LA FRAGILITÉ GÉRIATRIQUE CHEZ LE PATIENT INSUFFISANT CARDIAQUE.

Kim Laflamme

Infirmières praticiennes spécialisées aux soins aux adultes
Professeure invitée à l' Université de Montréal.

INSTITUT DE CARDIOLOGIE DE MONTRÉAL

Aucun conflit d'intérêts

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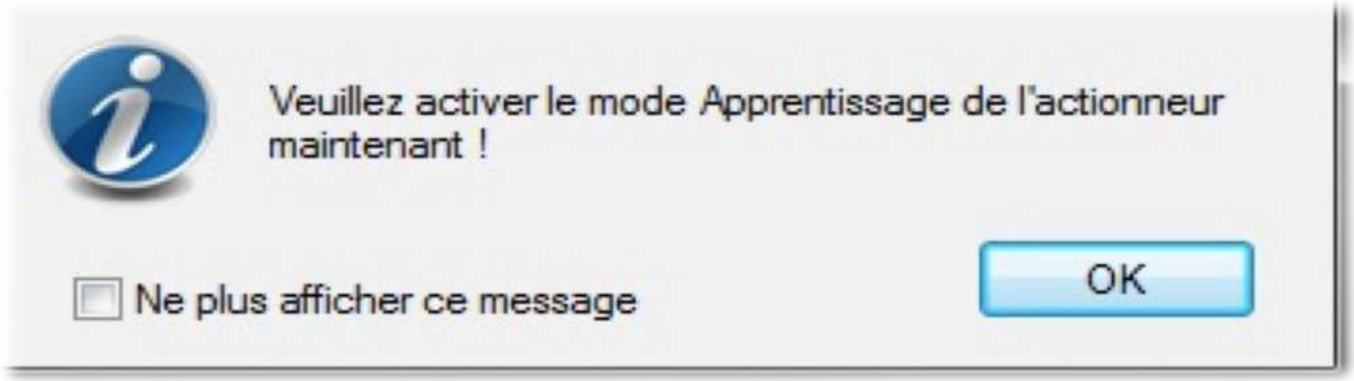
AVERTISSEMENTS

Cette présentation s'adresse à des Infirmières averties. Elle peut contenir des passages forts intéressants.



OBJECTIFS DE LA PRÉSENTATION

- Évaluer la fragilité gériatrique chez l'insuffisant cardiaque;
- Déterminer l'influence de la fragilité gériatrique en insuffisance cardiaque;
- Identifier les défis de la fragilité gériatrique en regard du plan de traitement de l'insuffisance cardiaque.

MONSIEUR TREMBLAY

♂ 78 ans veuf x 2 ans

- CMPI VG 30 % x 2019/01
  - En cours optimisation tx IC
- Nstemi 1998+2018/04
  - SP revascularisation incomplète

    CTO CD , IVA 75 % → 0% (DES)

    CX 80 % → 0% (DES)
- IRC DFGE 25
- HTA + DLPD + DB+ (Neuropathie+)
- Anémie NN (Hb base 110)
- HBP+

EST-CE QUE MONSIEUR TREMBLAY EST À RISQUE DE FRAGILITÉ GÉRIATRIQUE ?

Multimorbidity Burden and Adverse Outcomes in a Community-Based Cohort of Adults with Heart Failure

Mayra Tisminetzky, MD, PhD,[*†‡] *Jerry H. Gurwitz, MD,*[*†‡] *Dongjie Fan, MSPH,*[§] *Kristi Reynolds, MPH, PhD,*[¶] *David H. Smith, PhD, RPh,*[‖] *David J. Magid, MD, MPH,*[**] *Sue Hee Sung, MPH,*[§] *Terrence E. Murphy, PhD,*[††] *Robert J. Goldberg, PhD,*[*‡] *and Alan S. Go, MD*[§‡‡§§¶¶]

Table 1. Characteristics of Adults with Heart Failure, Overall and Stratified According to Morbidity Burden

Variables	Overall, N = 114,553	0–4 morbidities, n = 30,282	5–6 morbidities, n = 33,594	7–8 morbidities, n = 30,764	≥9 morbidities, n = 19,913
Age, median (interquartile range)	75.0 (65.0–83.0)	66.0 (56.0–77.0)	75.0 (66.0–83.0)	78.0 (70.0–84.0)	80.0 (73.0–85.0)[1]
Age, %					[1]
55–64	15.1	24.3	15.5	10.7	7.0
65–74	24.6	24.2	26.6	24.5	22.1
75–84	32.0	19.8	32.5	37.4	41.2
85–94	18.0	9.1	17.2	22.4	26.3
≥95	1.7	1.2	1.8	1.9	1.8
Female, %	45.9	36.1	44.2	50.3	56.8[1]
White, %	73.5	67.6	73.2	75.8	79.1[1]
Heart failure type, %					
Preserved ejection fraction	31.8	22.1	31.2	36.4	40.4
Reduced ejection fraction	21.3	29.6	20.8	17.4	15.5
Borderline reduced ejection fraction	8.9	9.2	9.0	8.9	8.3
Current or former smoker, %	39.8	35.9	38.4	41.2	45.8[1]

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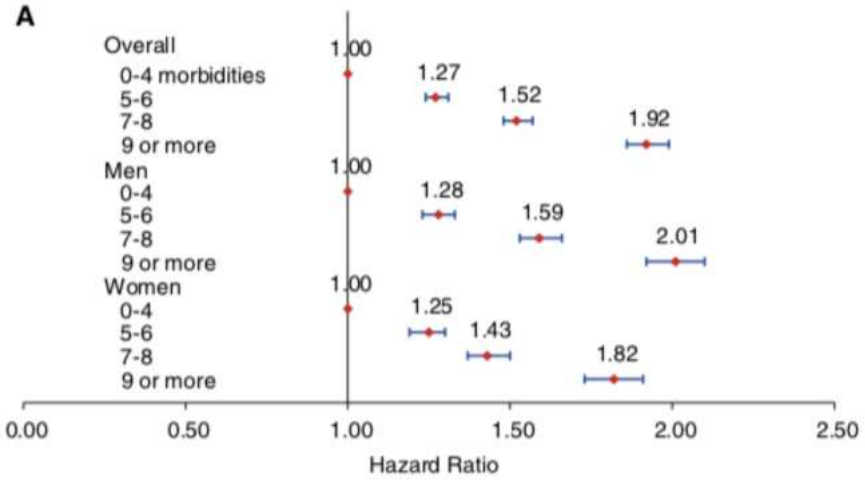
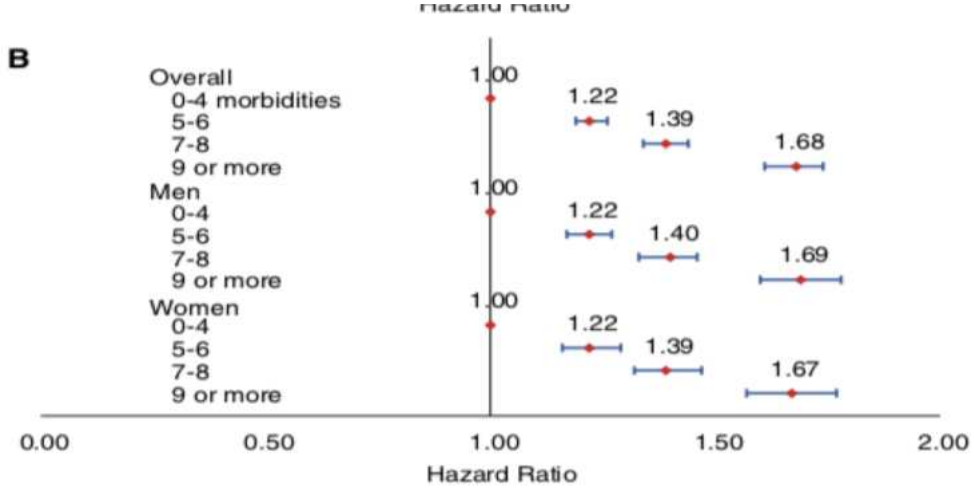
Table 2. Frequency of Chronic Conditions in Adults with Heart Failure, Overall and Stratified According to Morbidity Burden

Variable	Overall, N = 114,553	0–4 Morbidities, n = 30,282	5–6 Morbidities, n = 33,594	7–8 Morbidities, n = 30,764	≥9 Morbidities, n = 19,913
Medical history					
Acute myocardial infarction	11.0	5.7	8.7	13.0	19.9[1]
Unstable angina pectoris	4.3	1.5	3.3	5.3	8.9[1]
Coronary heart disease	18.5	8.4	14.5	22.3	34.9[1]
Ventricular tachycardia or fibrillation	2.6	1.5	2.0	2.8	5.0[1]
Mitral or aortic valve disease	31.4	16.5	25.7	37.1	54.6[1]
Atrial fibrillation	33.1	18.3	29.5	38.7	52.6[1]
Ischemic stroke or transient ischemic attack	5.1	1.2	3.0	6.0	13.2[1]
Peripheral arterial disease	5.5	0.9	2.9	6.8	15.2[1]
Diabetes mellitus	40.8	16.3	40.2	52.0	61.6[1]
Dyslipidemia	76.7	51.8	79.1	87.6	93.7[1]
Hypertension	77.6	46.9	81.8	91.4	95.6[1]
Chronic kidney disease	50.7	19.8	47.7	66.7	78.0[1]
Hospitalized bleeds	4.7	1.0	2.4	5.3	13.1[1]
Anemia	36.0	11.4	29.3	48.0	66.0[1]
Arthritis	38.7	14.9	33.6	49.5	66.7[1]
Chronic obstructive pulmonary disease	25.8	11.2	20.5	31.2	48.7[1]
Asthma	15.1	6.9	11.9	17.5	29.6[1]
Cancer, systemic	5.4	1.9	3.8	6.5	11.4[1]
Chronic liver disease	3.0	1.6	2.6	3.3	5.3[1]
Osteoporosis	12.8	3.0	8.8	16.0	29.5[1]
Thyroid disease	16.2	4.8	11.8	20.1	35.1[1]
Dementia	4.8	1.3	3.1	5.7	11.8[1]
Depression	14.6	4.7	10.1	17.7	32.3[1]
Hearing impairment	17.6	5.6	13.6	22.6	35.0[1]
Mobility impairment	4.0	0.6	2.2	5.0	10.9[1]
Visual impairment	70.8	39.0	72.9	85.4	92.9[1]

