LA FIBRILLAZIONE ATRIALE E LA TERAPIA ANTICOAGULANTE NELL'ANZIANO

2/3 MARZO 2018
POLLENZO

Le scale del rischio embolico ed emorragico: utilità e limiti

Renzo ROZZINI
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Di cosa voglio parlare

- FA nell'anziano (perché riguarda il geriatra)
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  - Commento del geriatra
- Caso clinico (alcuni spunti)
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- L’età è un fattore di rischio di ictus indipendente in pazienti con fibrillazione atriale non valvolare

- Le LG ESC 2012 indicano che il beneficio con il trattamento anticogulante con AVK si ottiene se il paziente resta nella finestra terapeutica di INR compresa tra 2 e 3 almeno per il 70% del tempo (Time in Therapeutic Range-TTR>70%)[1]

- Numerose evidenze indicano che mediamente i pazienti trattati con AVK riescono a mantenere un TTR poco superiore al 50% passando pertanto il restante 50% del tempo fuori range ed esponendosi a un rischio tromboembolico oppure emorragico superiore.

- I pazienti anziani mostrano un più elevato rischio tromboembolico oltre che emorragico pertanto si rende necessaria la rivalutazione periodica di tali pazienti e l’aggiornamento del trattamento anticoagulante orale per garantire il maggior beneficio in termini di riduzione del rischio di ictus e di complicanze emorragiche

1. Camm AJ *et al. European Heart Journal* (2012) 33, 2719–2747

Tutti i farmaci utilizzati per ridurre il rischio tromboembolico nella FA comportano il

RISCHIO DI EMORRAGIE MAGGIORI

NECESSITA' DI CALCOLARE RISCHIO TROMBO EMBOLICO E IL RISCHIO EMORRAGICO NEL SINGOLO PAZIENTE **IN MODO DA STABILIRE IL BENEFICIO CLINICO NETTO** PRIMA DI DECIDERE SE E QUALE TERAPIA ANTITROMBOTICA INIZIARE

Necessità bilanciare la riduzione del rischio tromboembolico *vs* aumento del rischio emorragico.

In particolare del rischio di emorragie intracraniche.

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Elementi necessari per valutare il rischio tromboembolico del paziente

Il punteggio CHA2DS2-Vasc è raccomandato per la valutazione del rischio di ictus in pazienti con fibrillazione atriale non valvolare (Classe I, grado di evidenza A)

$CHADS_2$

Stroke Risk Factor	Score
Congestive Heart Failure	1
Hypertension	1
Age (> 75 years)	1
Diabetes	1
Prior **S**troke / TIA	2
Max Score	6

CHA_2DS_2-VASc

Stroke Risk Factor	Score
Congestive Heart Failure / LV Dysfunction	1
Hypertension	1
Age (≥ 75 years)	2
Diabetes	1
Prior **S**troke / TIA / thrombo-embolism	2
Vascular Disease[1]	1
Age 65-74	1
Sex **C**ategory (female)	1
Max Score	9

1) Pregresso infarto miocardico, arteriopatia periferica, placca aortica

ESC Guidelines for the Management of Atrial Fibrillation. European Heart Journal (2016)

CHA_2DS_2VASc score and stroke rate

(b) Risk factor-based approach expressed as a point based scoring system, with the acronym CHA_2DS_2-VASc (Note: maximum score is 9 since age may contribute 0, 1, or 2 points)	
Risk factor	**Score**
Congestive heart failure/LV dysfunction	1
Hypertension	1
Age ≥75	2
Diabetes mellitus	1
Stroke/TIA/thrombo-embolism	2
Vascular disease[a]	1
Age 65–74	1
Sex category (i.e. female sex)	1
Maximum score	**9**

(c) Adjusted stroke rate according to CHA_2DS_2-VASc score		
CHA_2DS_2-VASc score	**Patients (n=7329)**	**Adjusted stroke rate (%/year)[b]**
0	1	0%
1	422	1.3%
2	1230	2.2%
3	1730	3.2%
4	1718	4.0%
5	1159	6.7%
6	679	9.8%
7	294	9.6%
8	82	6.7%
9	14	15.2%

Camm J et al Eur Heart Journal 2010

Treatment recommendations based on the CHA2DS2–VASc score are shown in the following table:

Score	Risk	Anticoagulation Therapy	Considerations[11][19]
0 (male) or 1 (female)	Low	No anticoagulant therapy	No anticoagulant therapy
1(male)	Moderate	Oral anticoagulant should be considered	Oral anticoagulant, with well controlled Vitamin K Antagonist (VKA, e.g. warfarin with time in therapeutic range >70%), or a Non-VKA Oral Anticoagulant (NOAC, e.g. dabigatran, rivaroxaban, edoxaban or apixaban)
2 or greater	High	Oral anticoagulant is recommended	Oral anticoagulant, with well controlled Vitamin K Antagonist (VKA, e.g. warfarin with time in therapeutic range >70%), or a Non-VKA Oral Anticoagulant (NOAC, e.g. dabigatran, rivaroxaban, edoxaban or apixaban)

