XI Reunión. Estado del Arte en
INSUFICIENCIA CARDIACA
PRÁCTICA CLÍNICA Y MODELOS ORGANIZATIVOS
Sede: Hotel Meliá MaríaPita, A Coruña
A CORUÑA 27-28 SEPTIEMBRE 2024

XI Meeting. State of the Art in
HEART FAILURE
CLINICAL PRACTICE AND ORGANIZATIONAL MODELS
Venue: Hotel Meliá MaríaPita, A Coruña
ACoruñaHF2024
A CORUÑA 27-28 SEPTEMBER 2024

Most relevant comorbidities in the elderly

Comorbilidades más relevantes en edad avanzada

Beatriz Seoane González

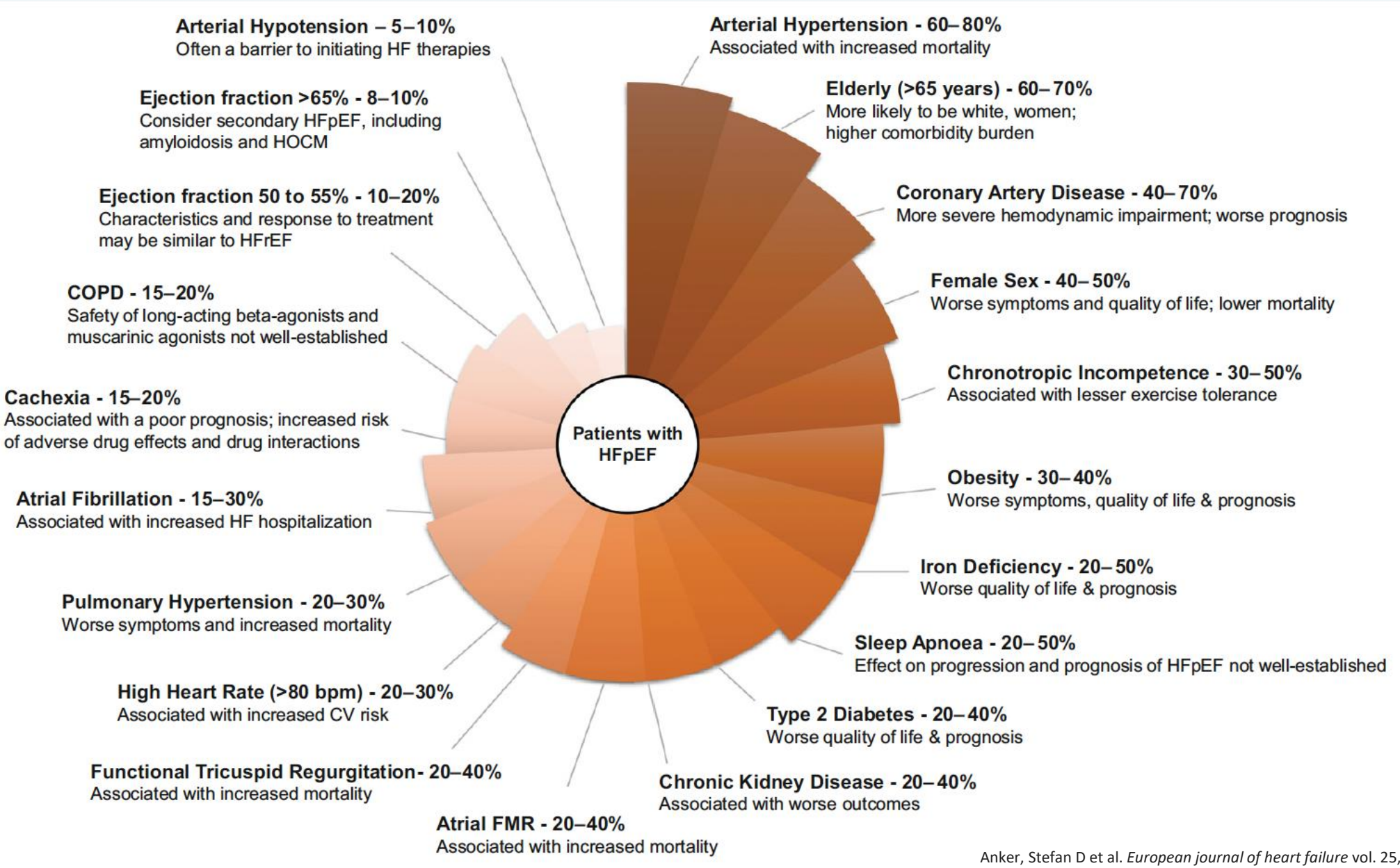
*Unidad de Manejo Integral del Paciente con Insuficiencia Cardiaca (**UMIPIC**)*

Servicio de Medicina Interna. Hospital Universitario de A Coruña

“Cuando creíamos que teníamos todas las respuestas,
de pronto,
cambiaron las preguntas”

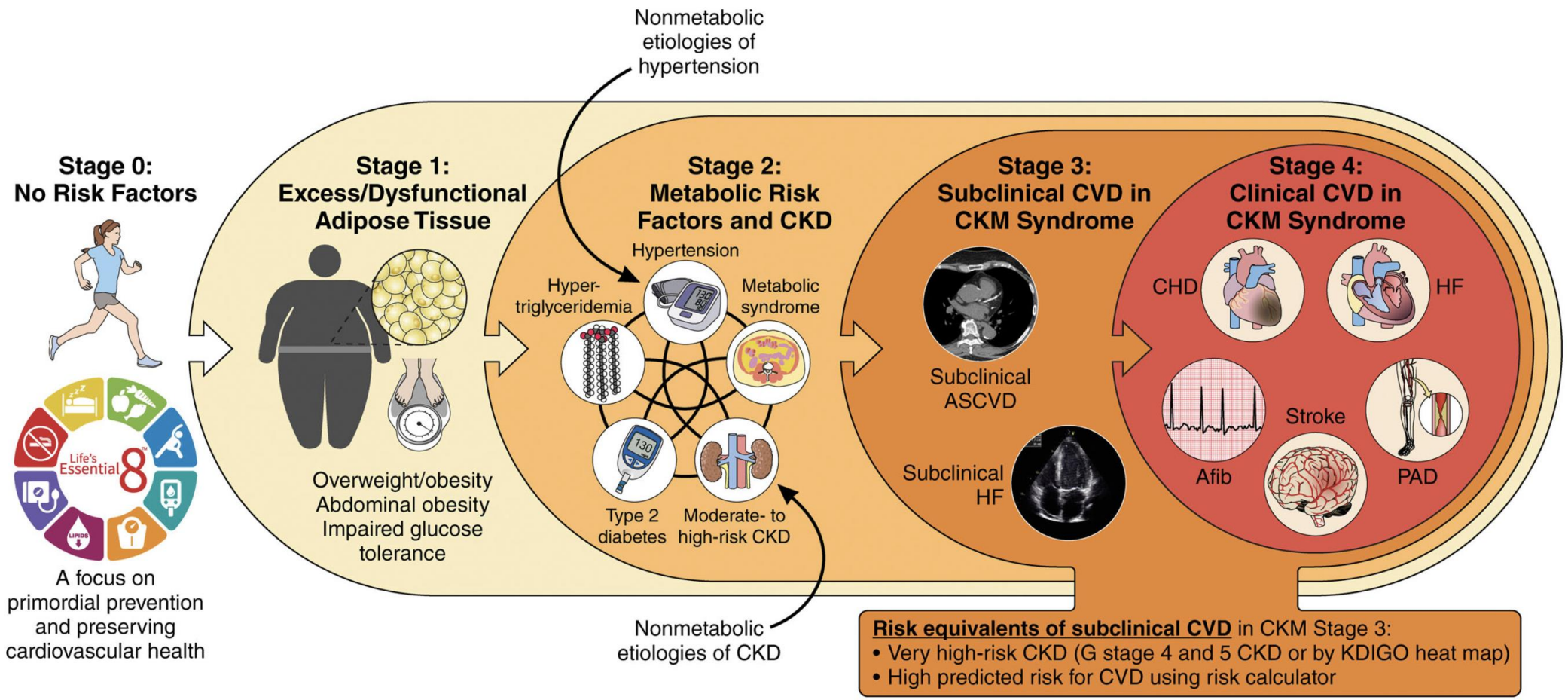
“When we thought we had all the answers, suddenly, all the questions changed”

