

*TÉLÉchargez le app
"Frailty Tool"*

 @FrailtyMD

Intervention cardiovasculaire chez les personnes âgées

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Hôpital général juif,
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Congrès Annuel de la SSVQ
30 novembre 2018
Aucun conflit d'intérêt

Liste de consultation en cardiologie à mon hôpital

	Last name, first name	Consultation request date
	Dossier, Gender, Age	Consultation specialization
Stretch.	Diagnosis	
	Reasons	
	Hospit. spec./Bed/Care	
N01	[REDACTED]	2017-10-22 20:38
	275504 F 99 ans	Cardiology
	Anemia(13) PFIN CP- Chest pain(22) N-STEMI SFIN	
	Medicine / 8NW / -	
N13	[REDACTED]	2017-10-24 02:46
	1484706 F 95 ans	Cardiology
	Pneumonia(4) PFIN	
	Internal medicine / K6-K7 / -	
N33	[REDACTED]	2017-10-23 11:43
	1098065 F 97 ans	Cardiology
	CVA - Cerebrovascular accident(5) PFIN	
	Neurology / K10 / -	
N12B	[REDACTED]	2017-10-25 08:00
	566692 F 91 ans	Cardiology
	CHF - Congestive heart failure(5) PFIN	
	- / - / -	
R06	[REDACTED]	2017-10-25 00:25
	915593 M 63 ans	Cardiology
	AMI - Myocardial infarct, acute(5) N-STEMI PFIN	
	Cardiology / - / -	

Mr. R

- H 90 ans
- Admis 17 Nov avec syncope
- ATCD:
 - SA sévère
 - MCAS
 - HTA
 - DLP
 - HBP
 - RGO



Mr. H

- H 80 ans
- Admis 16 Nov avec IC
- ATCD:
 - SA sévère
 - MCAS



Mr. G

- H 94 ans
- Admis 16 Nov avec NSTEMI
- ATCD:
 - SA sévère
 - MCAS (stents 1985, 2004, 2009)
 - Pacemaker 7 Nov
 - IC
 - HTA
 - DLP
 - HDB 2014
 - Anxiété



AV Disease Etiology

Select a value

Incidence

First cardiovascular surgery

First re-op cardiovascular surgery

Second re-op cardiovascular surgery

Third re-op cardiovascular surgery

Fourth or more re-op cardiovascular surgery

NA - Not a cardiovascular surgery

Status

Elective

Urgent

Emergent

Emergent Salvage

IABP Insertion

Preop

Intraop

Postop

Catheter Based Assist Device Used

Preop

Intraop

Postop

ECMO

Preop

Intraop

Postop

Non-operative



Risques prédits selon la STS:

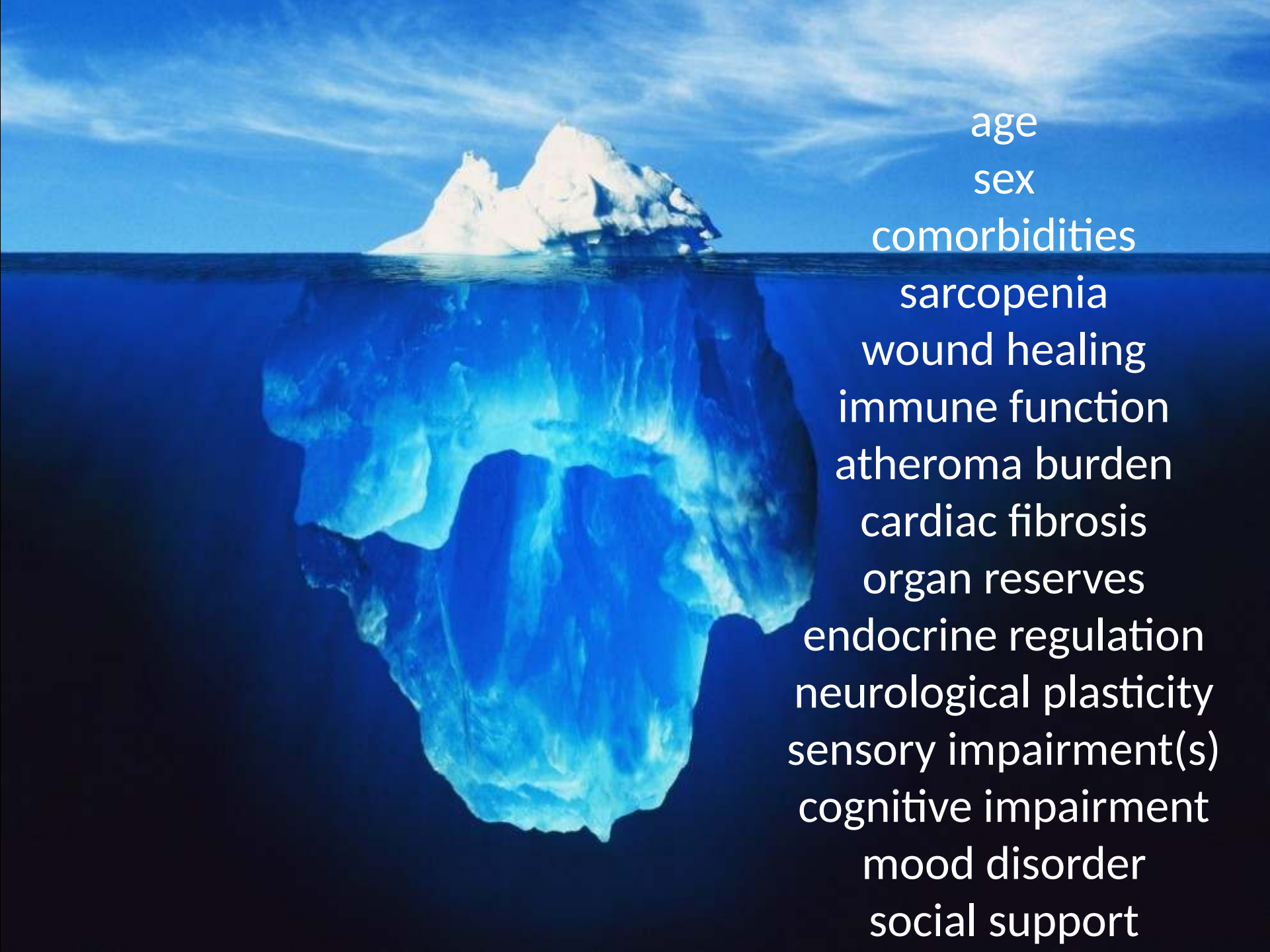
- Risk of Mortality: 6.3%
- Morbidity or Mortality: 25.3%
- Long Length of Stay: 12.1%
- Short Length of Stay: 18.1%
- Permanent Stroke: 2.6%
- Prolonged Ventilation: 15.5%
- DSW Infection: 0.3%
- Renal Failure: 6.4%
- Reoperation: 11.4%

Risques prédits selon la STS:

- Risk of Mortality: 7.1%
- Morbidity or Mortality: 36.5%
- Long Length of Stay: 16.1%
- Short Length of Stay: 17.7%
- Permanent Stroke: 1.8%
- Prolonged Ventilation: 24.2%
- DSW Infection: 0.3%
- Renal Failure: 13.0%
- Reoperation: 14.4%

Risques prédits selon la STS:

- Risk of Mortality: 6.0%
- Morbidity or Mortality: 29.7%
- Long Length of Stay: 16.4%
- Short Length of Stay: 12.9%
- Permanent Stroke: 2.4%
- Prolonged Ventilation: 17.8%
- DSW Infection: 0.2%
- Renal Failure: 9.8%
- Reoperation: 10.4%



age

sex

comorbidities

sarcopenia

wound healing

immune function

atheroma burden

cardiac fibrosis

organ reserves

endocrine regulation

neurological plasticity

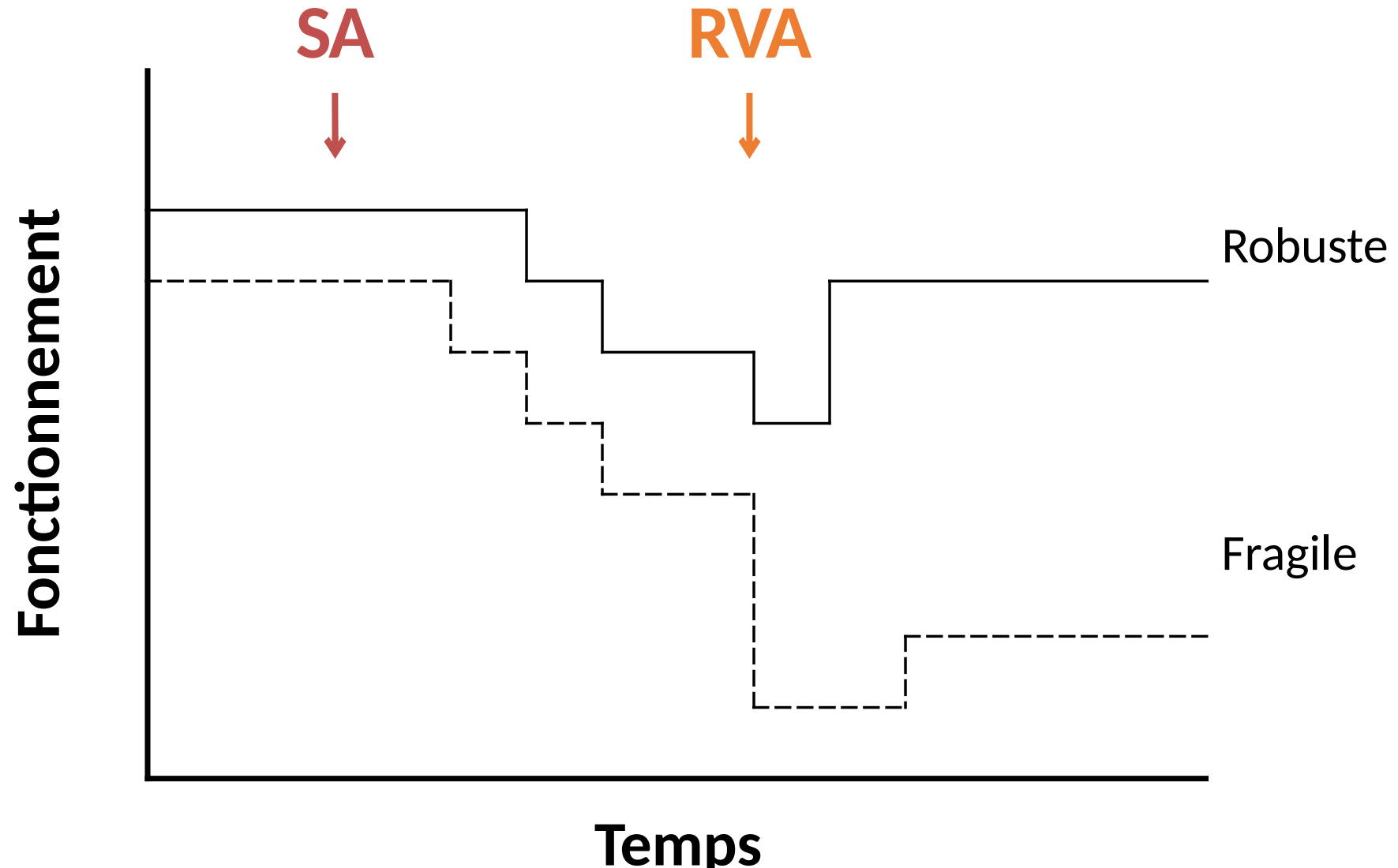
sensory impairment(s)

