MEDICAL MANAGEMENT OF HEART FAILURE: WHAT EVERY CLINICIAN SHOULD KNOW

SONU ABRAHAM, MD, FACC

ASSISTANT PROFESSOR OF MEDICINE

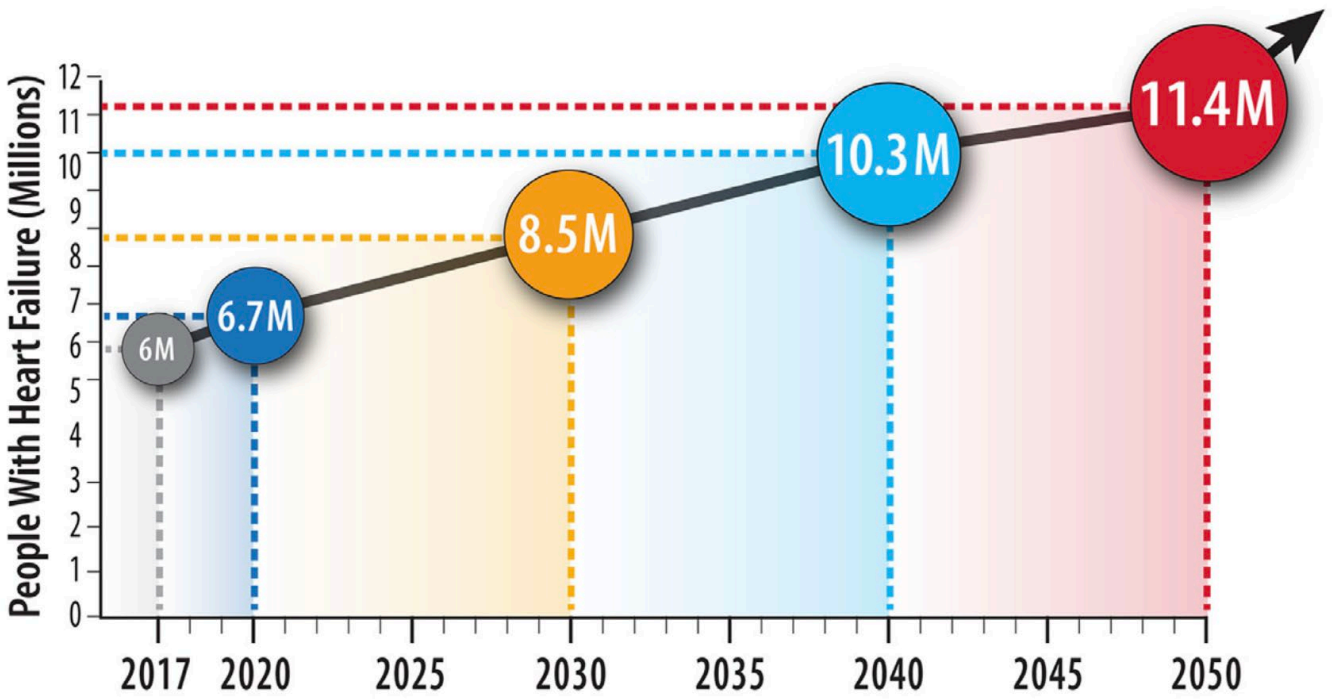
ADVANCED HEART FAILURE & TRANSPLANT CARDIOLOGY

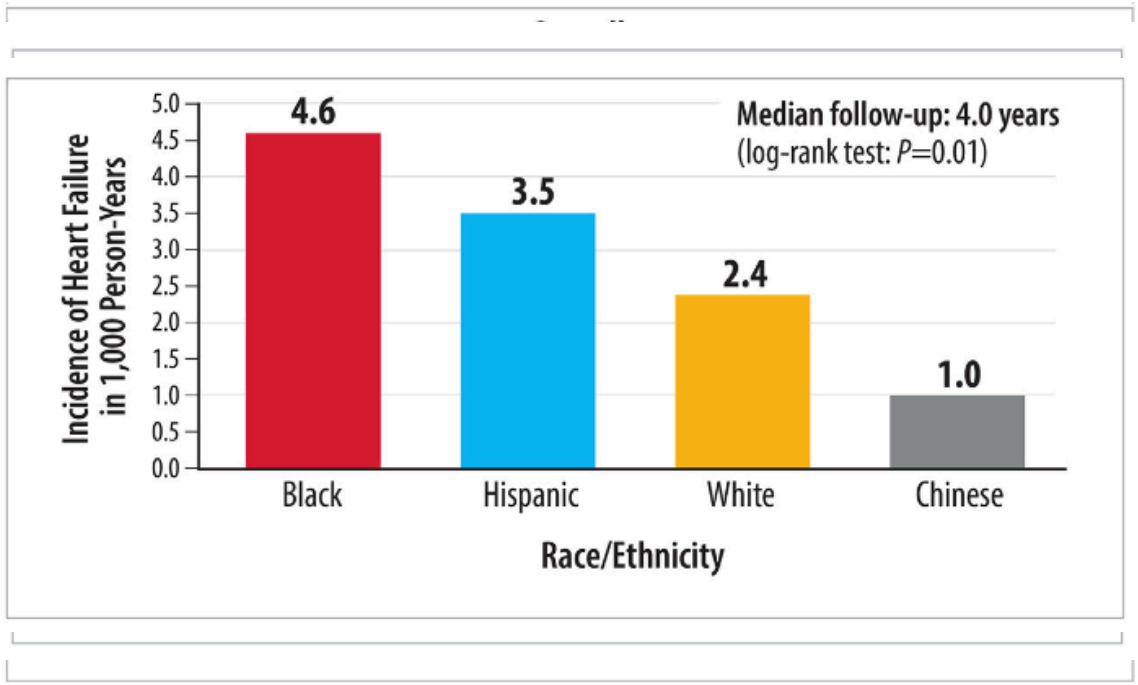
GILL HEART & VASCULAR INSTITUTE

UNIVERSITY OF KENTUCKY

UK HealthCare
GILL HEART & VASCULAR INSTITUTE

Prevalence and Incidence of Heart Failure

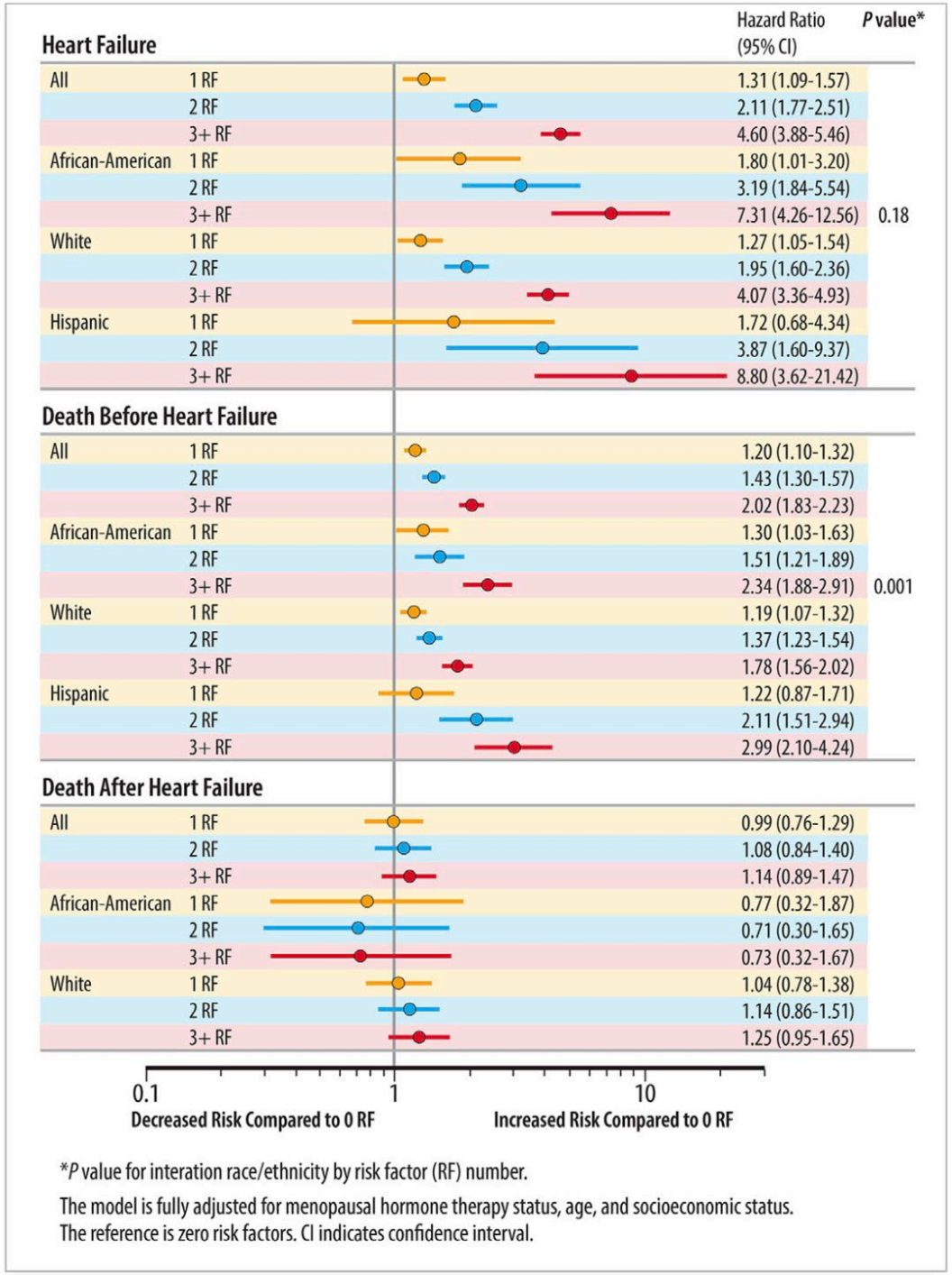




HealthCare
GILL HEART & VASCULAR INSTITUTE

WRITING COMMITTEE MEMBERS. HF STATS 2025. *J Card Fail*. Published online August 29, 2025.

Lifetime Risk of Heart Failure



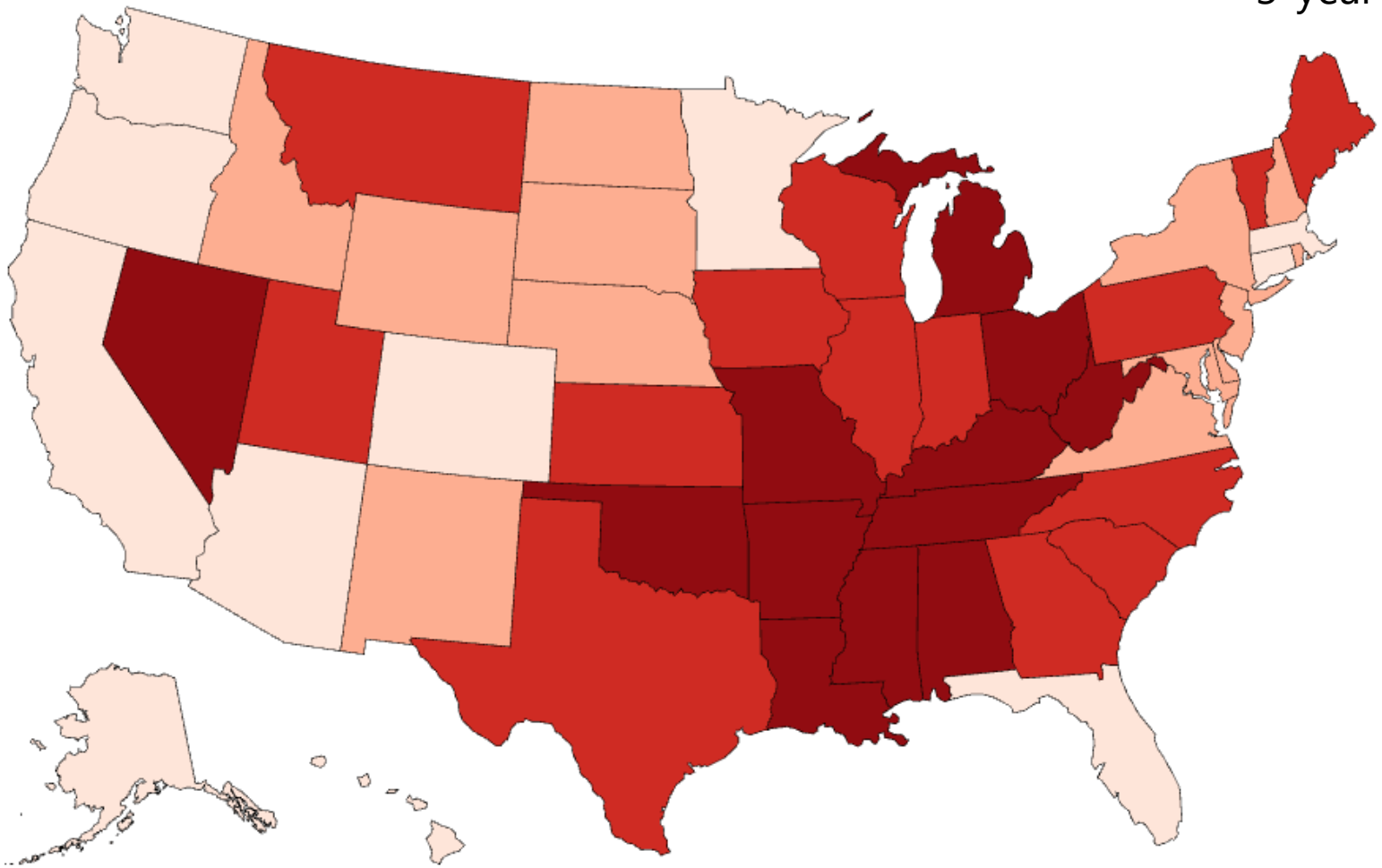
HealthCare
GILL HEART & VASCULAR INSTITUTE

WRITING COMMITTEE MEMBERS. HF STATS 2025. *J Card Fail*. Published online August 29, 2025.

How important is the family physician in the care of heart failure patients?

Heart Disease Death Rates in the United States

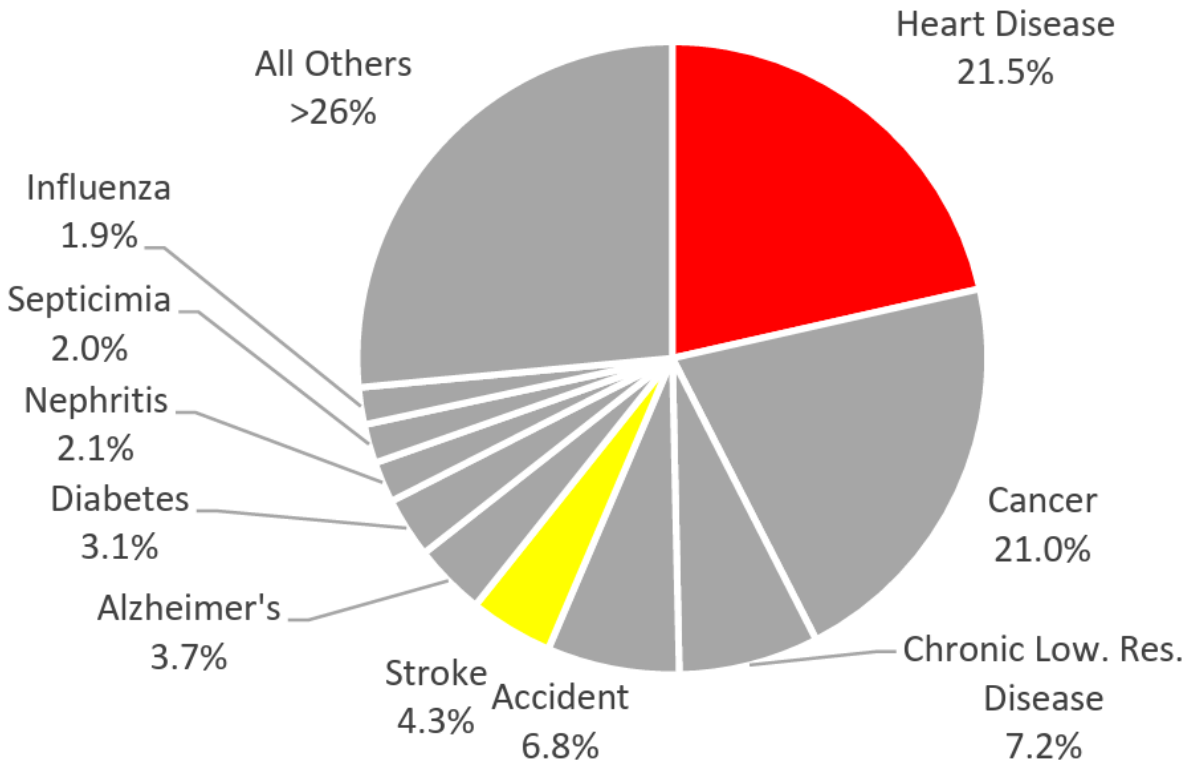
3-year averages, 2021-2023, ages 35+

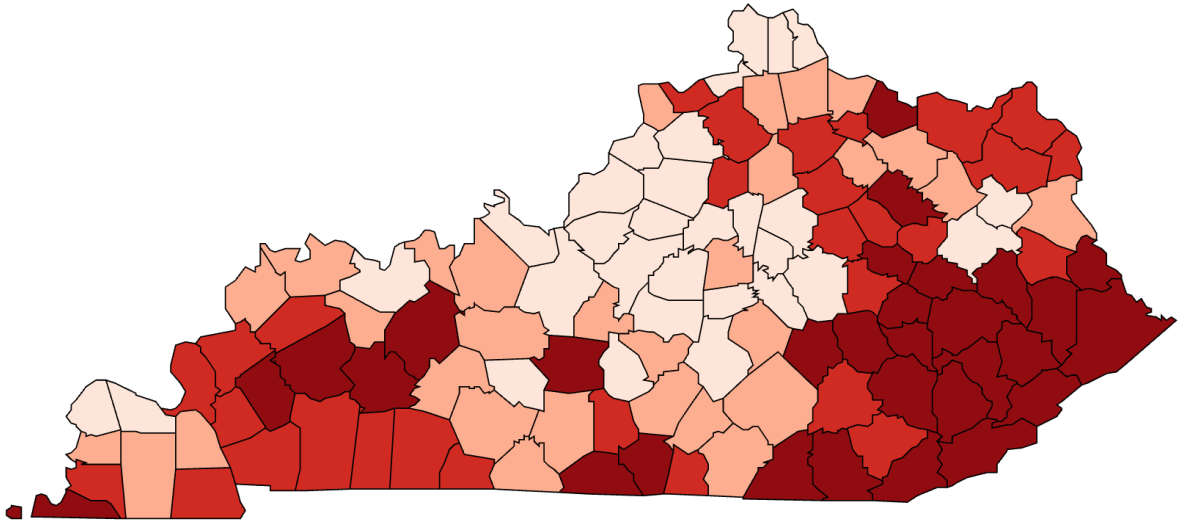


HealthCare
GILL HEART & VASCULAR INSTITUTE

How are we doing in Kentucky with regards to heart disease?