MARIO BENEDETTI



Anker, Stefan D et al. *European journal of heart failure* vol. 25,7 (2023)

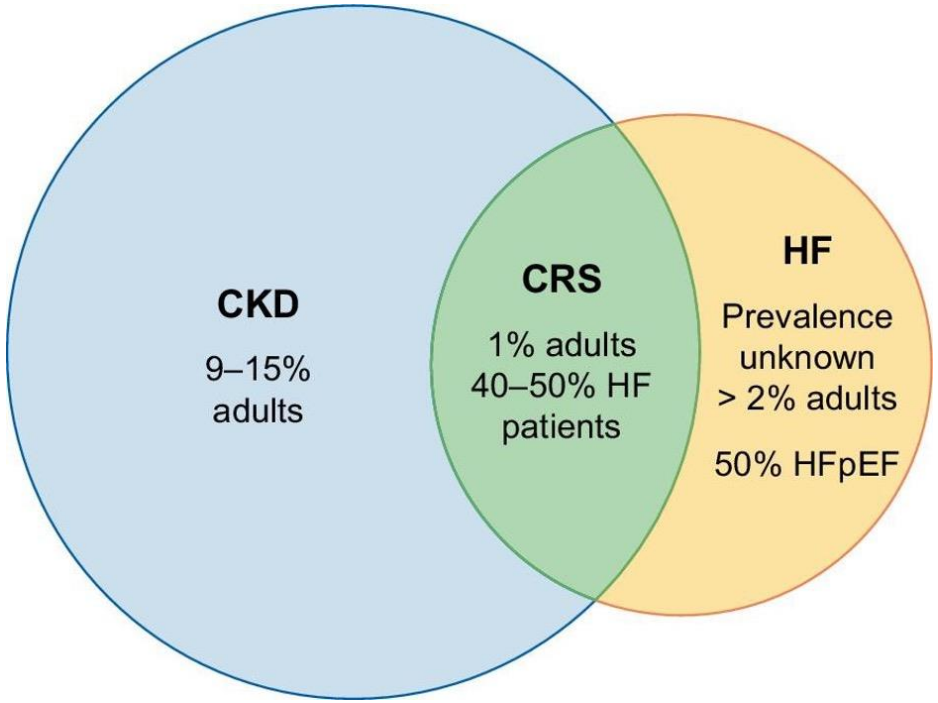
Cardiovascular – Kidney – Metabolic Syndrome



Ndumele et al. Circulation. Volume 148, 20, November 2023

Cronic kidney desease (CKD)

High prevalence 40-45 %



Therapies

Prognosis

Table 4 Initiation of heart failure drugs in relation to baseline chronic kidney disease status

Drug	Evidence across GFR strata according to baseline eGFR enrolment criteria	Acute drop GFR	Impact on GFR slope in HF trial	CKD treatment interaction	Treatment effect with CKD
	ESKD / 15–30 / 30–60 / >60				
ACE-I/ARB	Moderate evidence if dialysis, weak evidence if not on dialysis	Yes	No (beneficial effect of around 1–2 ml/min/1.73 m^2 per year in CKD trials)	No	Relative benefit: ~ Absolute benefit: ↑
Beta-blockers		No	No	Yes (potentially but some conflicting results)	Relative benefit: ~ Absolute benefit: ↑
MRA		Yes	No	No	Relative benefit: ~ Absolute benefit: ↑
ARNI		Yes	Yes (around 0.5 ml/min/1.73 m^2 per year)	No	Relative benefit: ~ Absolute benefit: ↑
SGLT2-i	>20	Yes	Yes (around 1–2 ml/min/1.73 m^2 per year)	No	Relative benefit: ~ Absolute benefit: ↑
Ivabradine		No	No	No	Relative benefit: ~ Absolute benefit: ↑
Vericiguat		No	No	No	Relative benefit: ~ Absolute benefit: ↑
Omecamtiv mecarbil		No	No	No	Relative benefit: ~ Absolute benefit: ↑

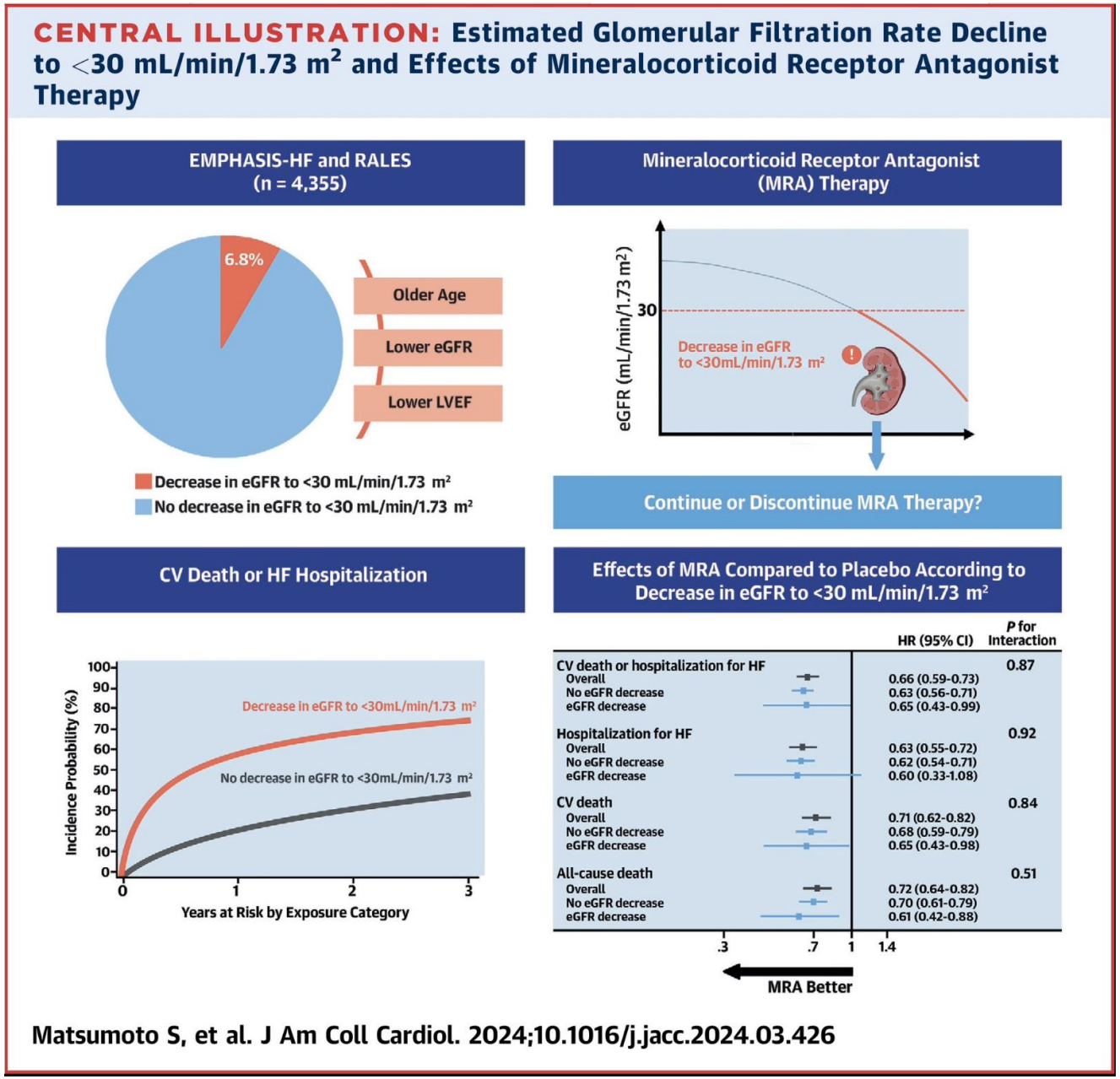
A decrease in eGFR over time does not automatically mean RAASi/SGLT2-i need to be downtitrated or discontinued