cognitive impairment

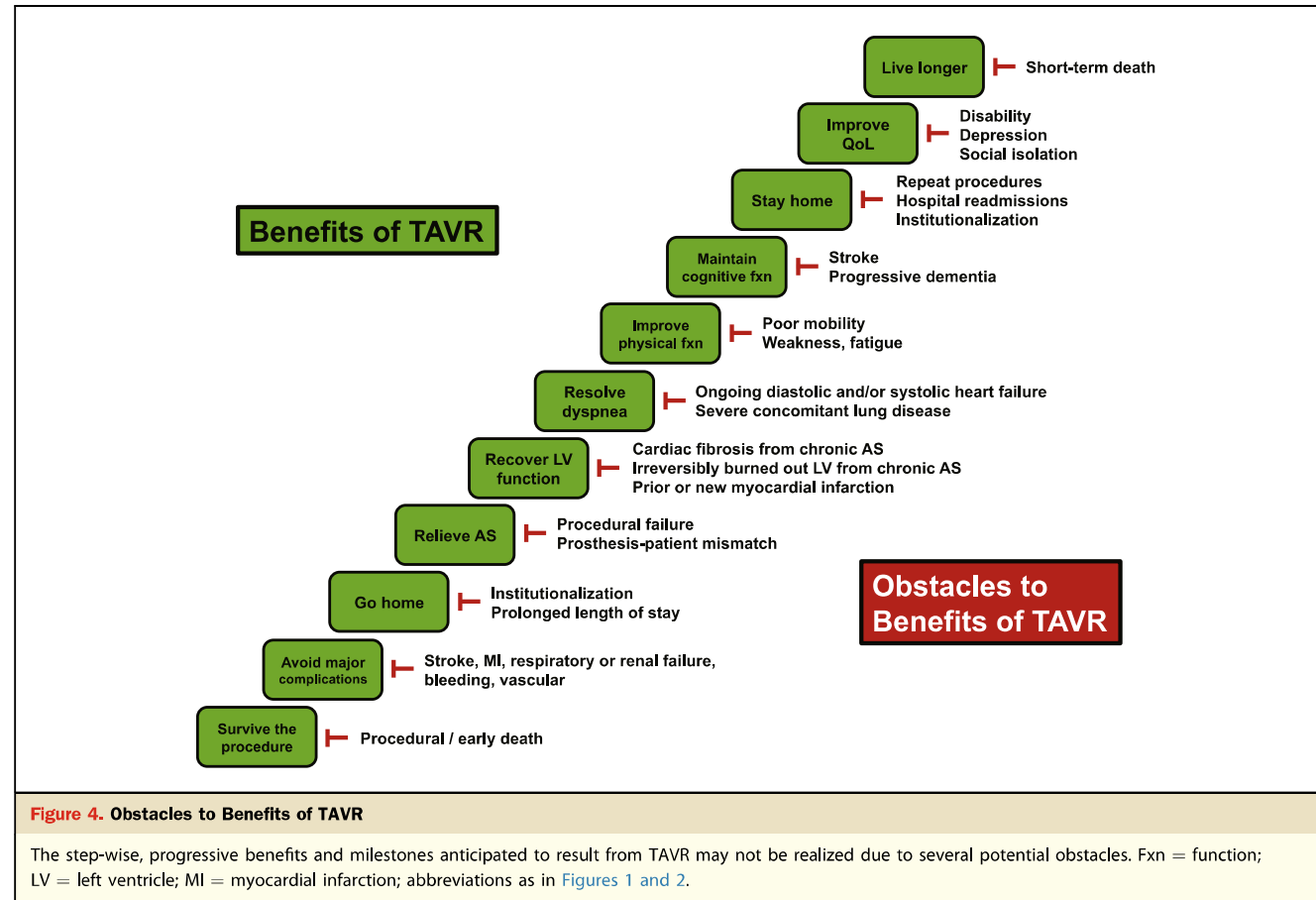
mood disorder

social support

Un patient avec SA qui reçoit un RVA...



... ne vécut pas toujours heureux jusqu'à la fin des temps...



“Je sais reconnaître un patient fragile quand j’en vois un”

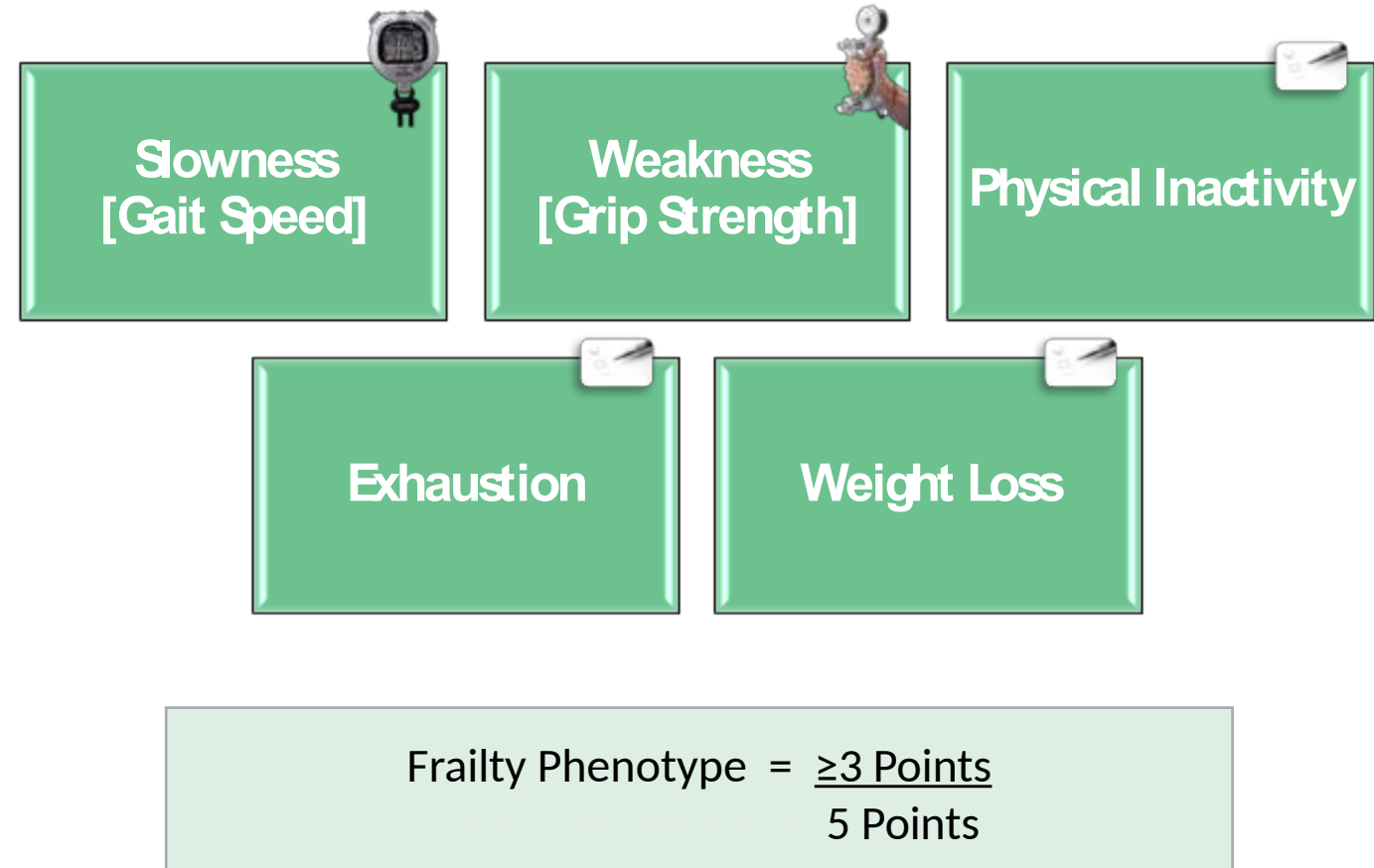


***Comment mesurer la
fragilité objectivement?***

Évaluation de fragilité

Outils basés sur le phénotype

F	• Fatigue "Do you feel tired most of the time"
R	• Resistance "Can you climb a flight of stairs?"
A	• Aerobic "Can you walk a block?"
I	• Illnesses ≥ 5
L	• Loss of weight $\geq 5\%$ over 6 months



Évaluation de fragilité

Outils basés sur l'accumulation des déficits

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.

Scoring frailty in people with dementia

The degree of frailty corresponds to the degree of dementia. Common **symptoms in mild dementia** include forgetting the details of a recent event, though still remembering the event itself, repeating the same question/story and social withdrawal.

In **moderate dementia**, recent memory is very impaired, even though they seemingly can remember their past life events well. They can do personal care with prompting.

In **severe dementia**, they cannot do personal care without help.

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

- | | | |
|--|---|--|
| <ul style="list-style-type: none"> • 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 • Toileting problems • Bulk difficulties • Rectal problems • 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 | <ul style="list-style-type: none"> • Mood problems • Feeling sad, blue, depressed • History of depressed mood • Tiredness all the time • Depression (clinical impression) • Sleep changes • Restlessness • Memory changes • Short-term memory impairment • Long-term memory impairment • Changes in general mental functioning • 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 | <ul style="list-style-type: none"> • Seizures, partial complex • Seizures, generalized • Syncope or blackouts • Headache • Cerebrovascular problems • History of stroke • History of diabetes mellitus• Arterial hypertension • Peripheral pulses • Cardiac problems • Myocardial infarction • Arrhythmia • Congestive heart failure • Lung problems • Respiratory problems • History of thyroid disease • Thyroid problems • Skin problems • Malignant disease • Breast problems • Abdominal problems • Presence of shunt reflex • Presence of the palmarmental reflex • Other medical history |
|--|---|--|

$$\text{Frailty Index} = \frac{\# \text{ Deficits Present}}{\# \text{ Deficits Counted}}$$