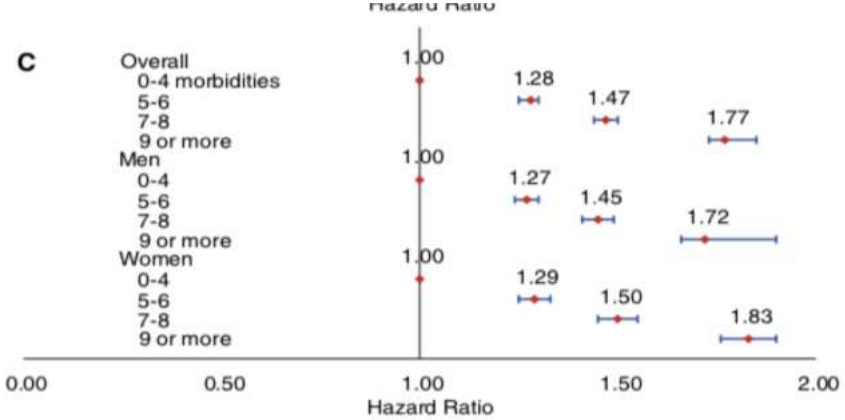
Tisminetzky et al 2018
The American Geriatrics Society



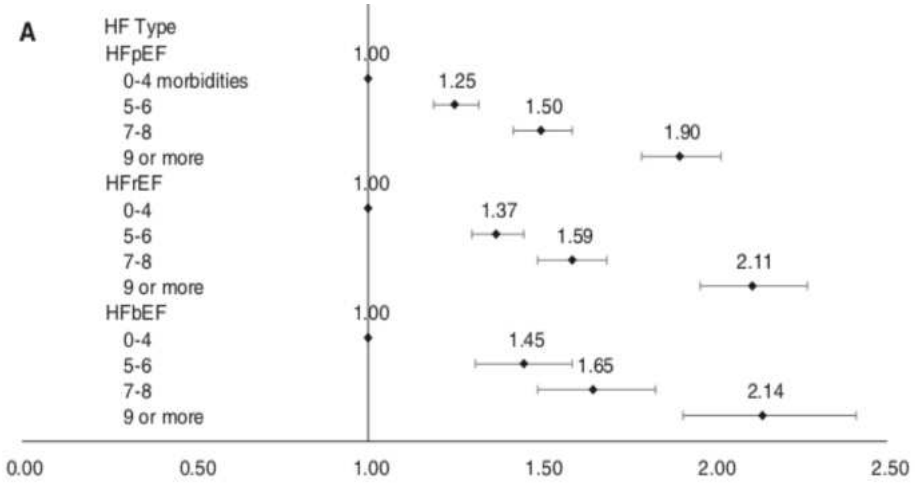
DEATH FROM ANY CAUSE



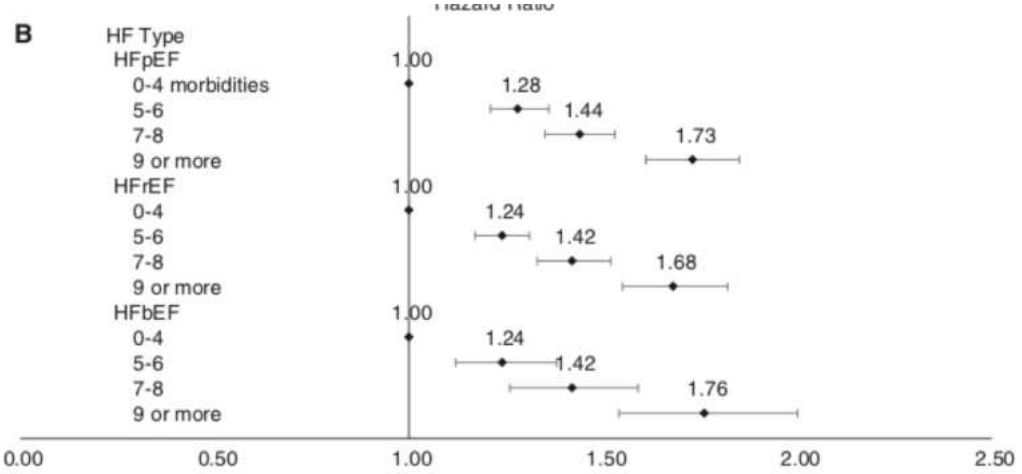
HEART FAILURE- RELATED HOSPITALIZATION



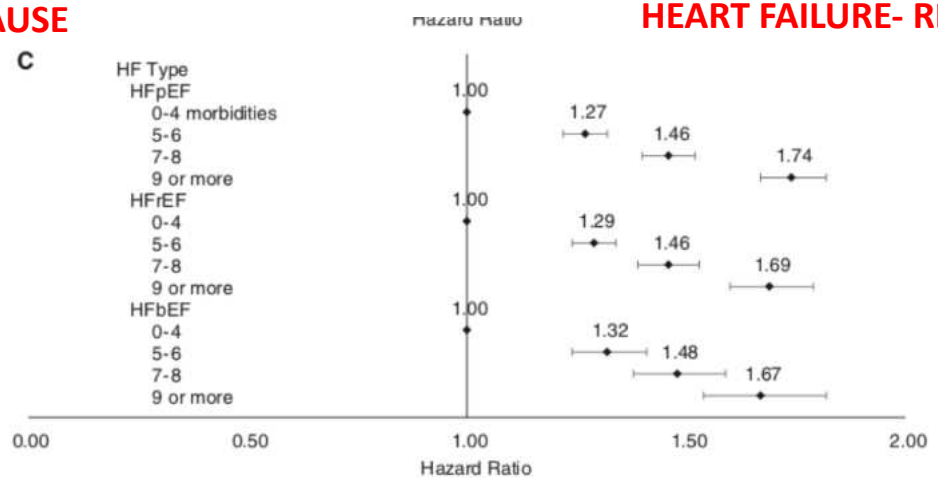
HOSPITALIZATION FOR ANY CAUSE IN ADULTS WITH HEART FAILURE



DEATH FROM ANY CAUSE



HEART FAILURE- RELATED HOSPITALIZATION



HOSPITALIZATION FOR ANY CAUSE IN ADULTS WITH HEART FAILURE

Heart Fail Rev (2012) 17:581–588
DOI 10.1007/s10741-011-9258-y

Frailty and multiple comorbidities in the elderly patient with heart failure: implications for management

Khalil Murad · Dalane W. Kitzman

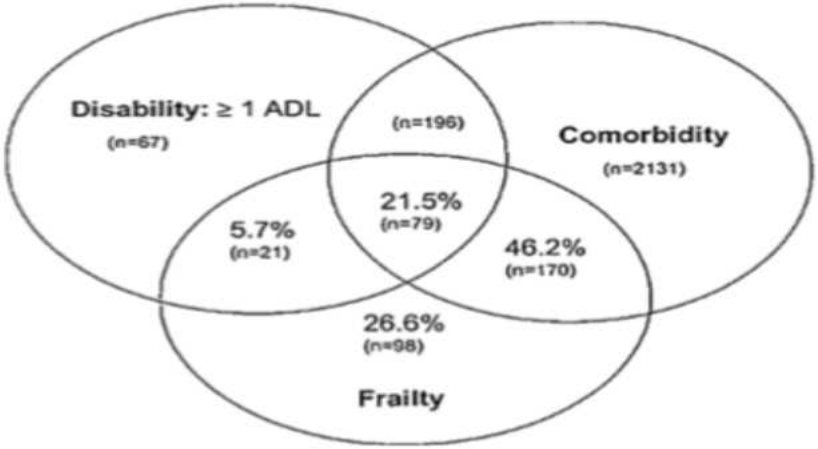
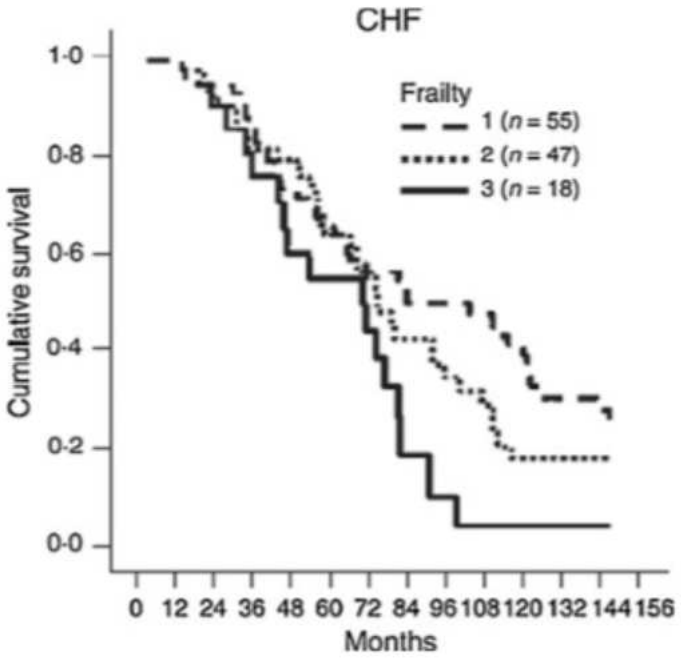


Fig. 2 Venn diagram displaying the extent of overlap of frailty with ADL disability and comorbidity (≥2 diseases) in 2,762 subjects who have at least one of these 3 entities (reproduced with permission from Fried et al. [12])