HAS-BLED score – Criteri di valutazione

Letter	Clinical Characteristic*	Score	HAS-BLED Score	Bleeds per 100 Patient-years†
H	Hypertension	1	0	1.13
A	Abnormal renal and liver function (1 point each)	1 or 2	1	1.02
S	Stroke	1	2	1.88
B	Bleeding	1	3	3.74
L	Labile INRs	1	4	8.70
E	Elderly	1		
D	Drugs or alcohol (1 point each)	1 or 2 Maximum 9 points		

- **Ipertensione**: pressione sistolica >160mm Hg
- **Funzionalità renale anomala**: dialisi, trapianto renale, creatinina sierica ≥200µmol/L
- **Funzionalità epatica anomala**: epatopatia (es. cirrosi) o evidenza biochimica di significativa disfunzione epatica (es. bilirubina >2X ULN in associazione a valori di ALT/AST/Fosfatasi alcalina >3X ULN)
- **Sanguinamento**: storia di sanguinamento o predisposizione al sanguinamento (es. diatesi emorragica, anemia)
- **INR labile**: INR instabile o TTR<60%
- **Età:** >65 anni
- **Farmaci/alcool**: utilizzo concomitante di farmaci come antiaggreganti o anti-infiammatori.

Gregory Y. H. Lip, MD The American Journal of Medicine (2011) 124, 111-114

Rischio	% pz. Per gruppo	% emorragie maggiori
Basso 0 - 1	67,9	1,1
Medio 2	24,2	1,9
Alto ≥ 3	7,9	4,9

Key Points

The HAS-BLED score allows clinicians to make an informed assessment of bleeding risk and, importantly, makes them think of the correctable risk factors for bleeding.
In patients with a HAS-BLED score ≥3, caution and regular review are recommended, as well as efforts to correct the potentially reversible risk factors for bleeding.

A high HAS-BLED score per se should not be used to exclude patients from OAC therapy

Camm J et al, Eur Heart J
doi:10.1093/eurheartj/ehs253

- Molti dei fattori di rischio per sanguinamento sono fattori di rischio per stroke
- Nella maggioranza dei pazienti il rischio cardioembolico è nettamente superiore a quello emorragico per cui questi soggetti beneficiano della terapia antitrombotica anche quando HAS BLED ≥ 3

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Warfarin Therapy for an Octogenarian Who Has Atrial Fibrillation

Brian F. Gage, MD, MSc; Stephan D. Fihn, MD, MPH; and Richard H. White, MD

In North America, atrial fibrillation is associated with at least 75 000 ischemic strokes each year. Most of these strokes occur in patients older than 75 years of age. The high incidence of stroke in very elderly persons reflects the increasing prevalence of atrial fibrillation that occurs with advanced age, the high incidence of stroke in elderly patients, and the failure of physicians to prescribe antithrombotic therapy in most of these patients. This failure is related to the increased risk for major hemorrhage with advanced age, obfuscating the decision to institute stroke prophylaxis with antithrombotic therapy.

This case-based review describes the risk and benefits of prescribing antithrombotic therapy for a hypothetical 80-year-old man who has atrial fibrillation and hypertension, and it offers practical advice on managing warfarin therapy. After concluding that the benefits of warfarin outweigh its risks in this patient, we describe how to initiate warfarin therapy cautiously and how to monitor and dose the drug. We then review five recent randomized, controlled trials that document the increased risk for stroke when an international normalized ratio (INR) of less than 2.0 is targeted among patients with atrial fibrillation. Next, we make the case that cardioversion is not needed for this asymptomatic patient with chronic atrial fibrillation. Instead, we choose to leave the patient in atrial fibrillation and to control his ventricular rate with atenolol. Later, when the INR increases to 4.9, we advocate withholding one dose of warfarin and repeating the INR test. Finally, when the patient develops dental pain, we review the analgesic agents that are safe to take with warfarin and explain why warfarin therapy does not have to be interrupted during a subsequent dental extraction.

Ann Intern Med. 2001;134:465-474. www.annals.org

For author affiliations and current addresses, see end of text.

An 80-year-old man with a 4-year history of atrial fibrillation has hypertension and occasional lower back and knee pain, but he feels well overall. He does not drink or smoke. He has had echocardiography but has never undergone a trial of cardioversion. Except for an irregularly irregular pulse at a rate of 90 beats/min and crepitus of his knees, the patient's physical examination is unremarkable.
His mental function is good, with a score of 28 (out of 30) on the Folstein Mini-Mental State Examination.