Évaluation de fragilité

Comparaison des outils

Phénotype de sarcopénie



Accumulation de déficits

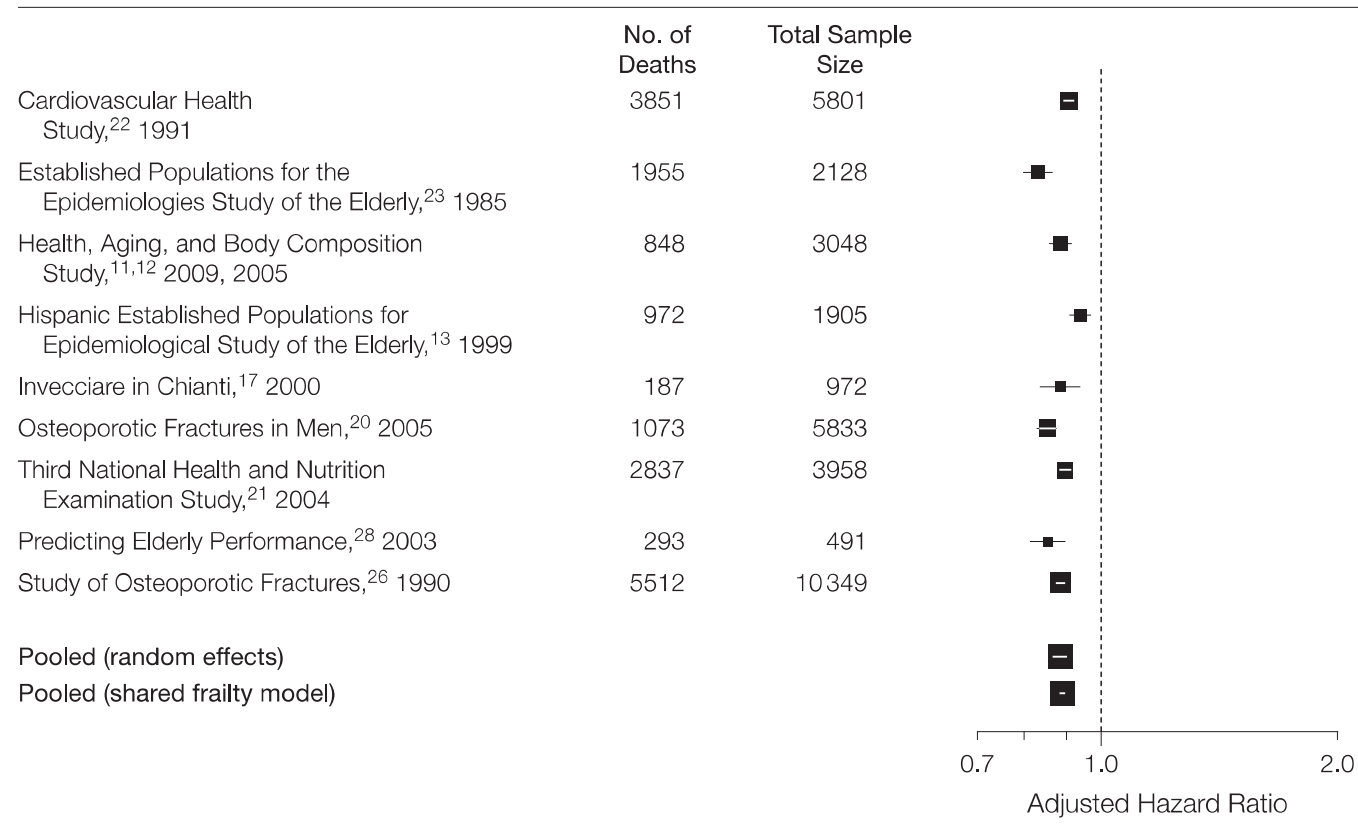


***Quelle est la valeur
prognostique de la fragilité?***

Test de vitesse de marche

Preuve dans la communauté

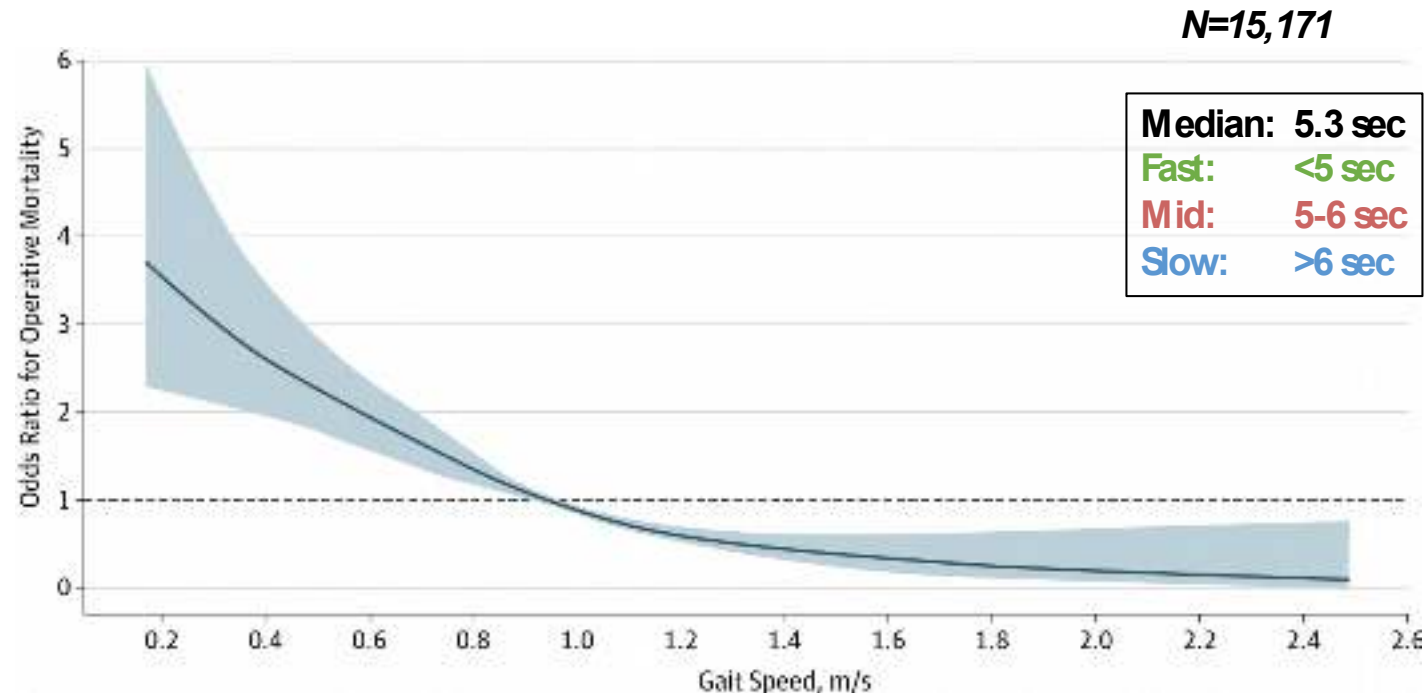
Figure 1. Age-Adjusted Hazard Ratio for Death per 0.1-m/s Higher Gait Speed



Test de vitesse de marche

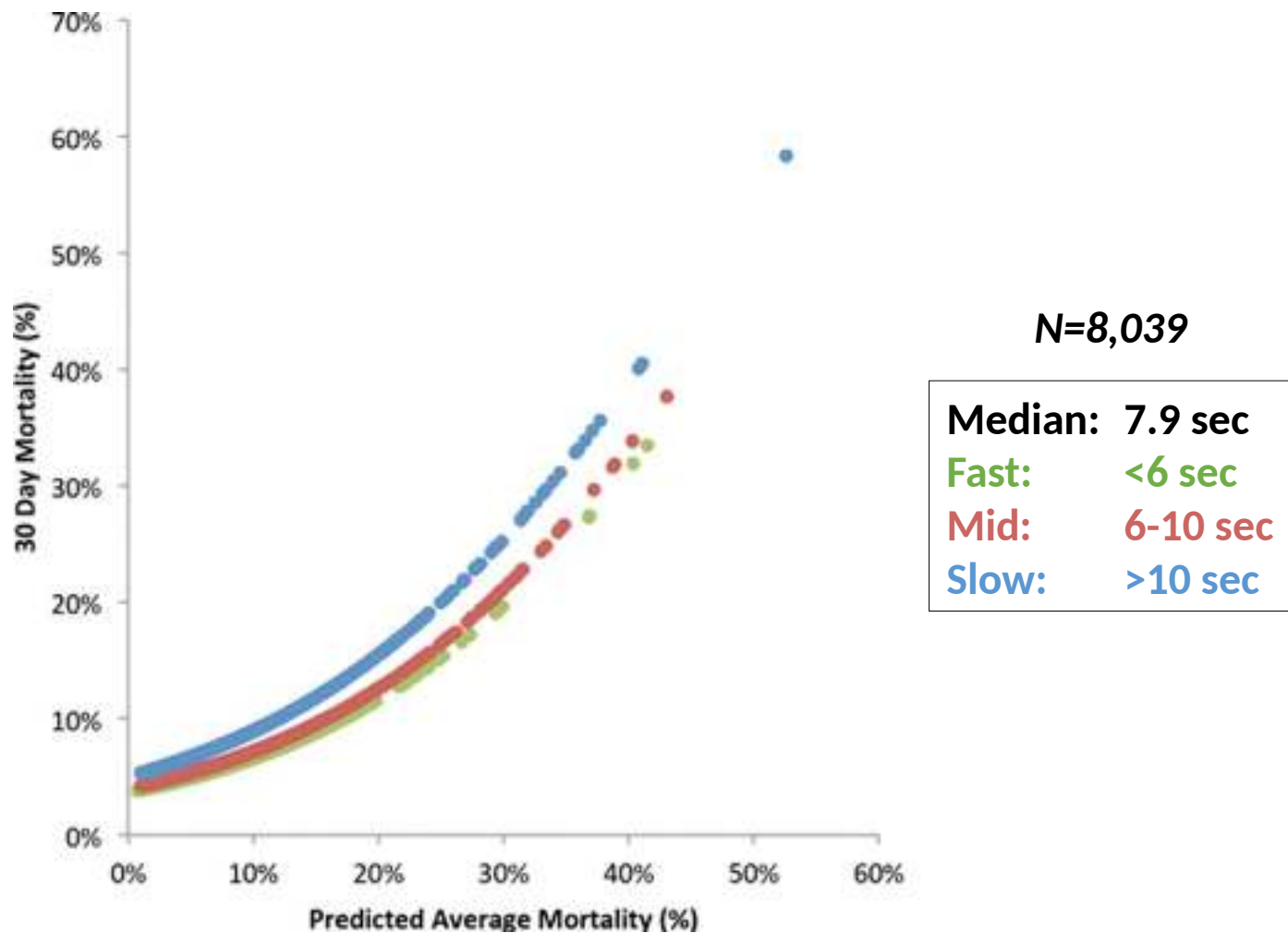
Preuve en chirurgie cardiaque

Gait Speed and Operative Mortality in Older Adults Following Cardiac Surgery (Society of Thoracic Surgeons)



Test de vitesse de marche

Preuve en TAVI





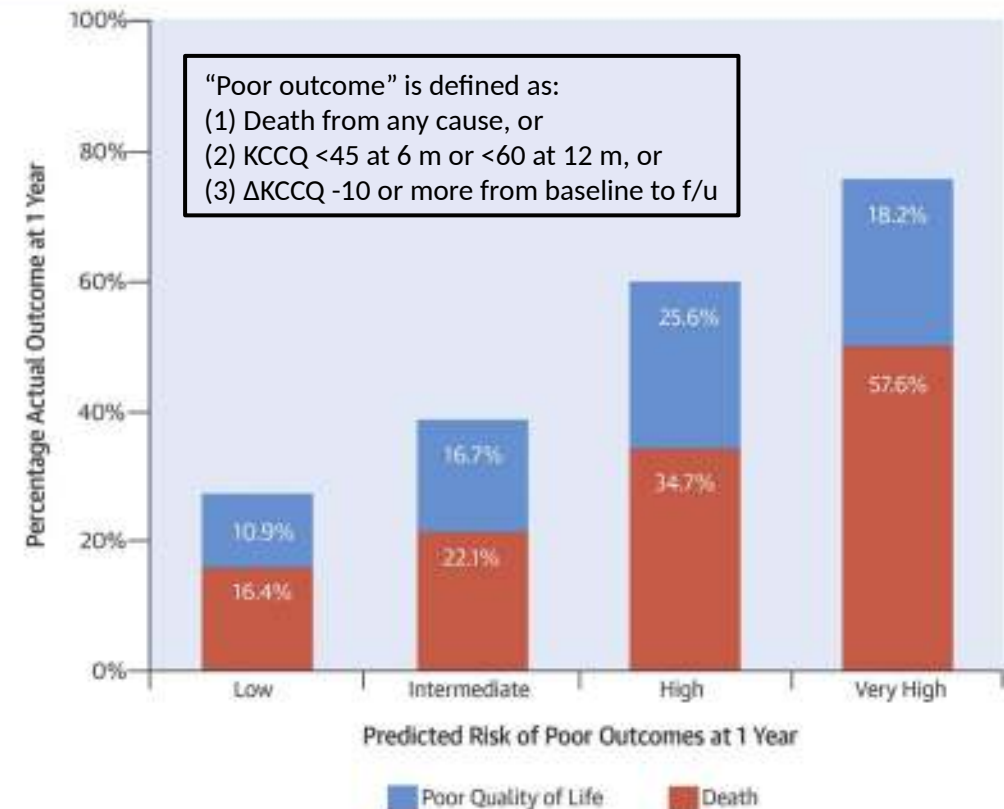
Prediction of Poor Outcome After Transcatheter Aortic Valve Replacement

Suzanne V. Arnold, MD, MHA,^{a,b} Jonathan Afilalo, MD, MSc,^c John A. Spertus, MD, MPH,^{a,b} Yuanyuan Tang, PhD,^a
Suzanne J. Baron, MD, MSc,^{a,b} Philip G. Jones, MS,^a Michael J. Reardon, MD,^d Steven J. Yakubov, MD,^e
David H. Adams, MD,^f David J. Cohen, MD, MSc,^{a,b} on behalf of the U.S. CoreValve Investigators

TABLE 3 Clinical Models: Association of Frailty and Geriatric Domains With Poor Outcomes

	6-Month Clinical Model		1-Year Clinical Model	
	OR (95% CI)	p Value	OR (95% CI)	p Value
Base model*				
KCCQ-12-os	0.92 (0.87–0.96)		0.81 (0.78–0.85)	
Mean aortic valve gradient, per 10 mm Hg	0.81 (0.76–0.87)		0.86 (0.80–0.92)	
Home oxygen	1.62 (1.22–2.17)		1.54 (1.13–2.10)	
Serum creatinine, per 1 mg/dL	1.24 (1.02–1.51)		1.37 (1.12–1.68)	
Mild dementia/mild cognitive impairment†	1.31 (1.08–1.59)		1.30 (1.07–1.59)	
Moderate/severe dementia†	1.72 (0.82–3.62)		1.75 (0.78–3.97)	
Atrial fibrillation/flutter	1.40 (1.16–1.70)		1.28 (1.05–1.55)	
Diabetes mellitus	0.77 (0.63–0.94)		0.93 (0.76–1.14)	
	c-index = 0.637‡		c-index = 0.665‡	
Frailty syndrome	1.29 (1.08–1.55)	0.004	1.13 (0.93–1.36)	0.209
	c-index = 0.641	IDI p = 0.005	c-index = 0.665	IDI p = 0.218
Geriatric components				
Disabilities, per 1 ADL	1.29 (1.19–1.39)	<0.001	1.22 (1.12–1.33)	<0.001
Unintentional weight loss	1.51 (1.17–1.95)	0.001	1.53 (1.15–2.04)	0.003
	c-index = 0.656	IDI p = 0.007	c-index = 0.676	IDI p = 0.008