Leading Causes of Death in Kentucky 2017



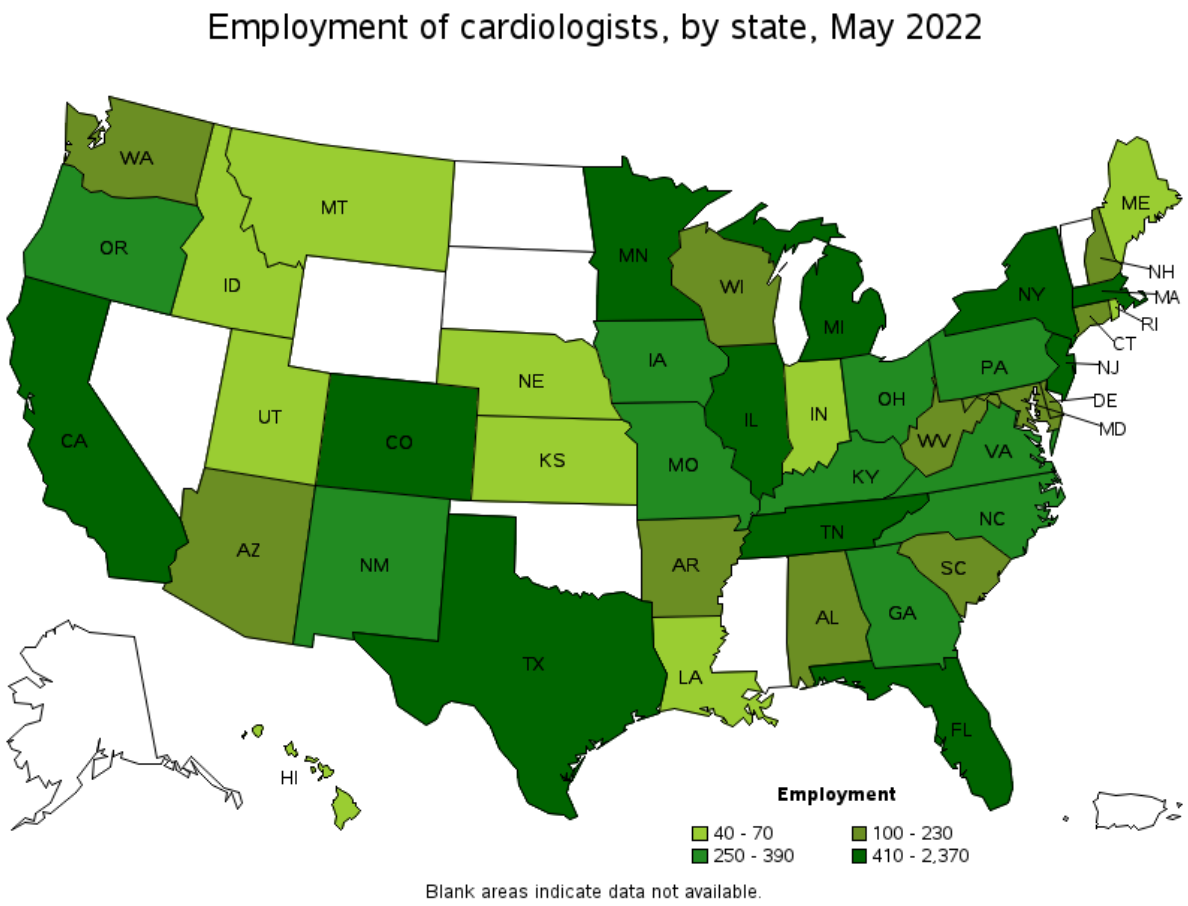


CDC.gov

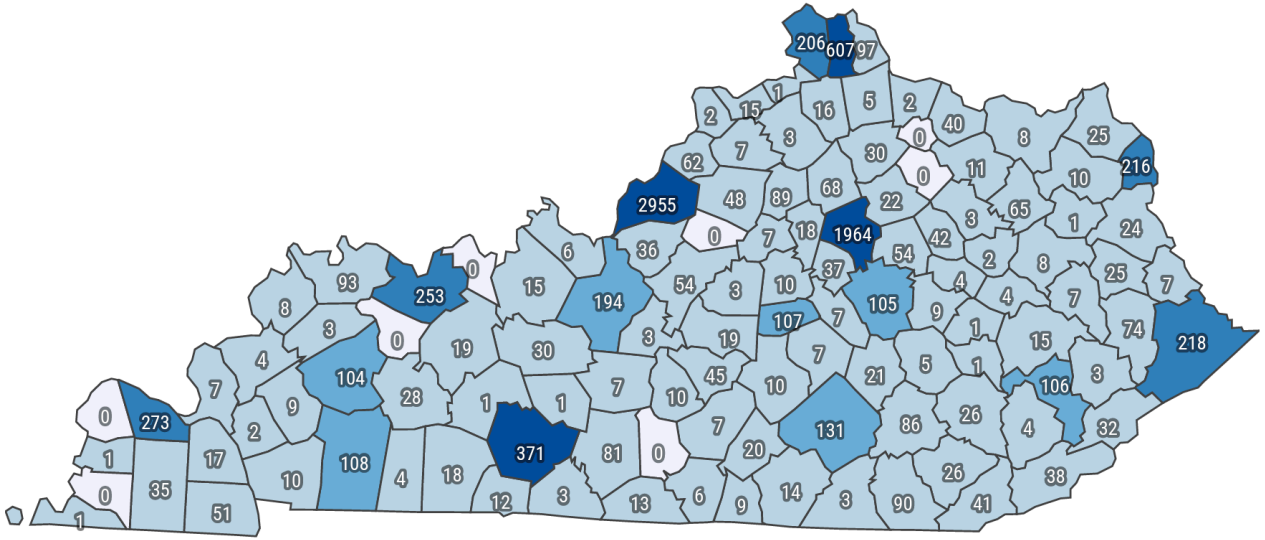
HealthCare GILL HEART & VASCULAR INSTITUTE

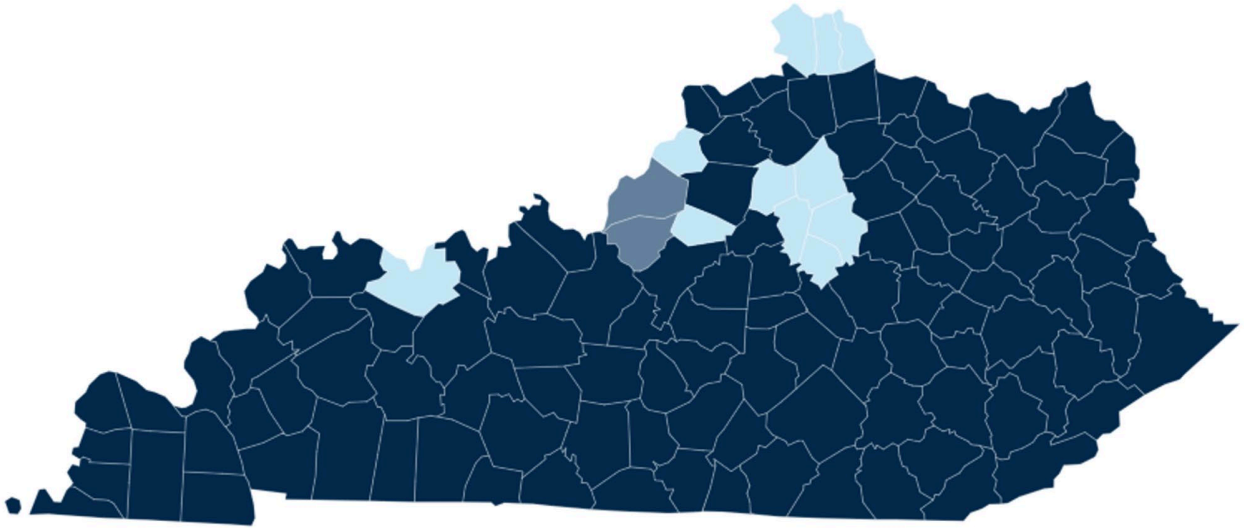
Kentucky has the 8th highest death rate from cardiovascular disease in the country.

What is the physician population of Kentucky?



Distribution of Physicians By County





None of county is shortage area

Part of county is shortage area

Whole county is shortage area

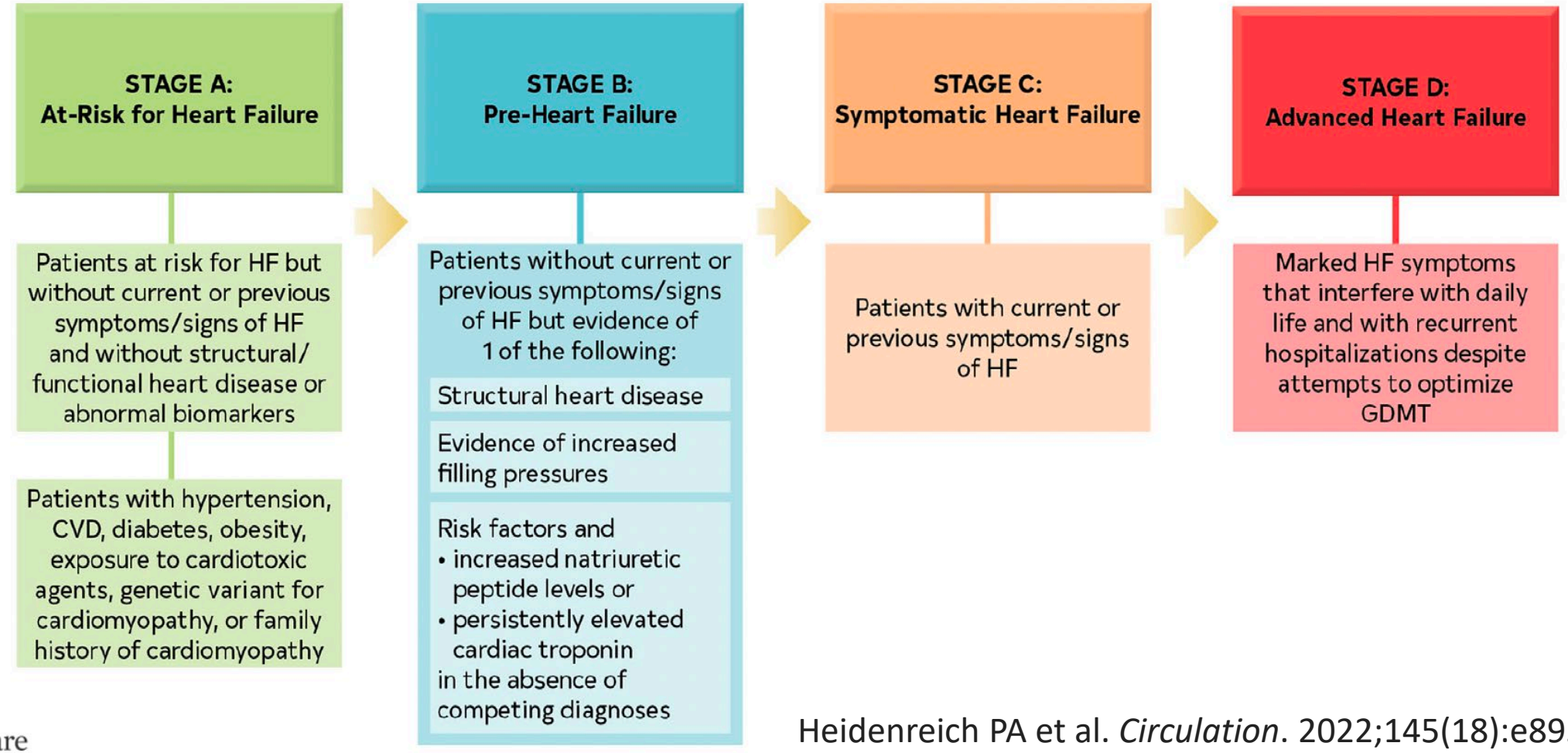
US Bureau of Labor Statistics

HealthCare
GILL HEART & VASCULAR INSTITUTE

1

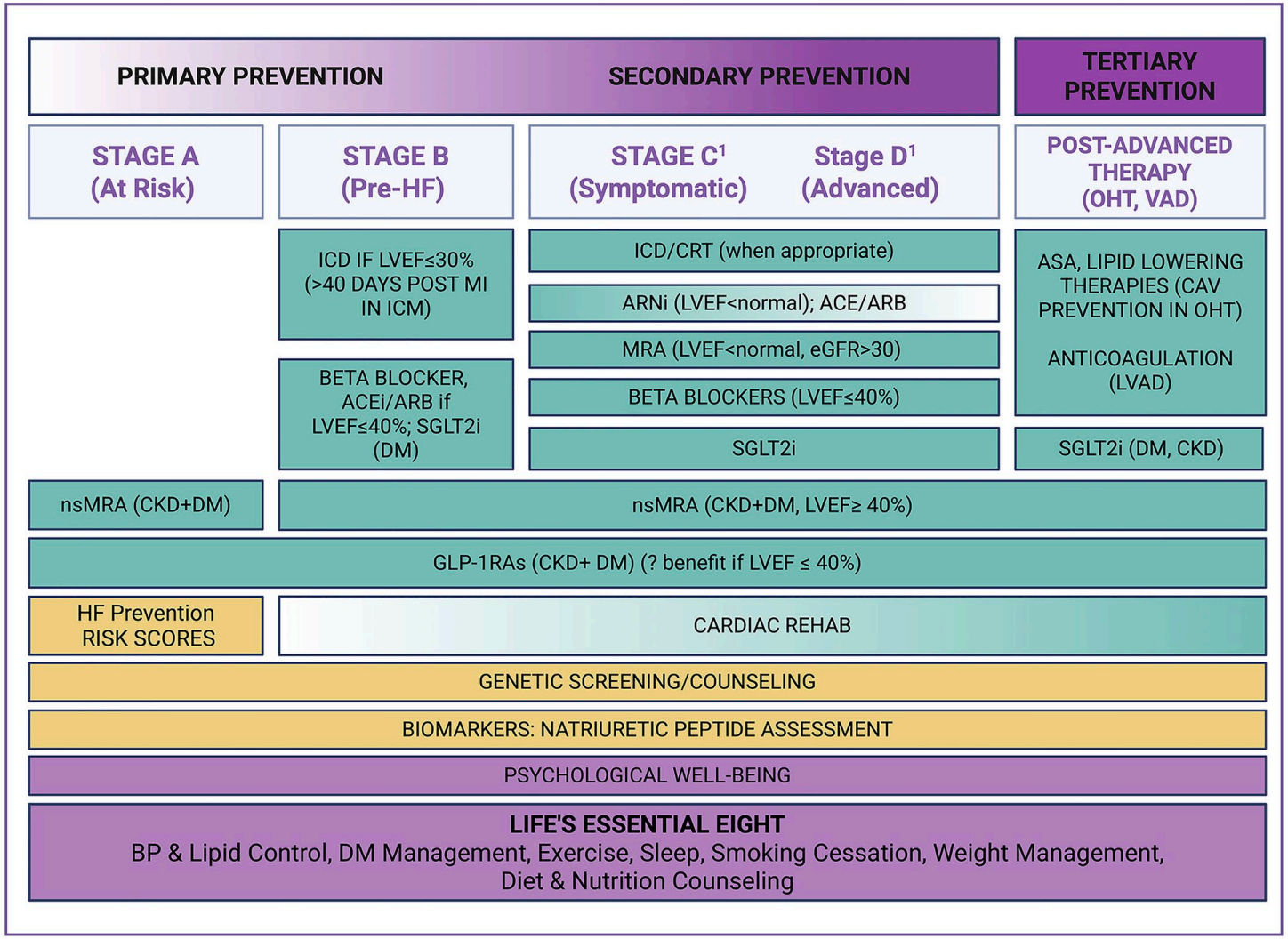
Primary Prevention of Heart Failure

Stages of Heart Failure



Heidenreich PA et al. *Circulation*. 2022;145(18):e895-e1032.

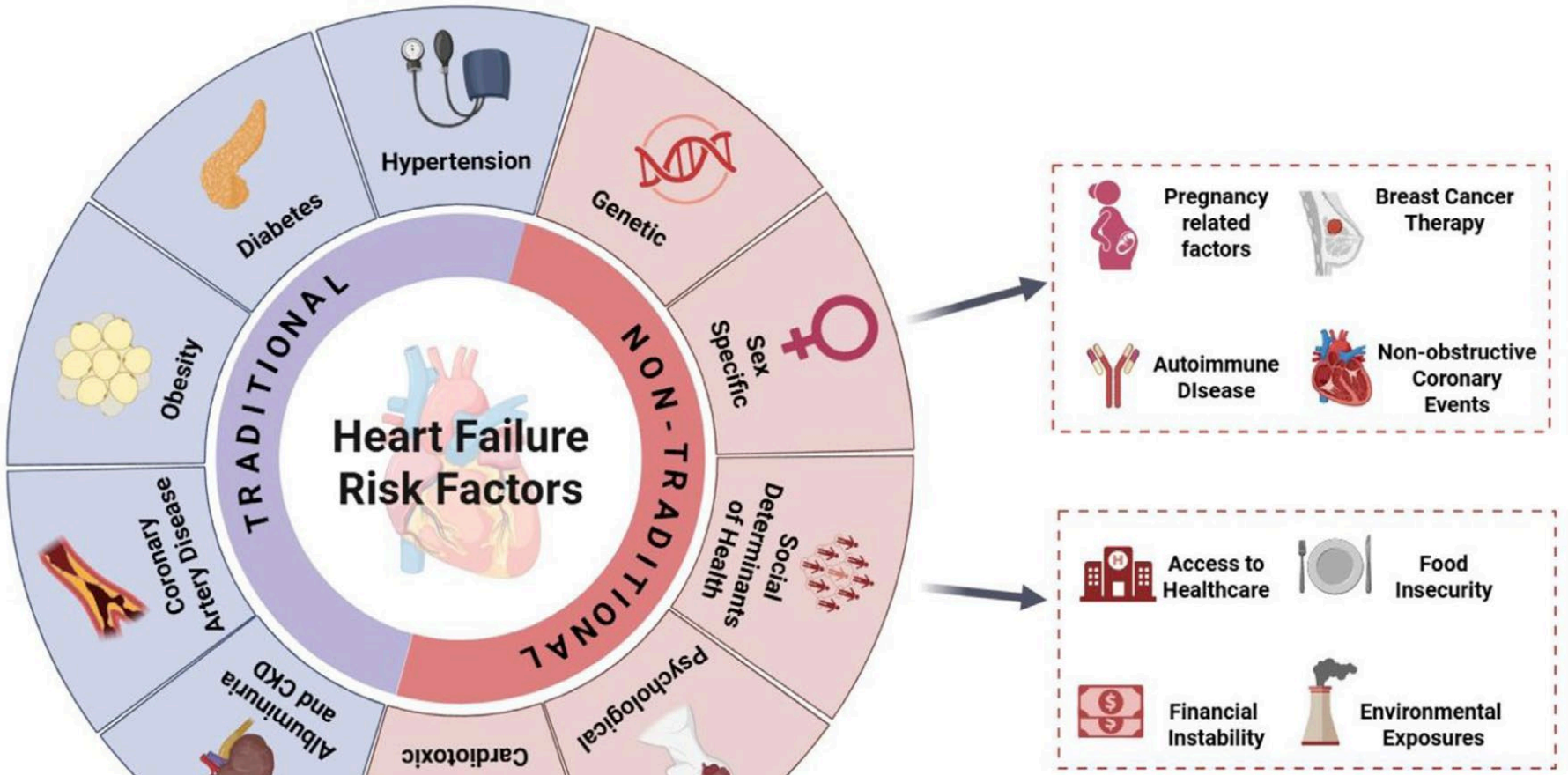
HEART FAILURE PREVENTION



Lala A, et al. *J Card Fail*. Published online August 13, 2025.