Gage, Ann Int Med, 2001

-What Are the Benefits of Prescribing Warfarin?
-What Are the Risks of Prescribing Warfarin?
-How Should the Risk and Benefits of Prescribing Warfarin Be Weighed in the Setting of Atrial Fibrillation?
-What Items Should Be Discussed with a Patient Who Is Starting Warfarin Therapy?
-What INR Should Be Targeted in This 80-Year-Old Man with Atrial Fibrillation?
-Should This Patient Undergo Cardioversion?
-When Initiating Warfarin Therapy, What Dose Should Be Prescribed?
-After Giving the First Warfarin Dose, How Is the Next Dose Selected?
-When Starting Warfarin Therapy, Should Patients Continue Taking Aspirin for Prevention of Myocardial Infarction?
-How Frequently Should the INR Be Monitored?
-At What INR Should the Warfarin Dose Be Adjusted?
-How Should This Patient's Warfarin Dose Be Adjusted To Increase the INR?
-How Should a Nonbleeding Patient with a High INR Be Treated?
-What Type of Analgesia Is Safe for Patients Who Are Taking Warfarin?
-Should the INR Be Reduced before a Dental Procedure or Surgery?

Gage, Ann Int Med, 2001

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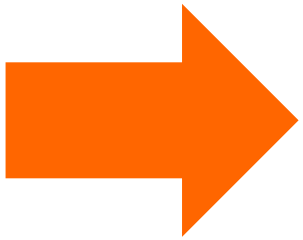

E se lo score al Mini-Mental State Examination fosse 11/30 (cioè affetto da demenza)?
E se avesse un Barthel Index di 45/100 o 10/100 (cioè disabile o allettato)?
E se contemporaneamente fosse disabile (o allettato) e affetto da demenza?

Gage, Ann Int Med, 2001

ACOVE

Assessing Care of Vulnerable Elders: ACOVE Project Overview

Neil S. Wenger, MD, MPH; Paul G. Shekelle, MD, PhD, the ACOVE Investigators*
Ann Intern Med. 2001;135:642-646

Using the Medicare Current Beneficiary Survey, the ACOVE Investigators determined that functional status is a more important predictor of death and functional decline than are specific clinical conditions.

A parsimonious set of factors that could be asked about in a brief interview, including age, self-rated health, and functional disabilities and limitations, predicted functional decline and death.

Using these factors, it was developed a scoring system that identified 32% of a nationally representative sample as vulnerable.

This group had more than four times the risk for death or functional decline over a 2-year period compared to the lower-scoring majority of the sample.

L’esempio dell’ACOVE:

Potential indicators were constructed in an IF—THEN—BECAUSE format: IF refers to the clinical characteristics that describe persons eligible for the quality indicator; THEN indicates the actual process that should or should not be performed; and BECAUSE refers to the expected health impact if the indicator is performed.
For example, IF a vulnerable elder has heart failure with an ejection fraction of 40% or less, THEN an angiotensin-converting enzyme (ACE) inhibitor should be offered BECAUSE treatment with ACE inhibitors improves longevity.

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Il paziente anziano e la procedura invasiva

- Le malattie cardiovascolari, pneumologiche e renali sono le più frequenti e quelle che contribuiscono maggiormente alle complicanze periprocedurali del paziente anziano
- Accanto a queste comorbilità condivise col giovane adulto, il paziente anziano può avere una condizione di "*malnutrizione*", una compromissione cognitiva e funzionale.
- La compromissione cognitiva predispone il delirium post-procedurale
- La compromissione funzionale premorbosa limita la mobilità del paziente
- La compromissione funzionale e la «malnutrizione» sono fattori di rischio indipendente di complicanze periprocedurali e di declino funzionale

Finalità di una procedura invasiva (da condividere con paziente e famiglia)

- Prolungamento della vita
- Miglioramento dello stato funzionale e dell'autonomia
- Mantenimento dell'integrità dello stato mentale
- Comfort

