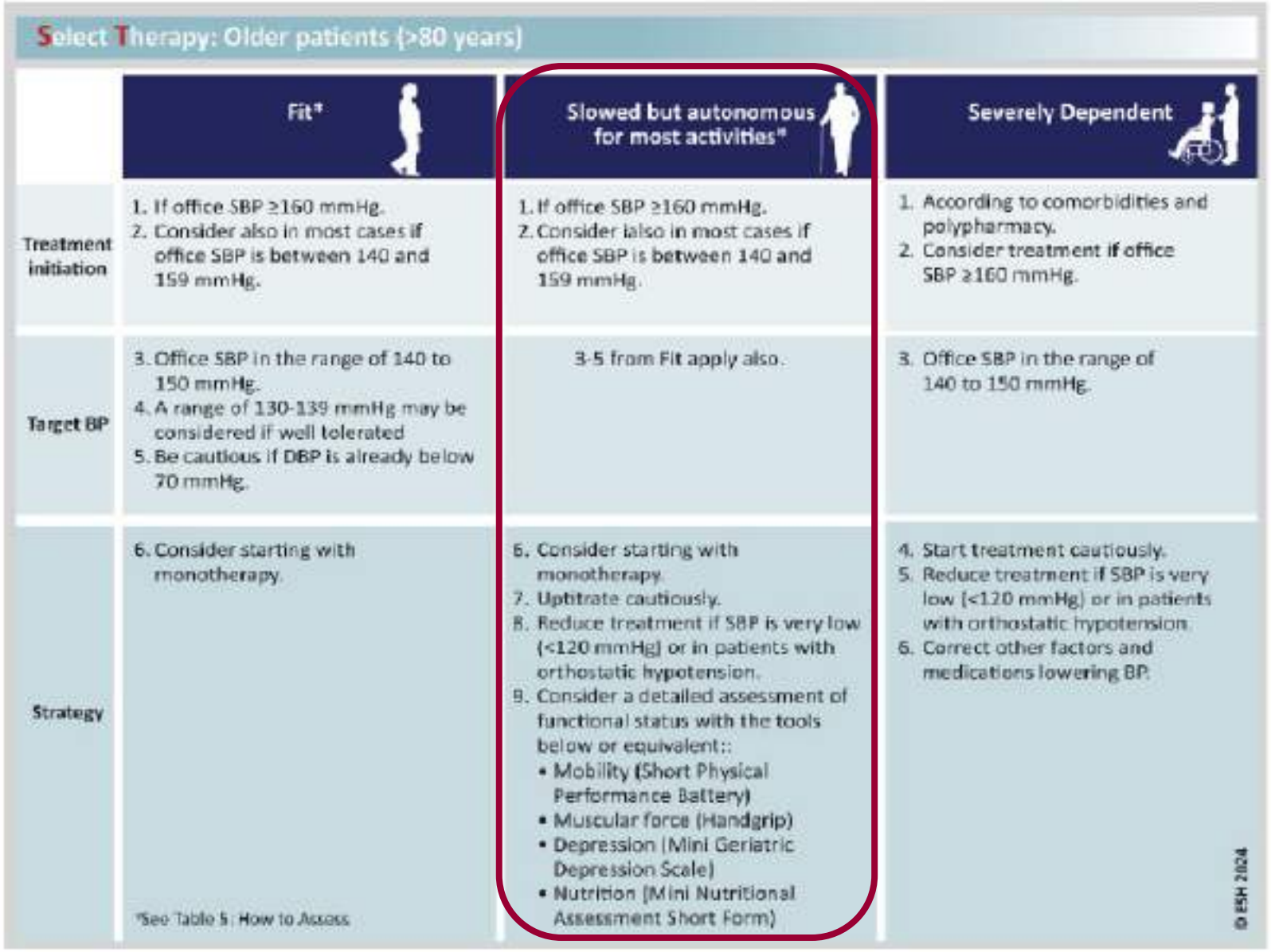