Murad et al 2011

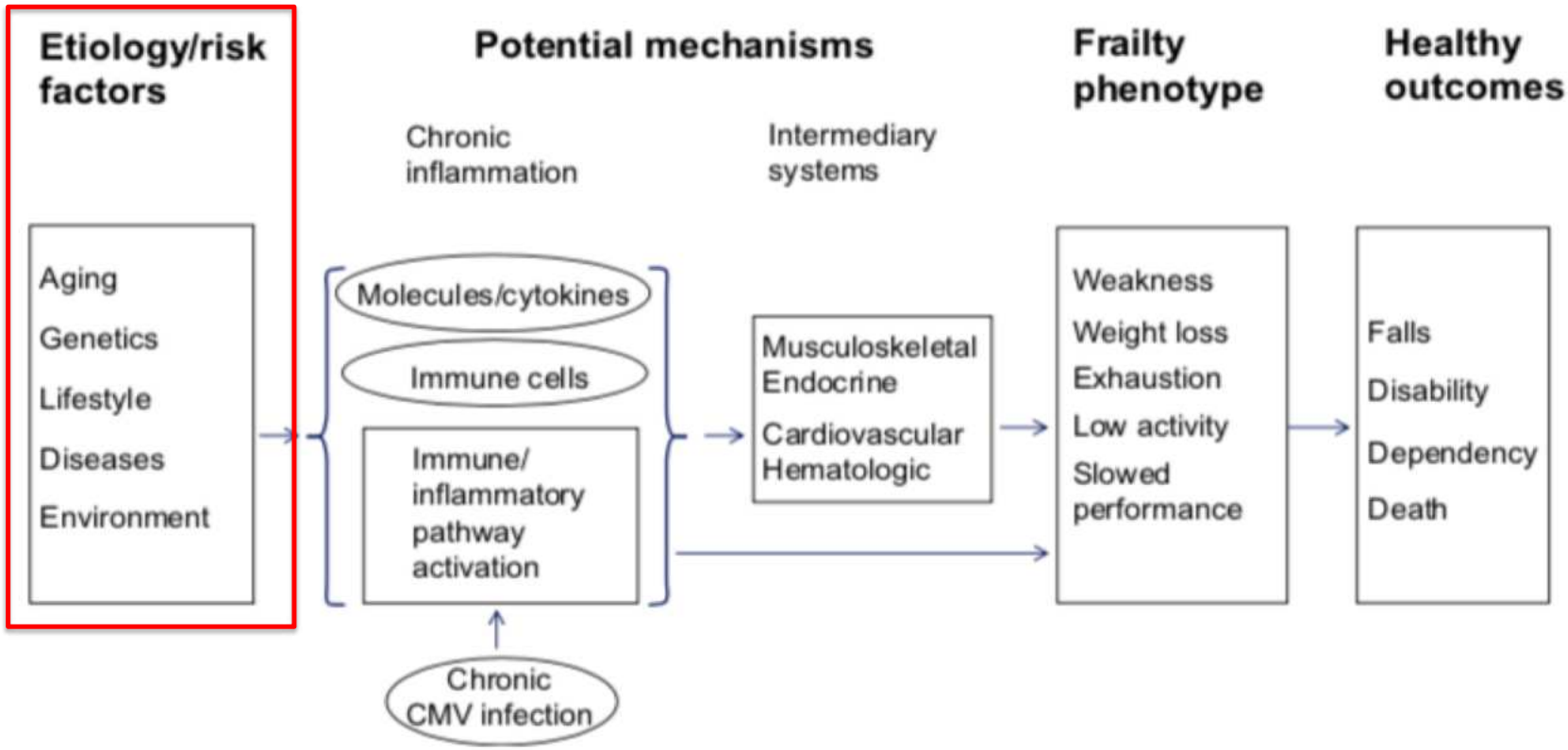
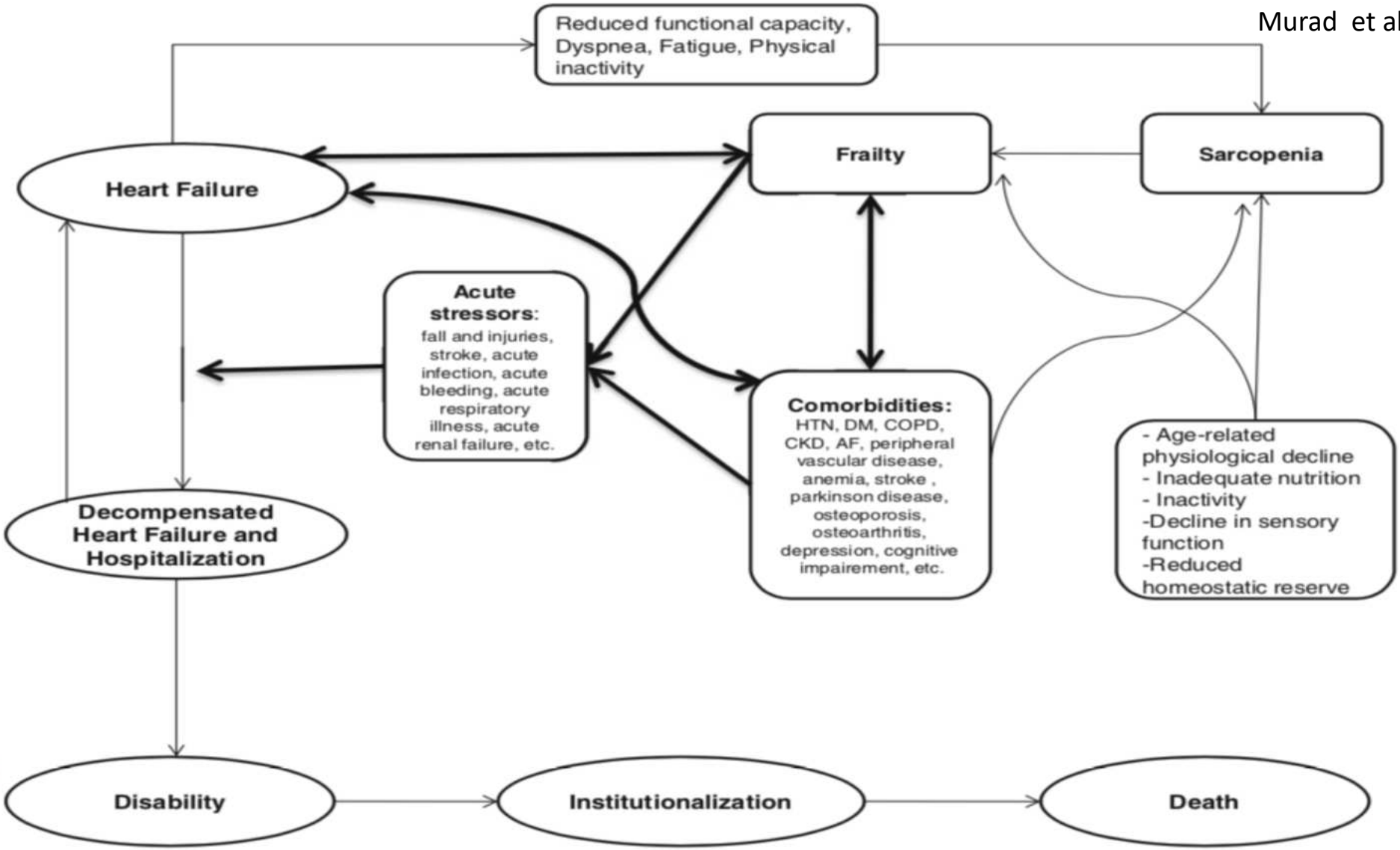


Figure 2 Pathogenesis of the frailty syndrome: current understanding of potential underlying mechanisms and hypothetical modal pathways leading to frailty.
Abbreviation: CMV, *Cytomegalovirus*.

Chen et al .2014

Murad et al 2011



MONSIEUR TREMBLAY

♂ **78 ans** veuf x 2 ans

- CMPI VG 20 % x 2018/01
  - Optimisation Rx finalisée FEVG 30%
- Nstemi 1998+2019
  - SP revascularisation incomplète

    CTO CD , IVA 75 % → 0%

    CX 80 % → 0%
- IRC Cr 190 DFGE 25
- HTA + DLPD + DB+ (Neuropathie+)
- Anémie NN (Hb base 110)
- HBP+ MPOC

9 Comorbidités !

Contexte psychosocial et habitudes de vie :

- Veuf x 2 ans , vit seul duplex (1e étage)
- 2 enfants : Bons liens : 1 fils vit 2e étage duplex
- AVD : semi-autonome
  - Ménage : service privé $; Nourriture : Souvent fils et filles (+ plats pré-préparés réduit en Na+)
- AVQ : Autonome (barres salle bain +)
- Aide marche : canne +
- 1 chute environnementale il y a 5 mois.
- HDV : Mange 2 repas par jour peu d'appétit Ø suppléments. Diète contrôlée NA + et LL 1.8 L respectée
- Tabac – alcool – drogue –
- Marche à la maison si non plutôt sédentaire