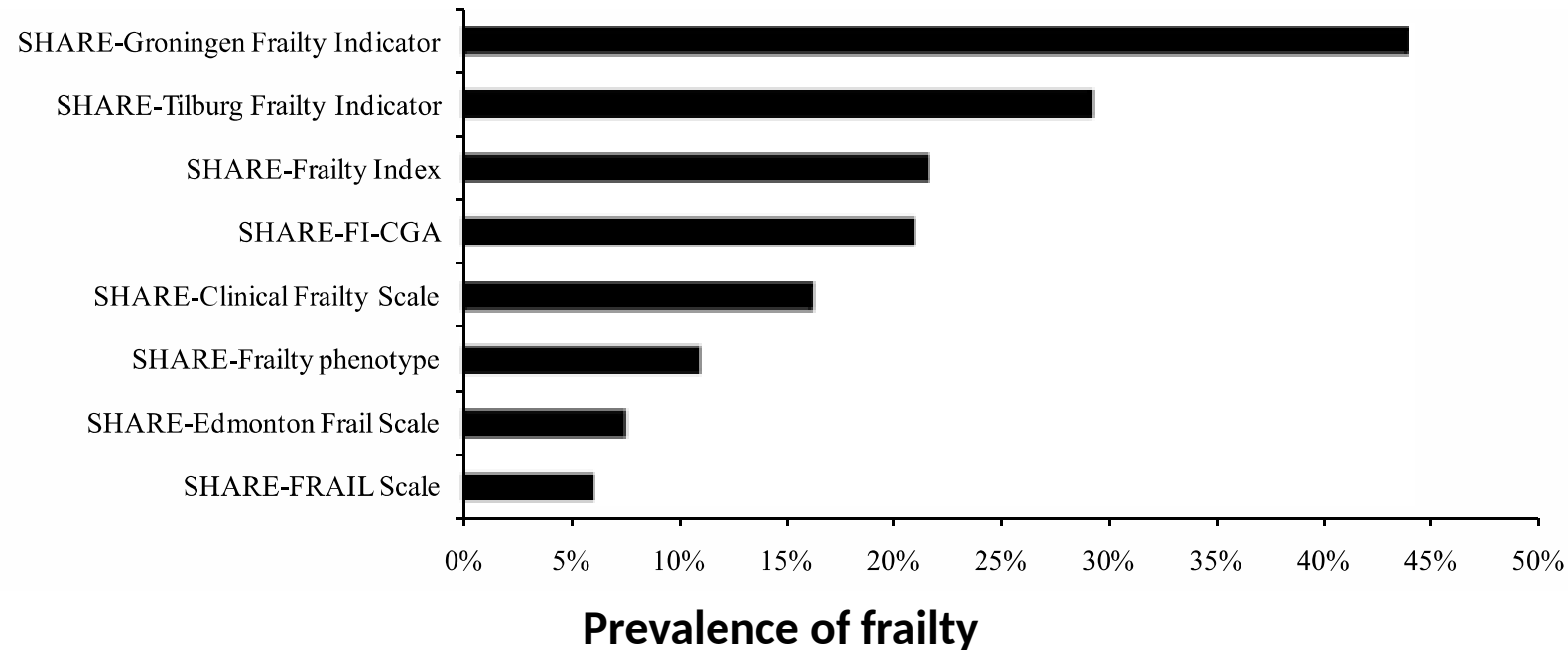
CENTRAL ILLUSTRATION: Poor Outcome After Transcatheter Aortic Valve Replacement



Arnold, S.V. et al. J Am Coll Cardiol. 2016;68(17):1868–77.

Évaluation de fragilité

Les outils ne sont pas interchangeables



Étude FRAILTY-AVR

QUESTION



*Chez les adultes âgés subissant un RVA
chirurgical ou percutané, quel outil
d'évaluation de fragilité est prédictif de mort
et d'incapacité évolutive à 1 an?*



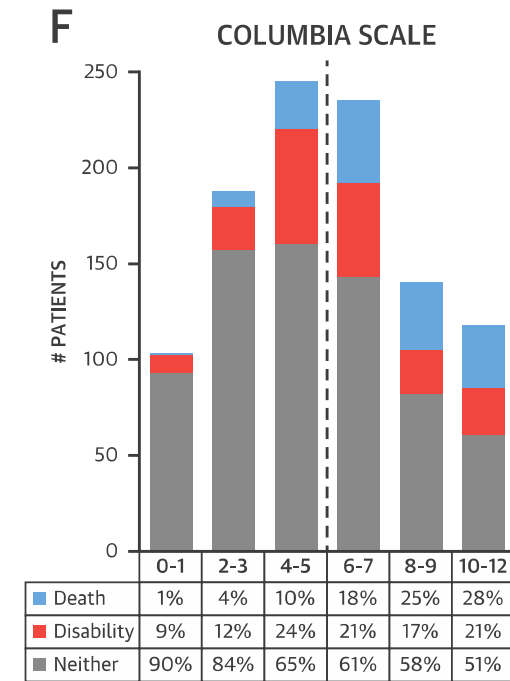
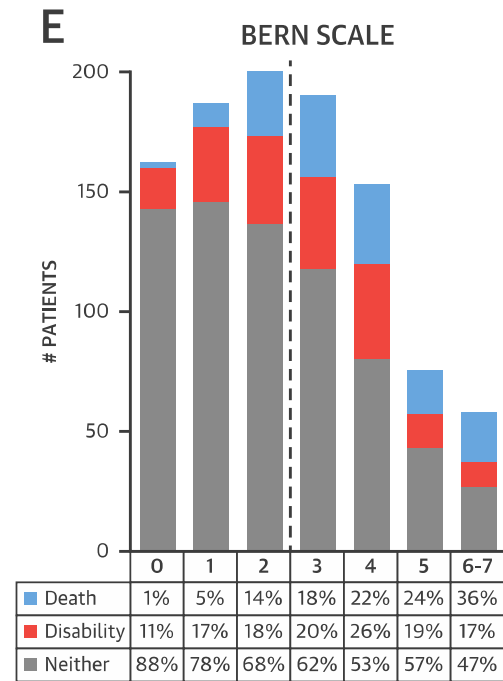
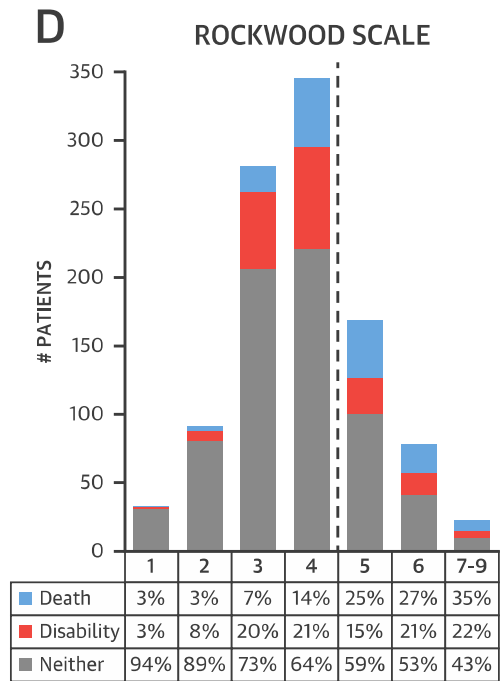
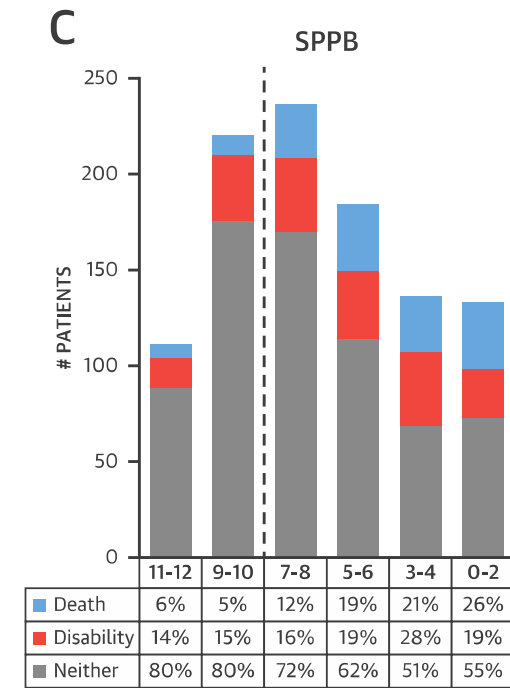
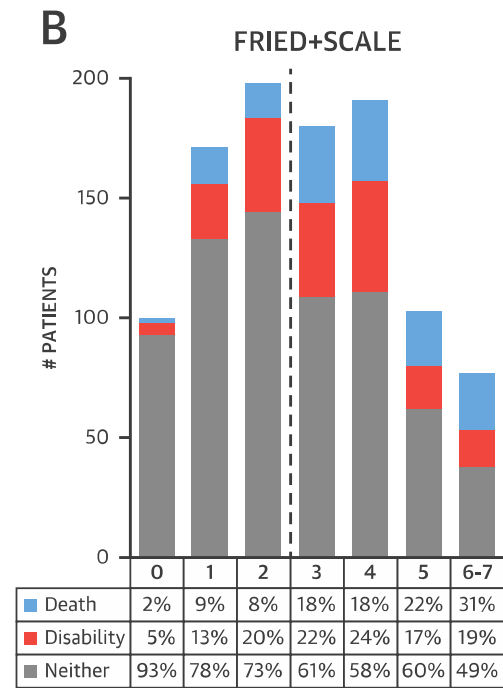
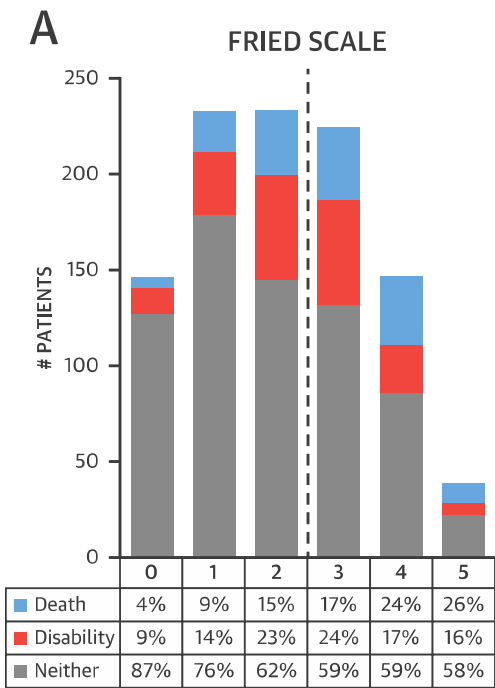
N=1,020 @ 14 sites