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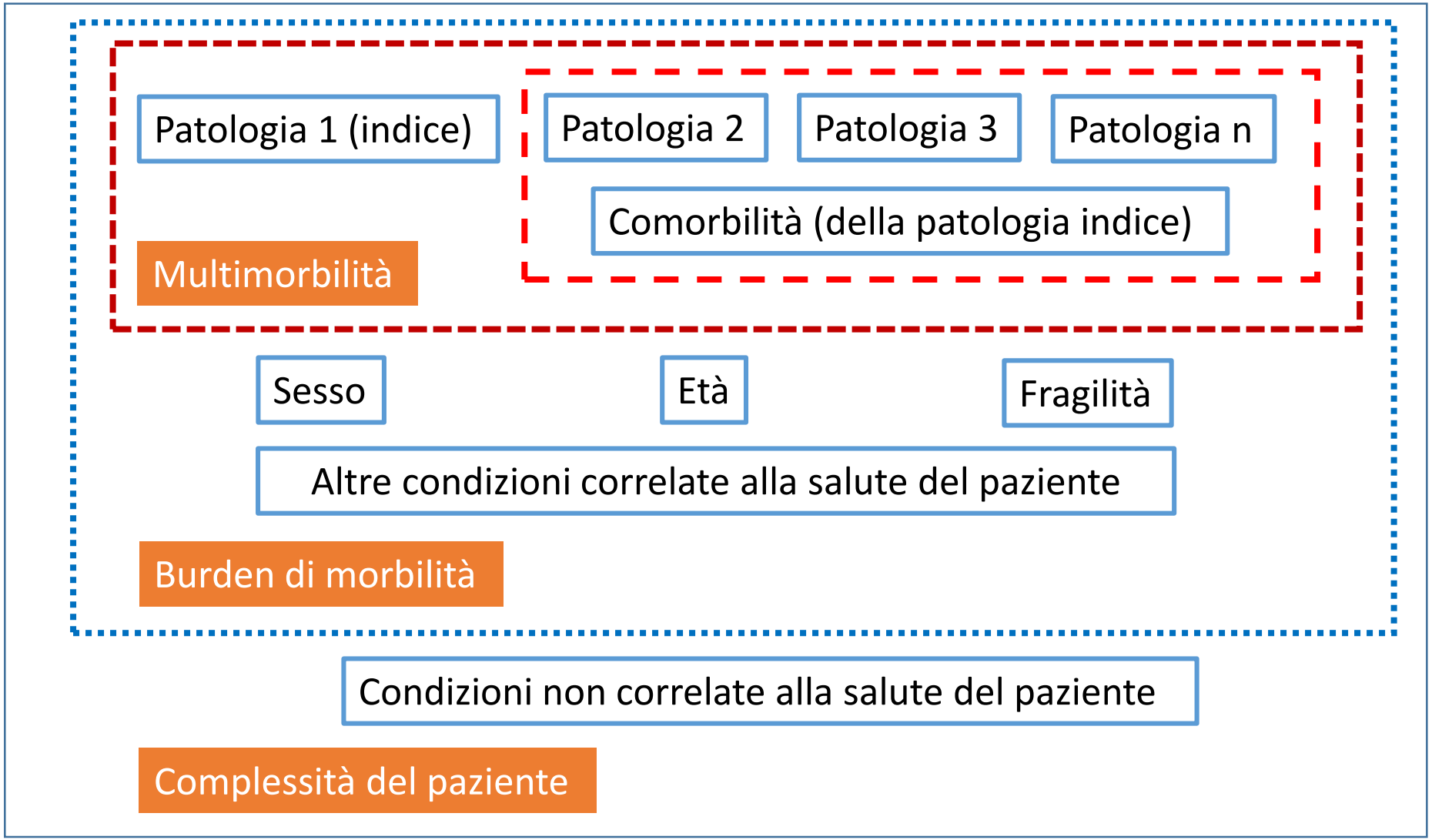
I costrutti della comorbilità



Comorbilità: presenza di una patologia aggiuntiva rispetto a una patologia indice
Multimorbilità: presenza di più patologie in uno stesso paziente
Burden di morbilità: impatto complessivo di diverse patologie in un paziente che tiene in conto la loro gravità
Complessità del paziente: impatto complessivo di diverse patologie in un paziente che tiene conto della loro gravità e di altri fattori correlati alla salute