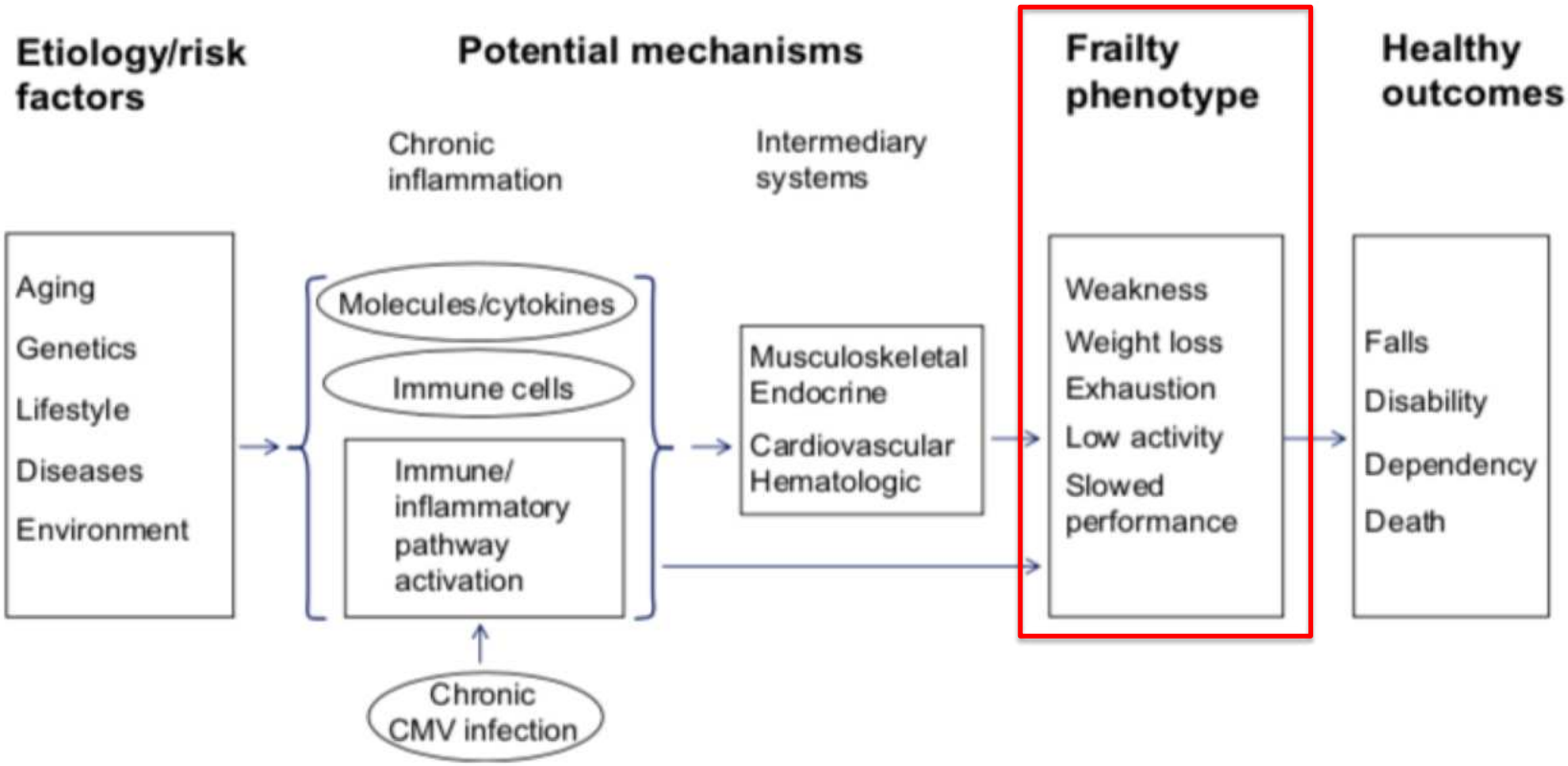


Figure 2 Pathogenesis of the frailty syndrome: current understanding of potential underlying mechanisms and hypothetical modal pathways leading to frailty.
Abbreviation: CMV, *Cytomegalovirus*.

Chen et al .2014

COMMENT ÉVALUEZ-VOUS LA FRAGILITÉ DE VOS PATIENTS ?

Image: https://www.iconfinder.com/icons/2251564/ask_doctor_health_medical_question_icon

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.

* 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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FRAILTY PHÉNOTYPE

Table 1 The frailty phenotype (FP) **Fried's frailty phenotype**

FP criteria	Measurement
Weakness	Grip strength: lowest 20% (by sex, body mass index)
Slowness	Walking time/15 feet: slowest 20% (by sex, height)
Low level of physical activity	Kcal/week: lowest 20% Males: 383 Kcal/week Females: 270 Kcal/week
Exhaustion; poor endurance	"Exhaustion" (self-report)
Weight loss	>10 lb lost unintentionally in prior year

Note: Adapted from Fried LP, Tangen C, Walston J, et al. Frailty in older adults: evidence for a phenotype. *J Gerontol A Biol Sci Med Sci.* 2001;56A:M1–M11, by permission of Oxford University Press.[3]

≥ 3 critères / 5 = Frailty

1-2 critères /5 = pré-frail

Chen et al .2014

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http://dx.doi.org/10.1016/j.jacc.2013.09.070

JACC WHITE PAPER

Frailty Assessment in the Cardiovascular Care of Older Adults

Patients with chronic heart failure who were frail had a higher risk of mortality at 1 year (17% vs. 5%), heart failure hospitalizations (21% vs. 13%), and impaired quality of life (49). Chaudhry et al. (52) showed that slow gait speed was the most powerful predictor of hospitalizations, conferring a 30% increase; weak grip strength was also predictive, conferring a 16% increase. In a long-term study by Cacciatore et al. (53), patients with chronic heart failure who were frail had a substantially lower probability of surviving >10 years (6% vs. 31%).

↑Hospitalisation ICd
↓Qualité de vie
↑Mortalité

Afilalo et al 2014

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https://vimeo.com/118356014

Affilalo et al.

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Table 1

Recommended Frailty Assessment Tools

Domain	Tool(s)	Operational Definition
Slowness	5-m gait speed test	Patient is positioned behind start line and asked to walk at a comfortable pace past 5-m finish line; cue to trigger stopwatch is first footfall after start line and first footfall after finish line; repeated 3 times and averaged **Slow > 6 sec Very Slow > 7.7 sec Extremely slow > 10 sec.**
Weakness	Handgrip strength test	Patient is asked to squeeze a handgrip dynamometer as hard as possible; repeated 3 times (once with each hand and then with strongest hand); maximum value is recorded
	Knee extensor strength test	Patient is seated on the dynamometer machine and asked to extend his/her knee against resistance; maximum isotonic force is recorded **H: < 30 Kg F: < 20 Kg**
Low physical activity	Physical activity questionnaire	Many questionnaires have been validated; those that provide a measure of activity in kcal/week are recommended (e.g., Minnesota Leisure Time Activity, PASE, Paffenbarger Physical Activity Questionnaire)
	Portable accelerometer	Patient is asked to wear a portable accelerometer for a period of 1 to 7 days; total kcal expenditure is recorded

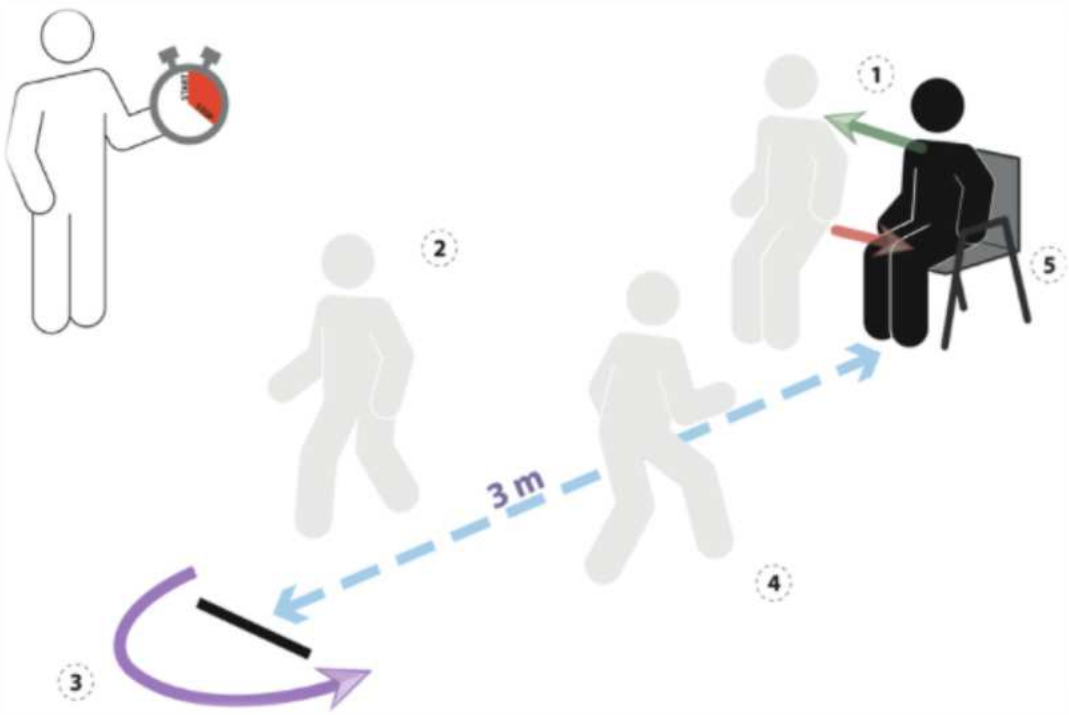
H: < 383 Kcal / semaine F: < 270 Kcal/ semaine

Afilalo et al 2014

Timed Get up and go : TUG Test !

. Observations lors du test « Get up and go ».

Etape	*Observer*	*Cotation*
Se lever du siège	Patient se rejette en arrière ?	-4
	Se penche en avant de manière anormale	0
	Obligé de s'aider des accoudoirs ?	-2
	Se lève d'un seul élan	0
	Besoin de deux ou trois essais	-1
Marcher devant soi 3m	Marche rectiligne, sans détours	0
	Méandres prononcés	-1
Faire demi-tour rapidement	Capable de pivoter sur place ?	0
	Obligé d'exécuter plusieurs pas successifs ?	-3
Retourner s'asseoir	Descend avec contrôle de la flexion des genoux ?	0
	Se laisse tomber dès que la flexion atteint 30° ?	-4



< 10 seconde = Normal

≥ 14 seconde = risque chute +

≤ 20 seconde = aide marche mais sans aide x 1

≤ 30 seconde = aide marche + aide x 1

Podsiadlo ,1991

https://cnfs.ca/agees/tests/mesurer-la-capacite-physique/test-chronometre-du-lever-de-chaise

Table 1

Recommended Frailty Assessment Tools

Domain	Tool(s)	Operational Definition
Exhaustion	CES-D questionnaire	Patient is asked 2 questions: How often in the past week did you feel like everything you did was an effort?/like you could not get going? (often [i.e., ≥3 days] or not often [i.e., 0–2 days])
	Anergia questionnaire	Patient is asked 7 questions pertaining to lack of energy over the past month
		Positive if often is the answer to either question
Shrinking	Weight loss	Self-reported or measured unintentional weight change not due to dieting or exercise **>10 lbs in past year**
	Appendicular muscle mass	Measured muscle mass in arms and legs using a dual-energy x-ray absorptiometry scan
		Men: 7.23 kg/height in m2 **Women: 5.67 kg/height in m2**
	Serum albumin	Measured serum albumin **< 3.3 g/dl = 33g/l**

Afilalo et al 2014

PHQ-9

Dépistage dépression

Au cours des deux dernières semaines, à quelle fréquence avez-vous été dérangé par les problèmes suivants?	Jamais	Plusieurs jours	Plus de la moitié du temps	Presque tous les jours
1. Peu d'intérêt ou de plaisir à faire les choses*	0	1	2	3
2. Vous sentir triste, déprimé ou désespéré*	0	1	2	3
3. Difficultés à vous endormir, à rester endormi ou trop dormir	0	1	2	3
4. Vous sentir fatigué ou avoir peu d'énergie	0	1	2	3
5. Peu d'appétit ou trop d'appétit	0	1	2	3
6. Mauvaise perception de vous-même, vous pensez que vous êtes un perdant ou que vous n'avez pas satisfait vos propres attentes ou celles de votre famille	0	1	2	3
7. Difficultés à vous concentrer sur des choses telles que lire le journal ou regarder la télévision	0	1	2	3
8. Vous bougez ou vous parlez si lentement que les autres personnes ont pu le remarquer. Ou, au contraire, vous êtes si agité que vous bougez beaucoup plus que d'habitude.	0	1	2	3
9. Vous avez pensé que vous seriez mieux mort ou pensé à vous blesser d'une façon ou d'une autre[1].	0	1	2	3

PHQ2

Si Q9 + : Évaluation risque Suicidaire !