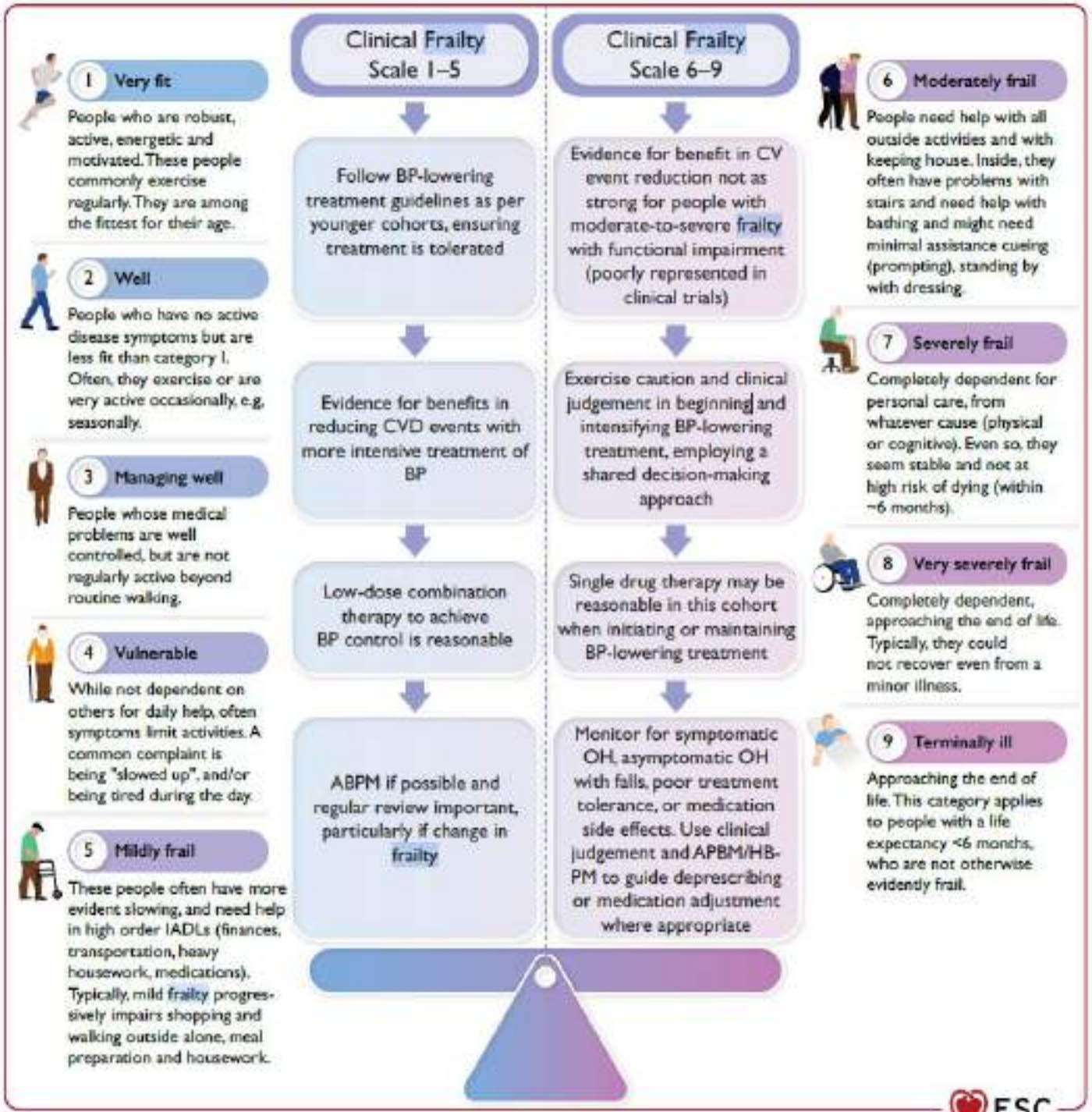