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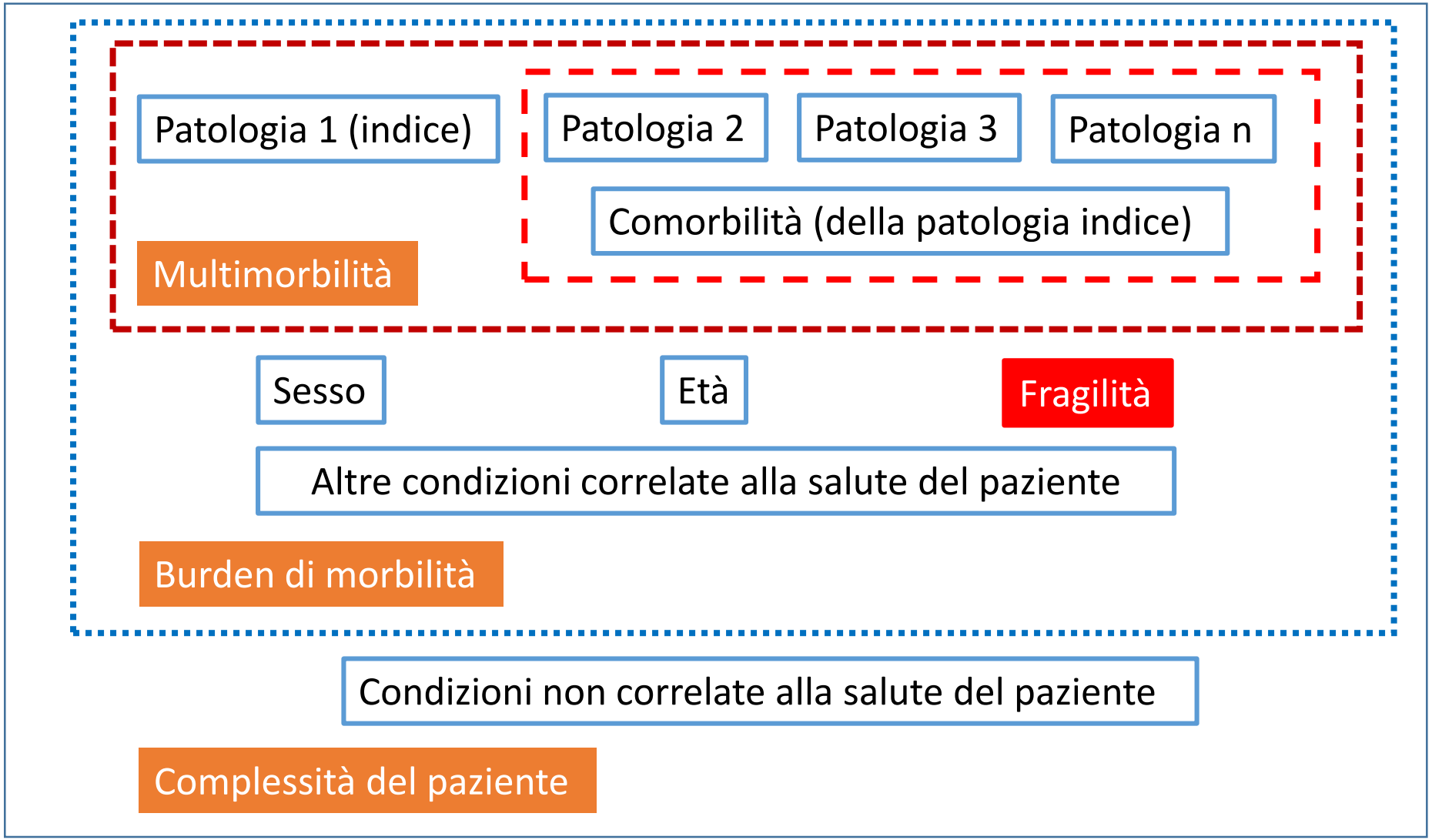

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Invited Commentary

Assessing the Utility of Transcatheter Aortic Valve Replacement

Karen P. Alexander, MD

Research

JAMA Cardiology | Original Investigation

Quality-of-Life Outcomes After Transcatheter Aortic Valve Replacement in an Unselected Population

A Report From the STS/ACC Transcatheter Valve Therapy Registry

Suzanne V. Arnold, MD, MHA; John A. Spertus, MD, MPH; Sreekanth Vemulapalli, MD; Zhuokai Li, PhD; Roland A. Matsouaka, PhD; Suzanne J. Baron, MD, MSc; Amit N. Vora, MD, MPH; Michael J. Mack, MD; Matthew R. Reynolds, MD, MSc; John S. Rumsfeld, MD, PhD; David J. Cohen, MD, MSc

JAMA Cardiology April 2017 Volume 2, Number 4

Symptoms drive the demand for TAVR; however, multiple comorbidities in this population also challenge attribution of symptoms to a single cause. Shortness of breath, fatigue, and low energy may be ascribed to AS when in part or in whole originating from other conditions. A favorable TAVR outcome has been defined as survival with reasonable QOL and no decline in health status from baseline.[5] Considering survival and symptomatic improvement, 62.3% of patients undergoing TAVR in this unselected registry population had a favorable outcome at 1 year. Those with unfavorable outcomes included the 19.4% who died and the 17.4% who had persistently poor health status. Better selection among this latter group is needed. As previously reported,[6,7] comorbidities associated with poor TAVR outcomes include oxygen-requiring chronic pulmonary disease, end-stage renal failure, atrial fibrillation, and frailty. Other factors associated with less symptomatic improvement after TAVR include atrial fibrillation, chronic kidney disease, stroke, less severe AS, and preserved ejection fraction. However, average outcomes for populations of individuals with a comorbid condition that is associated with diminished benefit, are just that—average. Among those with severe lung disease, 51.4% had a favorable outcome, as did 47.7% of those undergoing dialysis, and 49.2% of those with poor baseline health status. Odds like these are akin to a coin toss, hardly

Association between heart failure and 6 months mortality in 995 hospitalized elderly patients according to group of frailty (Cox regression analysis)

	n/events	*Crude*[a] *RR (95% C.I.)*	*Adjusted*[b]* *RR (95% C.I.)*
(a) Not disabled nor demented			
No Heart Failure	430/13	1.0 (ref.)	1.0 (ref.)
Heart Failure (NYHA III-IV)	60/9	4.1 (1.2-13.3)	4.1 (1.3-15.1)
(b) Disabled or demented			
No Heart Failure	266/26	1.0 (ref.)	1.0 (ref.)
Heart Failure (NYHA III-IV)	36/10	3.1 (1.3-7.4)	2.7 (1.1-6.7)
(c) Disabled and demented			
No Heart Failure	137/35	1.0 (ref.)	1.0 (ref.)
Heart Failure (NYHA III-IV)	21/9	1.4 (0.3-5.9)	1.3 (0.3-5.6)

RR: relative Risk. C.I.: Confidence Interval.