49% Trans-femoral TAVR

14% Non-femoral TAVR

18% Isolated SAVR

19% Combined CABG+SAVR

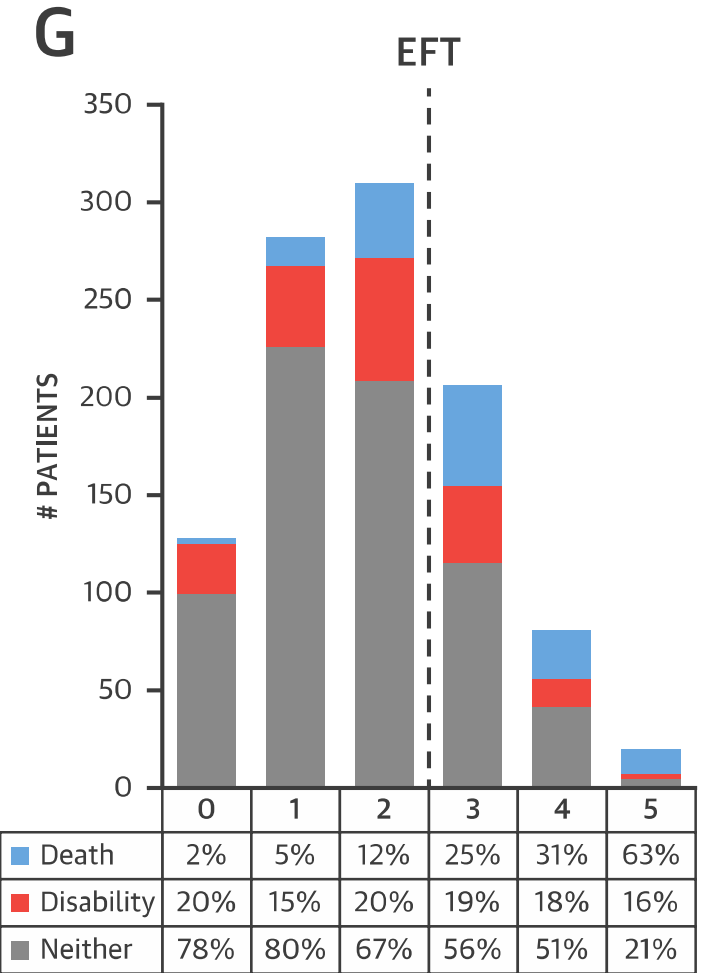




EFT Essential Frailty Toolset

Chair rise time
Gait speed
Standing balance
Handgrip strength
Body mass index
Weight loss
Exhaustion
Inactivity
Falls
Visual impairment
Hearing impairment
Cognitive impairment
Depressed mood
Anxious mood
Hemoglobin
Leukocyte count
Platelet count
Serum albumin
Malnutrition
Nagi items
OARS items

	Five chair rises <15 seconds	0 points
	Five chair rises ≥15 seconds	1 point
	Unable to complete	2 points
	No cognitive impairment	0 points
	Cognitive impairment	1 point
	Hemoglobin ≥13.0 g/dL ♂ ≥12.0 g/dL ♀	0 points
	Hemoglobin <13.0 g/dL ♂ <12.0 g/dL ♀	1 point
	Serum albumin ≥3.5 g/dL	0 points
	Serum albumin <3.5 g/dL	1 point





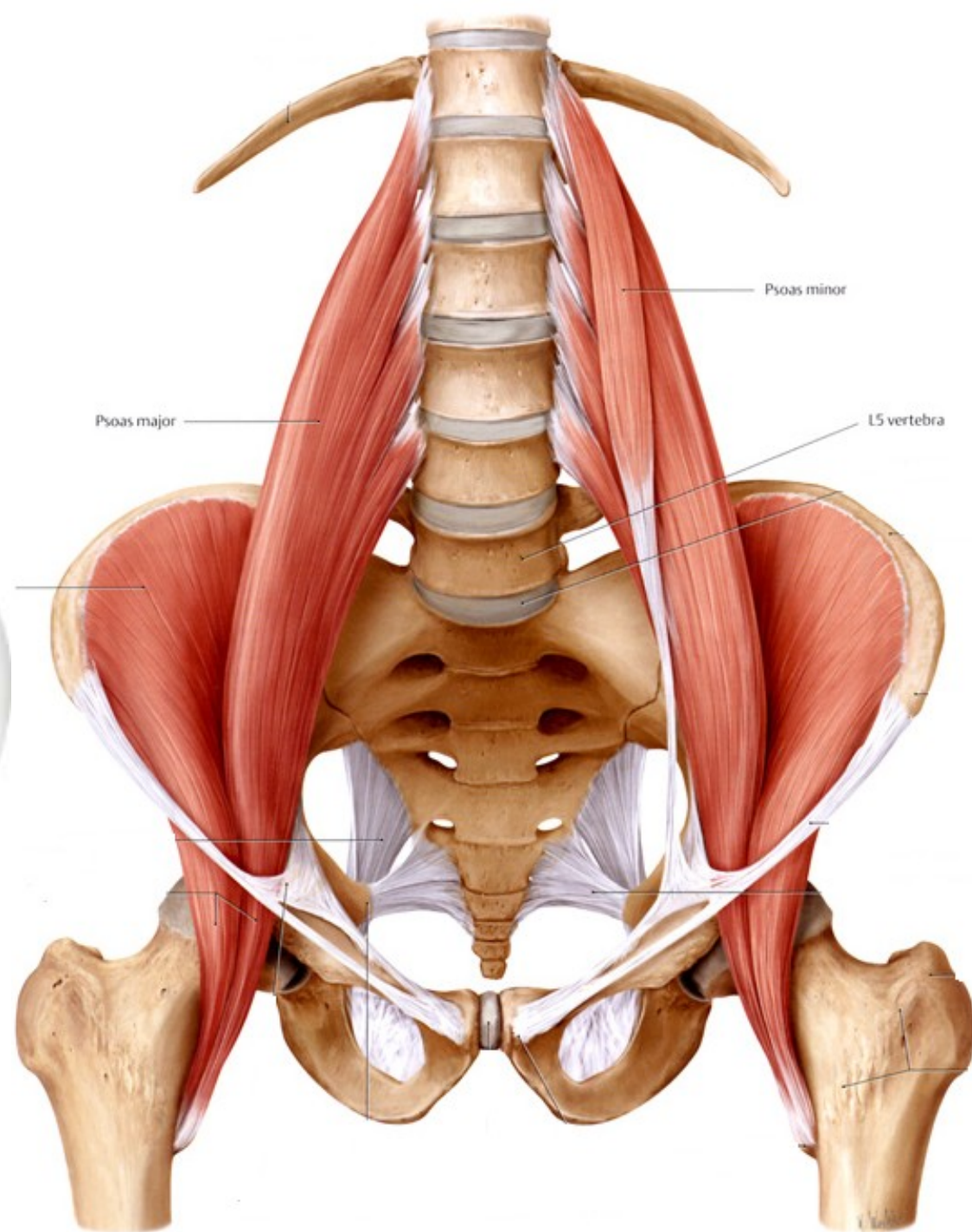
Étude FRAILTY-AVR

MODÈLE FINAL

TABLE 4 Multivariable Model to Predict 1-Yr Mortality

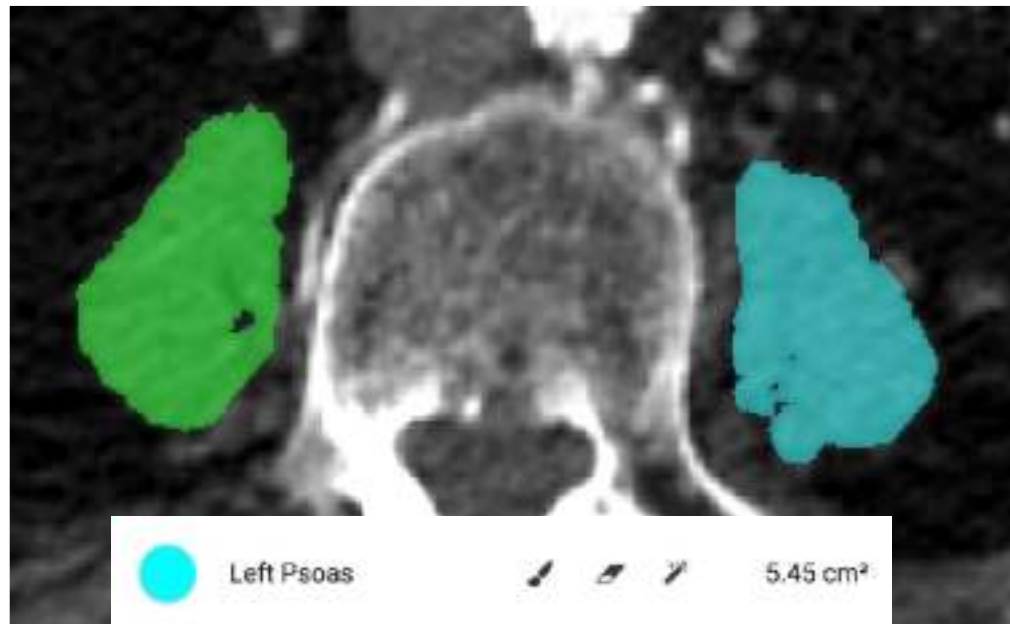
	Adjusted OR (95% CI)
Age, per yr	1.03 (0.99-1.08)
Female	1.07 (0.70-1.62)
BMI, per kg/m ²	0.95 (0.91-0.98)
Atrial fibrillation	1.59 (1.06-2.41)
Home oxygen	3.33 (1.06-10.47)
Cancer	1.31 (0.79-2.19)
Prior stroke	0.93 (0.48-1.81)
Prior gastrointestinal bleed	1.47 (0.72-3.00)
GFR, per 10 ml/min/1.73 m ²	0.88 (0.78-0.99)
Mean aortic gradient, per 10 mm Hg	0.87 (0.75-1.01)
LVEF, per %	1.01 (0.99-1.02)
PASP ≥60 mm Hg	2.08 (1.19-3.63)
Procedure type	
TAVR transfemoral	1 (Referent)
TAVR nonfemoral	1.82 (1.09-3.05)
SAVR isolated	0.40 (0.16-1.01)
SAVR with bypass	1.39 (0.75-2.59)
Frailty*, ordinal (per EFT point)	1.87 (1.57-2.24)
dichotomous (EFT ≥3 of 5)	3.42 (2.29-5.12)