Fig. 9. Recommended strategy in older persons according to their functional capacities/autonomy status.

Table 5
Assessment of functional capacities/autonomy status in hypertensive patients older than 80 years.

Characteristics	Group 1 Fit	Group 2 Slowed but autonomous for most activities	Group 3 Severely dependent
Diagnosis	-ADL (Katz) ≥5 and -absence of clinically significant dementia (MMSE>20) and -routine walking activities	-Profile between Groups 1 and 3	-ADL (Katz): ≤2 or -severe dementia (MMSE ≤10) or chronic bedridden or -end of life

European Journal of Internal Medicine 126 (2024) 1–15



ESC European Society of Cardiology
European Heart Journal (2024) **00**, 1–107
https://doi.org/10.1093/eurheartj/ehae178

Recommendation Table 23 — Recommendations for managing hypertension in patients who are very old or frail (see Evidence Table 41)

Recommendations	Class[a]	Level[b]
It is recommended that treatment of elevated BP and hypertension among older patients aged <85 years who are not moderately to severely frail follows the same guidelines as for younger people, provided BP-lowering treatment is well tolerated.[131,523,524]	I	A
It is recommended to maintain BP-lowering drug treatment lifelong, even beyond the age of 85 years, if well tolerated.[523–525]	I	A
Because the benefit in reducing CVD outcomes is uncertain in these settings, and noting that close monitoring of treatment tolerance is advised, BP-lowering treatment should only be considered from ≥140/90 mmHg among persons meeting the following criteria: pre-treatment symptomatic orthostatic hypotension, age ≥85 years, clinically significant moderate-to-severe frailty, and/or limited predicted lifespan (<3 years).[131,524,526,527]	IIa	B
As the safety and efficacy of BP treatment is less certain in individuals with moderate or severe frailty, clinicians should consider screening older adults for frailty using validated clinical tests; frail patients' health priorities and a shared-decision approach should be considered when deciding on BP treatments and targets.[523,524,613,710]	IIa	C
When initiating BP-lowering treatment for patients aged ≥85 years, and/or with moderate-to-severe frailty (at any age), long-acting dihydropyridine CCBs or RAS inhibitors should be considered, followed if necessary by low-dose diuretic if tolerated, but preferably not a beta-blocker (unless compelling indications exist) or an alpha-blocker.[711]	IIa	B
If BP drops with progressing frailty, deprescription of BP-lowering medications (and other drugs that can reduce BP, such as sedatives and prostate-specific alpha-blockers) may be considered.[712]	IIb	C

Frailism: a scoping review exploring discrimination against people living with frailty

Philip Braude, Emma Grace Lewis, Steve Broach KC, Edward Carlton, Sarah Rudd, Jean Palmer, Richard Walker, Ben Carter, Jonathan Benger

Lancet Healthy Longev 2025; 6: 100651

Conclusioni

- **Sindromi geriatriche (modelli ed interazioni con le patologie cardiologiche)**
- **La necessità di definire le traiettorie di salute**
- **Il possibile ruolo della fragilità (modelli e valutazioni)**
- **Il riferimento alle linee guida cardiovascolari**
- **Ricordarsi “ageism” e “frailism”**
- **Necessità di sviluppare percorsi condivisi per le sindromi cardiogeriatriche**

Frailty trajectory over one year among residential aged care (nursing home) residents

Renly Lim*, Thu-Lan Kelly, Andre Q. Andrade,
Lisa M. Kalisch Ellett, Rebecca Bilton, Gereltuya Dorj,
Nicole L. Pratt and Elizabeth E. Roughead

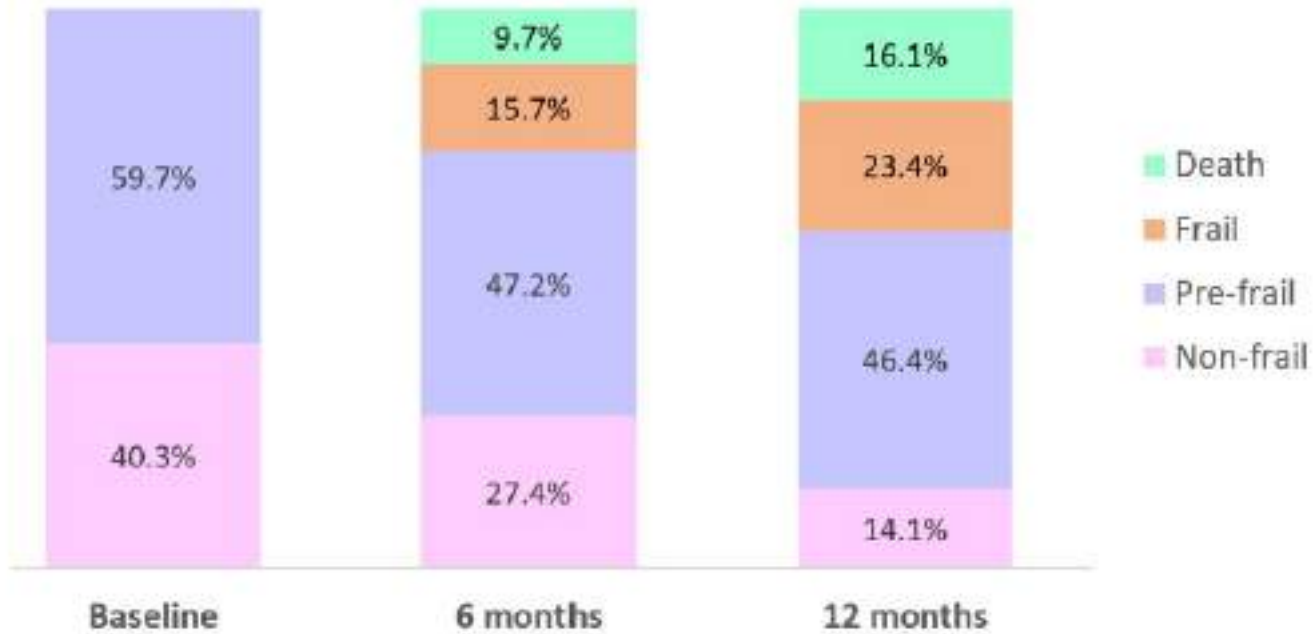


FIGURE 1
Proportion of participants who were non-frail, pre-frail, frail, or died over the 12-month study period.