Mullens W et al. Eur J Heart Fail. Eur J Heart Fail 2022

Mineralocorticoid Receptor Antagonist

Conclusions:

Because patients experiencing a decrease in ***eGFR to <30*** mL/min/1.73 m^2 are at very high risk, the *absolute risk reduction with an MRA in these patients is large* and this decline in eGFR ***should not automatically lead to treatment discontinuation***

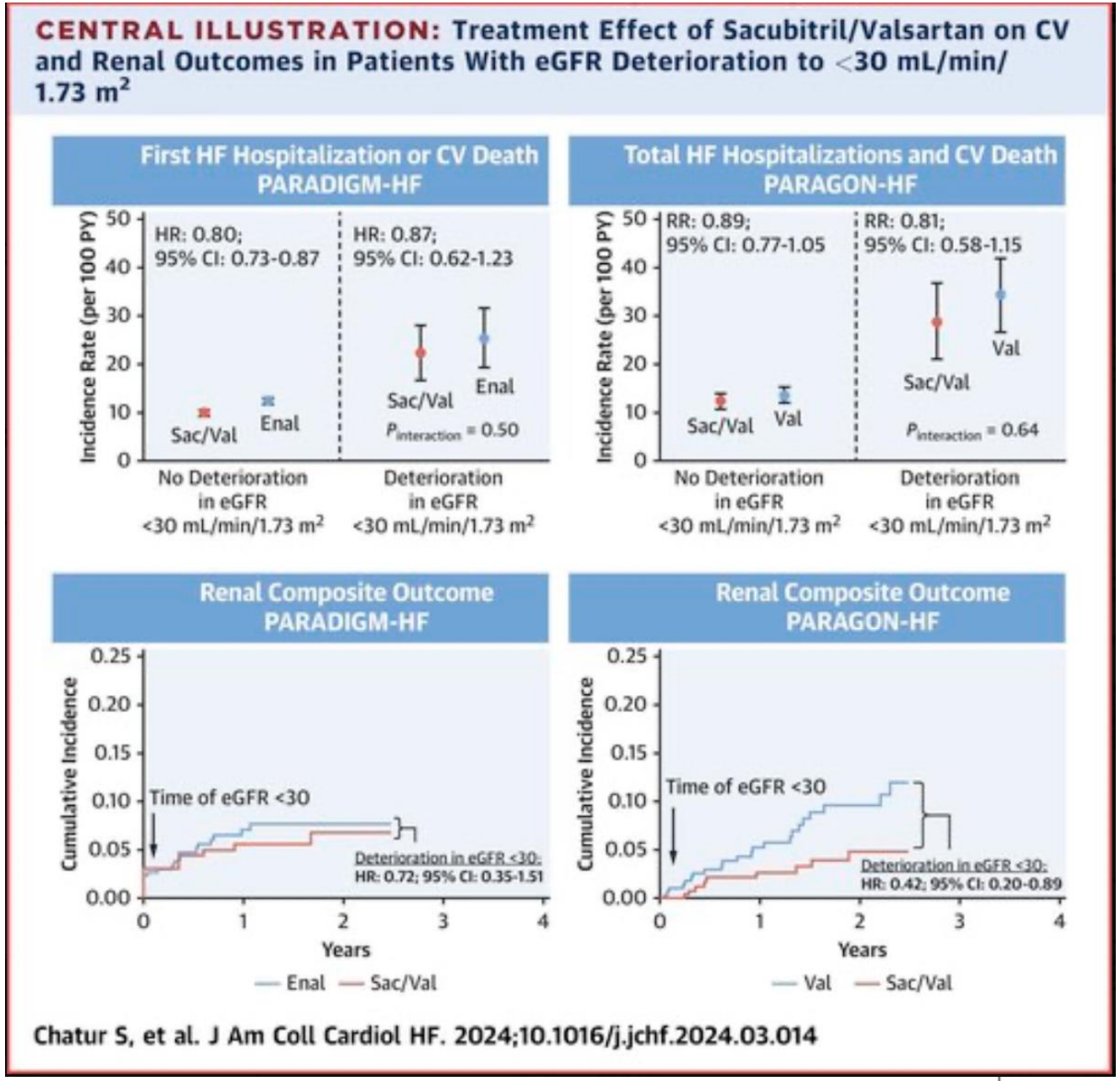


Matsumoto S, et al. J Am Coll Cardiol. 2024;10.1016/j.jacc.2024.03.426

Sacubitril/Valsartan

Conclusions: Patients experiencing deterioration of kidney function eGFR < 30 mL/min/1.73 $m^{2,}$, faced high risk of cardiovascular and kidney disease outcomes.

Continuation of ***sacubitril/valsartan was associated with persistent clinical benefit and no incremental safety risk.***



Chatur S, et al. J Am Coll Cardiol HF. 2024;10.1016/j.jchf.2024.03.014

CKD & Diabetes: *promorbidity*

IECA/ARAII

iSGLT2

Finerenona

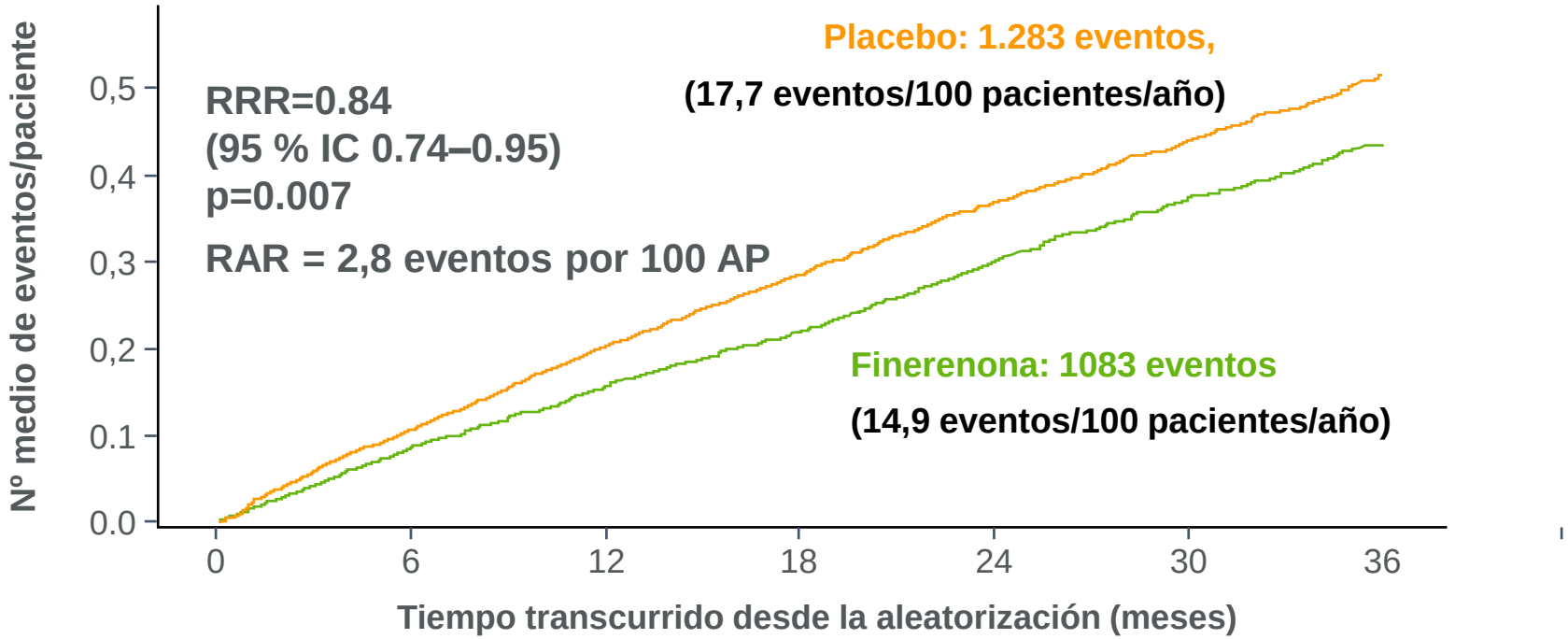
Recommendation Table 4 — Recommendations for the prevention of heart failure in patients with type 2 diabetes mellitus and chronic kidney disease