***Qu'en est-il de la
masse musculaire?***

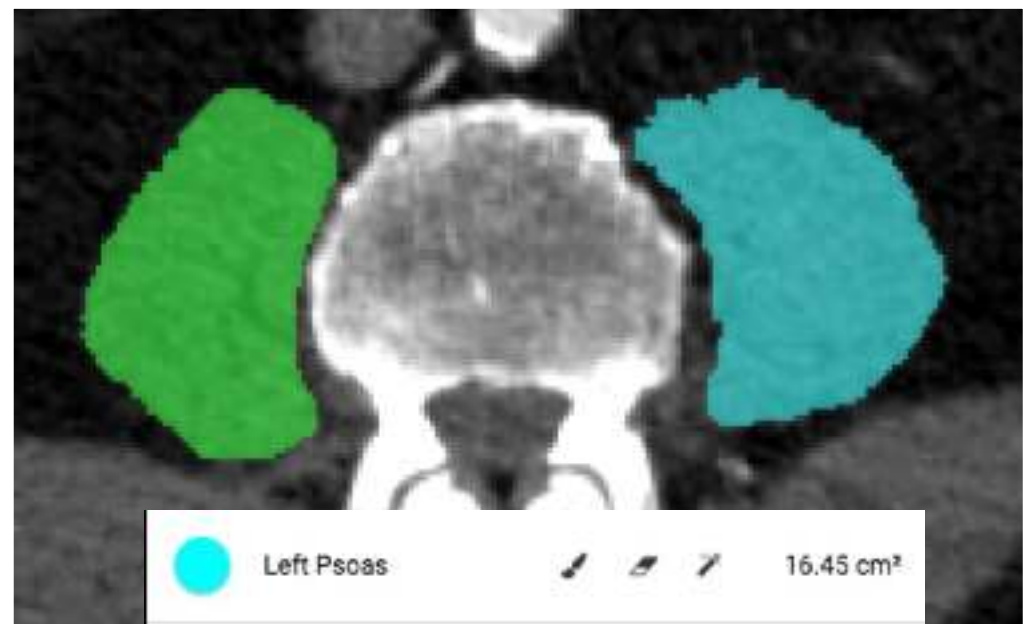




Superficie du muscle psoas



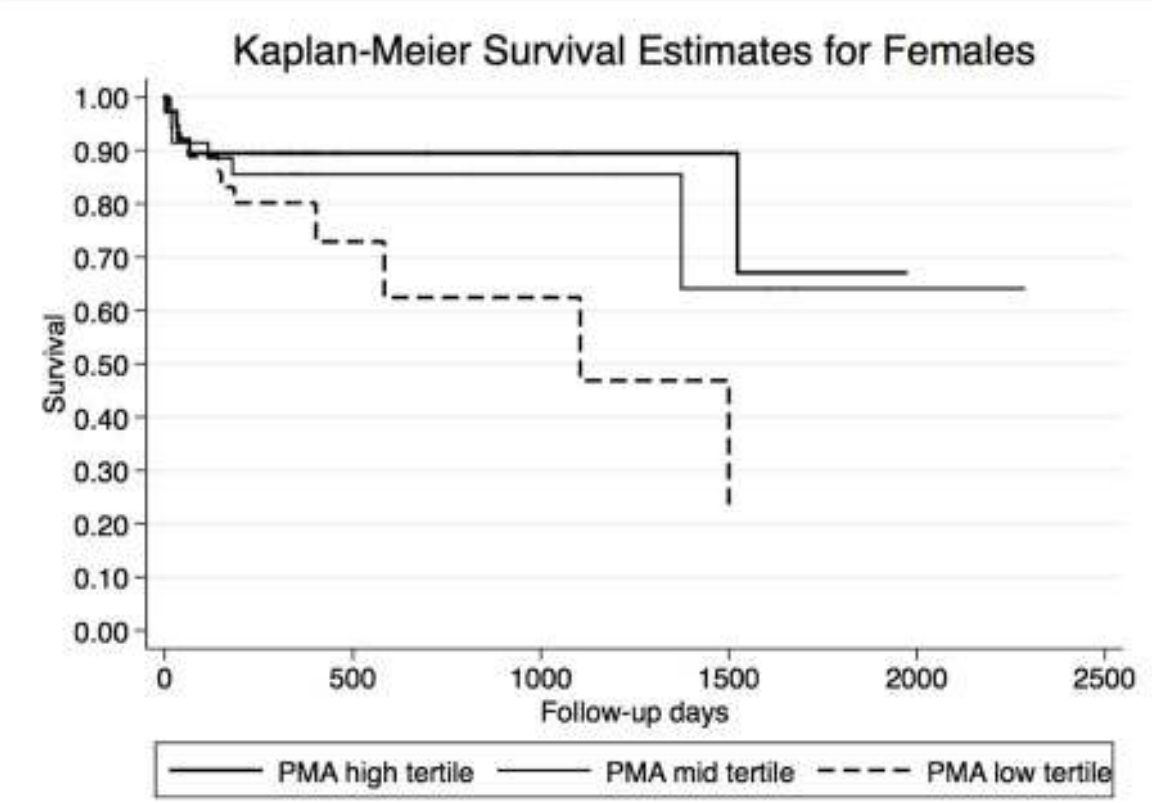
	Left Psoas	  	5.45 cm ²
	Right Psoas	  	5.77 cm ²



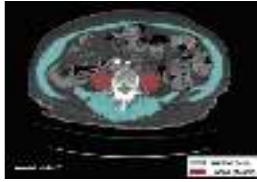
	Left Psoas	  	16.45 cm ²
	Right Psoas	  	15.64 cm ²

Psoas Muscle Area and All-Cause Mortality After Transcatheter Aortic Valve Replacement: The Montreal-Munich Study

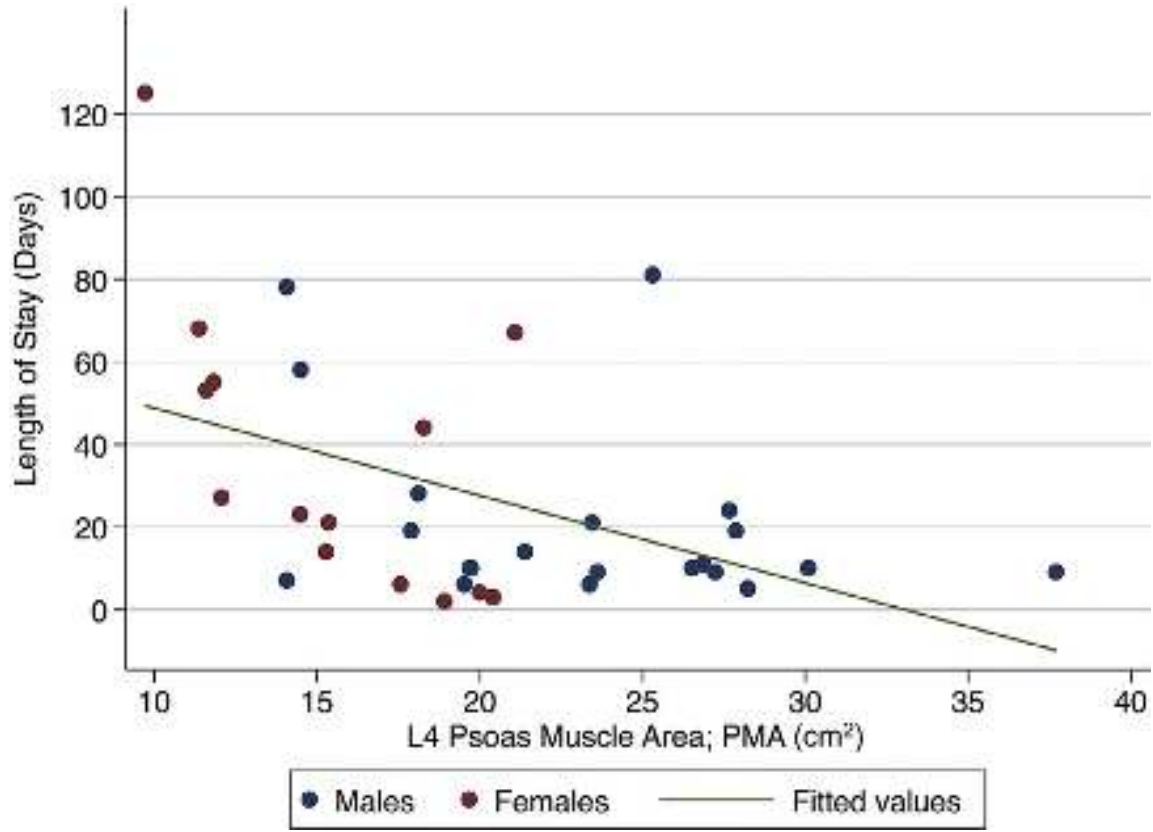
Samuel Mamane, MD,^{a,*} Louis Mullie, MD,^{a,*} Nicolo Piazza, MD, PhD,^{a,b} Giuseppe Martucci, MD,^{a,b} José Morais, MD,^{a,c} Antonio Vigano, MD,^d Mark Levental, MD,^e Kristoff Nelson, MD,^a Ruediger Lange, MD,^f and Jonathan Afilalo, MD, MSc^{a,b,g}



Psoas Muscle Area and Length of Stay in Older Adults Undergoing Cardiac Operations

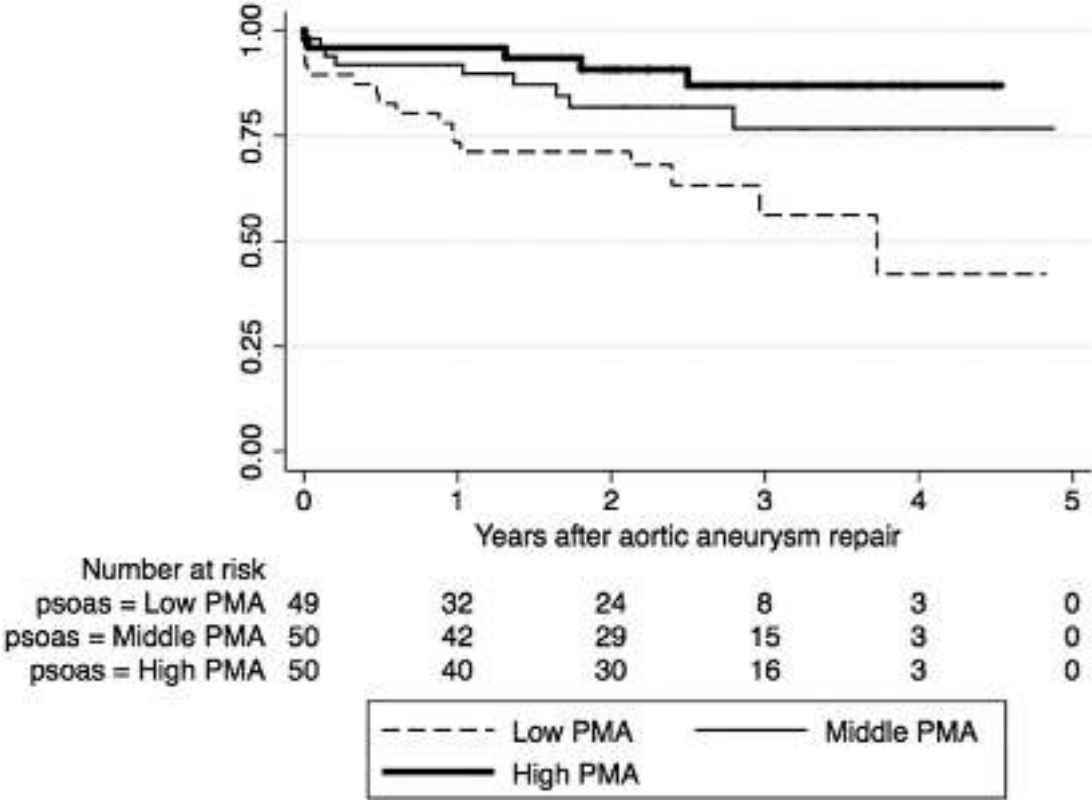


Jesse Zuckerman, BS, Matthew Ades, BS, Louis Mullie, MD, Amanda Trnkus, MS, Jean-Francois Morin, MD, Yves Langlois, MD, Felix Ma, MD, Mark Levental, MD, José A. Morais, MD, and Jonathan Afilalo, MD, MS



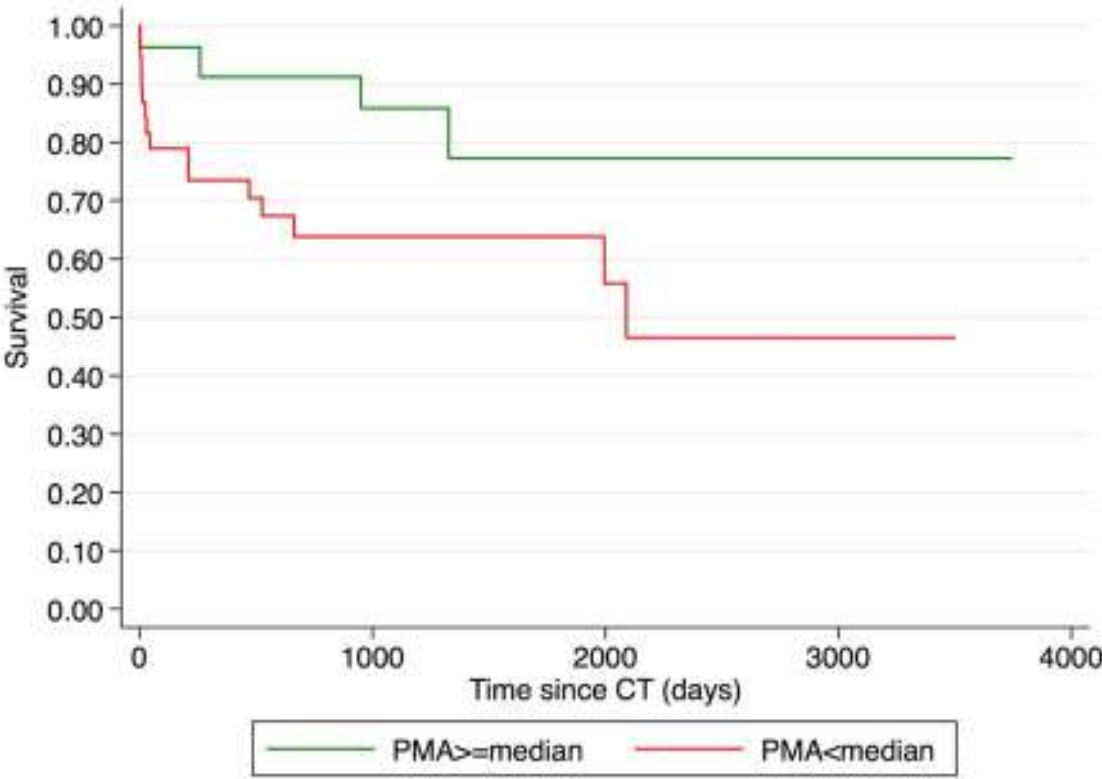
Psoas Muscle Area Predicts All-Cause Mortality After Endovascular & Open Aortic Aneurysm Repair