Score total : somme des scores obtenus à chaque question : _____

Inesss 2015

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Interprétation des résultats et seuils diagnostiques

- Le score maximal est **27.**
- Les items 1 à 9 sont cotés sur une échelle de 0 à 3.
- L'item 10 (niveau de fonctionnement) est coté sur une échelle entre 0 et 4, allant de « pas du tout difficile » à « extrêmement difficile ».

Seuils diagnostiques concernant la sévérité de la dépression[1]

- Absence de dépression : 0-4 points
- Dépression légère : 5-9 points
- Dépression modérée : 10-14 points
- Dépression modérément sévère : 15-19 points
- Dépression sévère : 20-27 points

Qualités métrologiques du QSP-9 pour le repérage des symptomes dépressifs en première ligne

Sensibilité (%)	Spécificité (%)
77	85

Les résultats représentent une valeur moyenne pour un seuil diagnostique de 10 sur 27[6].

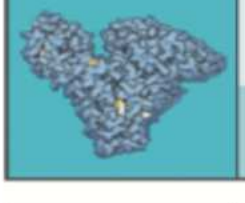
Versus : Geriatric Depression Scale (short form) ?

CENTRAL ILLUSTRATION Essential Frailty Toolset in Older Adults Undergoing Aortic Valve Replacement

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

EFT Score	1-Year Mortality TAVR	SAVR
0-1	6%	3%
2	15%	7%
3	28%	16%
4	30%	38%
5	65%	50%

EFT Points: _____

Afilalo, J. et al. J Am Coll Cardiol. 2017; ■(■):■-■.

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Frailty in Older Adults Undergoing Aortic Valve Replacement

The FRAILTY-AVR Study

Mini-Mental State Examination (MMSE)
MOCA

Afilalo 2017

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JACC WHITE PAPER

Frailty Assessment in the Cardiovascular Care of Older Adults

Échelles d'évaluation
VS
Jugement clinique

Combinaison des deux !

A guiding principle is that frailty, disability, and comorbidity are inter-related but distinct entities (75). A second principle is that there is no definitive gold standard test for frailty, but rather an assortment of tools that reflect 1 or more domains of frailty. Multidomain tools do not necessarily provide incremental value above single-domain tools, and ease of implementation may be an important factor for adoption. A third principle is that frailty is a continuous spectrum, and specific cutoffs used to dichotomize frailty status in 1 group of patients may not be applicable in another group.

Afilalo et al 2014 JACC

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MONSIEUR TREMBLAY

- 5 Mètres à la marche : 10 secondes
- Timed Get up and Go (TUG) : 16 secondes
- Fait très peu d'activité physique
  - 5 x levé chaise > 15 secondes
- PHQ-2 Négatif MMSE -
- Perte 12 livres x 1 an
- Albumine a 30g/l
- IMC 19.5

EST-CE QUE MONSIEUR TREMBLAY PRÉSENTE DE LA FRAGILITÉ GÉRIATRIQUE ?

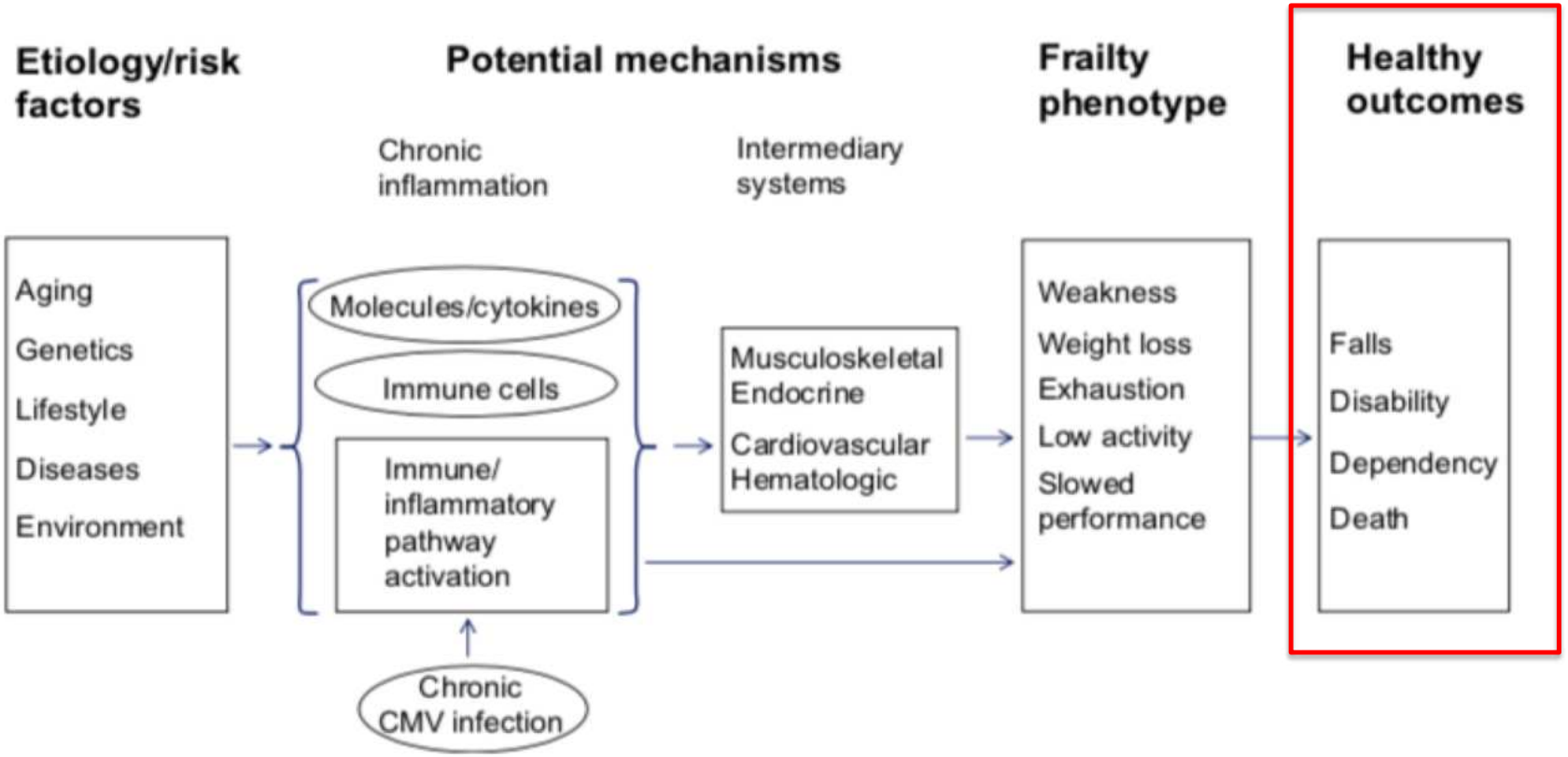
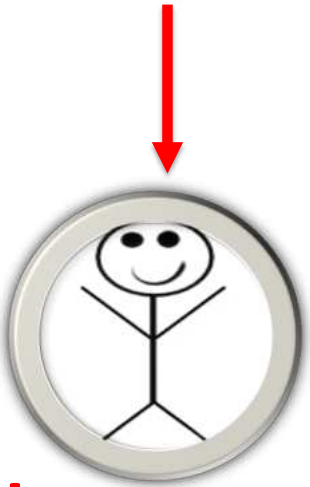


Figure 2 Pathogenesis of the frailty syndrome: current understanding of potential underlying mechanisms and hypothetical modal pathways leading to frailty.
Abbreviation: CMV, *Cytomegalovirus*.

Chen et al .2014

GIANTS OF GERIATRICS

Bernard Isaacs 1976



Nouveauté : SARCOPÉNIE

- Immobility
- Instability
- Intellectual impairment
- Incontinence
- Iatrogenesis

IMMOBILITY

Évaluer ↓Activité physique 2nd Dyspnée ?

- ↑ risque de déconditionnement
- ↑ risque de plaies
- ↑ Risque TVP ? (patient ⊗ ACO- varices)
- ↑ risque de constipation
- ↑ risque de chutes **(syndrome post-chute?)**

SYNDROME POST-CHUTE (FEAR OF FALLING)

Outils de dépistage du facteur de risque

Au-delà de la variété d'outils existants pour mesurer la peur de chuter, le plus important est d'aborder le sujet avec les personnes âgées. Les deux questions suivantes peuvent être posées :

- Avez-vous peur de tomber?
- Avez-vous déjà limité vos activités par peur de tomber?

INTELLECTUAL IMPAIRMENT

Évaluer l'Hyponatrémie et la volémie !