Recommendations	Class[a]	Level[b]
In patients with T2DM and CKD,[c] SGLT2 inhibitors (dapagliflozin or empagliflozin) are recommended to reduce the risk of HF hospitalization or CV death.[5,7,35]	I	A
In patients with T2DM and CKD,[c] finerenone is recommended to reduce the risk of HF hospitalization.[10,11,34,40]	I	A

McDonagh T, Metra M et al. European Heart Journal (2023) 00, 1–13

Finerenona demostró reducción relativa del riesgo del 16 % en la variable combinada de muertes CV y episodios totales de descompensación por IC

Variable principal eficacia: muertes CV y episodio de descompensación de IC



FINEARTS-HF

AP: años-paciente; CV: cardiovascular; IC: insuficiencia cardíaca; IdC: intervalo de confianza; RAR: reducción absoluta del riesgo; RRR = reduccion de riesgo relativo.

Solomon S y col. N Engl J Med. 1 de septiembre de 2024. Doi: 10.1056 / NEJMoa2407107

USE OF GLUCOSE-LOWERING MEDICATIONS IN THE MANAGEMENT OF TYPE 2 DIABETES

HEALTHY LIFESTYLE BEHAVIORS; DIABETES SELF-MANAGEMENT EDUCATION AND SUPPORT (DSMES); SOCIAL DETERMINANTS OF HEALTH (SDOH)

TO AVOID THERAPEUTIC INERTIA REASSESS AND MODIFY TREATMENT REGULARLY (3–6 MONTHS)

Goal: Cardiorenal Risk Reduction in High-Risk Patients with Type 2 Diabetes (in addition to comprehensive CV risk management)*

+ASCVD†

Defined differently across CVOTs but all included individuals with established CVD (e.g., MI, stroke, any revascularization procedure). Variably included: conditions such as transient ischemic attack, unstable angina, amputation, symptomatic or asymptomatic coronary artery disease.

+Indicators of high risk

While definitions vary, most comprise ≥55 years of age with two or more additional risk factors (including obesity, hypertension, smoking, dyslipidemia, or albuminuria)

+ASCVD/Indicators of High Risk

GLP-1 RA# with proven CVD benefit — EITHER/OR — SGLT2i§ with proven CVD benefit

If HbA_{1c} above target

- For patients on a GLP-1 RA consider adding SGLT2i with proven CVD benefit or vice versa
- TZD^

+HF

Current or prior symptoms of HF with documented HFrEF or HFpEF

+HF

SGLT2i§ with proven HF benefit in this population

+CKD

eGFR <60 mL/min per 1.73 m^2 OR albuminuria (ACR ≥3.0 mg/mmol [30mg/g]). These measurements may vary over time; thus, a repeat measure is required to document CKD.

+CKD (on maximally tolerated dose of ACEi/ARB)

PREFERABLY

SGLT2i§ with primary evidence of reducing CKD progression

Use SGLT2i in people with an eGFR ≥20 mL/min per 1.73 m^2; once initiated should be continued until initiation of dialysis or transplantation

— OR —

GLP-1 RA with proven CVD benefit if SGLT2i not tolerated or contraindicated

If HbA_{1c} above target, for patients on SGLT2i, consider incorporating a GLP-1 RA or vice versa

If additional cardiorenal risk reduction or glycemic lowering needed

Goal: Achievement and Maintenance of Glycemic and Weight Management Goals

Glycemic Management: Choose approaches that provide the efficacy to achieve goals:

Metformin OR Agent(s) including COMBINATION therapy that provide adequate EFFICACY to achieve and maintain treatment goals

Consider avoidance of hypoglycemia a priority in high-risk individuals

In general, higher efficacy approaches have greater likelihood of achieving glycemic goals

Efficacy for glucose lowering

Very High:
Dulaglutide (high dose), Semaglutide, Tirzepatide

Insulin

Combination Oral, Combination Injectable (GLP-1 RA/Insulin)

High:
GLP-1 RA (not listed above), Metformin, SGLT2i, Sulfonylurea, TZD

Intermediate:
DPP-4i

Achievement and Maintenance of Weight Management Goals:

Set individualized weight management goals

General lifestyle advice: medical nutrition therapy/eating patterns/ physical activity

Intensive evidence-based structured weight management program

Consider medication for weight loss

Consider metabolic surgery

When choosing glucose-lowering therapies:

Consider regimen with high-to-very-high dual glucose and weight efficacy

Efficacy for weight loss

Very High:
Semaglutide, Tirzepatide

High:
Dulaglutide, Liraglutide

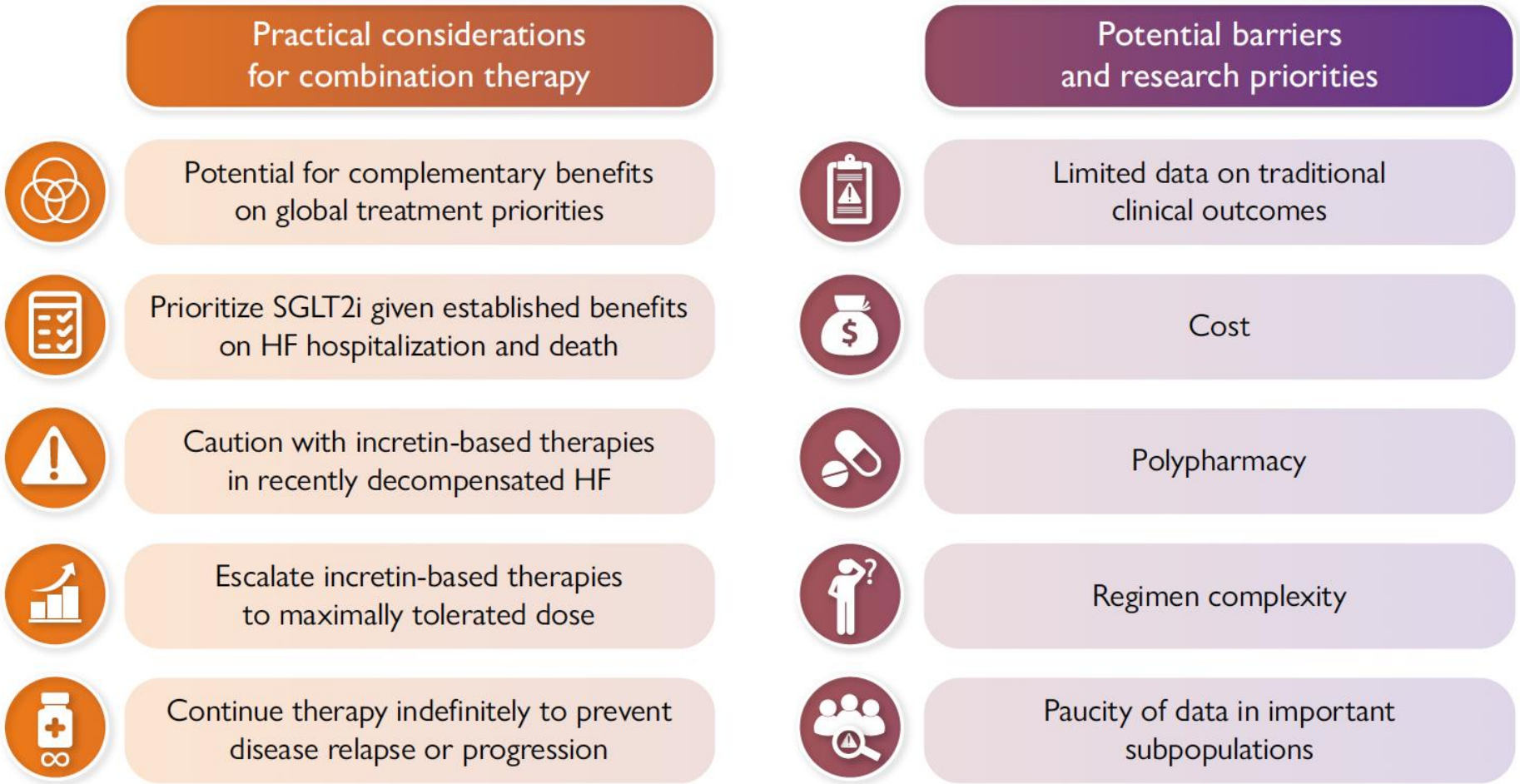
Intermediate:
GLP-1RA (not listed above), SGLT2i