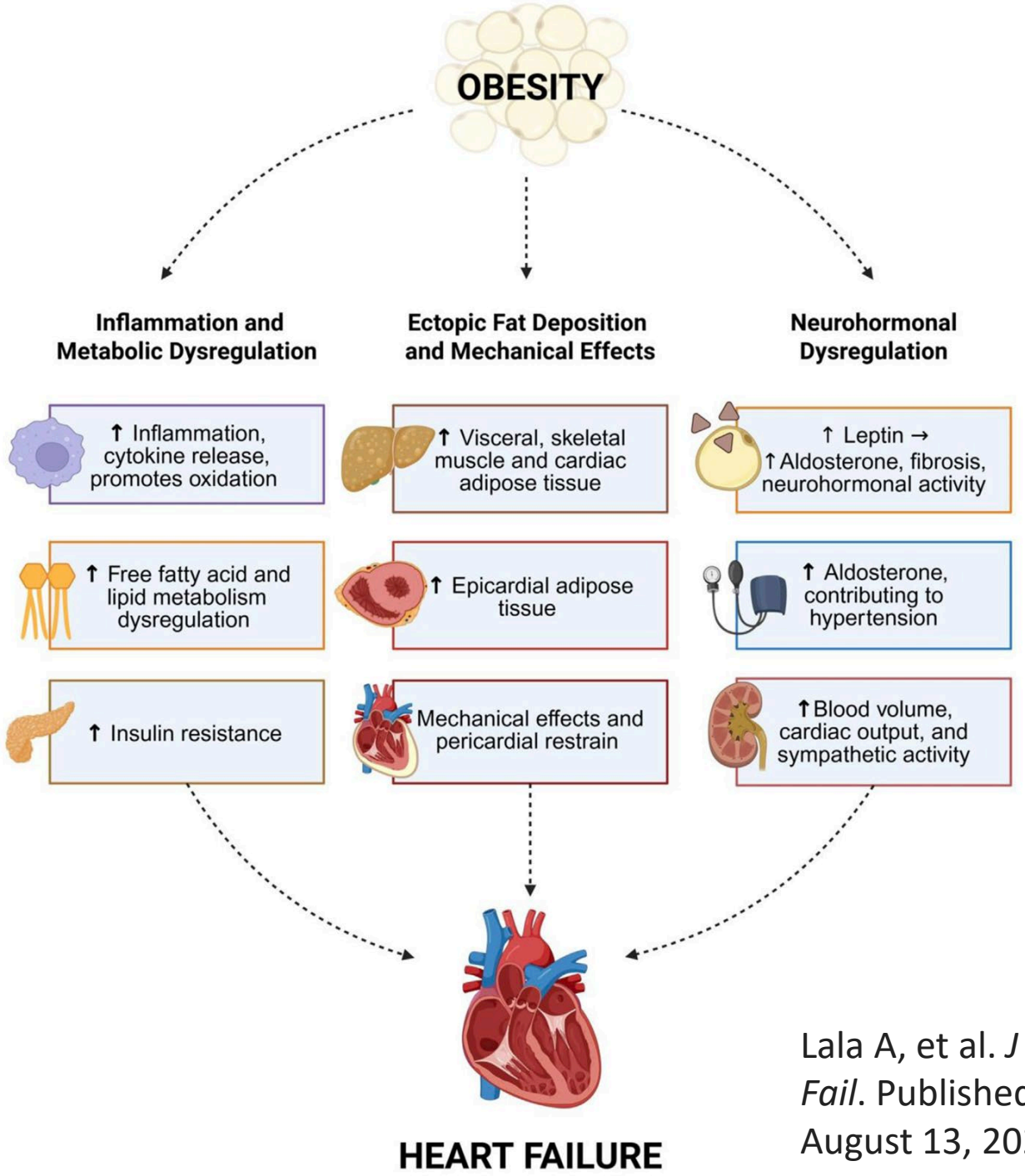
UK HealthCare GILL HEART & VASCULAR INSTITUTE

RISK FACTORS FOR HEART FAILURE



Lala A, et al. *J Card Fail*. Published online August 13, 2025.

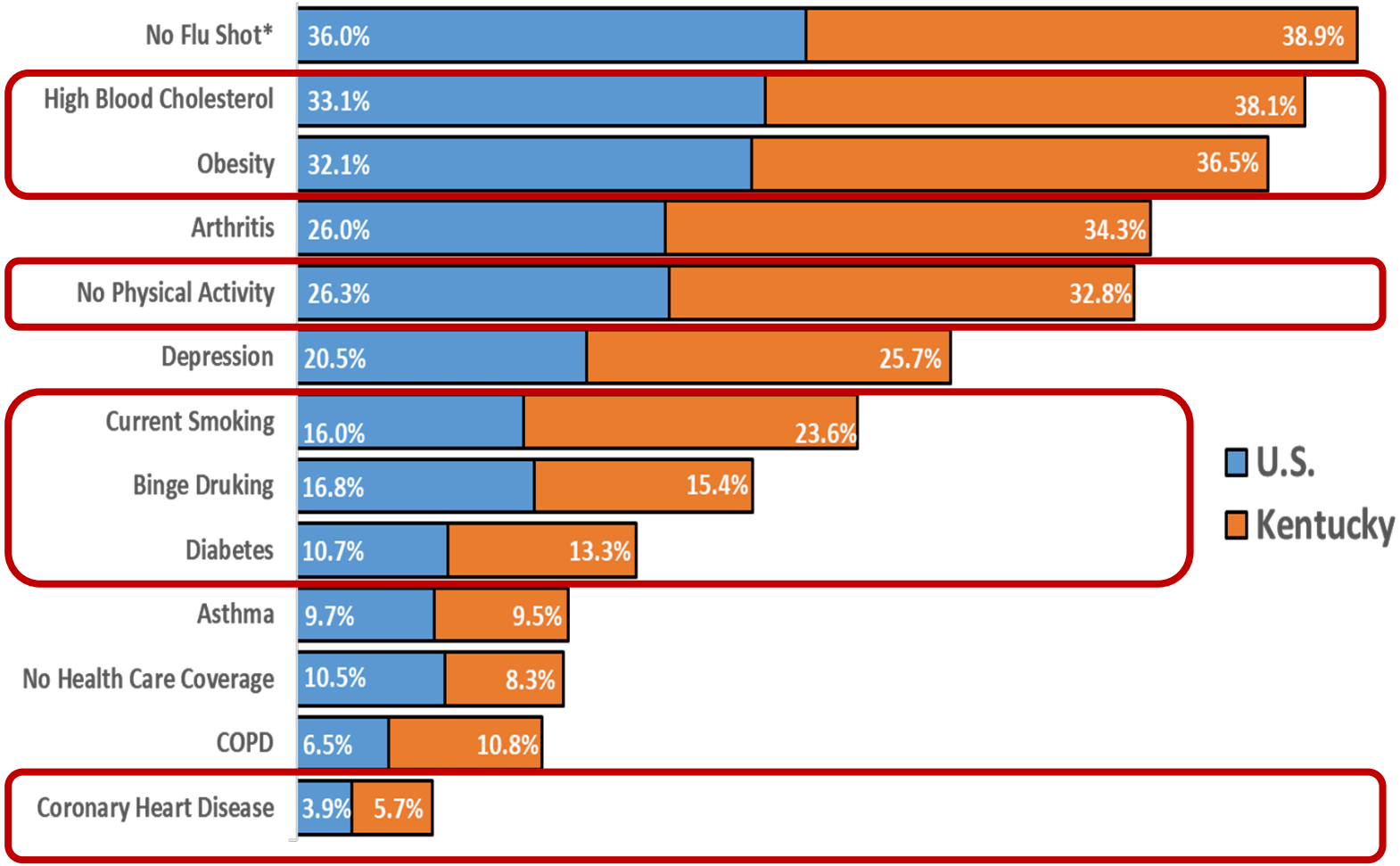
LINK BETWEEN OBESITY AND HEART FAILURE



Lala A, et al. *J Card Fail*. Published online August 13, 2025.

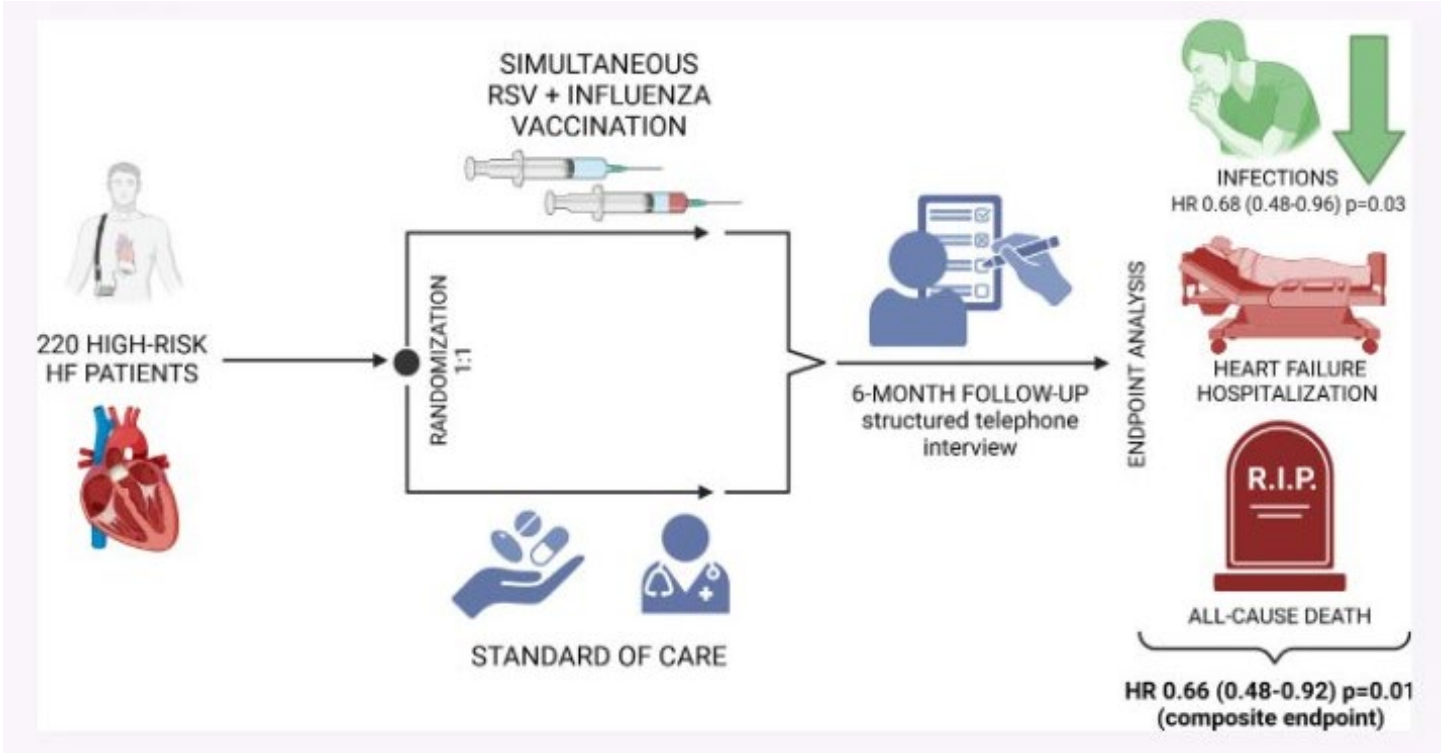
HealthCare
GILL HEART & VASCULAR INSTITUTE

HEART FAILURE RISK FACTORS IN KENTUCKY



2021 KyBRFS Annual Data Report

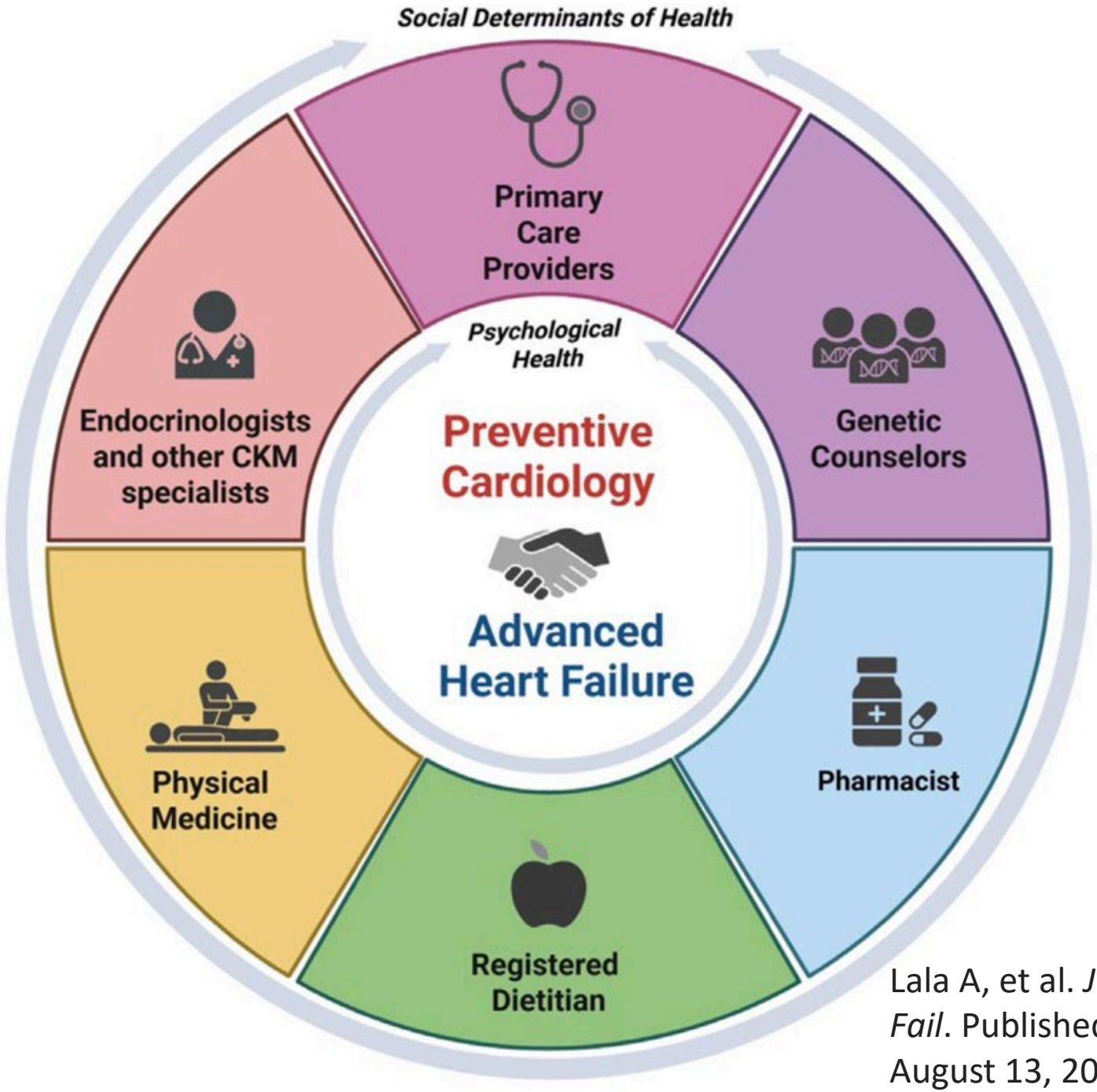
FLU VACCINATION



Biegus J,et al. *ESC Heart Fail*. Published online September 25, 2025.

UK HealthCare GILL HEART & VASCULAR INSTITUTE

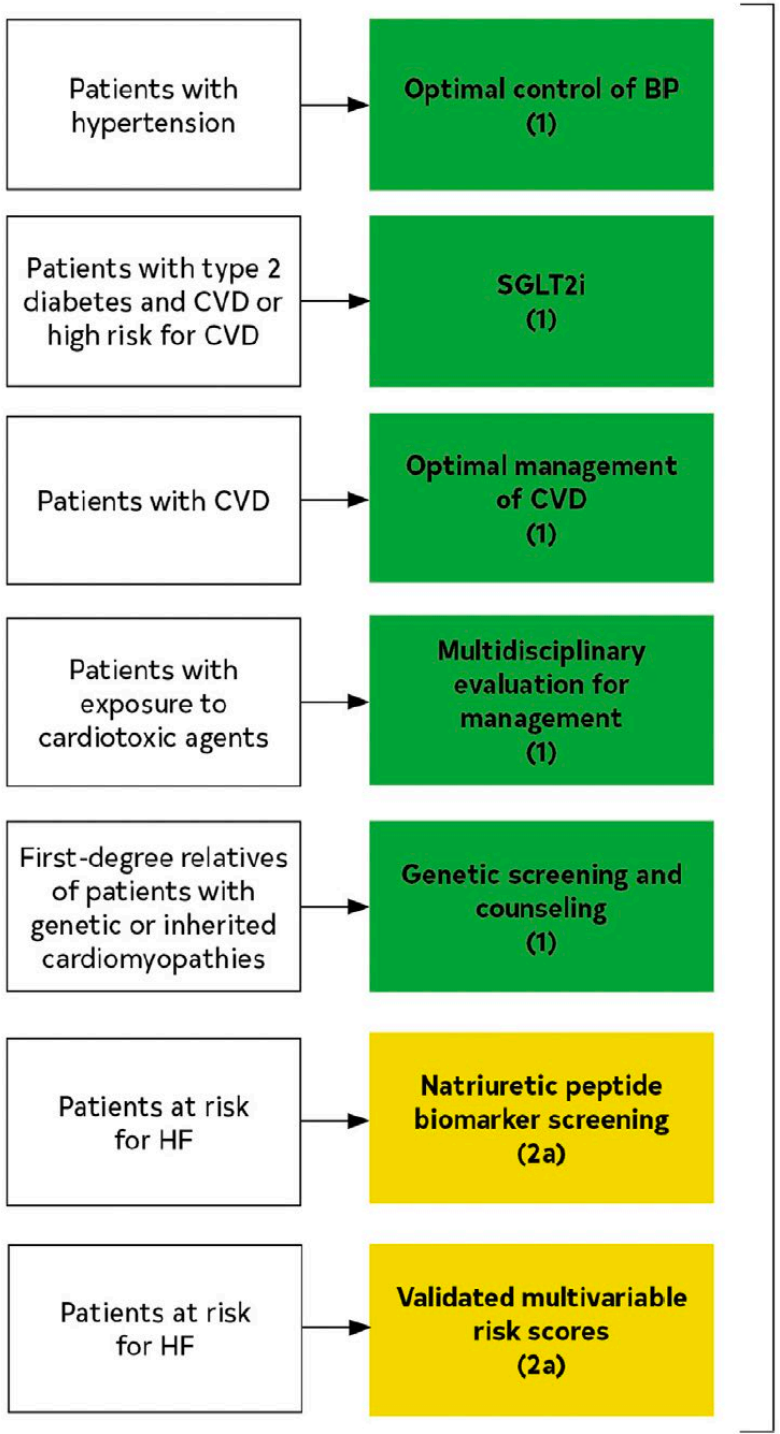
MULTI-DISCIPLINARY PARTNERSHIP



Lala A, et al. *J Card Fail*. Published online August 13, 2025.