***Risk factors for mortality found in bivariate analysis were: low albumin level (<3.5 g/dL), low serum cholesterol (<160mg/dL), low hemoglobin level (<12 g/dl), high Acute Physiology Score (APS>3) and Charlson Index (8+)(heart failure not included).**

Test for trend of the crude and adjusted linear change of RR through groups of frailty: [a] p<0.014, and[b] p=0.005.

Frailty Is a Strong Modulator of Heart Failure–Associated Mortality

Rozzini et al., Arch Intern Med. 2003; 163:737-738.

ONLINE FIRST

Rethinking the Association of High Blood Pressure With Mortality in Elderly Adults

The Impact of Frailty

Michelle C. Odden, PhD; Carmen A. Peralta, MD, MAS; Mary N. Haan, DrPH; Kenneth E. Covinsky, MD, MPH

Background: The association of hypertension and mortality is attenuated in elderly adults. Walking speed, as a measure of frailty, may identify which elderly adults are most at risk for the adverse effects of hypertension. We hypothesized that elevated blood pressure (BP) would be associated with a greater risk of mortality in faster-, but not slower-, walking older adults.

Methods: Participants included 2340 persons 65 years and older in the National Health and Nutrition Examination Survey, 1999-2000 and 2001-2002. Mortality data were linked to death certificates in the National Death Index. Walking speed was measured over a 20-ft (6 m) walk and classified as faster (≥0.8 m/s [n=1307]), slower (n=790), or incomplete (n=243). Potential confounders included age, sex, race, survey year, lifestyle and physiologic variables, health conditions, and antihypertensive medication use.

Results: Among the participants, there were 589 deaths through December 31, 2006. The association between BP and mortality varied by walking speed. Among faster walkers, those with elevated systolic BP (≥140 mm Hg) had a greater adjusted risk of mortality compared with those without (hazard ratio [HR], 1.35; 95% CI, 1.03-1.77). Among slower walkers, neither elevated systolic nor diastolic BP (≥90 mm Hg) was associated with mortality. In participants who did not complete the walk test, elevated BP was strongly and independently associated with a lower risk of death: HR, 0.38; 95% CI, 0.23-0.62 (systolic); and HR, 0.10; 95% CI, 0.01-0.81 (diastolic).

Conclusions: Walking speed could be a simple measure to identify elderly adults who are most at risk for adverse outcomes related to high BP.

Arch Intern Med.
Published online July 16, 2012.
doi:10.1001/archinternmed.2012.2555

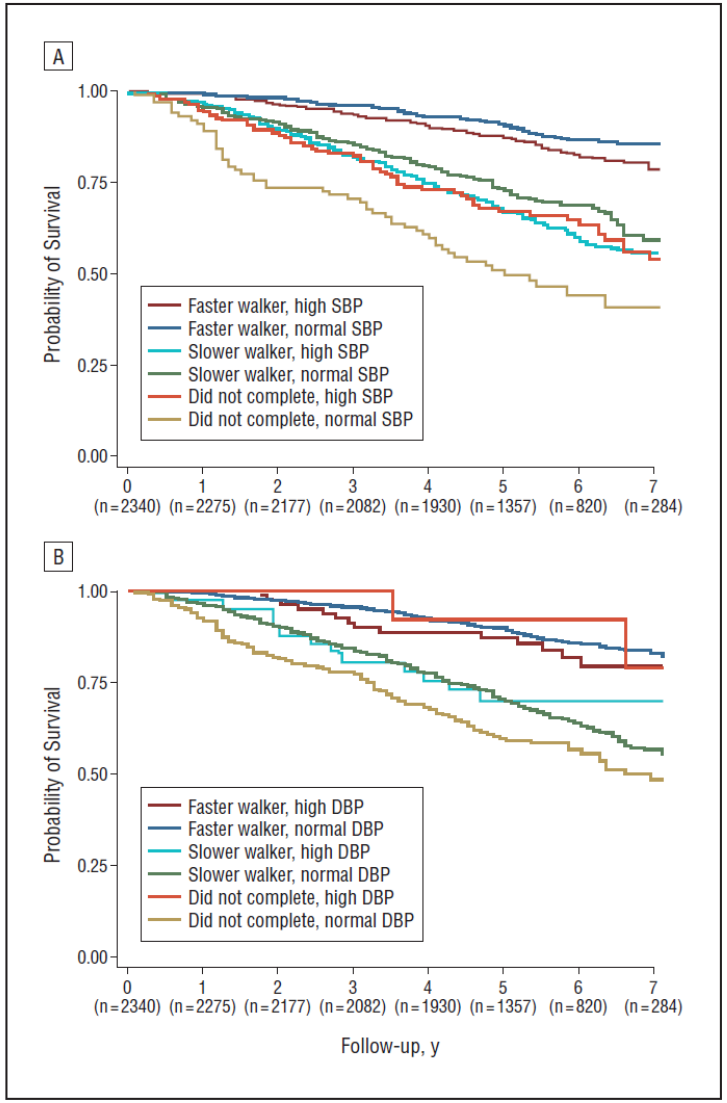

Figure 1. Kaplan-Meier survival plots. Kaplan-Meier survival plots of persons with elevated systolic blood pressure (SBP) 140 mm Hg or higher (A) and diastolic blood pressure (DBP) 90 mm Hg or higher (B), stratified by walking speed, in National Health and Nutrition Examination Survey participants 65 years and older (1999-2002), followed up until December 31, 2006