Neutral:
DPP-4i, Metformin

If HbA_{1c} above target

Davies MJ et al. Management of Hyperglycemia in Type 2 Diabetes, 2022. A Consensus Report by the American Diabetes Association (ADA) and the European Association for the Study of Diabetes (EASD). Diabetes Care. September 2022.

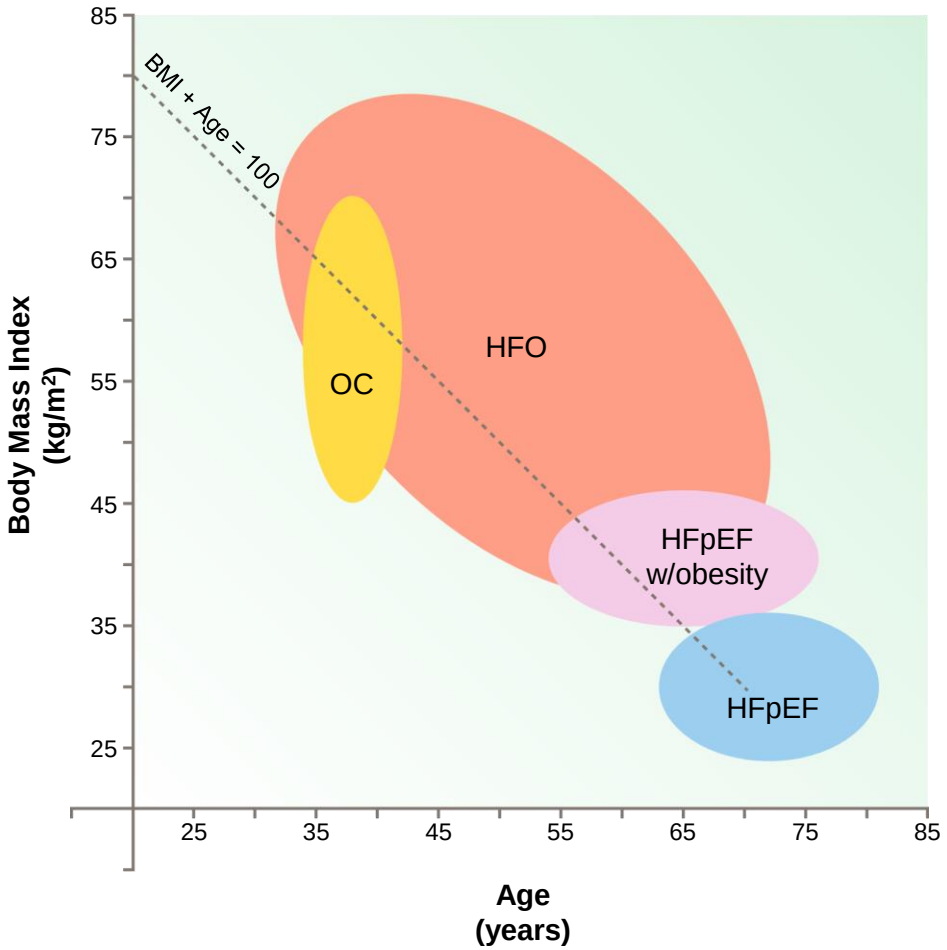
HFpEF therapy: combining SGLT2i and incretins



Ostrominski, John W et al. *European heart journal* vol. 45,30 (2024)

Obesity

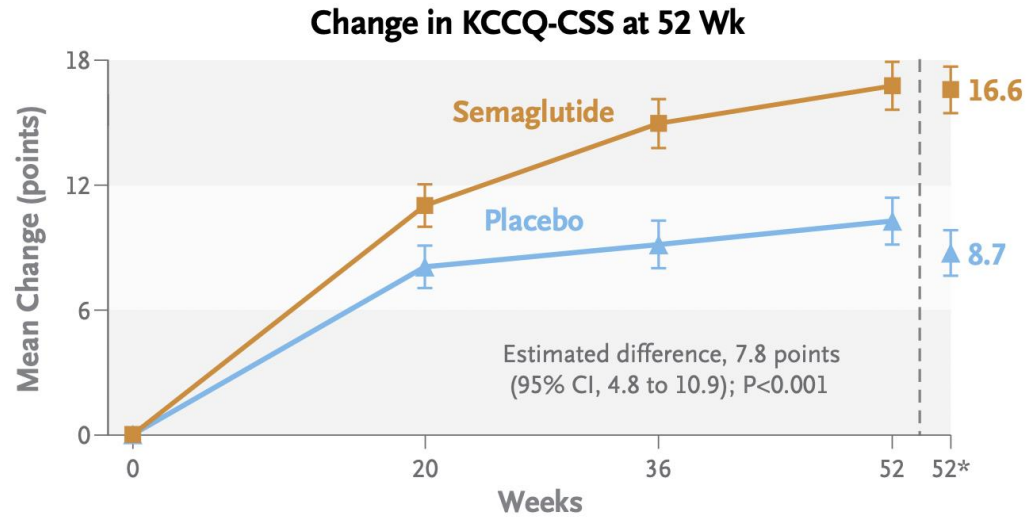
Body Weight Loss May Reverse HFpEF If Treated Early