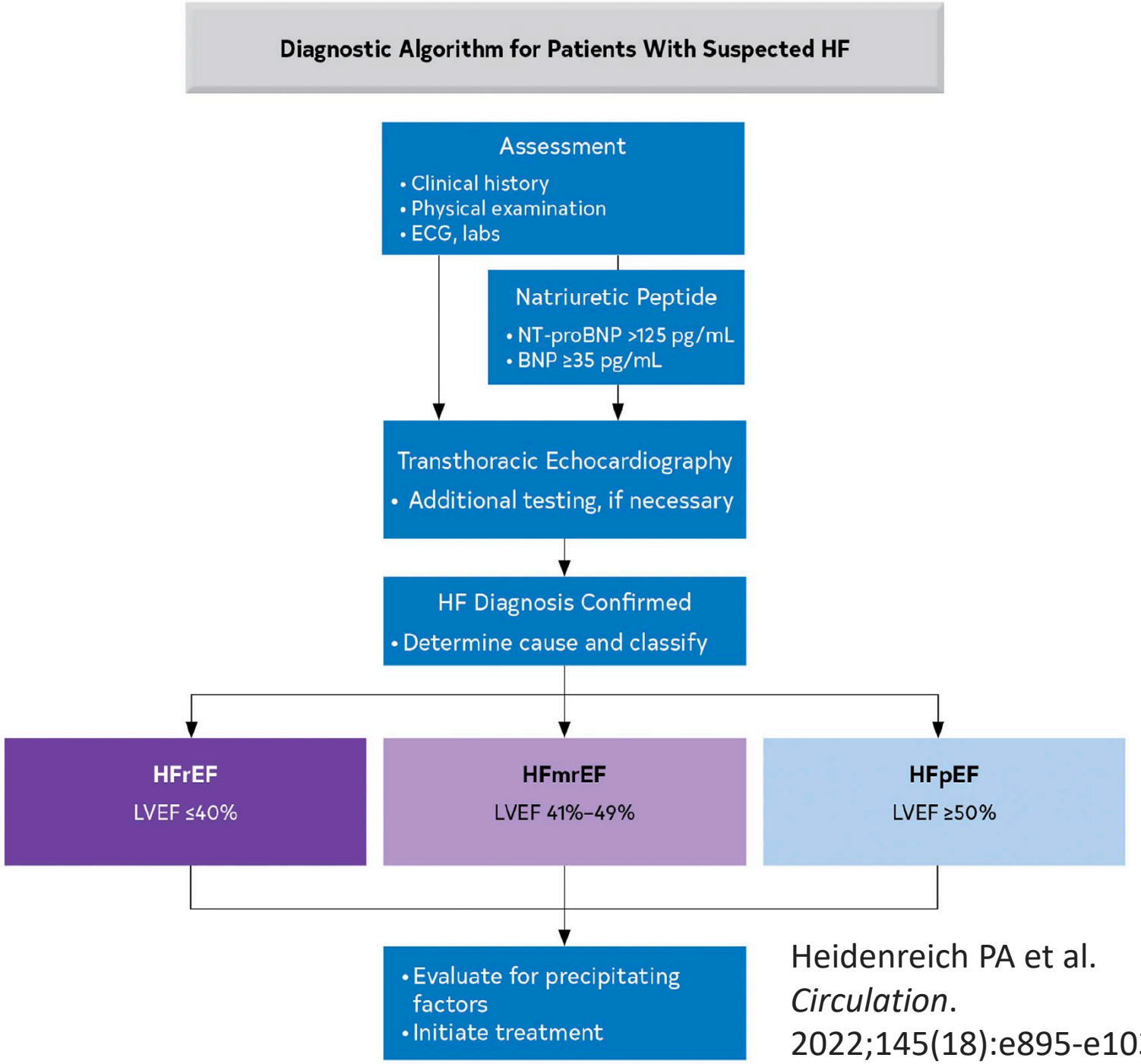
HealthCare
GILL HEART & VASCULAR INSTITUTE

STAGE A HEART FAILURE



Heidenreich PA et al. *Circulation*. 2022;145(18):e895-e1032.

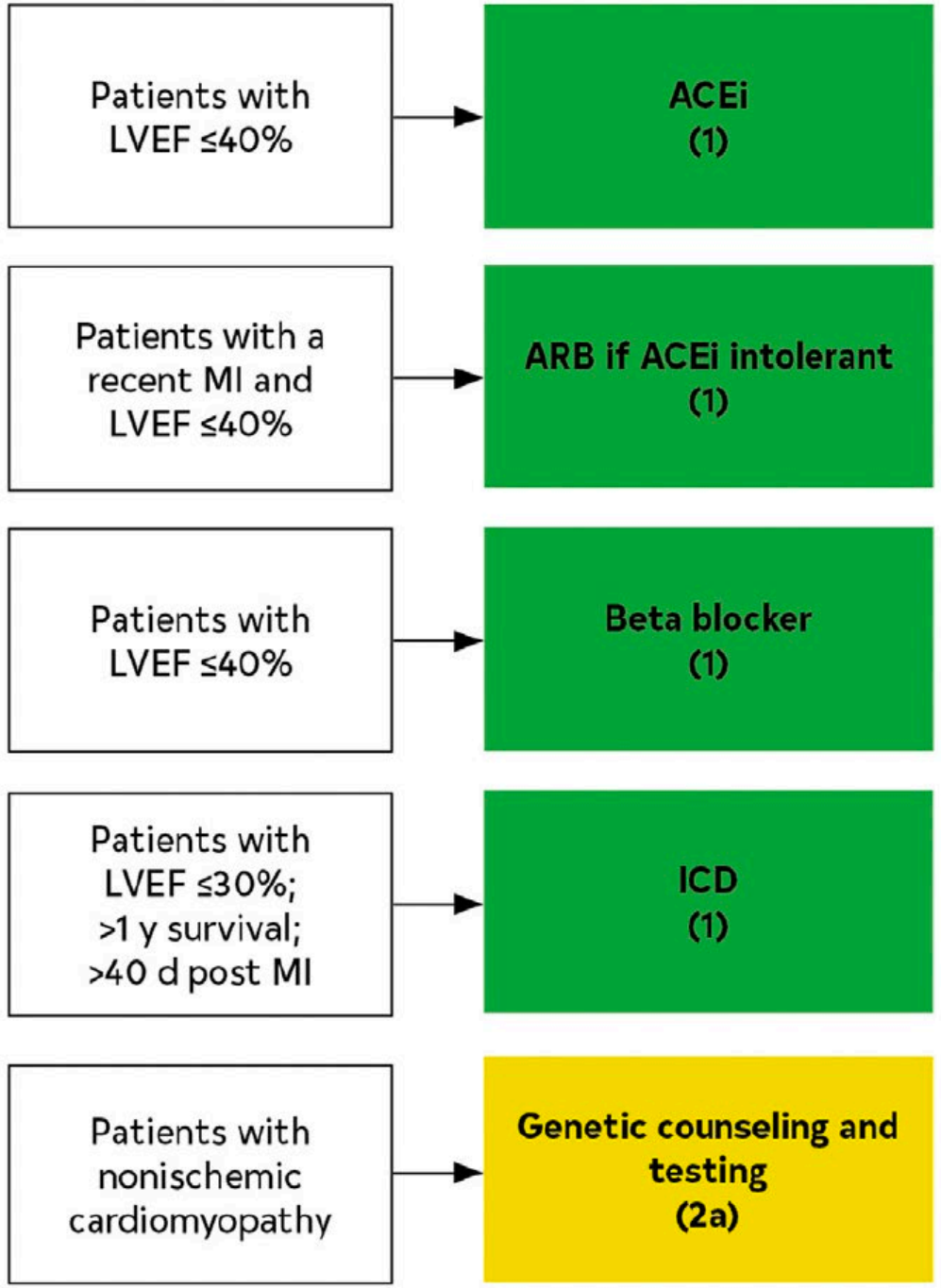
DIAGNOSTIC ALGORITHM



Heidenreich PA et al. *Circulation*. 2022;145(18):e895-e1032.

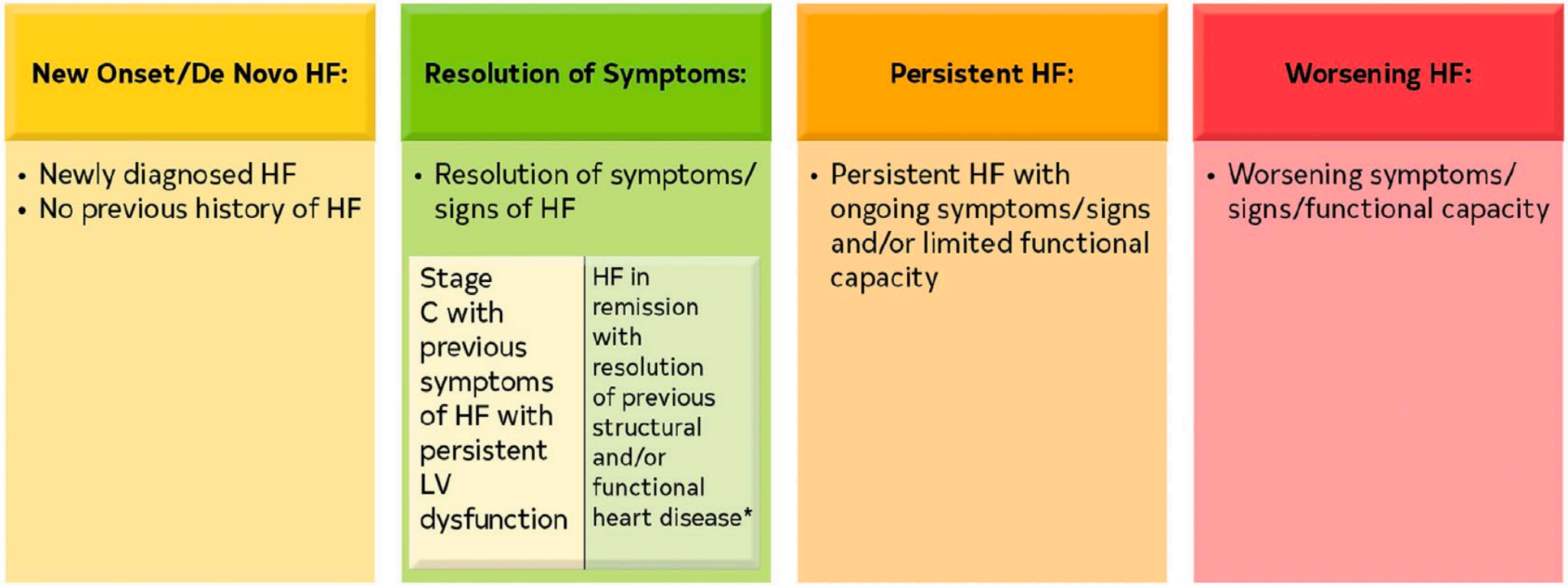
HealthCare GILL HEART & VASCULAR INSTITUTE

STAGE B HEART FAILURE



Heidenreich PA et al. *Circulation*. 2022;145(18):e895-e1032.

Trajectory of Stage C Heart Failure



Heidenreich PA et al. *Circulation*. 2022;145(18):e895-e1032.

HEART FAILURE CLASSIFICATION

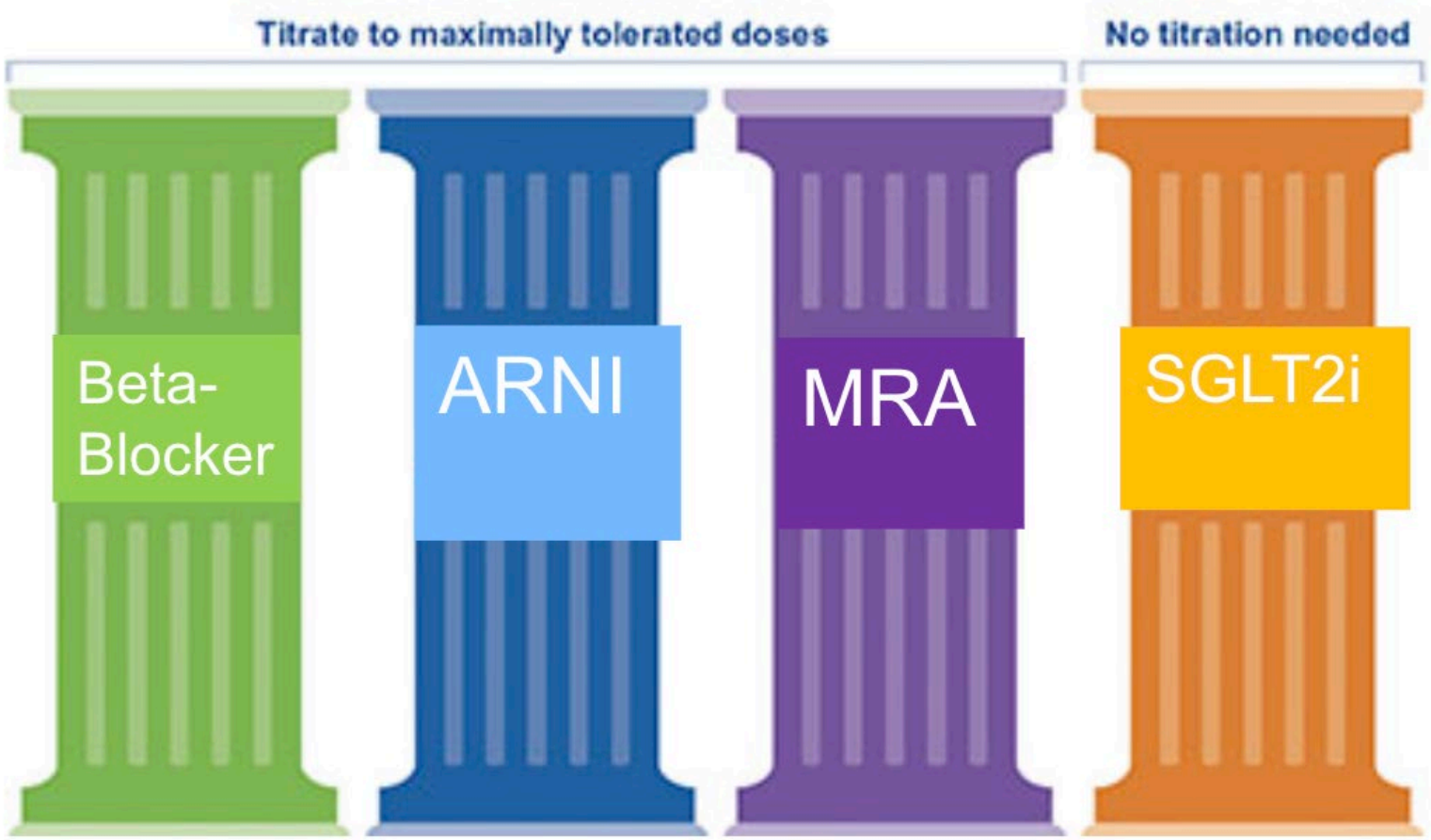
Table 4. Classification of HF by LVEF

Type of HF According to LVEF	Criteria
HFrEF (HF with reduced EF)	LVEF ≤40%
HFimpEF (HF with improved EF)	Previous LVEF ≤40% and a follow-up measurement of LVEF >40%
HFmrEF (HF with mildly reduced EF)	LVEF 41%–49% Evidence of spontaneous or provokable increased LV filling pressures (eg, elevated natriuretic peptide, noninvasive and invasive hemodynamic measurement)
HFpEF (HF with preserved EF)	LVEF ≥50% Evidence of spontaneous or provokable increased LV filling pressures (eg, elevated natriuretic peptide, noninvasive and invasive hemodynamic measurement)

Heidenreich PA et al. *Circulation*. 2022;145(18):e895-e1032.