Arch Intern Med.
Published online July 16, 2012.
doi:10.1001/archinternmed.2012.2555

Conditions associated to 12 month mortality in 461 elderly rehab patients.

	Events/n	RRA	95%CI	RRB	95% CI
Age (80+)	40/250	1.7	1.1-2.7	---	---
Gender (males)	37/136	1.8	1.1-2.8	---	---
Dementia (MMSE <18)	36/113	2.4	1.6-3.6	---	---
Respiratory diseases	28/87	2.0	1.3-3.1	---	---
Liver diseases	15/39	2.4	1.4-4.2	---	---
Chronic Renal failure	44/169	1.7	1.1-2-7	---	---
Cancer	21/46	3.9	2.1-7.3	3.6	2.0-6.6
Hypertension	34/224	0.6	0.4-0.9	0.6	0.3-0.9
Charlson Index (>3)	47/129	2.9	1.9-4.3	2.4	1.5-3.9
Drugs (>5)	41/167	1.5	1.0-2.1	1.6	1.1-2.7
Malnutrition	57/198	2.2	1.5-3.2	1.8	1.1-2.9
Gait speed (15 mts)					
(group a) <15 secs	8/100	1.0	Ref.	1.0	Ref.
(group b) 16-25 secs	15/126	1.6	0.7-3.7	1.2	0.5-2.8
(group c) >25 secs	30/142	2.9	1.3-6.4	2.2	1.0-4.9
(group d) unable to walk	33/93	5.4	2.5-11.8	4.0	1.7-9.2

Rozzini&Trabucchi, JAMA Intern Med. 2013;173:324-5.

Elevated BP was independently associated with a lower risk of death only among slower walkers (group c in the table)(RR: 0.4, 95% CI: 0.2-0.9), and in those unable to perform the walk test (group d)(RR: 0.5, 95% CI: 0.2-1.0), but not in robust patients (group a and b).

In frail patients hypertension may be considered a marker of resilience, demonstrating that the ability to react to a generalized loss of biological functioning is preserved.

Rozzini&Trabucchi, JAMA Intern Med. 2013;173:324-5.

Atrial fibrillation is an independent determinant of low cognitive function: a cross-sectional study in elderly men.

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Quality Indicators for the Care of Stroke and Atrial Fibrillation in Vulnerable Elders

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Stroke and AF

· IF a vulnerable elder has AF for 48-hour duration and has any high-risk condition (impaired LV function; women age 75 years; hypertension or systolic blood pressure 160 mm Hg; or previous ischemic stroke, TIA, or systemic embolism), THEN he or she should be offered oral anticoagulantion if the medical record documents reason not to give anticoagulant therapy.

· IF a vulnerable elder has a TIA or stroke, THEN the medical record should document that smoking status was assessed and that smokers were counseled to stop smoking.

· IF a male vulnerable elder has carotid artery symptoms and receives diagnosis of TIA or nondisabling stroke, and the medical record does not document that the patient is not a candidate for carotid surgery, THEN a carotid artery imaging study should be performed within 4 weeks.

Stroke & A fib				
1. **IF** a VE has a new TIA or ischemic stroke in the vascular territory of the carotid artery, **THEN** a carotid artery imaging study should be done or documentation that the patient is not a carotid procedure candidate.			E	E
2. **IF** a VE has a symptomatic carotid stenosis >70%, **THEN** the medical record should document a discussion of risks and benefits of carotid procedures or that the patient is not a carotid procedure candidate or that a carotid endarterectomy cannot be done with <6% 30-day morbidity and mortality rate.			E	E
3. **IF** a VE has chronic atrial fibrillation and is medium to high-risk for stroke, **THEN** anticoagulation should be offered.			E	E
4. **IF** a VE has chronic atrial fibrillation, medium to high-risk for stroke, and has a contraindication to anticoagulation, **THEN** antiplatelet therapy should be prescribed.			I	I
5. **IF** a VE is prescribed anticoagulants for atrial fibrillation, **THEN** there should be documentation that the goal of international normalized ratios (INR) is 2.0-3.0 or reason for other goal.			I	I
6. **IF** a VE has had a TIA or ischemic stroke, **THEN** outpatient antiplatelet or anticoagulant therapy should be prescribed within 3 months after stroke/TIA or entering a new practice.			I	I