Laura Drudi, Kim Phung, Matthew Ades, Jesse Zuckerman, Louis Mullie, Oren Steinmetz, Daniel O'Brand, Jonathan Afilalo



Psoas Muscle Area Predicts All-Cause Mortality & Major Morbidity After Cardiac Transplantation

Lior Bibas, Eli Saleh, Samah Al-Kharji, Jessica Chetrit, Louis Mullie, Marcelo Cantarovich, Renzo Cecere, Nadia Giannetti, Jonathan Afilalo



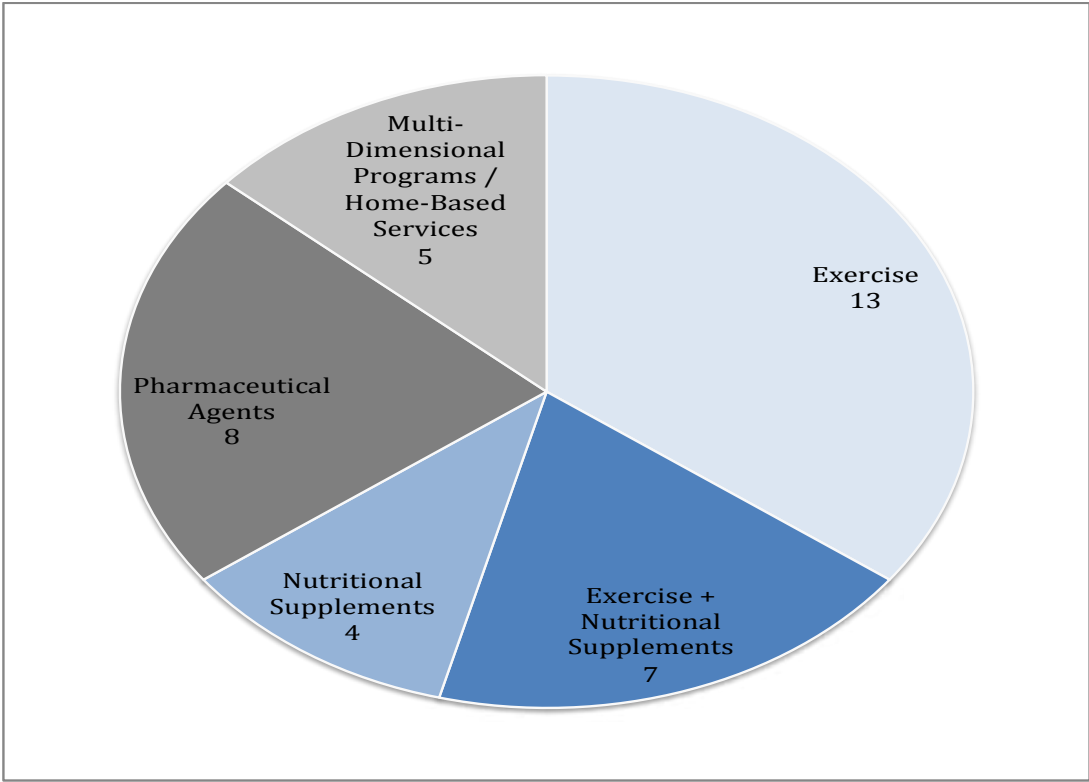
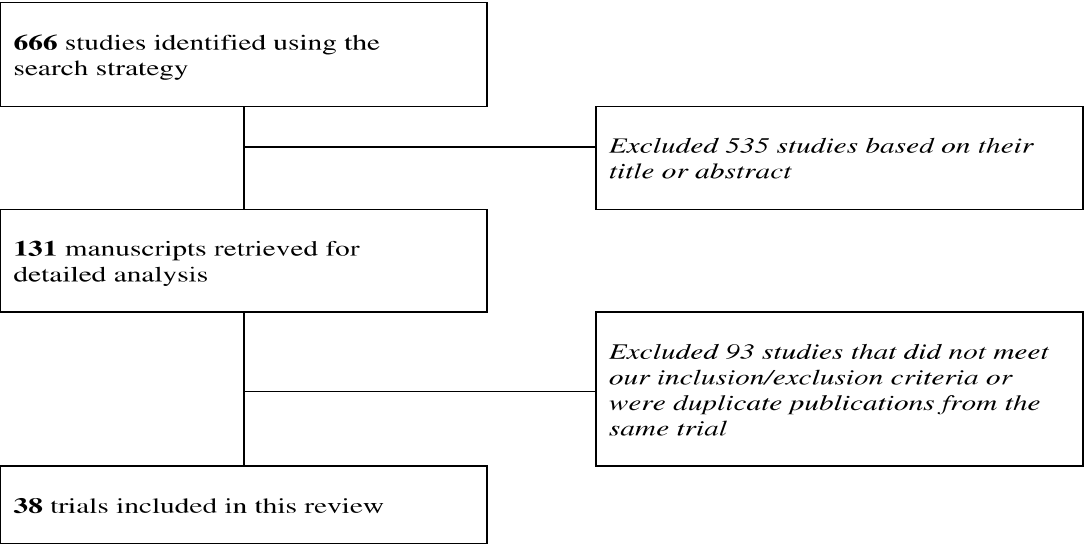
***Comment traiter
la fragilité?***

Therapeutic Interventions for Frail Elderly Patients:

Part I. Published Randomized Trials



Lior Bibas^{a,b}, Michael Levi^{a,b}, Melissa Bendayan^c, Louis Mullie^a,
Daniel E. Forman^{d,e}, Jonathan Afilalo^{b,c,f,*}



L'étude PERFORM-TAVR

Eligibility Criteria

1. Age: 70 years
2. Physical frailty: Short Physical Performance Battery
3. Undergoing TAVR: Average containing 20 g protein and 1.5 g HMB
4. Physically fit: Short Physical Performance Battery
5. Signed informed consent: Older Americans Resources and Services ADL/IADL scale
6. Home-based exercise program: Weight-bearing exercise (WEBB program) guided by a therapist
7. Body composition: Portable multi-frequency bioimpedance device
8. Moderate intensity walking exercise: Guided by an accelerometer
9. Cognitive function: Montreal Cognitive Assessment (MoCA)
10. Safety: All-cause mortality, injurious fall, AKI, or readmission

Exclusion Criteria

1. Usual: Persistent class IV symptoms of angina, dyspnea, claudication
2. Moderate stability: Moderate intensity walking exercise guided by an AHA brochure
3. Performed: Delayed < 30 min/1.83 m²
4. Cirrhosis: Cirrhosis
5. Allergy to ingredient in beverage: Allergy to ingredient in beverage
6. Inability to safely ingest beverage by mouth: Inability to safely ingest beverage by mouth
7. Inability to walk without human assistance or high-risk of falls: Inability to walk without human assistance or high-risk of falls
8. Levodopa Rx (interaction with whey protein): Levodopa Rx (interaction with whey protein)
9. Moderate-to-severe cognitive impairment: Moderate-to-severe cognitive impairment
10. Significant angina, heart failure, or arrhythmia: Significant angina, heart failure, or arrhythmia

L'étude GET GOING

Eligibility Criteria

1. Homebound
2. Age ≥ 70 years
2. Moderate to severe disability of walking or exertion as indicated by a medical professional
2. QOL: Individualized Log of Symptoms (AVR) to guide the next hospitalization
3. Available for a 12-week Healthy Heart brochure
4. Activity: Steps per day measured by wrist-worn accelerometer device
4. Discharge to an independent residence
4. Able to stand and walk without assistance from another person
6. Safety: All-cause mortality, injurious fall, AKI, or readmission for worsening angina, heart failure, or arrhythmia
6. Able to carry out basic activities of daily living without assistance
7. Signed informed consent

Exclusion Criteria

1. Usual persistent class IV symptoms of angina, dyspnea, claudication
2. High risk for falls or instability for mobilization
3. Non-revascularized acute myocardial infarction within the past month or uncorrected severe symptomatic aortic stenosis
4. Referral to a structured cardiac rehabilitation program
5. Unable to return for follow-up visit
6. Moderate-to-severe cognitive impairment
7. Significant language barrier

Étude de cas



	Five chair rises <15 seconds	0 points	12.53
	Five chair rises ≥15 seconds	1 point	
	Unable to complete	2 points	
	No cognitive impairment	0 points	11.7
	Cognitive impairment	1 point	
	Hemoglobin ≥13.0 g/dL ♂ ≥12.0 g/dL ♀	0 points	4.0
	Hemoglobin <13.0 g/dL ♂ <12.0 g/dL ♀	1 point	
	Serum albumin ≥3.5 g/dL	0 points	
	Serum albumin <3.5 g/dL	1 point	

Score EFT: 1 / 5

	Five chair rises <15 seconds	0 points	11.2
	Five chair rises ≥15 seconds	1 point	
	Unable to complete	2 points	
	No cognitive impairment	0 points	3.1
	Cognitive impairment	1 point	
	Hemoglobin ≥13.0 g/dL ♂ ≥12.0 g/dL ♀	0 points	
	Hemoglobin <13.0 g/dL ♂ <12.0 g/dL ♀	1 point	
	Serum albumin ≥3.5 g/dL	0 points	
	Serum albumin <3.5 g/dL	1 point	

Score EFT: 5 / 5

	Five chair rises <15 seconds	0 points	10.3
	Five chair rises ≥15 seconds	1 point	
	Unable to complete	2 points	
	No cognitive impairment	0 points	3.5
	Cognitive impairment	1 point	
	Hemoglobin ≥13.0 g/dL ♂ ≥12.0 g/dL ♀	0 points	
	Hemoglobin <13.0 g/dL ♂ <12.0 g/dL ♀	1 point	
	Serum albumin ≥3.5 g/dL	0 points	
	Serum albumin <3.5 g/dL	1 point	

Score EFT: 3 / 5



Risques prédits selon la STS:

- 30-day mortality: 6%

Risques prédits EFT:

- 30-day mortality: 1%
- 1-year mortality: 8%



Risques prédits selon la STS:

- 30-day mortality: 7%

Risques prédits EFT:

- 30-day mortality: 25%
- 1-year mortality: 69%



Risques prédits selon la STS:

- 30-day mortality: 6%

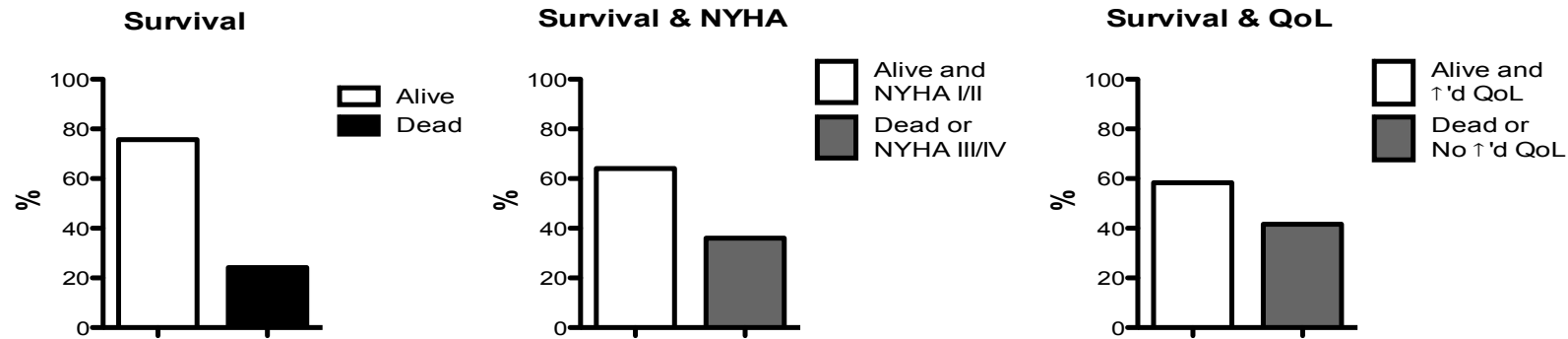
Risques prédits EFT:

- 30-day mortality: 9%
- 1-year mortality: 27%

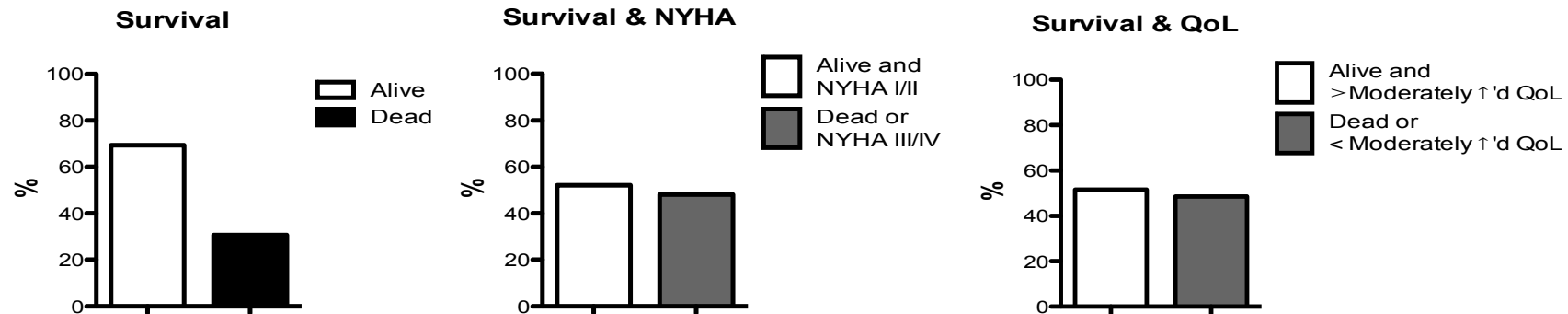
Le mot en F...