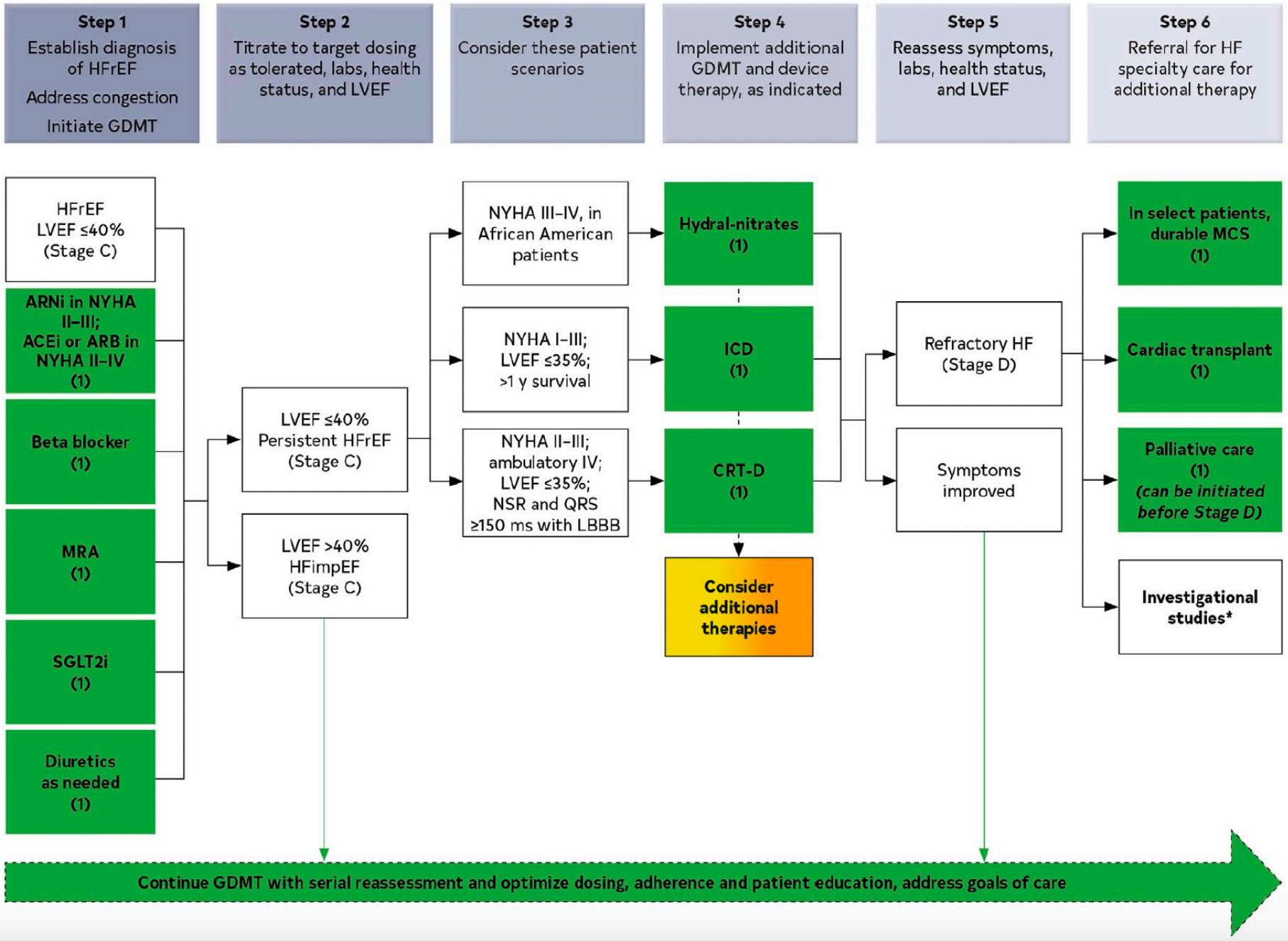
2

Initiate and up-titrate GDMT



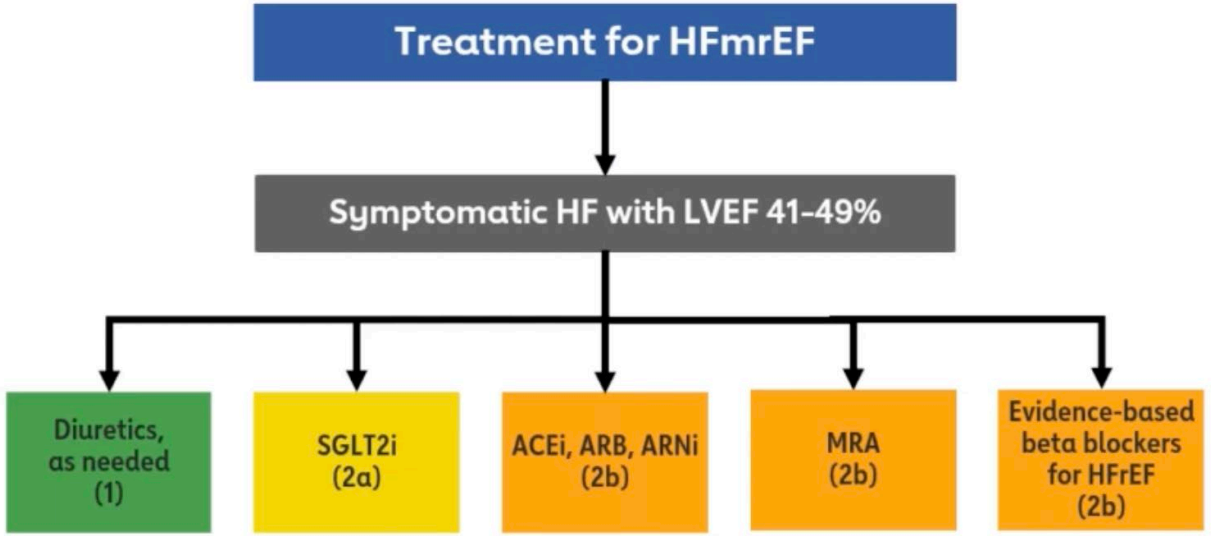
NNT = 4

Heidenreich PA et al. *Circulation*. 2022;145(18):e895-e1032.



Heidenreich PA et al. *Circulation*. 2022;145(18):e895-e1032.

Stage C Mildly Reduced Ejection Fraction

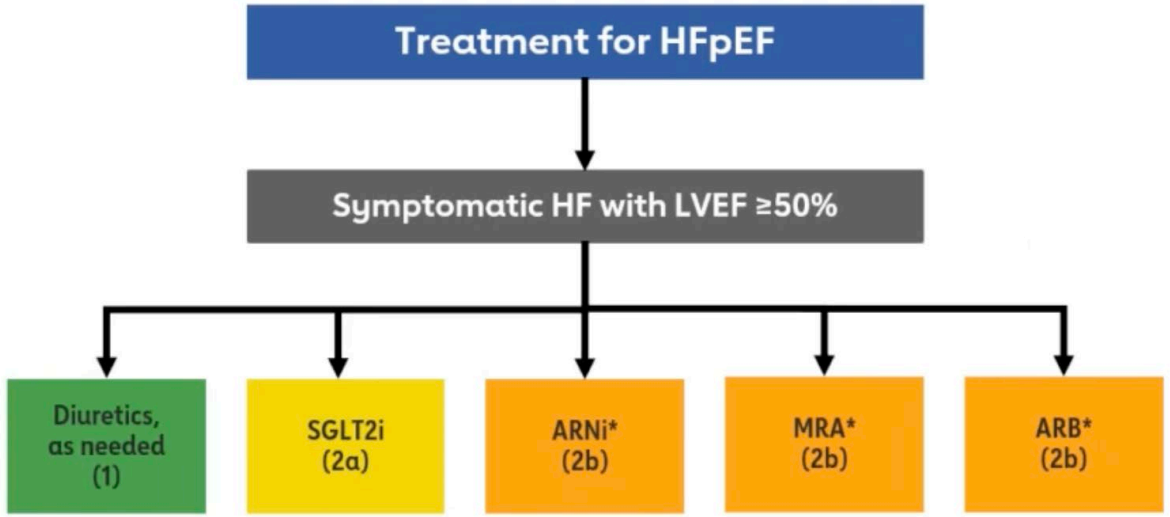


Patients With HF*imp*EF

COR	RECOMMENDATIONS
1	1. In patients with HFimpEF after treatment, GDMT should be continued to prevent relapse of HF and LV dysfunction, even in patients who may become asymptomatic. (1)

Heidenreich PA et al. *Circulation*. 2022;145(18):e895-e1032.

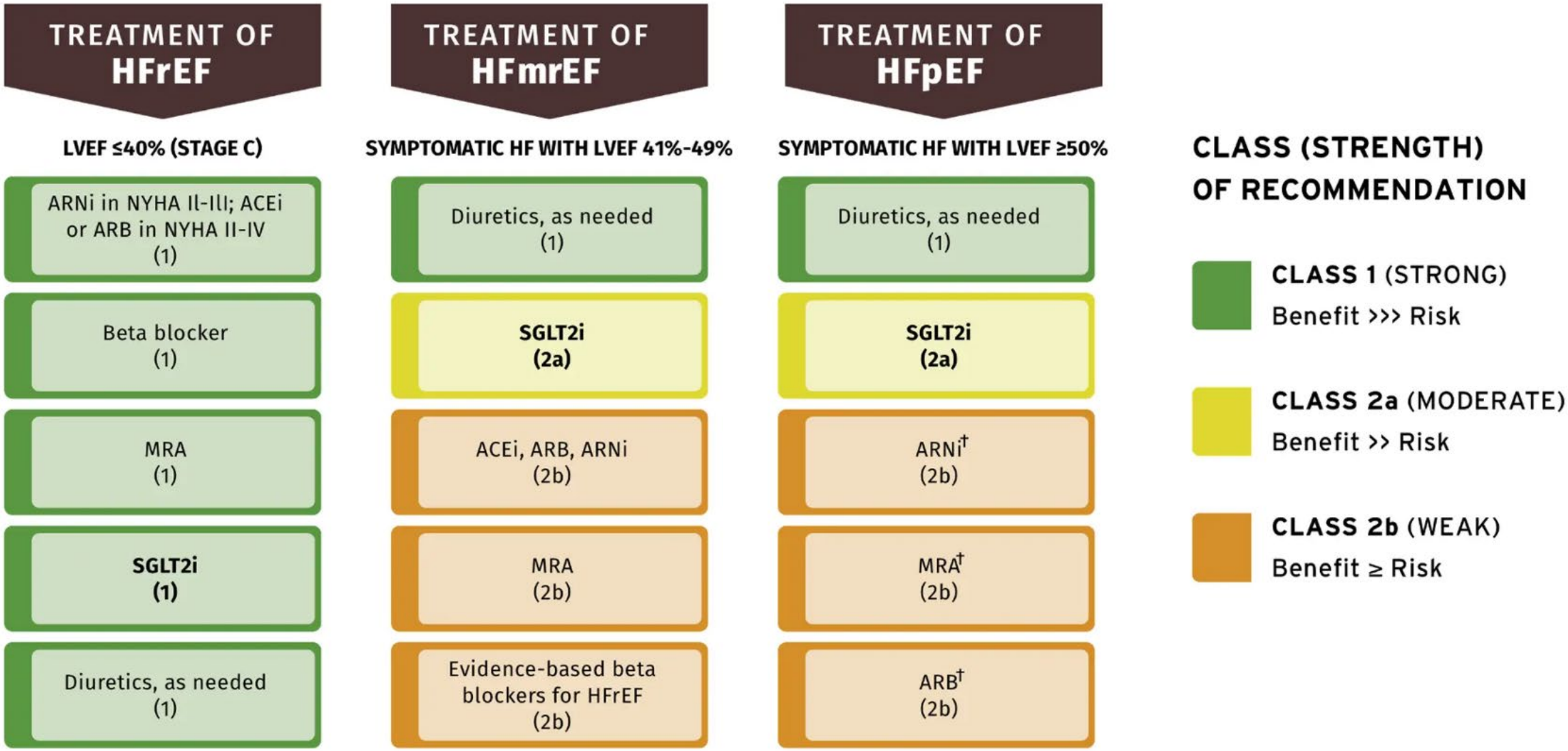
Stage C Heart Failure with Preserved EF



NOTE: *Greater benefit in patients with LVEF closer to 50%

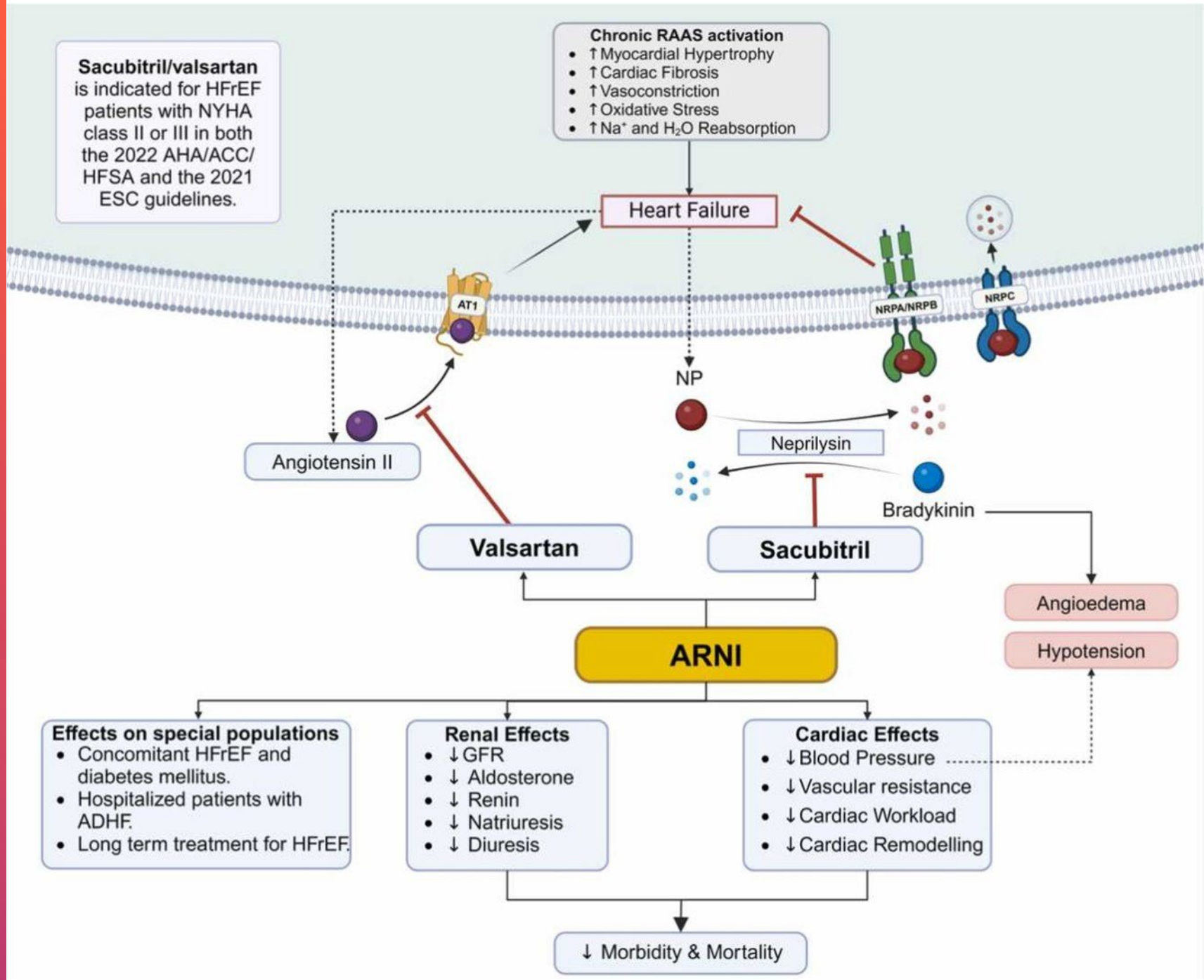
1	C-LD	1. Patients with HFpEF and hypertension should have medication titrated to attain blood pressure targets in accordance with published clinical practice guidelines to prevent morbidity.[1–3]
2a	B-R	2. In patients with HFpEF, SGLT2i can be beneficial in decreasing HF hospitalizations and cardiovascular mortality.[4]
2a	C-EO	3. In patients with HFpEF, management of AF can be useful to improve symptoms.
2b	B-R	4. In selected patients with HFpEF, MRAs may be considered to decrease hospitalizations, particularly among patients with LVEF on the lower end of this spectrum.[5–7]
2b	B-R	5. In selected patients with HFpEF, the use of ARB may be considered to decrease hospitalizations, particularly among patients with LVEF on the lower end of this spectrum.[8,9]
2b	B-R	6. In selected patients with HFpEF, ARNi may be considered to decrease hospitalizations, particularly among patients with LVEF on the lower end of this spectrum.[10,11]
3: No-Benefit	B-R	7. In patients with HFpEF, routine use of nitrates or phosphodiesterase-5 inhibitors to increase activity or QOL is ineffective.[12,13]

Heidenreich PA et al. *Circulation*. 2022;145(18):e895-e1032.



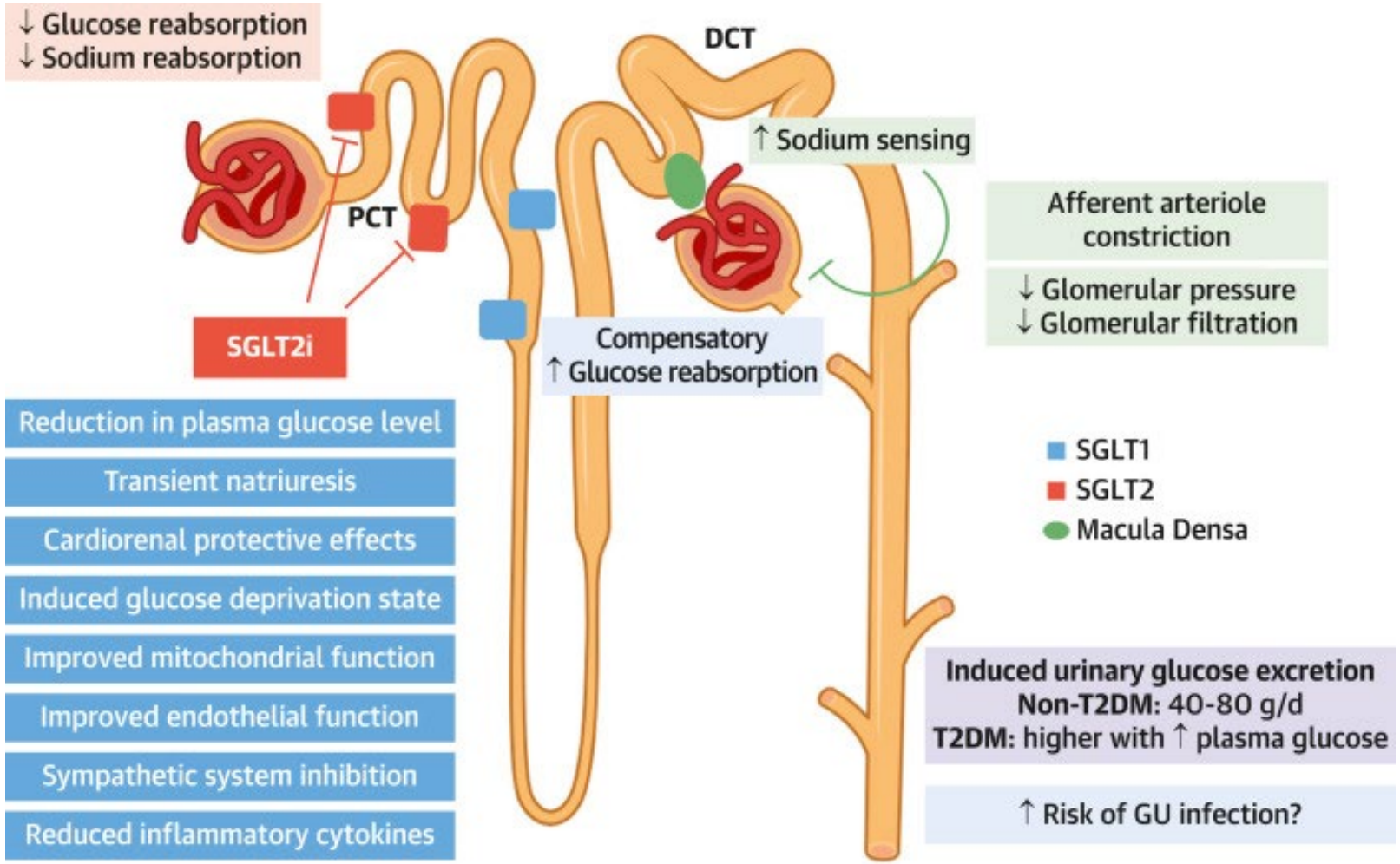
https://pro.boehringer-ingelheim.com/us/payor/vital-perspectives/jardiance/clinical/guidelines/hf