Front. Med. 9:1010444.
doi: 10.3389/fmed.2022.1010444

ESC European Society of Cardiology
European Heart Journal (2021) 42, 3599–3726
doi:10.1093/eurheartj/ehab368

13.4 Frailty, cachexia, sarcopenia

2021 ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure

The assessment of frailty in patients with HF is crucial as it is associated with both unfavourable outcomes and reduced access to, and tolerance of, treatments.

Cachexia is a generalized wasting process that may coexist with frailty and may occur in 5-15% of patients with HF, especially those with HFrEF and more advanced disease status

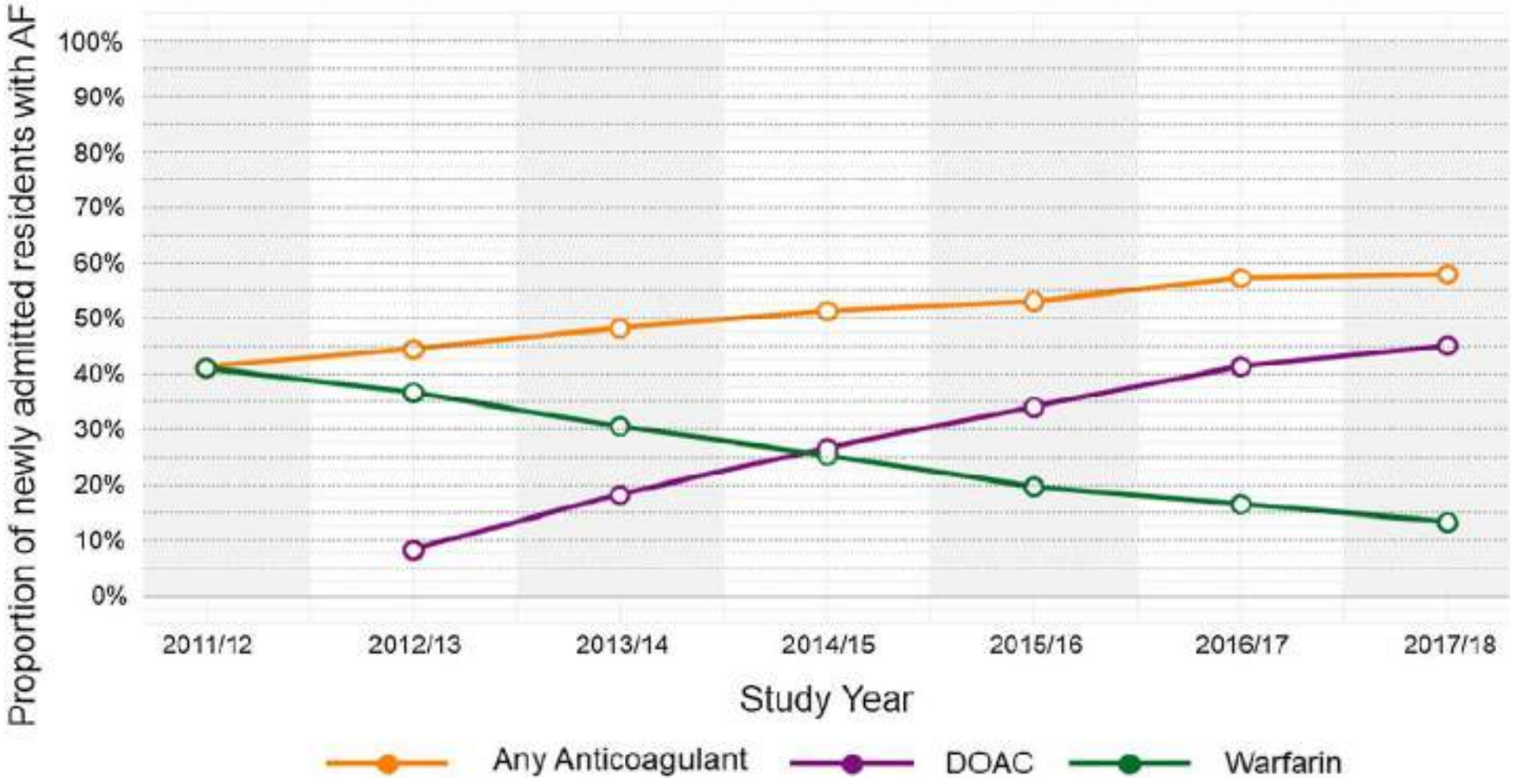
Sarcopenia can be found in 20-50% of patients with HFrEF and is often associated with frailty and increased morbidity and mortality.

16 Gaps in evidence

(9) **Non-CV comorbidities**

i. RCTs addressing cachexia and/or sarcopenia and/or frailty and showing the impact of treatment on QOL and/or outcome

Andamento terapia anticoagulante



Drugs & Aging (2021) 38:611–623