Demenza grave Prognosi povera

Table 1. Characteristics of 126 Elderly Patients with Atrial Fibrillation Residing in Nursing Homes According to Warfarin Therapy

Patients	Without Warfarin Treatment n = 85	With Warfarin Treatment n = 41	*P*-Value*
Age, mean ± SD	87.0 ± 7.0	84.7 ± 5.3	.08
Aged ≥ 85, n (%)	55 (64.7)	18 (43.9)	.02
Body mass index, kg/m^2 mean ± SD	23.6 ± 4.9	24.2 ± 4.9)	.50
Male, n (%)	19 (22.4)	6 (14.6)	.22
Barthel Index, mean ± SD (range 0–100)	34.8 ± 30.9	35.4 ± 31.3	.09
Barthel Index (<40, n (%)	50 (58.8)	26 (63.4)	.38
Mini-Mental State Examination score, mean ± SD (range 0–30)	12.2 ± 8.9	13.7 ± 9.4	.38
Number of comorbidities, mean ± SD	3.0 ± 1.5	3.2 ± 1.3	.45
Dementia, n (%)	61 (71.8)	21 (51.2)	.02
Prior myocardial infarction, n (%)	27 (27.6)	14 (50.0)	.02
CHADS2 score items†			
Aged ≥ 75, n (%)	78 (91.8)	39 (95.1)	.39
Congestive heart failure	26 (30.6)	17 (41.5)	.16
Hypertension	51 (60.0)	22 (53.7)	.31
Diabetes mellitus	17 (20.0)	14 (34.1)	.07
Prior ischemic stroke	19 (22.3)	17 (41.4)	.03
Rate of warfarin prescription, n (%)‡			
Group 1	33 (70.2)	14 (29.8)	Reference
Group 2	26 (86.7)	4 (13.3)	.10
Group 3	26 (53.1)	23 (46.9)	.08

Di cosa voglio parlare

- FA nell'anziano (perché riguarda il geriatra)
- Le scale del rischio embolico ed emorragico
  - Commento del geriatra
- Caso clinico (alcuni spunti)
  - La FA e gli obiettivi di cura
  - I punti di riferimento
    - Comorbilità
    - Fragilità
    - Patologie d'organo nel paziente fragile e utilità dei trattamenti
- Conclusioni

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2016 ESC Guidelines for the management of atrial fibrillation developed in collaboration with EACTS

The Task Force for the management of atrial fibrillation of the European Society of Cardiology (ESC)

Developed with the special contribution of the European Heart Rhythm Association (EHRA) of the ESC

Endorsed by the European Stroke Organisation (ESO)

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L’ESC considera gli AOD come una valida opportunità terapeutica per la prevenzione dell’ictus in un paziente anziano/fragile con fibrillazione atriale non valvolare

Recommendations for prediction of stroke and bleeding risk

Recommendations	Class[a]	Level[b]	Ref[c]
The CHA_2DS_2-VASc score is recommended for stroke risk prediction in patients with AF.	I	A	368, 371, 386
Bleeding risk scores should be considered in AF patients on oral anticoagulation to identify modifiable risk factors for major bleeding.	IIa	B	384, 386, 387, 389–392
Biomarkers such as high-sensitivity troponin and natriuretic peptide may be considered to further refine stroke and bleeding risk in AF patients.	IIb	B	380–382, 387, 393

AF = atrial fibrillation; CHA_2DS_2-VASc = Congestive Heart failure, hypertension, Age ≥75 (doubled), Diabetes, Stroke or transient ischaemic attack or systemic embolism (doubled), Vascular disease, Age 65–74, and Sex (female).

[a]Class of recommendation.

[b]Level of evidence.

[c]Reference(s) supporting recommendations.

Table 12 **Modifiable and non-modifiable risk factors for bleeding in anticoagulated patients based on bleeding risk scores**

Modifiable bleeding risk factors
Hypertension (especially when systolic blood pressure is >160 mmHg)[a,b,c]
Labile INR or time in therapeutic range <60%[a] in patients on vitamin K antagonists
Medication predisposing to bleeding, such as antiplatelet drugs and non-steroidal anti-inflammatory drugs[a,d]
Excess alcohol (≥8 drinks/week)[a,b]
Potentially modifiable bleeding risk factors
Anaemia[b,c,d]
Impaired renal function[a,b,c,d]
Impaired liver function[a,b]
Reduced platelet count or function[b]
Non-modifiable bleeding risk factors
Age[e] (>65 years)[a] (≥75 years)[b,c,d]
History of major bleeding[a,b,c,d]
Previous stroke[a,b]
Dialysis-dependent kidney disease or renal transplant[a,c]
Cirrhotic liver disease[a]
Malignancy[b]
Genetic factors[b]
Biomarker-based bleeding risk factors
High-sensitivity troponin[e]
Growth differentiation factor-15[e]
Serum creatinine/estimated CrCl[e]