Le mot en F “Futilité”

High Risk Patients in the PARTNER Trial - 1 Year Outcomes



Prohibitive Risk Patients in the PARTNER Trial - 1 Year Outcomes



Le mot en F “Futilité”

A

- Advanced dementia

B

- Bedbound; non-mobile

C

- Cachexia or severe sarcopenia

D

- Disability for all/most ADLs

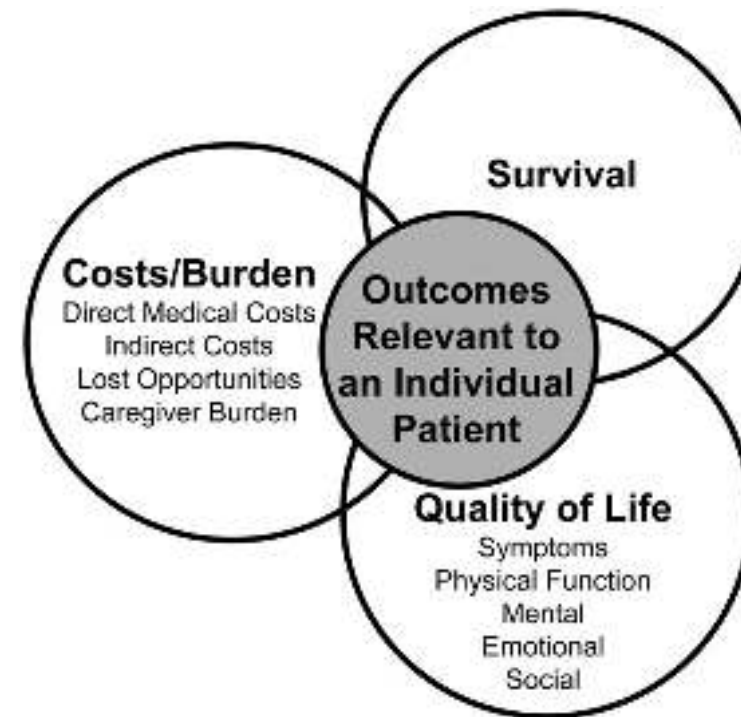
E

- End-stage renal, liver, lung disease

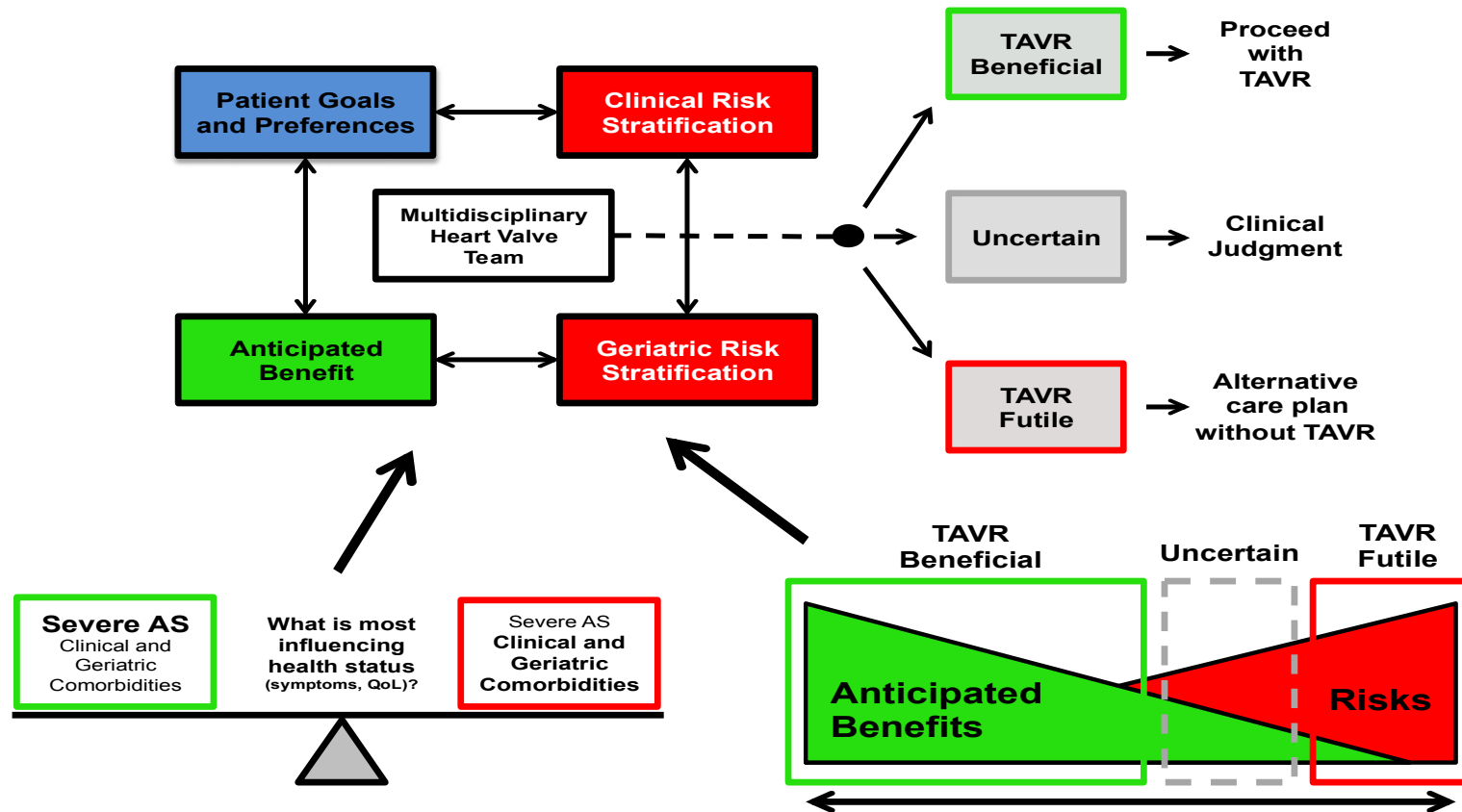
Préférences du patient

Table 2. Discussing Challenging Topics With Patients With Heart Failure

Topic	What the Physician Could Say
Hope	"When you think of the future, what do you hope for?"
Prognosis	"Most people with heart failure ultimately will die from it. That can be gradual and anticipated, or sudden and unexpected." "We know that half of people with heart failure like yours will die in the next year. We will work together to try to help you become one of the people that lives longer than that." As prognosis becomes even more limited use estimates, eg, "weeks to months," "days to weeks," or "hours to days."
Advance directives	"If you were to get so sick that you could not talk to me directly, whom should I talk with to help me make decisions about your medical care?" "When you think about the future, what worries you the most?" "What is most important in your life right now?" "I would like to talk with you about the kind of care you would want if you became more ill. In particular, I wanted to talk with you about [hospitalization, intubation, CPR]"
Hospice	"It sounds like you think your spouse could use more help caring for you at home. Hospice is one way that we could get you more help at home. Have you heard of hospice?"



Approach axée sur le patient



Conclusions

- La fragilité est un syndrome gériatrique commun chez l'adulte âgé ayant une maladie cardiovasculaire
- La fragilité résulte en des risques disproportionnés de décompensation ou de mort
 - Ne devrait PAS résulter en une absence de traitement, mais plutôt privilégier une approche-patient plus individualisée
- L'évaluation devrait se faire à partir d'outils objectifs comme le Essential Frailty Toolset (EFT) qui peut être facilement utilisé dans le cadre des soins cliniques
- Identifier la fragilité ➡ Interventions pour améliorer les résultats et la qualité de vie

Pour en savoir plus...

“White Paper”

JACC WHITE PAPER

Frailty Assessment in the Cardiovascular Care of Older Adults



Jonathan Afilalo, MD, MSc,^{*} Karen P. Alexander, MD,[†] Michael J. Mack, MD,[‡]
Mathew S. Maurer, MD,[§] Philip Green, MD,[§] Larry A. Allen, MD, MPH,^{||}
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Aurora, Colorado; Boston, Massachusetts; and Baltimore, Maryland*

Vidéo vimeo.com/118356014



The video player shows a thumbnail with a red heart icon and the word 'FRAIL' in red. The title 'Frailty Assessment Using Physical Performance Tests' is displayed in white, with the subtitle 'A Step-by-Step Guide' in a smaller font. Below the title, a list of tests is shown: '5-Meter Gait Speed', 'Hand Grip Test', 'Balance Test', and 'Chair Rise Test'. The video player controls at the bottom include a play button, a progress bar, and a 'HD' indicator.

Frailty Assessment Using Physical Performance Tests
A Step-by-Step Guide

- 5-Meter Gait Speed
- Hand Grip Test
- Balance Test
- Chair Rise Test

Frailty Assessment Tutorial
from Jonathan Afalo 6 months ago 3:12 (MP4)

A step-by-step tutorial illustrating the techniques used to assess frailty in our research protocol. The physical performance tests demonstrated include: 5-meter gait speed, grip strength, chair rise time, tandem balance time. Disclaimer - these tests should only be performed by qualified personnel in a supervised setting, and should be stopped immediately if symptoms develop. A special thank you to our summer student Ethan Yang for the videographic montage which helped make this project a success.

Follow Collections Download

App frailtytool.com

Welcome



Frailty Tool

Rapidly evaluate frailty and individualize care for your patient.

Language

ENGLISH

FRANÇAIS

By using this tool, you agree to our [terms of use](#).

GET STARTED

Chair rise

Practice

Test

Instructions

1. Position the patient seated on a straight-back chair.
2. Instruct the patient to: "Fold your arms across your chest and stand up 1 time."



Was the patient able to safely complete the chair rise?

Yes

< BACK

NEXT >

Results

Your patient's EFT score is

3 out of 5 😞

The 1-year risk of mortality is

26.4%

Patient information

88♂ TAVR with 8.0% operative risk

Essential Frailty Toolset (EFT)

Chair rise

17.1 seconds

😞

Cognition

Cognitively impaired

😞

SHARE

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MORE >

Geriatric Cardiology Fellowship

The primary mission of the **Geriatric Cardiology Fellowship Program** is to train specialists to become highly skilled in providing integrated care for complex older adults with cardiovascular conditions, particularly those with multiple chronic conditions and geriatric syndromes. Secondly, to generate and present new knowledge by conducting meaningful research in the field of geriatric cardiology. Thirdly, to sensitize the cardiology and geriatric communities (including trainees) to the special considerations that are important to optimize care for our challenging geriatric cardiology patients. Fourthly, to demonstrate vision as early adopters/leaders in adding this emerging fellowship program to our robust portfolio of sub specialty training programs offered by the Division of Cardiology at McGill University.

Official [Fellowship Document](#)

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Program Director
Dr Jonathan Afilalo

McGill University
Jewish General Hospital
McGill University Health
Centre

Number of Positions
Maximum 1 per year

Length of Fellowship
1 year

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Merci

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