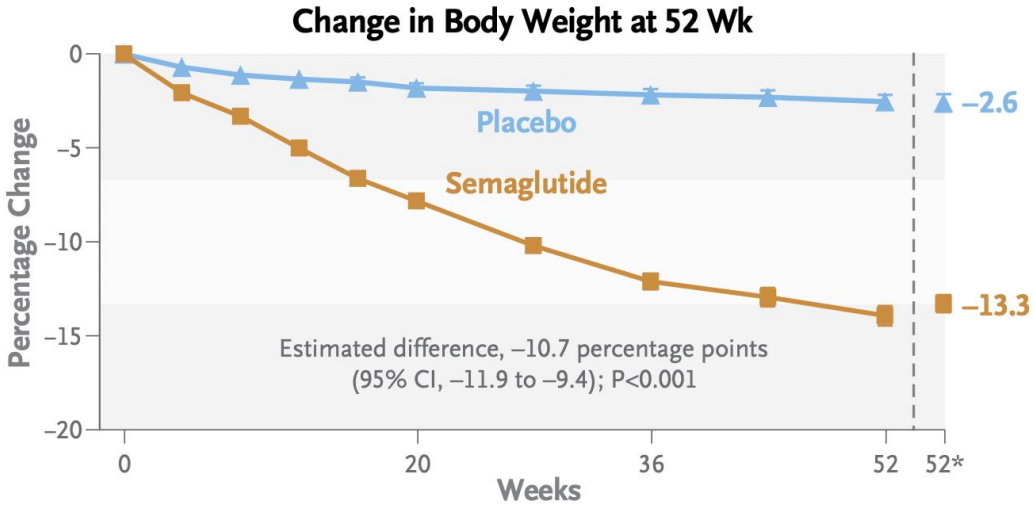


- Lifetime cumulative risk for HF of obesity (HFO) increases when “obesity-years” (BMI + age) reaches 100
- Much of the cardiac pathology of HFpEF with obesity may be reversible with adequate weight reduction
- Resilience in younger HFO may allow regression of cardiac abnormalities with 20-35% weight loss

BMI=Body Mass Index; HFpEF=Heart Failure With Preserved Ejection Fraction; HFO=Heart Failure Obesity; OC=Obesity Cardiomyopathy.

Chockalingam A. *Front Cardiovasc Med*. 2022;9:821829.





Week 52 data are based on ANCOVA and imputation of missing data.

The NEW ENGLAND JOURNAL of MEDICINE

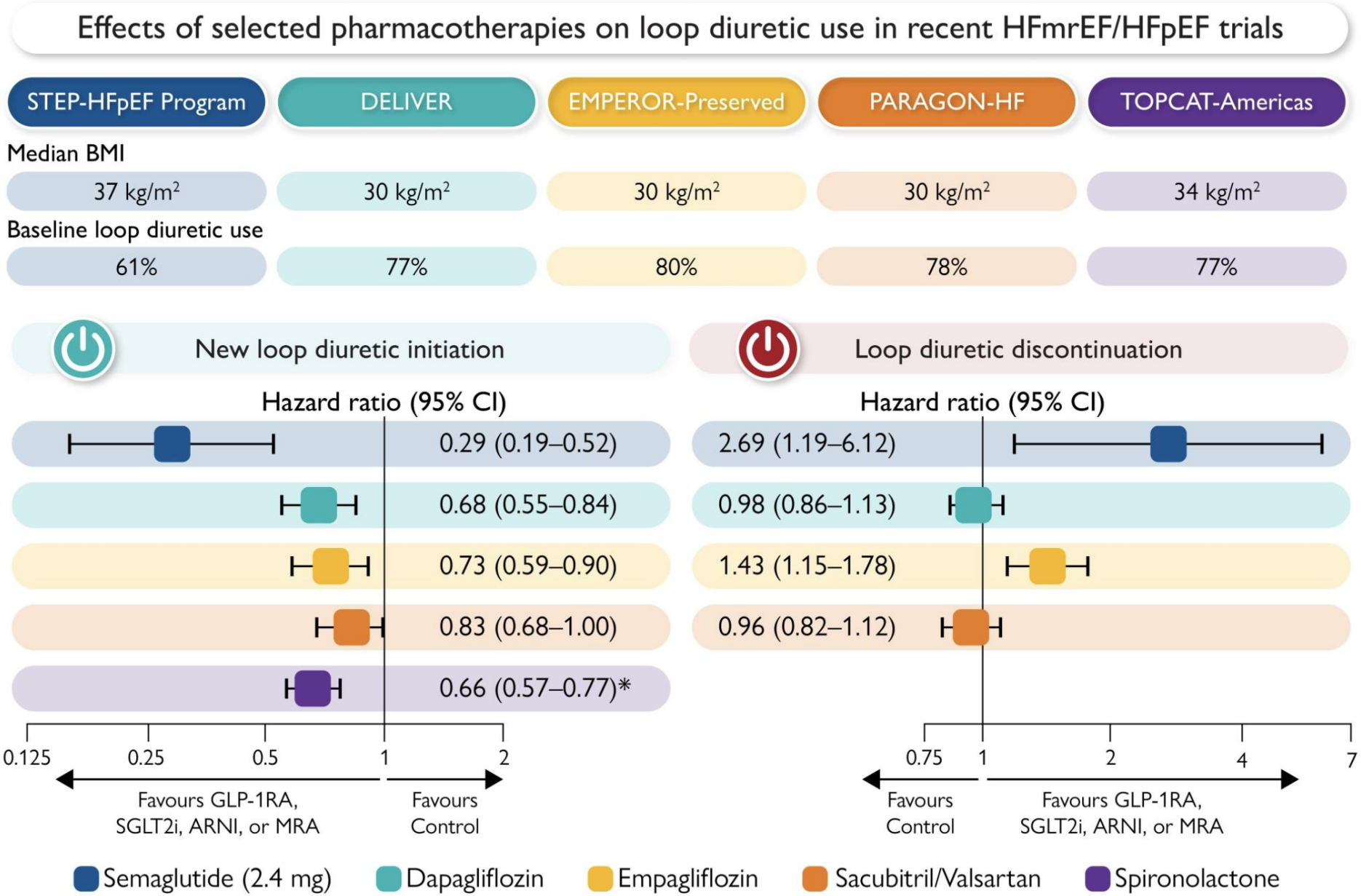
RESEARCH SUMMARY

Semaglutide in Patients with Heart Failure with Preserved Ejection Fraction and Obesity

Kosiborod MN et al. DOI: 10.1056/NEJMoa2306963

CONCLUSIONS

In adults with heart failure with preserved ejection fraction and obesity, once-weekly treatment with semaglutide was associated with greater reductions in heart failure–related symptoms and physical limitations and greater weight loss than placebo over 52 weeks.



Sanjiv J Shah et all. *European Heart Journal*, Volume 45, Issue 35, 14 September 2024,