- ↑ risque de Délirium (surtout en hyper volémie)
  - Dépistage : CAM – ICDSC etc.
- ↑ prévalence Démence en HF (surtout démence vasculaire)
- ↑ risque d'erreurs RX (surtout si autogestion)

INCONTINENCE

- ↑ risque incontinence 2nd
  - Diurétiques (Ex: Furosemide (Lasix) – acide éthacrynique (Edecrin) – métolazone(zaroxolyn))
  - iSGLT2 (Ex: Empagliflozine(Jardiance) / Canagliflozine(Invokana) / Dapagliflozine (Forxiga))
- ↑ risque chute surtout nocturne
  - **Évaluer la nycturie (surtout en IRC)**
- ↑ risque de plaies

IATROGENESIS

- HTO 2nd RX HF (BB – ARNI/ARA/IECA- MRA)
  - Autres RX : BCC - alpha-bloquants (prostate) – Anti-parkinsonien (EX: lévodopa - carbidopa (Sinemet))
- Myalgie→ statine – Hypot4 (prise d'amiodarone ?)
- IRA – Hyperkaliémie 2nd RX (diurétique- mra - ARNI/ARA/IECA- MRA)
- Hypoglycémie 2nd (Faible apport ?- Sx masqués Béta-Bloquant ?)
- HypoMg 2nd IPP – Diurétiques – laxatifs
  - Sx GI – Neuro et Msk

INSTABILITY

2nd Hypovolémie iatrogénique ?

- ↑ Risque chute
- HTO ↑ Prévalence en HF
- Cachexie cardiaque et sarcopénie ↑ HF
- Neuropathie diabétique ?

Heart Fail Rev (2016) 21:529–538
DOI 10.1007/s10741-016-9541-z

Heart failure and orthostatic hypotension

Oleg Gorelik[1] · Leonid Feldman[2] · Natan Cohen[1]

Only a minority of HF patients demonstrates a normal orthostatic response to peripheral venous pooling. The most frequent abnormality is observed in patients with more severe congestive HF. ~~They, in contrast to healthy~~

Aging is an established risk factor for OH [1–7]. Age-related physiologic changes, such as diminished sensitivity of baroreceptors in the carotid arteries and aorta, attenuated heart rate response, decreased α_1-adrenergic vasoconstriction and impaired cardiac diastolic filling, are known to contribute to the increased prevalence of OH with age [1–

↑Risque chutes récurrentes

↑Risque de syncope

↓Qualité de vie

Rev Inves Clin. 2016;68:59-67

FRAILTY AND SARCOPENIA: THE NEW GERIATRIC GIANTS

JOHN E. MORLEY*

Divisions of Geriatric Medicine and Endocrinology, Saint Louis University School of Medicine, St. Louis, Mo., USA

Tabla 3. SARC-F screen for sarcopenia

Component	Question	Scoring
Strength	How much difficulty do you have in lifting and carrying 10 pounds?	None = 0 Some = 1 A lot or unable = 2
Assistance in walking	How much difficulty do you have walking across a room?	None = 0 Some = 1 A lot, use aids, or unable = 2
Rise from a chair	How much difficulty do you have transferring from a chair or bed?	None = 0 Some = 1 A lot or unable without help = 2
Climb stairs	How much difficulty do you have climbing a flight of ten stairs?	None = 0 Some = 1 A lot or unable = 2
Falls	How many times have you fallen in the last year?	None = 0 1-3 falls = 1 4 or more falls = 2

Adapted with permission from Malmstrom, et al.[21].

≥ 4 prédit sarcopénie ainsi que des mauvais ''outcoomes''

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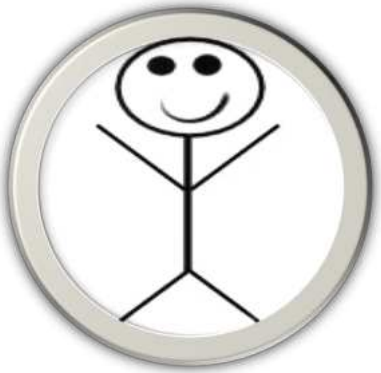
Monsieur Tremblay

Perte d'équilibre

Chute

Peu mobile

HTO , CRAMPE MI
FATIGUE



SARC-F >4

Continent

⊗ Délirium
⊗ Tr.Neurocognitif
⊗ Dépression

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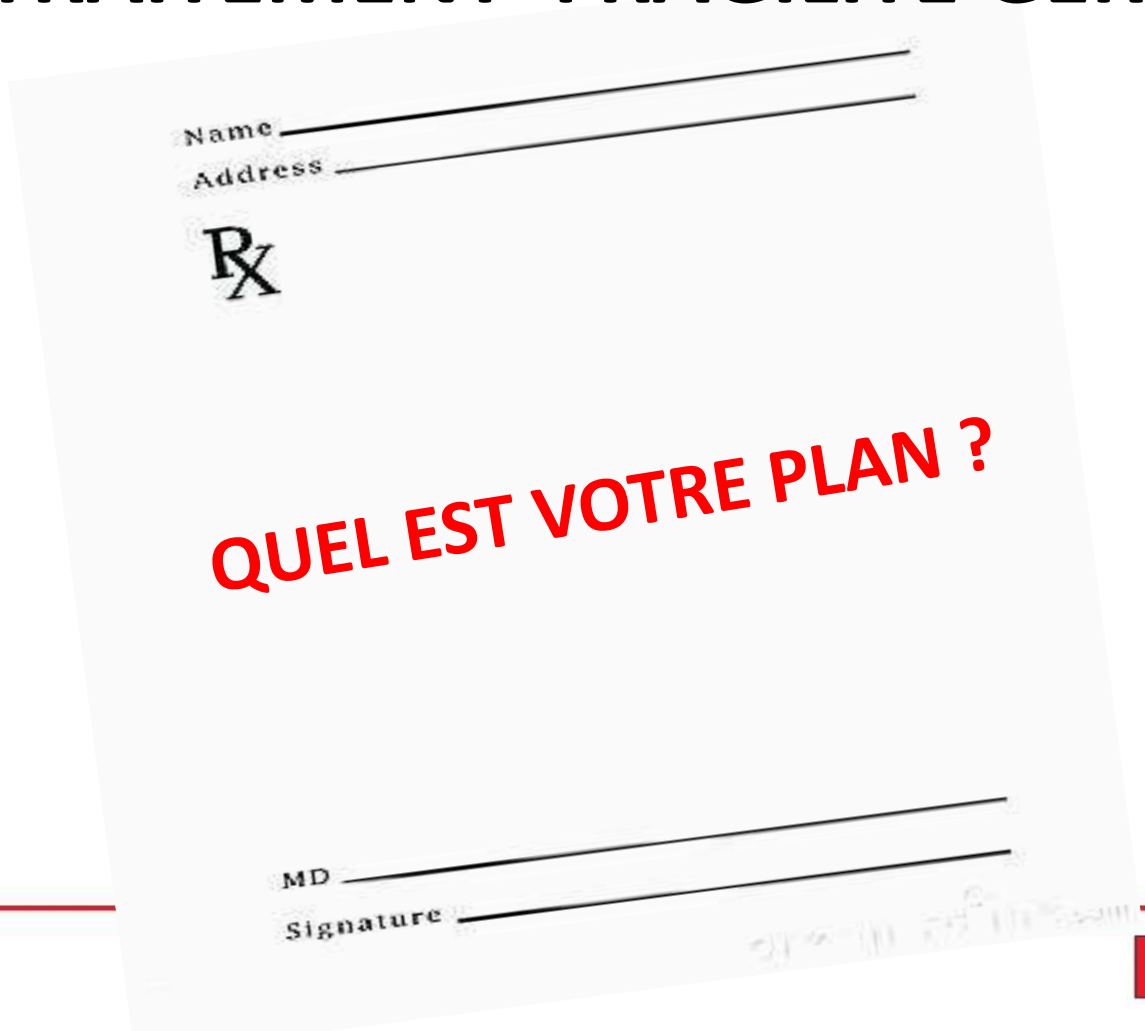
PLAN TRAITEMENT FRAGILITÉ GÉRIATRIQUE



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PROPOSEZ-VOUS L'IMPLANTATION D'UN ICD EN PRÉVENTION PRIMAIRE ?

MONSIEUR TREMBLAY

Objectif de soins / projet de vie:

- Vivre le temps qu'il est possible avec le moins de symptôme et le plus d'autonome possible.
- **1e source préoccupation :** Perte d'autonomie

Priorité Qualité vie >>>> Quantité
⃠RCR ⃠IET ⃠dialyse

QUEL EST LE PROGNOSTIC À 1 AN DE MONSIEUR TREMBLAY ?