SACUBITRIL-VALSARTAN



SGLT2 inhibitors

- Diuresis
- Natriuresis
- Glucosuria
- Decreases plasma volume
- Reduces arterial stiffness
- Decreases blood pressure
- Renal protective

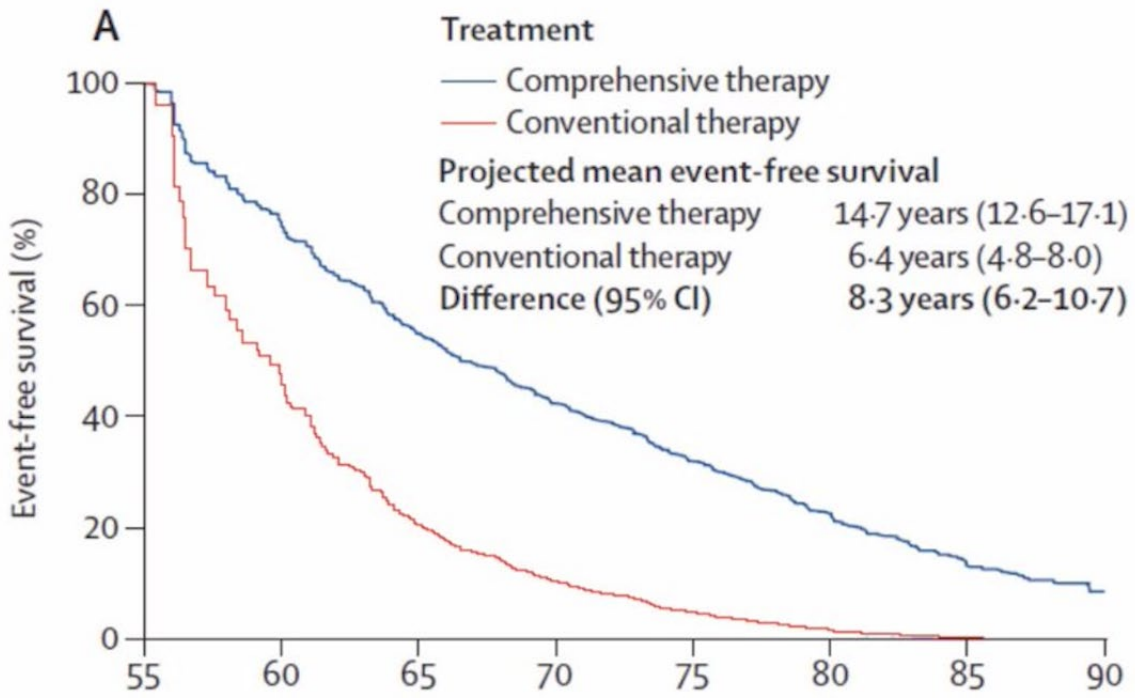


Mr. Johnson, a 54 year old male has non-ischemic cardiomyopathy, NYHA II symptoms, HFrEF (LVEF 30%) and sees you in clinic for the first time. BP 120/80 mm Hg, HR 97 bpm, Creatinine 1. Euvolemic. What would you do?

Two vs Four Drugs ??

Comprehensive Therapy (ARNI+BB+MRA+SGLT2i) vs. Conventional Therapy (ACEi/ARB + BB) in a 55-year-old patient with HFrEF

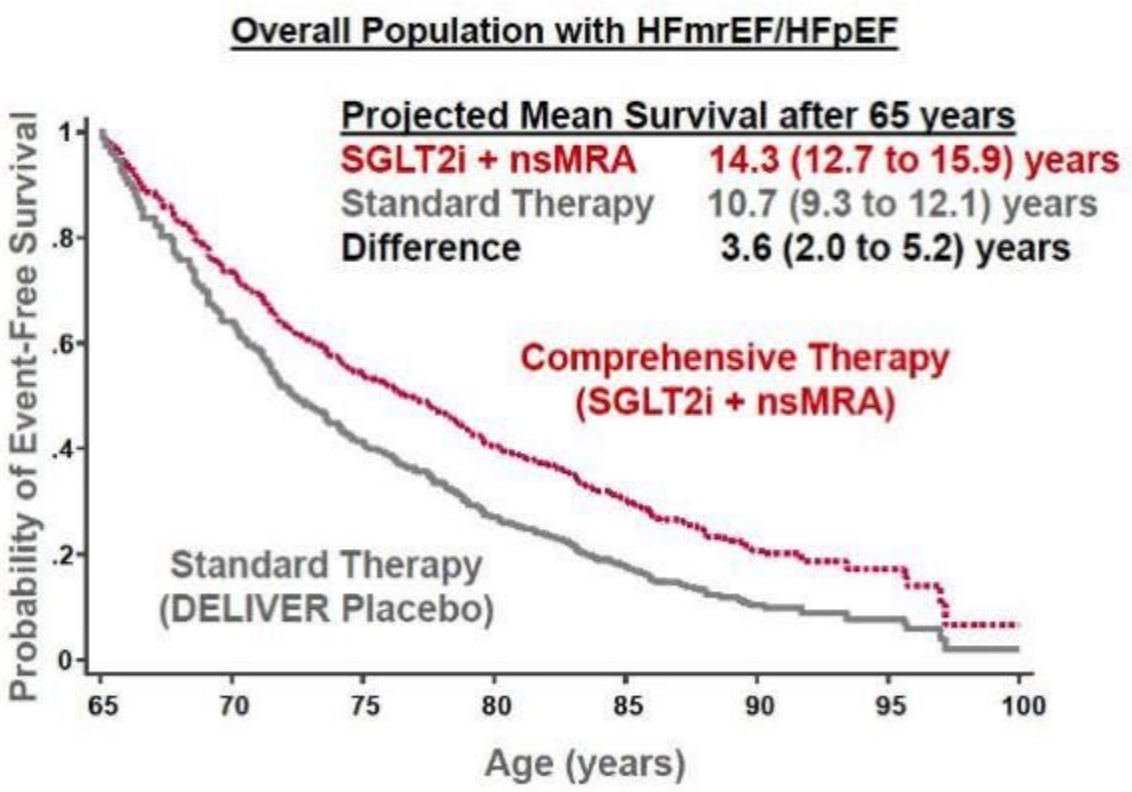
8.3 additional years of event-free survival

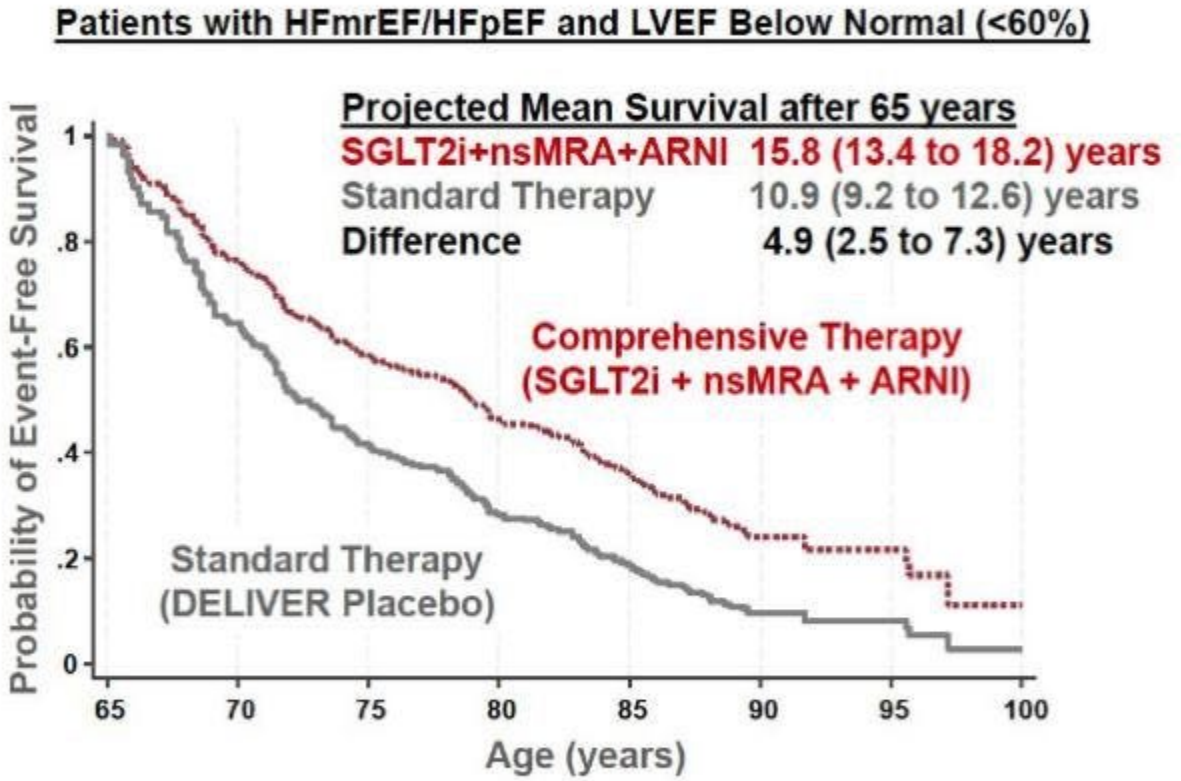


Use of comprehensive disease modifying medical therapy can further reduce cardiovascular mortality in HFrEF by 50%!!!!

Vaduganathan M et al. *Lancet* 2020;396:121–128 (including supplementary appendix).

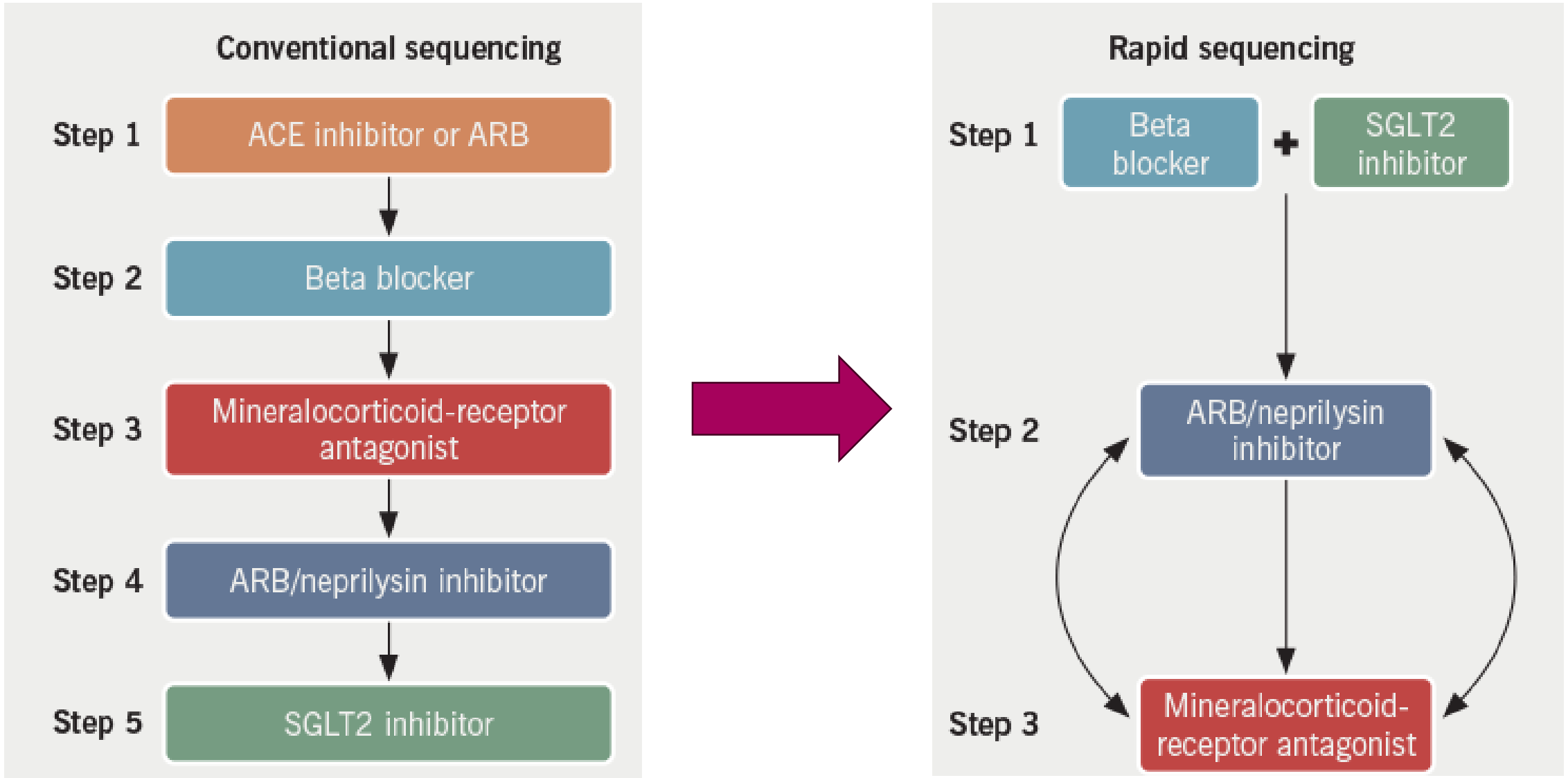
Lifetime Benefits of Comprehensive Medical Therapy in Heart Failure with Mildly Reduced or Preserved Ejection Fraction





Vaduganathan et al. Nature Medicine (2025)

How would you start GDMT?



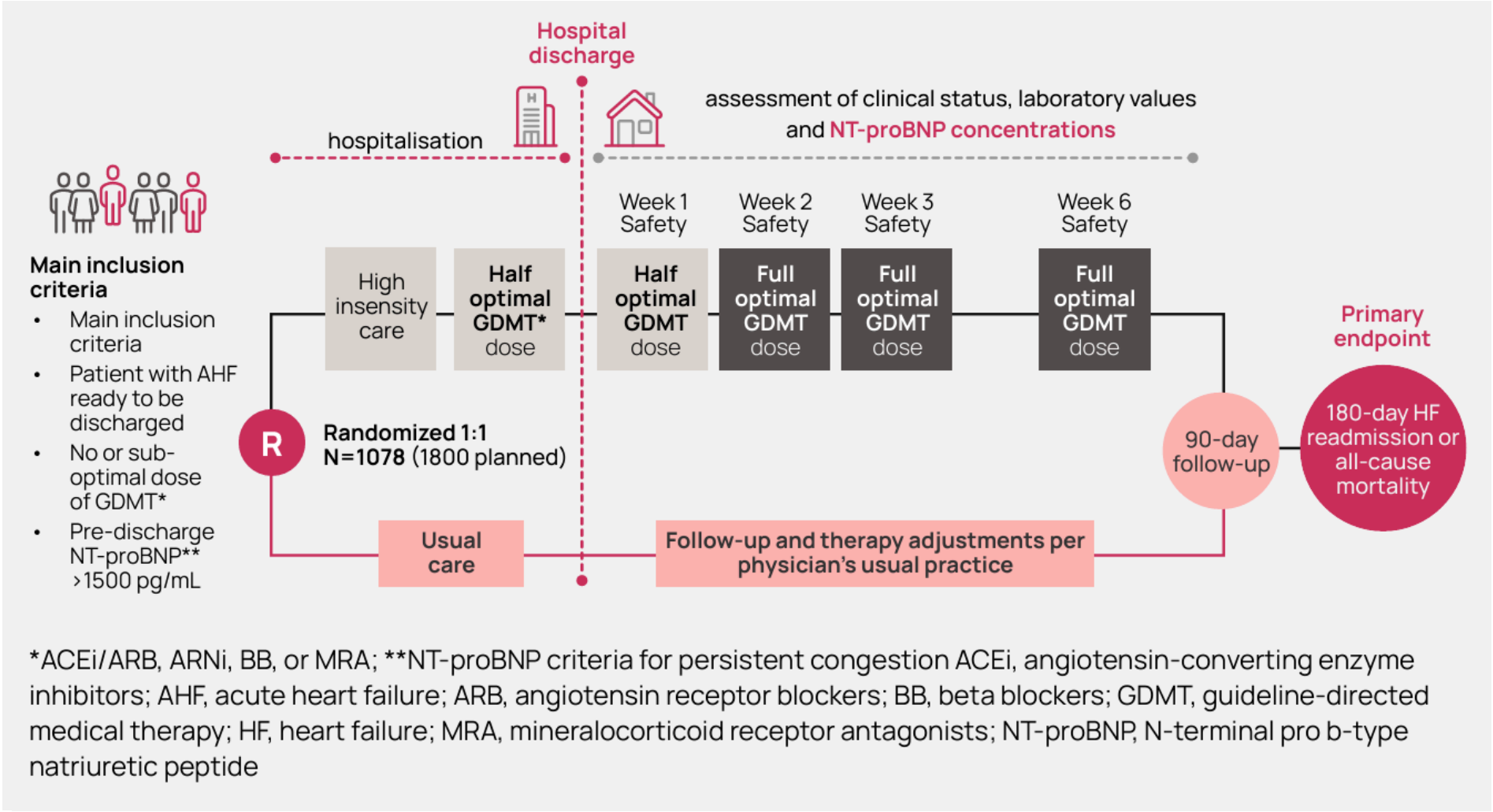
Packer et al. Rapid evidence-based sequencing of foundational drugs for heart failure and a reduced ejection fraction. Eur J Heart Fail. 2021

Rapid Sequencing

VS

Simultaneous Initiation

STRONG-HF TRIAL



*ACEi/ARB, ARNi, BB, or MRA; **NT-proBNP criteria for persistent congestion ACEi, angiotensin-converting enzyme inhibitors; AHF, acute heart failure; ARB, angiotensin receptor blockers; BB, beta blockers; GDMT, guideline-directed medical therapy; HF, heart failure; MRA, mineralocorticoid receptor antagonists; NT-proBNP, N-terminal pro b-type natriuretic peptide

Mebazaa A et al. *Lancet*. 2022;400(10367):1938-1952.