The NEW ENGLAND JOURNAL of MEDICINE

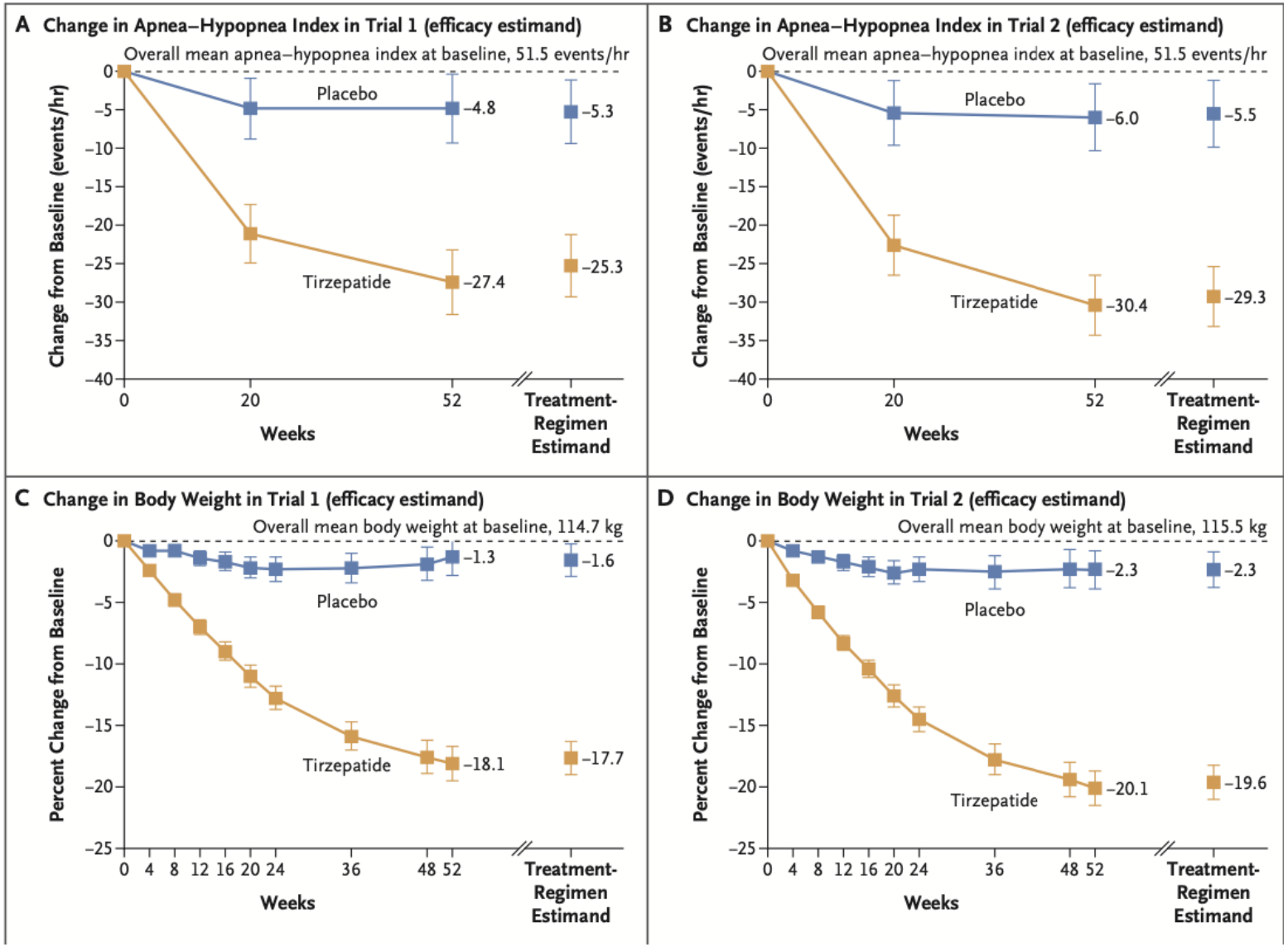
ORIGINAL ARTICLE

Tirzepatide for the Treatment of Obstructive Sleep Apnea and Obesity

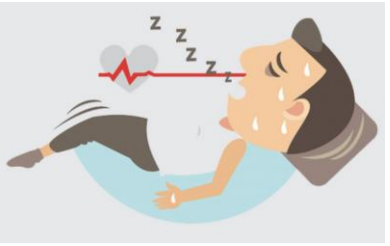
Atul Malhotra, M.D., Ronald R. Grunstein, M.D., Ph.D., Ingo Fietze, M.D., Terri E. Weaver, Ph.D., Susan Redline, M.D., M.P.H., Ali Azarbarzin, Ph.D., Scott A. Sands, Ph.D., Richard J. Schwab, M.D., Julia P. Dunn, M.D., Sujatro Chakladar, Ph.D., Mathijs C. Bunck, M.D., Ph.D., and Josef Bednarik, M.D., for the SURMOUNT-OSA Investigators*

CONCLUSIONS

Among persons with moderate-to-severe obstructive sleep apnea and obesity, tirzepatide reduced the **AHI, body weight**, hypoxic burden, hsCRP concentration, and **systolic blood pressure** and improved **sleep-related patient-reported outcomes.**

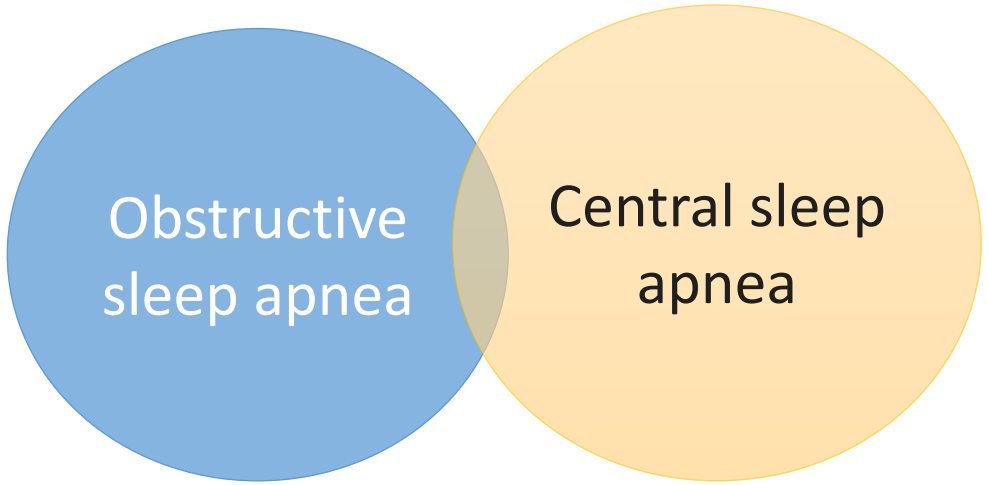


Sleep-disordered breathing



Frequent entity with a bidirectional relationship.
Coexist in 1/3 of patients with HF.
Worse prognosis.

Suspected diagnosis (daytime sleepiness, snoring, headache, obesity): polysomnography.