> 40 %
PROBABILITÉ DE MORTALITÉ

< 40 %
PROBABILITÉ DE MORTALITÉ

MAGGIC SCORE

1 an : 45.8 %

3 ans : 78.7 %

Canadian Journal of Cardiology 33 (2017) 174–188

Society Guidelines

Canadian Cardiovascular Society/Canadian Heart Rhythm Society 2016 Implantable Cardioverter-Defibrillator Guidelines

- MAGGIC SCORE :
  - 1 an : 45.8 %
  - 3 ans : 78.7 %

- 78 ans avec Frailty +
- Objectif de soins pas de RCR

Discussion avec patient :

- ne veut pas de ICD

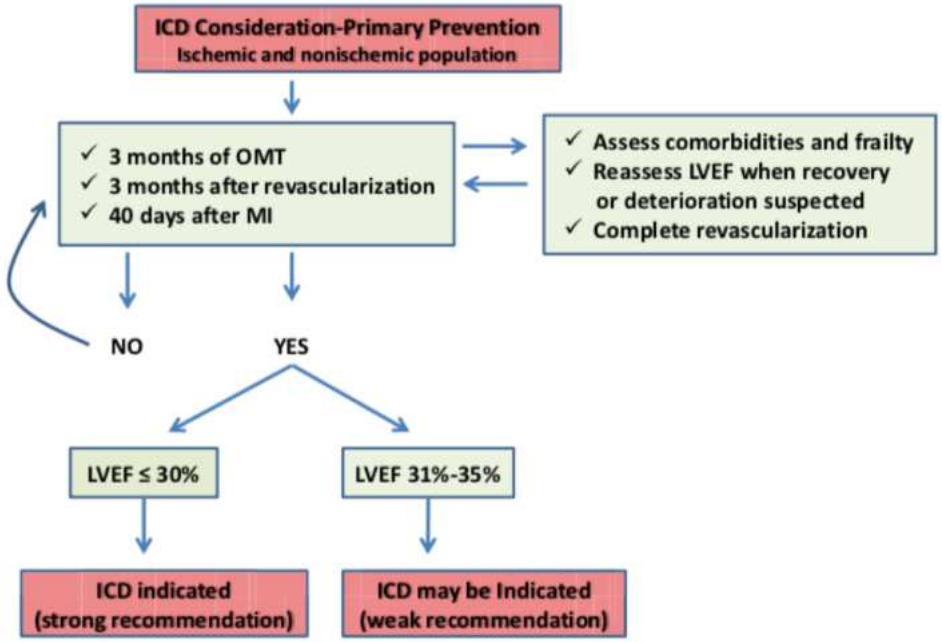
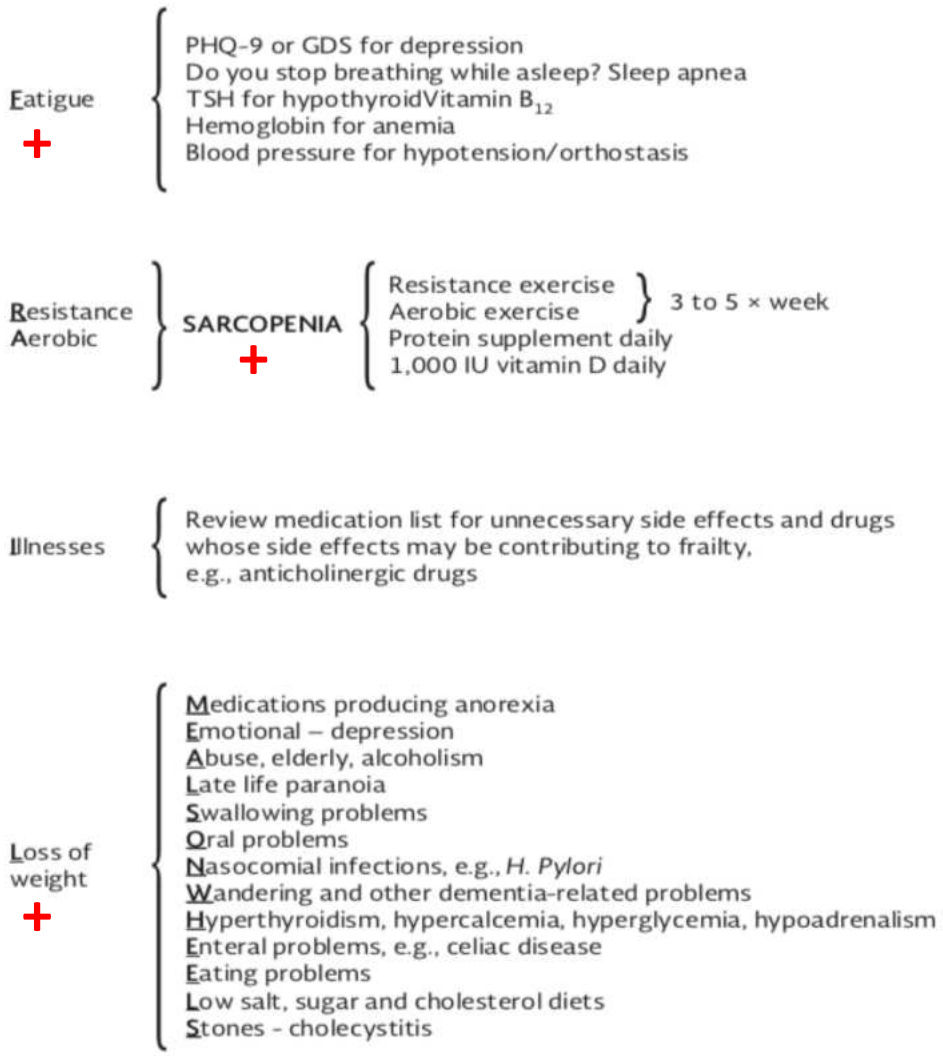


Figure 1. Algorithm for management of frailty.



Monsieur Tremblay

PHQ – 9 négatif : 3
Stop bang (SAHS) –
TSH : N HB 105 stable
HTO + (110 → 85) (△ RX + bas supports + enseignement)

Référence : Centre prévention réadaptation PRN
Recommander 3 x 5 semaines marches selon tolérance

Réévaluation RX (à venir !)
Dé prescription !

Plan nutritionnel avec Nutritionniste
Suppléments calorique +

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REVIEWS OF THERAPEUTICS

Patient partenaire !

Deprescribing: An Application to Medication Management in Older Adults

Table 1. Deprescribing Process[6]

1. Obtain a complete medication list and determine the indication for each medication
2. Evaluate each medication's potential for drug-induced harm
3. Determine if a medication should be discontinued by evaluating the appropriateness of the indication, whether it is being used to treat adverse effects of other medications, efficacy, benefit-to-harm ratio, treatment burden, and if the patient's life expectancy exceeds the time to therapeutic benefit (for preventive medications)
4. Determine a plan for discontinuing medications one at time, starting with medications with the highest burden and lowest benefit
5. Discontinue medications and monitor for withdrawal or return of symptoms

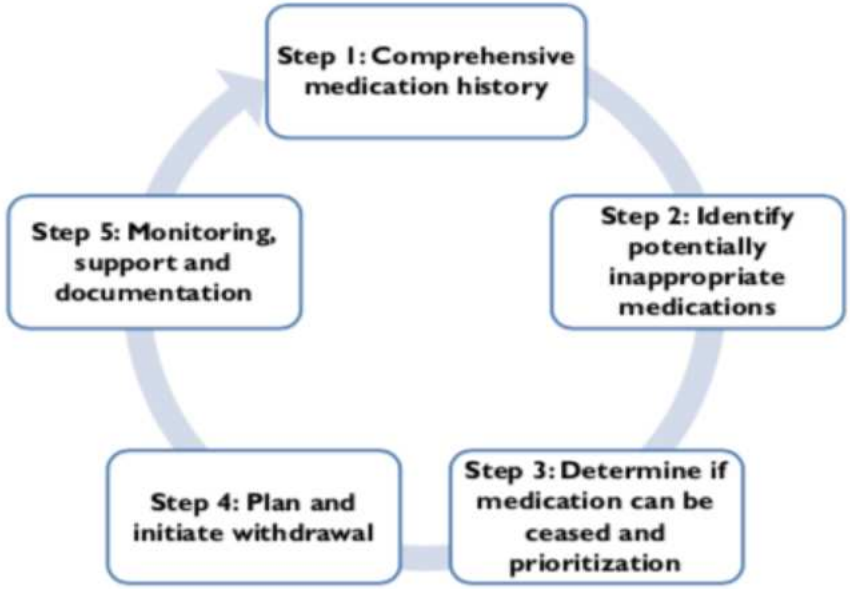


Figure 1

The five-step patient-centred deprescribing process

Bemben 2016

Reeve et al 2014

LISTE MÉDICAMENTS

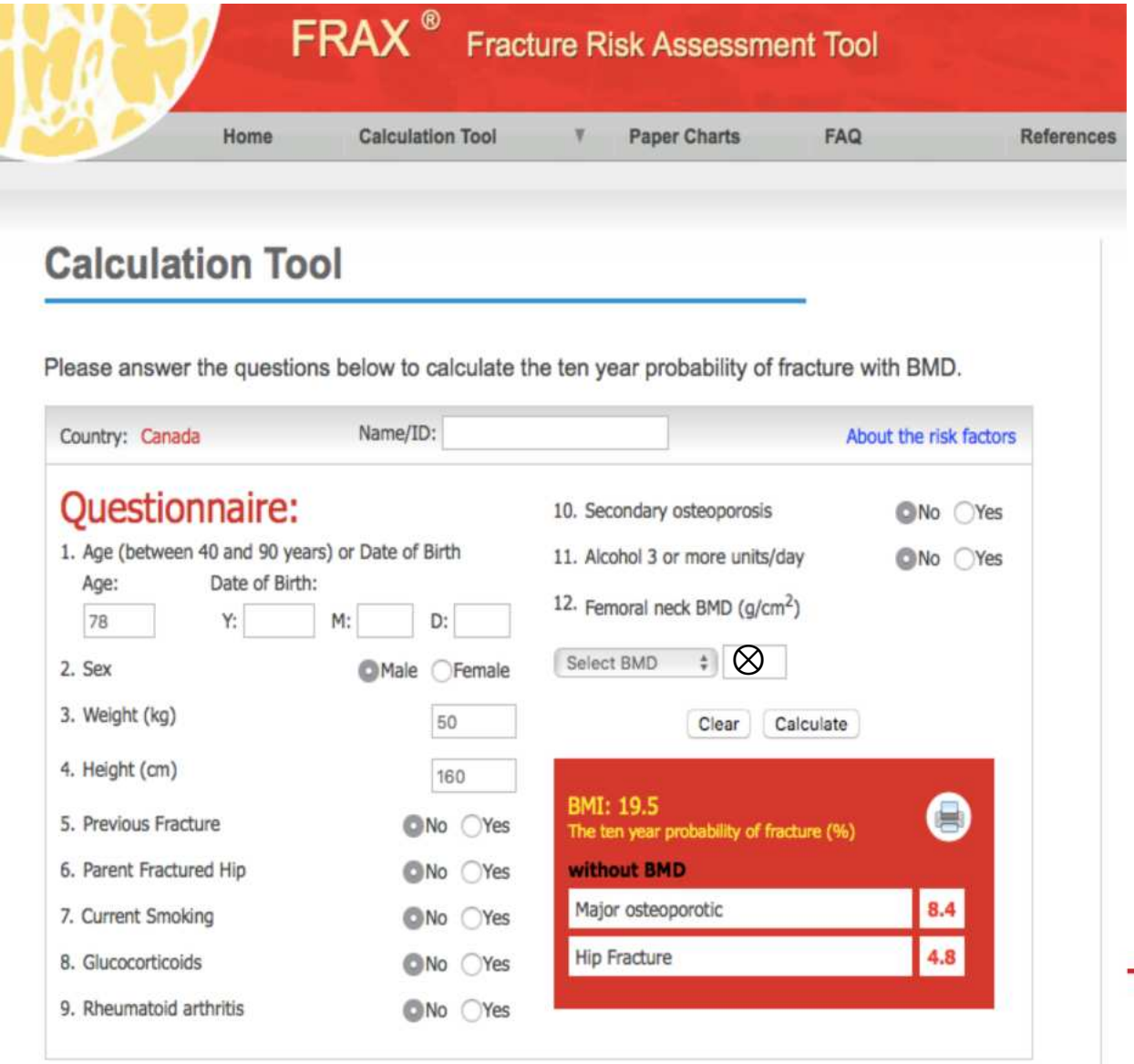
- Aspirin 80 mg po die
- Plavix 75 mg po die
  - HB 105 stable
- Bisoprolol 10 mg po die
  - FC 55 / minutes sinusale QRS 110
  - Fatigue ++
- Entresto étape 3
  - TA 105 /40 HTO +
- Aldactone 50 mg po die
  - K+ 4.9
- Lasix 80 mg po BID

Nyha 3 stable

Cr 190 DFGE 25
Stable
Euvolémique !