STRONG-HF TRIAL

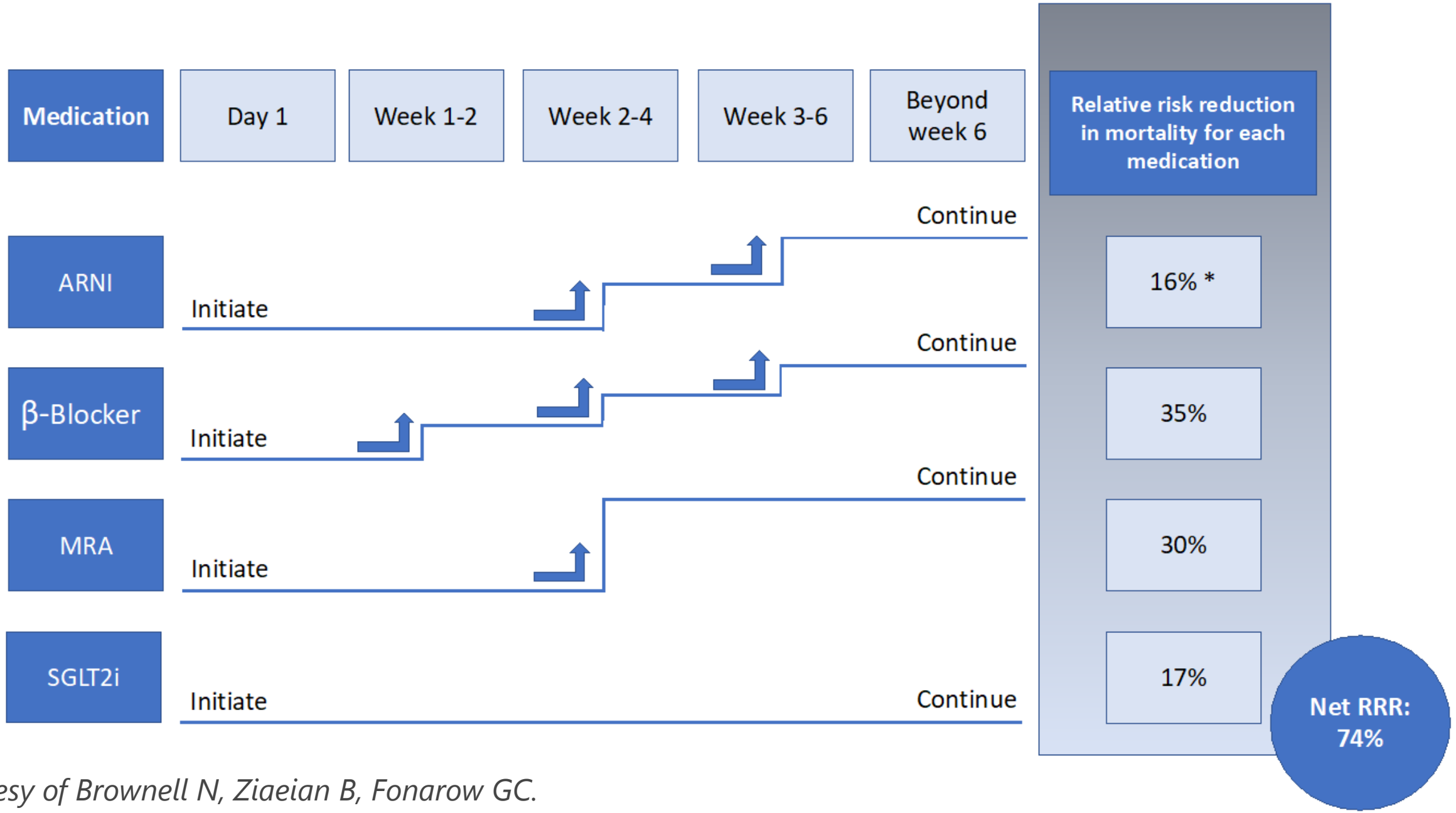
Results

The high intensity care group: **34% relative** and **8.1% absolute risk reduction (ARR)** in the combination of death or heart failure readmission.[14]

CV (cardiovascular) death	HF readmission	All-cause death
26% lower	**44% lower**	**16% lower**

STRONG-HF study results demonstrated clear benefits for acute heart failure patients by adapting the strategy of care.

Mebazaa A et al. *Lancet*. 2022;400(10367):1938-1952.



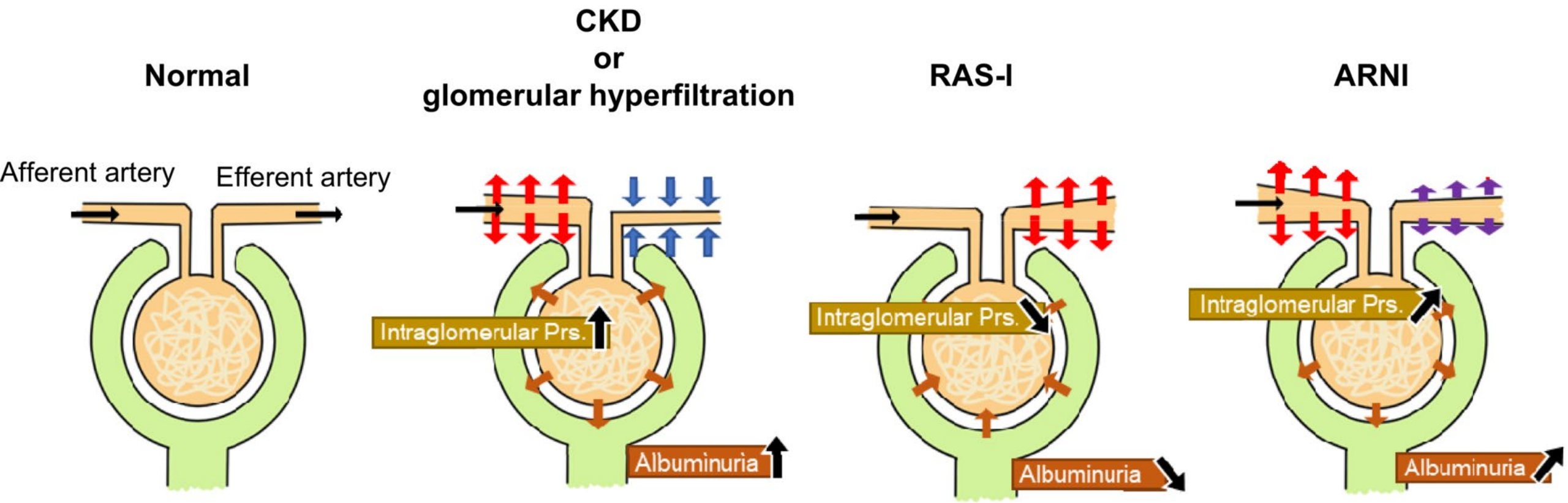
Courtesy of Brownell N, Ziaeian B, Fonarow GC.

3 Simultaneous/Rapid Sequence Initiation of ALL 4 Medications – within 3 months or sooner

- Frequent follow-up visits for titration and lab monitoring
- For hospitalized patients, all 4 pillars should be initiated before discharge.
- SGLT2 inhibitors can be started earlier or concomitantly with other agents due to their safety profile

Mr. Johnson got started on sacubitril-valsartan 24/26 mg BID. Creatinine was 1 at the time of initiation of the drug. In 2 weeks, his BP is 110/67 mm Hg, HR is 90 BPM. BMP done in 2 weeks showed a creatinine of 1.3. What would you do?

RAS-I and ARNI and Kidney function



Beldhuis IE, et al. *Circulation*. 2022;145(9):693-712.

ARNI

Effect on Renal Function		
The effect of ARNI on renal function is not entirely clear, but is attributed to higher circulating natriuretic peptide levels, the improved clinical status, an effect on renal podocyte function and the need for less loop diuretics.		
Early decline in eGFR after initiation (0.5-1.0 mL/min/1.73m^2)[80]	Long term slope in eGFR less with ARNI vs ACEi: -1.61 vs. -2.04 mL/min/1.73m^2/year)[80]	Change in serum creatinine/eGFR similar between ARNI/ACEi in PARADIGM-HF and PIONEER[80,81]

Management of substantial increase in serum creatinine/drop in eGFR during initiation/uptitration				
In the context of uptitration of ARNI some increase in serum creatinine / drop in eGFR is expected and acceptable. The survival benefit seen with this class of drugs far outweigh the risks associated with this perceived worsening of renal function (WRF)				
Δ serum creatinine (%)	**Max serum creatinine** (mg/dL)	**Min eGFR** mL/min/1.73m^2	**Max serum potassium** (mmol/L)	**Action advised**
< 50	**2.5 mg/dL**	**30**	**5.0**	None, uptitrate and evaluate renal function and electrolytes
50-100	**3.5 mg/dL**	**20**	**5.5**	Evaluate clinical status and other causes of WRF. Consider halving ARNI and re-evaluate
> 100	**> 3.5 mg/dL**	**< 20**	**> 5.5**	Evaluate clinical status and other causes of WRF. Consider stopping ARNI and re-evaluate
Rechallenge after 2-4 weeks (if possible at lower dose) when dosing reduced or stopped all together if renal function has improved				

Beldhuis IE, et al. *Circulation*. 2022;145(9):693-712.

SGLT2 inhibitors

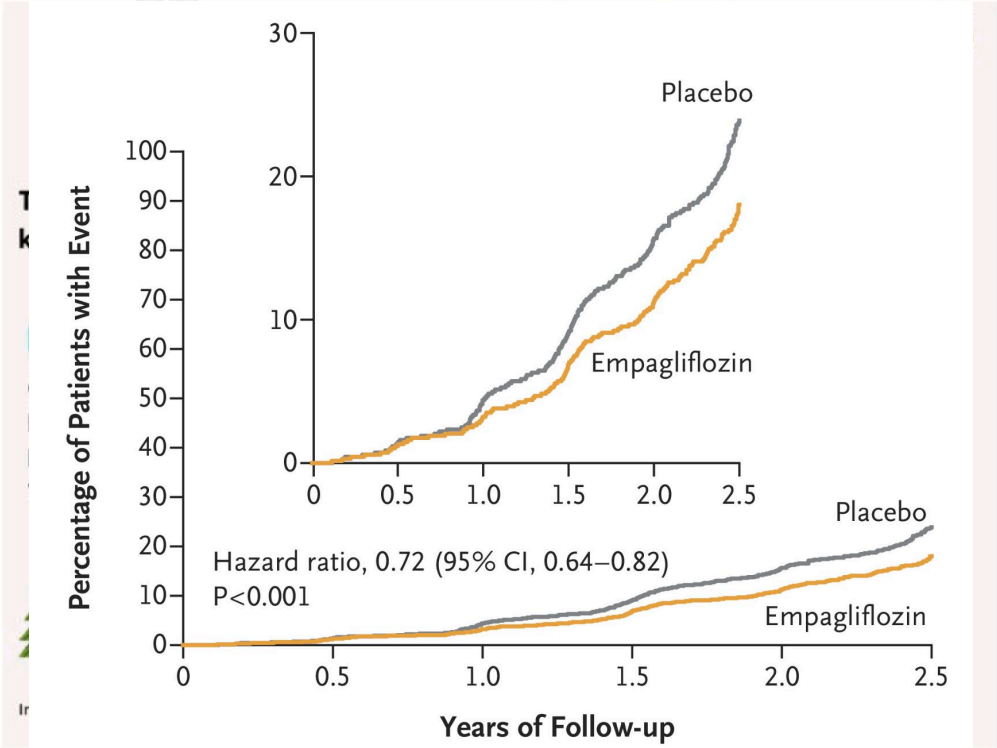
Effect on Renal Function		
It is hypothesized that SGLT2i cause afferent arteriolar vasoconstriction (and possibly some efferent vasodilation) due to activated tubuloglomerular feedback caused by more distal sodium delivery to macula densa.		
Early decline in eGFR after initiation (0.3-4.0 mL/min/1.73m^2)[85,86]	Long term slope in eGFR less with SGLT2i vs Placebo: -0.6 to 1.09 vs. -2.3 to 2.9 mL/min/1.73m^2/year[85,86]	Drop in eGFR with SGLT2i no reason to discontinue

Management of substantial increase in serum creatinine/drop in eGFR during initiation/uptitration

In the context of initiation of SGLT2i some increase in serum creatinine / drop in eGFR is expected and acceptable.

Δ serum creatinine (%)	Max serum creatinine (mg/dL)	Min eGFR mL/min/1.73m^2	Action advised
< 50	2.5 mg/dL	30	None, continue SGLT2i and reevaluate renal function regularly
50-100	3.5 mg/dL	20	Continue SGLT2i if eGFR/or serum creatinine are acceptable. Evaluate other causes in parallel. SGLT2i do not cause hyperkalemia. Evaluate potassium if creatinine rises steeply
> 100	> 3.5 mg/dL	< 20	Such large increases in serum creatinine are unexpected with SGLT2i and should prompt further evaluation. . SGLT2i do not cause hyperkalemia. Evaluate potassium if creatinine rises steeply. If deemed clinically appropriate, continue SGLT2i with close monitoring; if no other option, stop SGLT2i.

Rechallenge after 2-4 weeks (if possible at lower dose) when dosing reduced or stopped all together if renal function has improved



Packer M, et al. *N Engl J Med*. 2020;383(15):1413-1424.

Beldhuis IE, et al. *Circulation*. 2022;145(9):693-712.

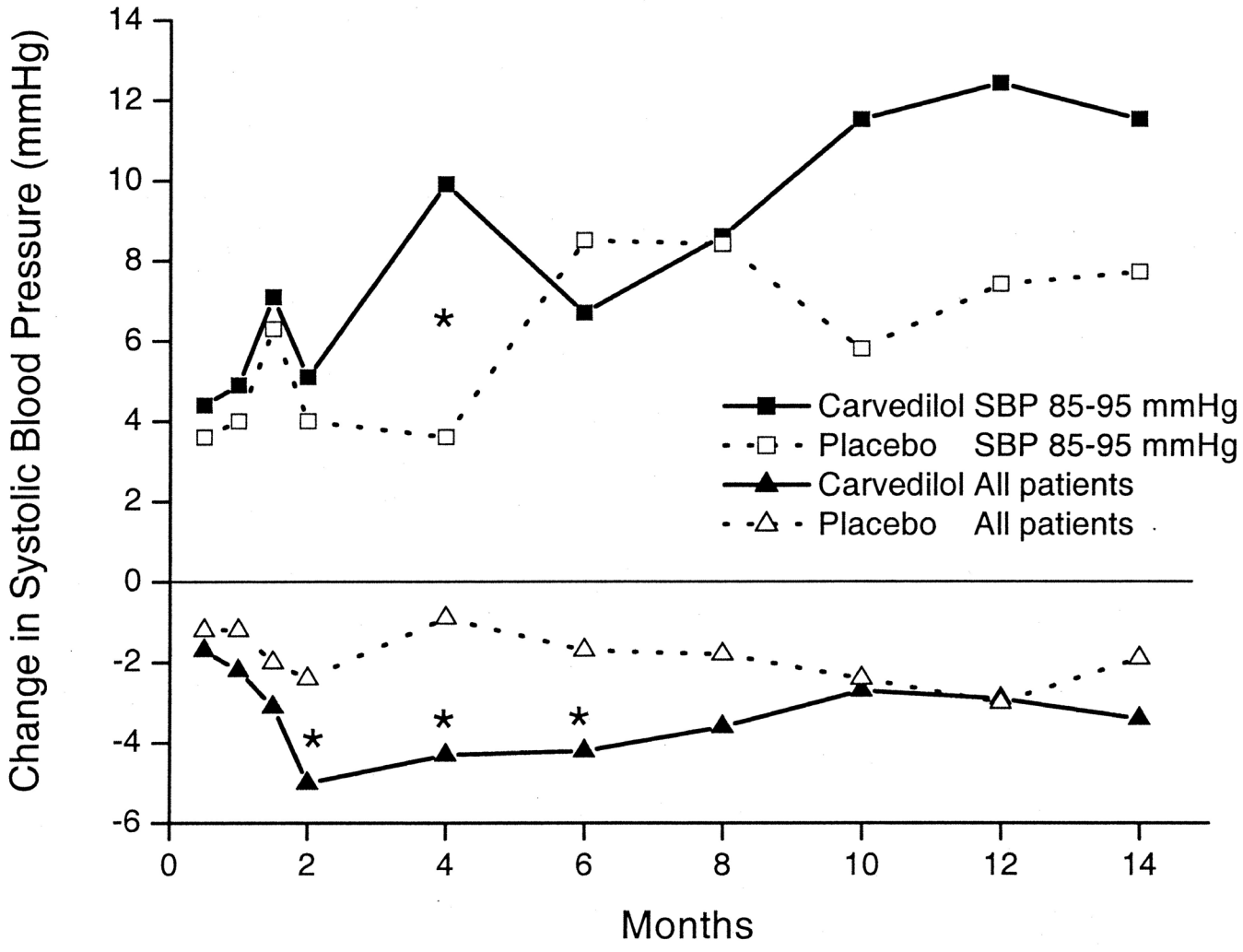
Mr. Johnson has now tolerated sacubitril-valsartan 49/51 mg BID, spironolactone 25 mg daily, metoprolol succinate 50 mg daily and on the 5-week BMP check creatinine is 1.1, potassium 4. His blood pressure is 95/62 mm Hg, HR 70 bpm. JVP 7 cm H2O. He denies any new symptoms. What is your next step?

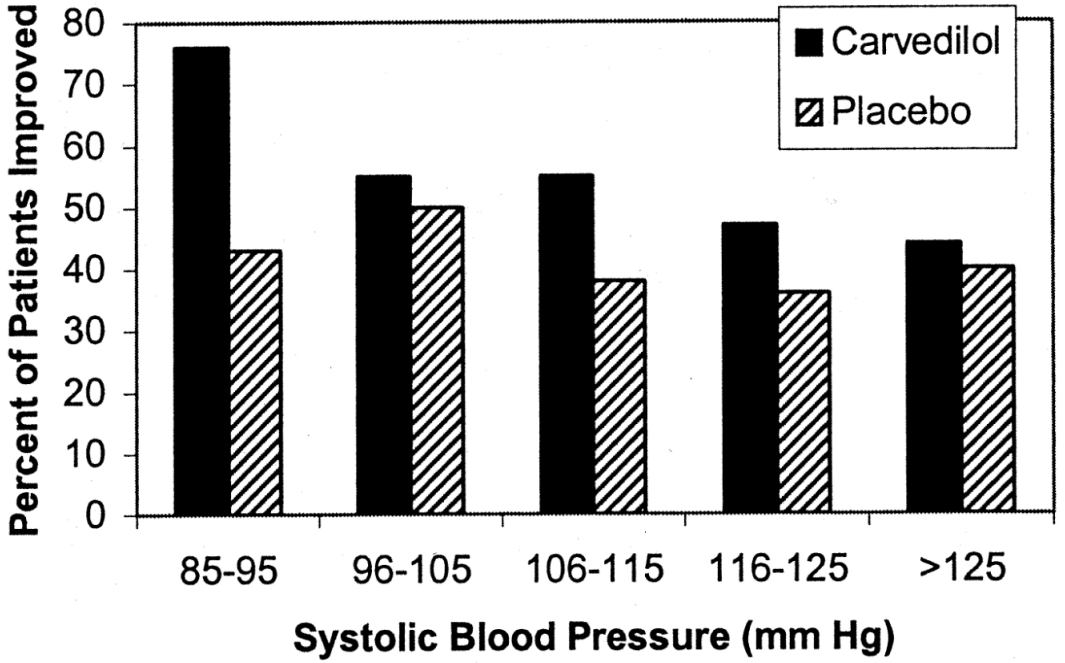
How to handle blood pressure before and after ACEI/ARB/ARNI/BB initiation?