Frailty

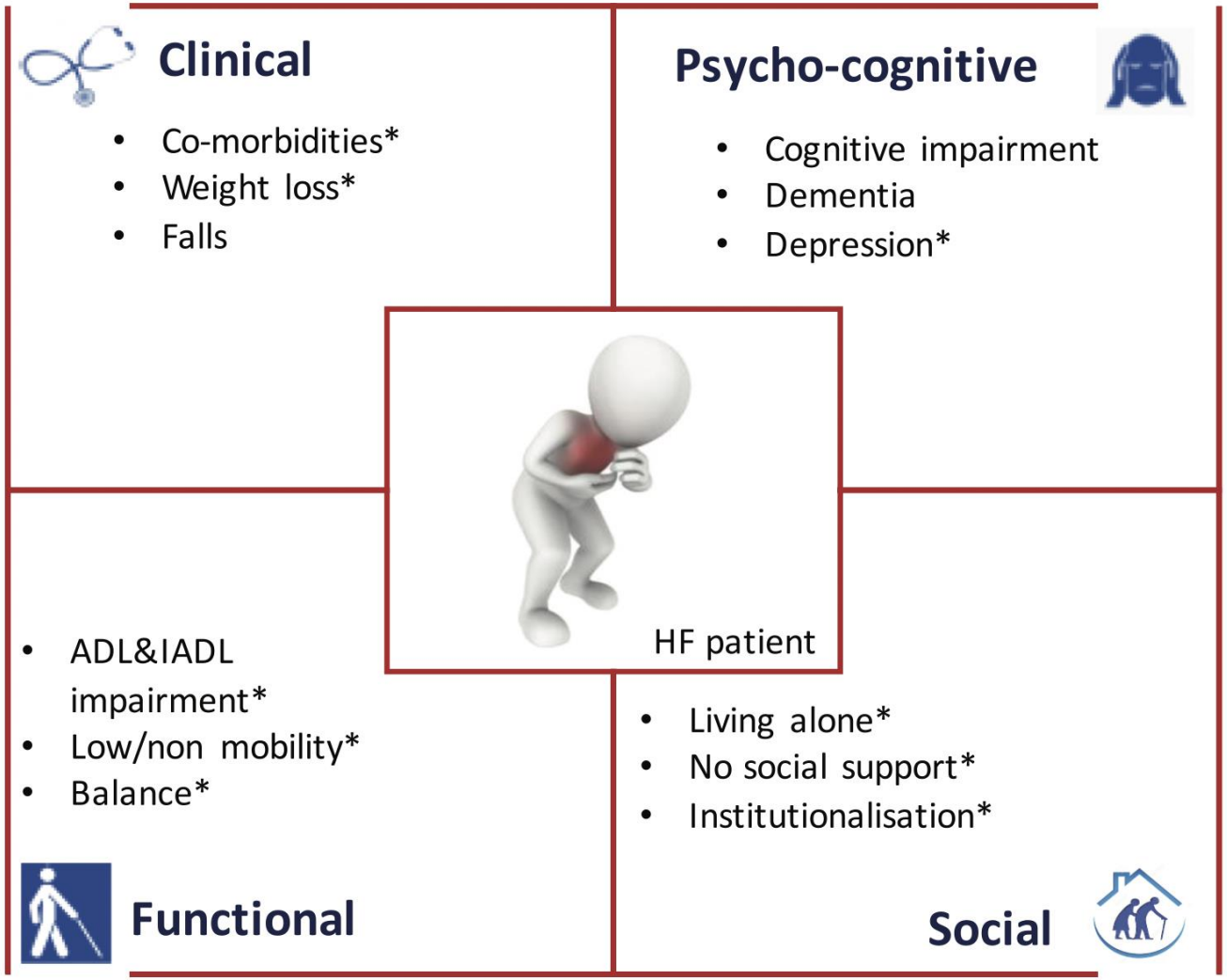


Figure 1 The four main domains – clinical, physical-functional, cognitive-psychological, and social – defining the Heart Failure Association (HFA) Frailty Score. Reversible and/or treatable variables are identified by asterisks. ADL, activities of daily living; HF, heart failure; IADL, instrumental activities of daily living. Adapted from Gorodeski *et al.*[9]

- Malnutrition
- Sarcopenia

Tomasoni D et al. Heart failure in the last year progress and perspective. ESC heart Failure. 2022

Anemia & iron deficiency

ESC European Society of Cardiology
European Heart Journal (2023) **00**, 1–13
https://doi.org/10.1093/eurheartj/ehad195

ESC GUIDELINES

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

McDonagh T, Metra M et al. European Heart Journal (2023) 00, 1–13

Deficit de hierro:

Ferritina < 100 ng/ml

Ferritina 100-300 Saturacion <20 %

Recommendation Table 5 — Recommendations for the management of iron deficiency in patients with heart failure

Recommendations	Class[a]	Level[b]
Intravenous iron supplementation is recommended in symptomatic patients with HFrEF and HFmrEF, and iron deficiency, to alleviate HF symptoms and improve quality of life.[c] 12,41,47–49	I	A
Intravenous iron supplementation with ferric carboxymaltose or ferric derisomaltose should be considered in symptomatic patients with HFrEF and HFmrEF, and iron deficiency, to reduce the risk of HF hospitalization.[c] 12,41,43–46	IIa	A
It is recommended that all patients with HF be periodically screened for anaemia and iron deficiency with a full blood count, serum ferritin concentration, and TSAT.	I	C

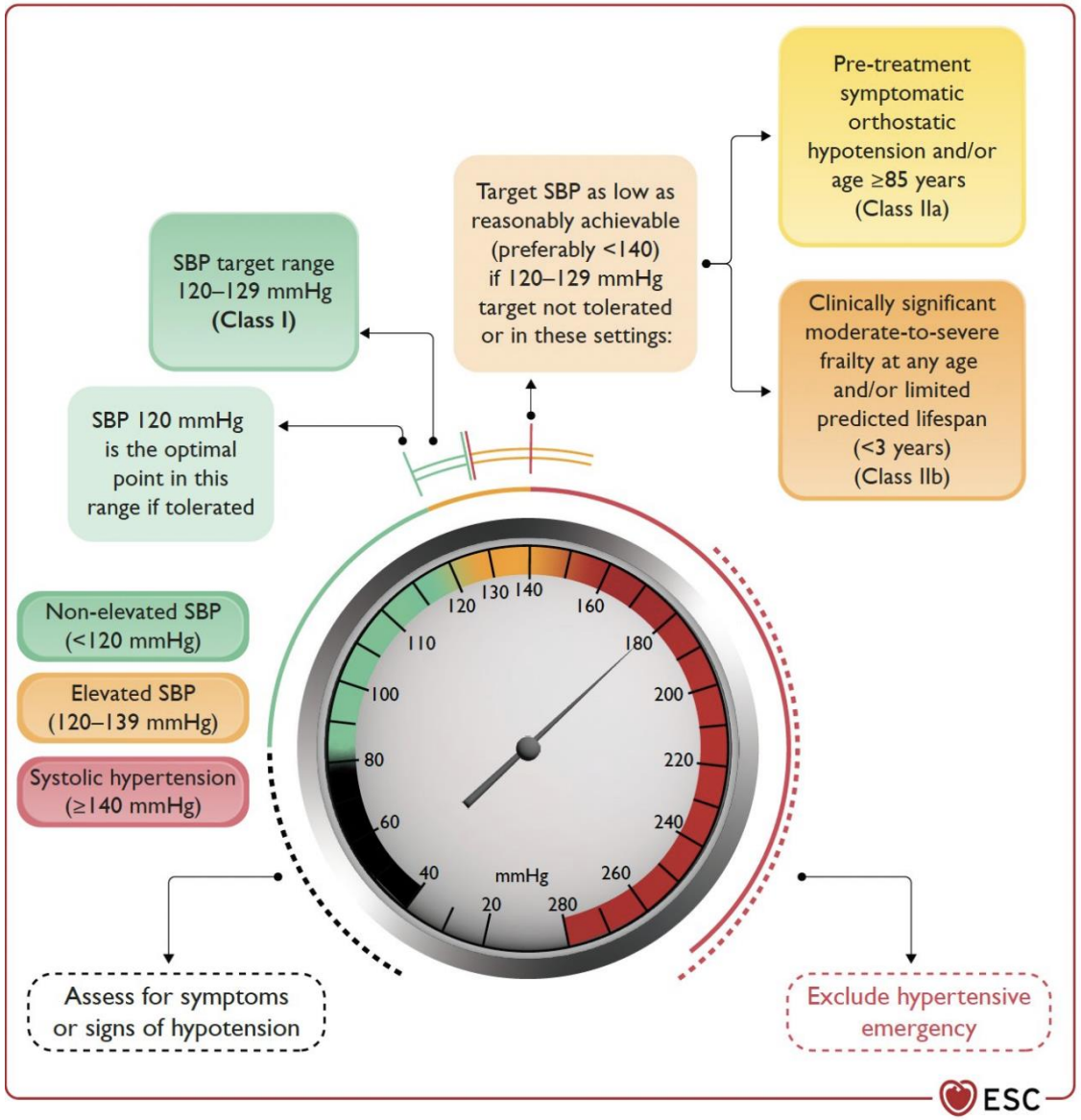
[c]Most of the evidence refers to patients with left ventricular ejection fraction ≤45%.

Hypertension

Recommendation Table 27 — Recommendations for managing hypertension in patients with cardiac disease

In patients with symptomatic HFrEF/HFmrEF, the following treatments with BP-lowering effects are recommended to improve outcomes: ACE inhibitors (or ARBs if ACE inhibitors are not tolerated) or ARNi, beta-blockers, MRAs, and SGLT2 inhibitors.[795]	I	A
In hypertensive patients with symptomatic HFpEF, SGLT2 inhibitors are recommended to improve outcomes in addition to their modest BP-lowering properties.[795]	I	A

Non-dihydropyridine CCBs should not be used



John William McEvoy, SESC Scientific Document Group , 2024 ESC Guidelines for the management of elevated blood pressure and hypertension. *European Heart Journal*, 2024

TAKE-HOME MESSAGE

- Acurate characterization.
- Phenotypic approach.
- Early intervention.
- Pharmacological and non-pharmacological treatment.