- Pantoloc 40 mg po die
  - Mg 0.79 Crampe MI +
  - ⃠RGO
- Lipitor 80 mg po die
  - Crampe MI + Myalgie ?
  - LDL 0.6
- Insuline QID + HS
  - Glycémies Stables
  - ⃠ Hypoglycémie
- Calcium – Vit-d 500/ 400 BID
- Flomax 0.4 mg po die HS HTO +

https://www.topsimages.com/images/medicine-capsule-b5.html



Calcium et vitamine D

Il existe une controverse concernant à la fois l'efficacité de la supplémentation calcique sur la diminution des fractures[32,33] et les effets indésirables potentiels d'une supplémentation à forte dose[34]. Au sein d'Ostéoporose Canada, un autre groupe (auquel ont appartenu certains auteurs de cet article) a récemment élaboré des lignes directrices concernant la vitamine D[35]. Nous soulignons ici les principaux changements survenus dans les recommandations sur la vitamine D par rapport aux lignes directrices de 2002 d'Ostéoporose Canada.

1. La dose quotidienne totale de calcium élément absorbée (avec l'alimentation et les suppléments) pour des personnes de plus de 50 ans doit être de 1200 mg [niveau B].
2. Chez les adultes en bonne santé présentant un faible risque de déficit en vitamine D, une supplémentation habituelle quotidienne de 400 à 1000 UI (10–25 µg) de vitamine D_3 est recommandée [niveau D].
3. Chez les adultes de plus de 50 ans présentant un risque modéré de déficit en vitamine D, une supplémentation quotidienne de 800 à 1000 UI (20–25 µg) de vitamine D_3 est recommandée. Une supplémentation quotidienne de plus de 1000 UI (25 µg) peut être nécessaire pour parvenir au niveau optimal de vitamine D. Des doses quotidiennes allant jusqu'à 2000 UI (50 µg) sont sécuritaires et ne nécessitent pas de surveillance [niveau C].

Ostéoporose canada 2010

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American Geriatrics Society 2019 Updated AGS Beers Criteria® for Potentially Inappropriate Medication Use in Older Adults

*By the 2019 American Geriatrics Society Beers Criteria® Update Expert Panel**

Organ System, Therapeutic Category, Drug(s)	Rationale	Recommendation	Quality of Evidence	Strength of Recommendation
Proton-pump inhibitors	Risk of *Clostridium difficile* infection and bone loss and fractures	Avoid scheduled use for >8 weeks unless for high-risk patients (eg, oral corticosteroids or chronic NSAID use), erosive esophagitis, Barrett esophagitis, pathological hypersecretory condition, or demonstrated need for maintenance treatment (eg, because of failure of drug discontinuation trial or H2-receptor antagonists)	High	Strong

deprescribing.org | Proton Pump Inhibitor (PPI) Deprescribing Algorithm

August 2018

Why is patient taking a PPI?

If unsure, find out if history of endoscopy, if ever hospitalized for bleeding ulcer or if taking because of chronic NSAID use in past, if ever had heartburn or dyspepsia

Indication still unknown?

- Mild to moderate esophagitis or
- GERD treated x 4-8 weeks (esophagitis healed, symptoms controlled)

- Peptic Ulcer Disease treated x 2-12 weeks (from NSAID; *H. pylori*)
- Upper GI symptoms without endoscopy; asymptomatic for 3 consecutive days
- ICU stress ulcer prophylaxis treated beyond ICU admission
- Uncomplicated *H. pylori* treated x 2 weeks and asymptomatic

- Barrett's esophagus
- Chronic NSAID users with bleeding risk
- Severe esophagitis
- Documented history of bleeding GI ulcer

Recommend Deprescribing

Strong Recommendation (from Systematic Review and GRADE approach)

Decrease to lower dose (evidence suggests no increased risk in return of symptoms compared to continuing higher dose), or

Stop and use on-demand (daily until symptoms stop) (1/10 patients may have return of symptoms)

Stop PPI

Continue PPI

or consult gastroenterologist if considering deprescribing

Monitor at 4 and 12 weeks

If verbal:
- Heartburn
- Dyspepsia
- Regurgitation
- Epigastric pain

If non-verbal:
- Loss of appetite
- Weight loss
- Agitation

Use non-drug approaches
- Avoid meals 2-3 hours before bedtime; elevate head of bed; address if need for weight loss and avoid dietary triggers

Manage occasional symptoms
- Over-the-counter antacid, H2RA, PPI, alginate prn (ie. Tums®, Rolaids®, Zantac®, Olex®, Gaviscon®)
- H2RA daily (weak recommendation – GRADE; 1/5 patients may have symptoms return)

If symptoms relapse:

If symptoms persist x 3 – 7 days and interfere with normal activity:

1) Test and treat for *H. pylori*
2) Consider return to previous dose

Canadian Journal of Cardiology 33 (2017) 1725–1728

Training/Practice
Contemporary Issues in Cardiology Practice

Orthostatic Hypotension: A Practical Approach to Investigation and Management

Amy C. Arnold, PhD, MSCI,[a,b] and Satish R. Raj, MD, MSCI[b,c]

Table 1. Treatment approaches in orthostatic hypotension

Nonpharmacological interventions
- Reduce venous pooling
  - Physical countermanoeuvres (eg, standing with legs crossed, squatting, active tensing of leg muscles, breathing-related manoeuvres to increase inspiratory resistance, and avoiding getting up too quickly or standing motionless)
  - Compression stockings or abdominal binders (30-40 mm Hg)
- Increase central volume
  - Increase sodium intake (6-9 g/d)
  - Increase water intake (2-3 L/d)
  - Raise head of bed during night to prevent pressure natriuresis (6-9 inches)
- Other lifestyle modifications
  - Eat small frequent meals
  - Physical activity such as water exercise, recumbent bicycling, or rowing
  - Avoid alcohol consumption
  - Avoid situations that increase core body temperature such as prolonged hot showers

Pharmacological interventions
- Increase intravascular volume
  - Fludrocortisone (0.1-0.2 mg/d, PO)
- Increase vascular resistance
  - Midodrine (2.5-10 mg, PO)
  - Droxidopa (100-600 mg, PO)
  - Atomoxetine (18 mg, PO)
  - Yohimbine (5.4 mg, PO)
  - Pyridostigmine (60 mg, PO)
  - Octreotide (12.5-25 µg, subcutaneous)
  - Pseudoephedrine (30 mg, PO)
- Combination therapy
  - Fludrocortisone (0.1-0.2 mg/d, PO) and midodrine (5-10 mg, PO)
  - Ergotamine (1 mg, PO) and caffeine (100 mg, PO)
  - Midodrine (5-10 mg, PO) or pseudoephedrine (30 mg, PO) and water (500 mL)

Arnold et al. 2017

Applicable en insuffisance cardiaque ?

Chronic OH usually requires pharmacologic interventions. The acceptable pharmacotherapy with fludrocortisone and midodrine is problematic in HF, due to the risk of adverse effects [2, 33]. HF is a relative contraindication to the use of fludrocortisone due to common side effects, such as: hypokalemia, aggravation of hypertension and congestive HF [5]. The use of midodrine is also limited in elderly HF patients due to potential side effects, including urinary retention and worsening hypertension. Nevertheless, midodrine is recommended as the preferable agent in HF because of its short action [5]. Treatment should begin with a single 2.5-mg dose and can subsequently be increased up to 10 mg. To avoid supine hypertension, the

Gorelik et al. 2016

LISTE MÉDICAMENTS

- Aspirin 80 mg po die
- ✖ Plavix 75 mg po die
  - HB 105 stable
- ⬇ Bisoprolol 10 mg po die
  - FC 55 / minutes sinusale QRS 110
  - Fatigue ++
- Entresto étape 3
  - TA 105 /40 HTO +++
- Aldactone 50 mg po die
  - K+ 4.9
- Lasix 80 mg po BID

Chronothérapie +/- diminuer doses

- ✖ Pantoloc 40 mg po die
  - Mg 0.79 Crampe MI +
  - Pas de RGO
- ⬇ Lipitor 80 mg po die
  - Crampe MI + Myalgie ?
  - LDL 0.6
- Insuline QID + HS
  - Glycémies Stables
  - pas Hypoglycémie
- Calcium – Vit-d 500/ 400 BID
- Flomax 0.4 mg po die HS

Discussion avec patient

https://www.topsimages.com/images/medicine-capsule-b5.html

COLLABORER AVEC :

- Pharmacien
- infirmière praticienne
- Nutritionniste
- Travailleur social
- Inf. Soins palliatifs
- Physiothérapie
- Etc

- Créer lien avec 1e ligne !!!

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