- Before initiation, BP contraindication:
  - Symptomatic hypotension (<100-110 SBP) (consistently dizzy, weak, oliguric)
  - Asymptomatic hypotension (<90 SBP). For ARNI, asymptomatic hypotension <100 SBP (PARADIGM, LIFE trials)

- After initiation
  - Asymptomatic hypotension <90 SBP is accepted. DO NOT stop the medication.
  - Mild occasional dizziness or weakness after initiation – stop nitrates, reduce diuretics especially if patients are not congested
  - Severe symptoms – can consider decreasing dose or stopping if patient does not tolerate the medication (!!! RED FLAG SIGN !!!)

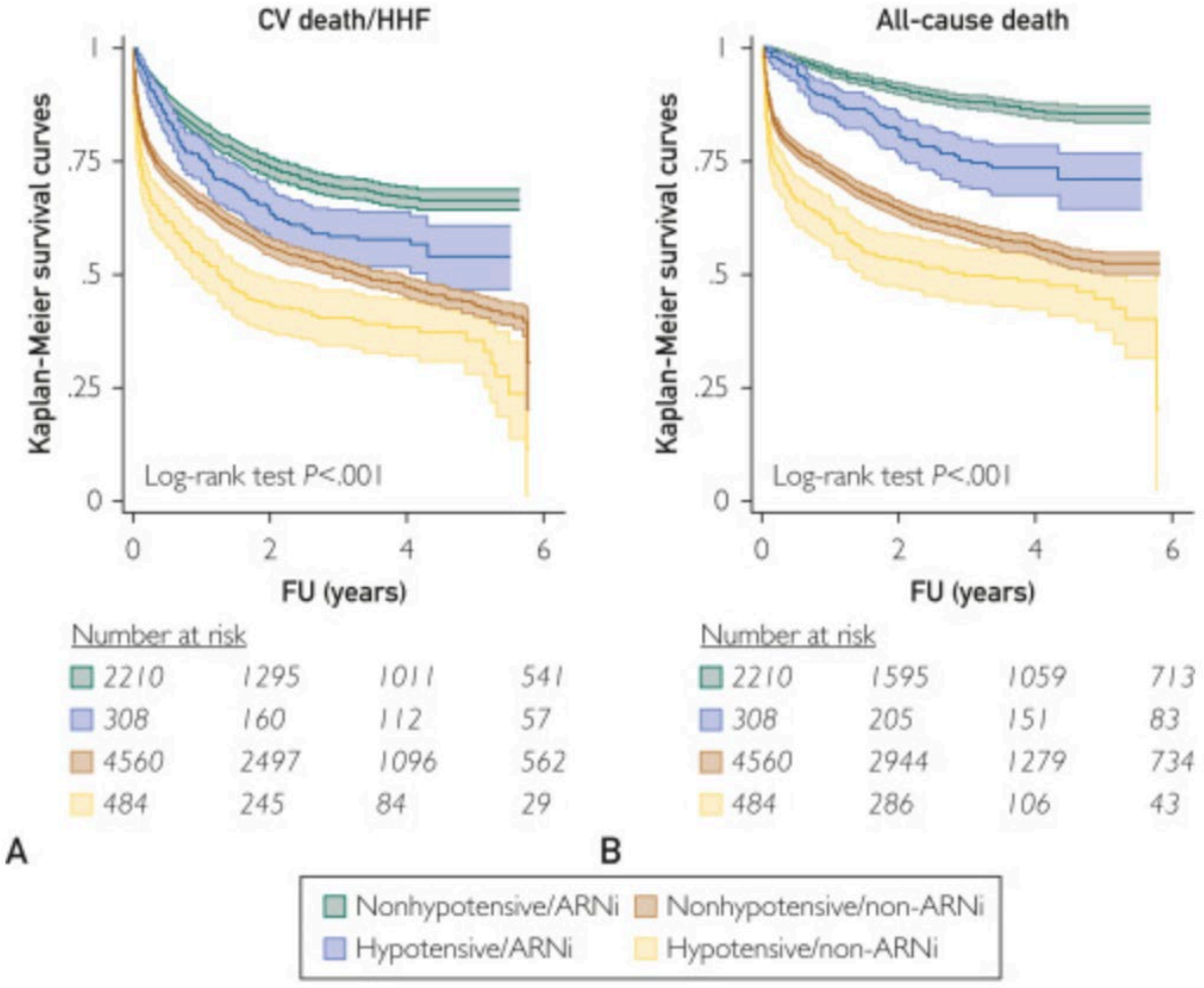
CARVEDILOL – COPERNICUS trial

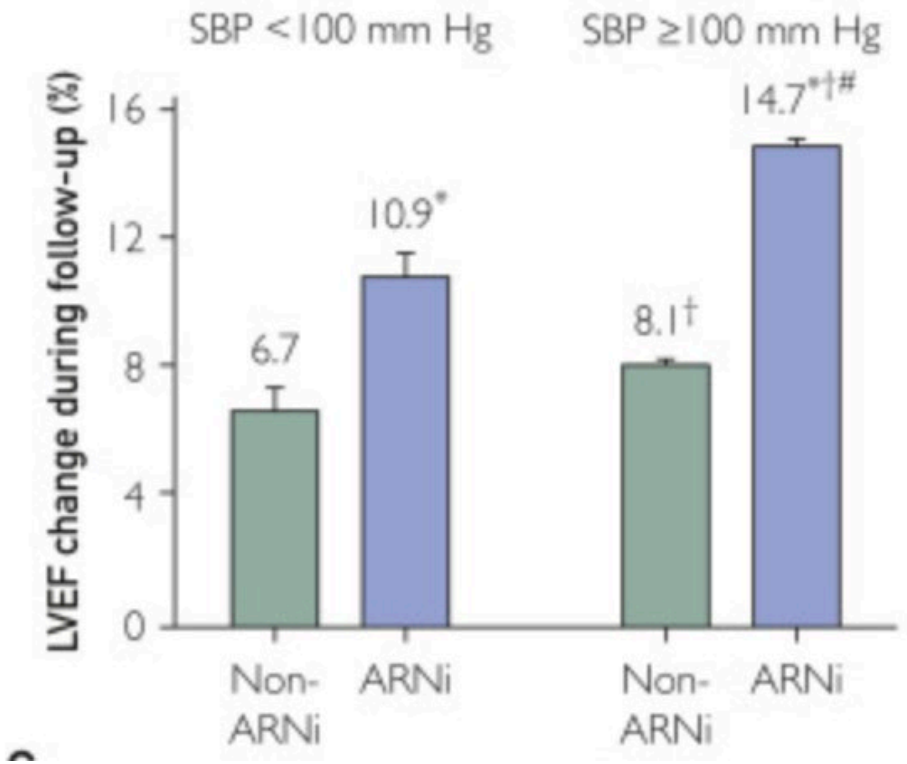




Rouleau JL, et al.. *J Am Coll Cardiol*. 2004;43(8):1423-1429.

ARNI



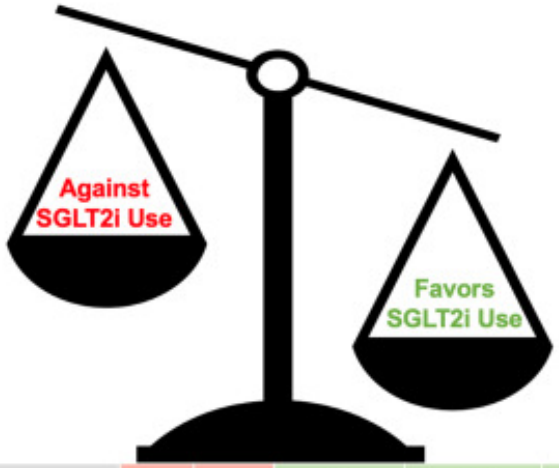


Hsu CY et al. *Mayo Clin Proc*. 2024;99(6):940-952.

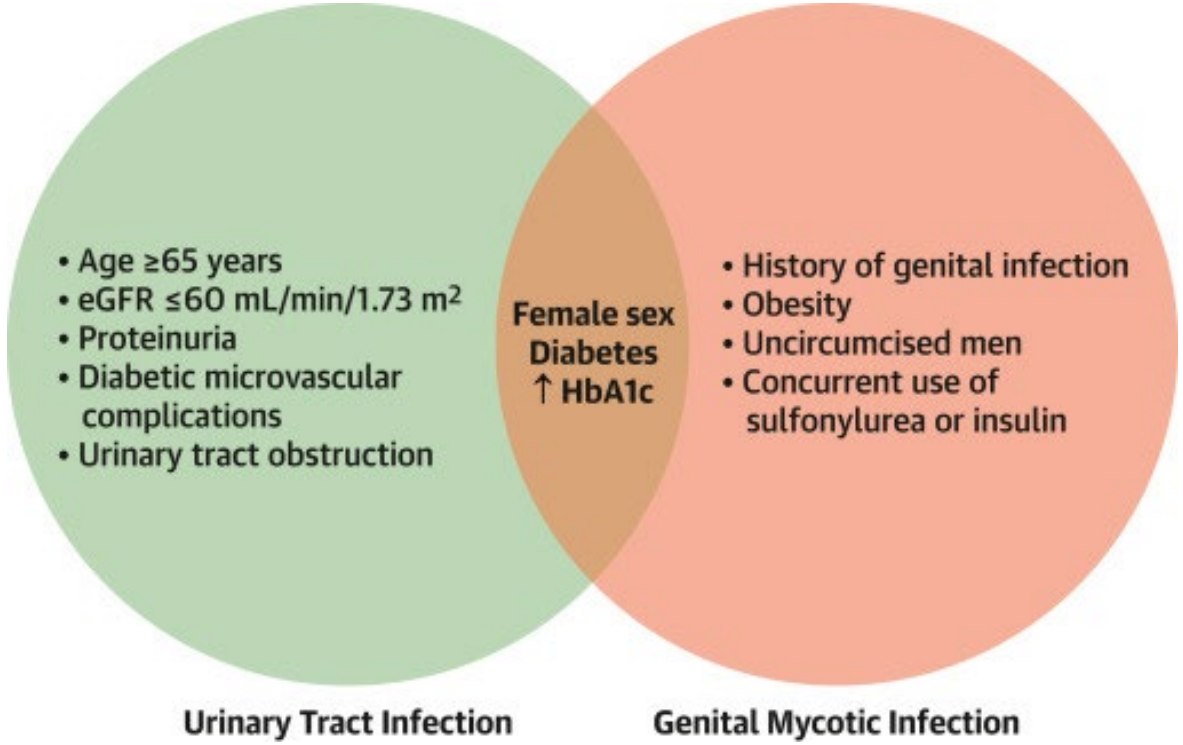
Mr. Johnson was started on dapagliflozin 10 mg daily. 3 weeks later he calls you saying he is having urinary urgency and itching in his genital area. What would you do next?

SGLT2 inhibitors and UTI

Benefit:Risk Assessment of SGLT2i Use from MGIs and UTIs in Individuals with HF



	MGI	UTI	HF admission	CV mortality	Total Mortality
Absolute Risk Reduction (%)	-0.3	-0.2	5.6	1.1	1.3
NNT-H/NNT-B	356	557	18	93	76



Risk Factors for GU infections

Duvalyan A, et al. *J Card Fail*. 2024;30(8):1031-1040.

Kittipibul V, et al. *J Am Coll Cardiol*. 2024;83(16):1568-1578.

SGLT2I AND UTI

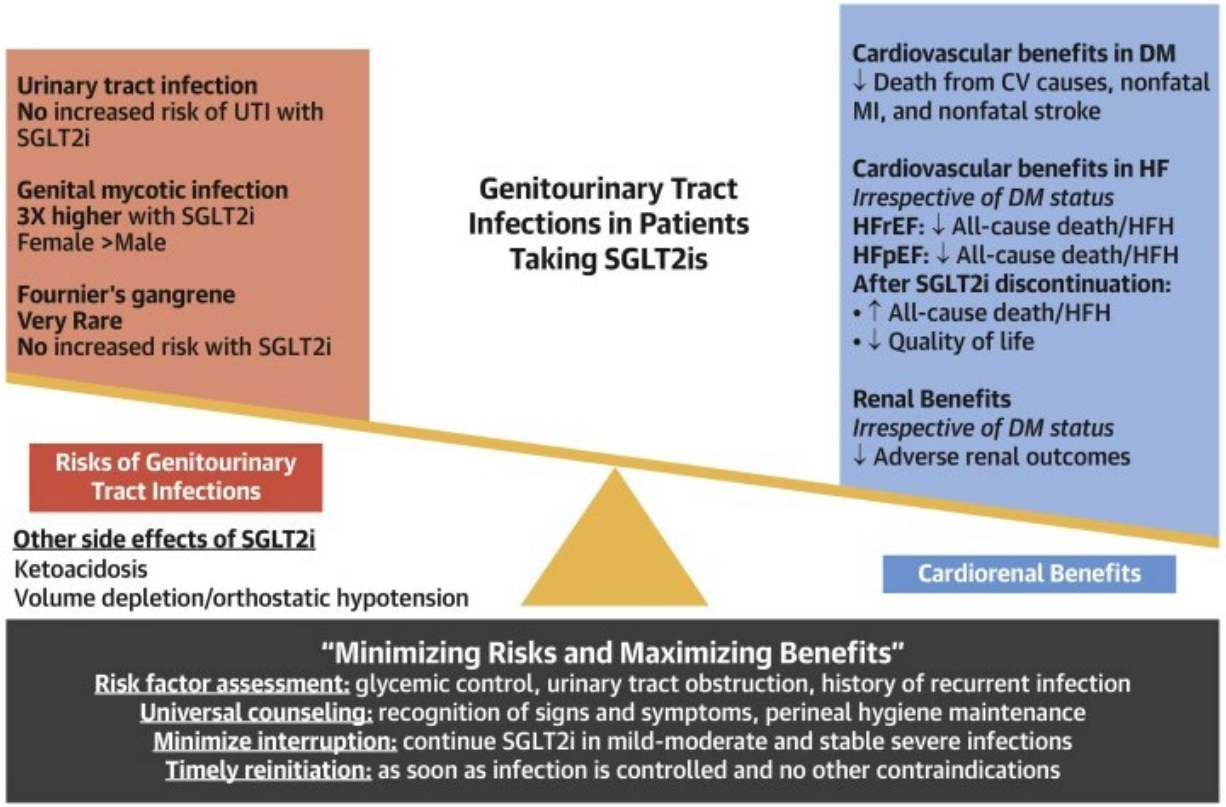
Assessing Risk of MGI and UTI Before Starting SGLT2 Inhibitors

Initiate:#	Do Not Initiate:
Demographics	Current UTI/MGI infection
- Female* - Uncircumcised male*	ADPKD
- Obesity - Older Individuals - Non-white	Recurrent MGI or UTI (special attention to MDRO)△
Increased Estrogen Levels	△Refer to specialist for guidance
- Postmenopausal Estrogen Therapy	
Medications	
- Antimicrobials - Corticosteroids	
Immunosuppression	
- HIV - Chemotherapy/Steroids	
Urologic Procedures	
- Orthotopic Bladder Substitution* - Urinary Outlet Obstruction*	
- Artificial Urinary Sphincter - Implantable Penile Prosthesis	
Type 2 Diabetes Mellitus*	
History of Fournier's Gangrene	

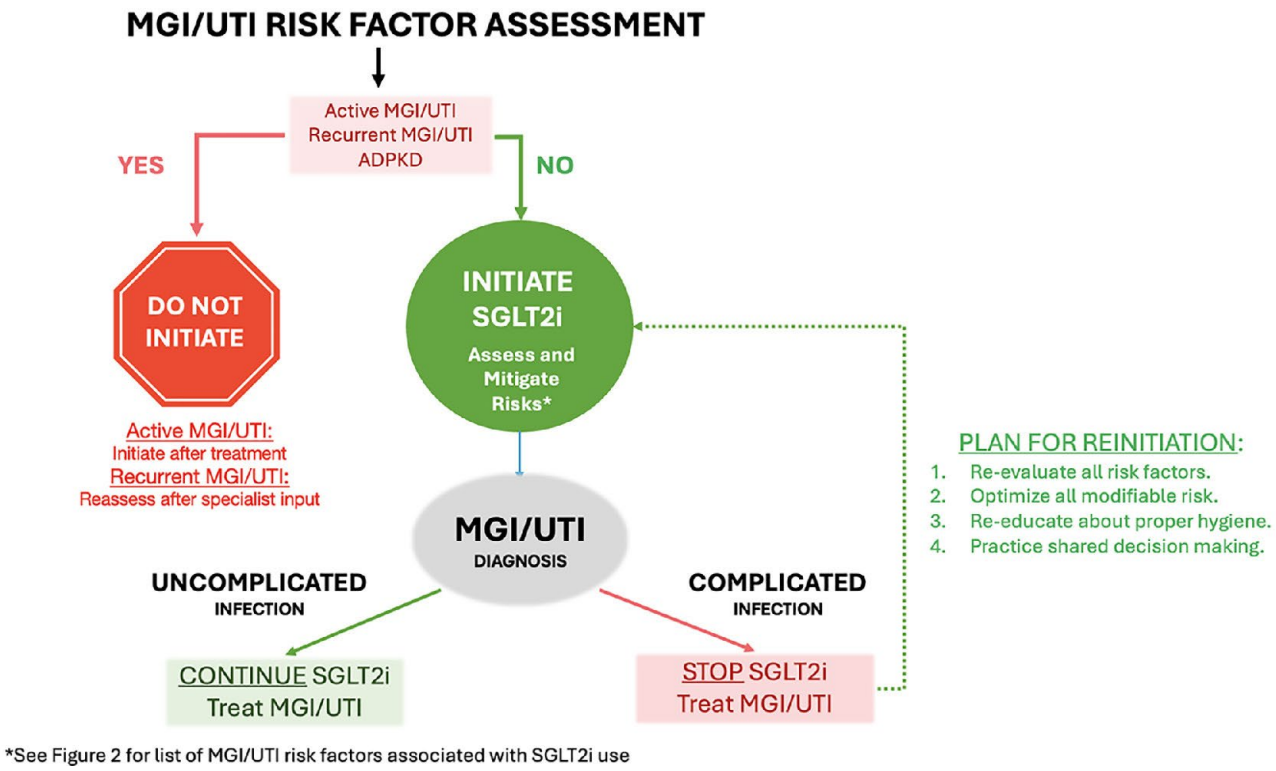
*Risk Factors for UTI/MGI from SGLT2 inhibitor Use
#Practice Shared Decision Making

Duvalyan A, et al. *J Card Fail*. 2024;30(8):1031-1040.

SGLT2 inhibitors and UTI



Kittipibul V, et al. *J Am Coll Cardiol*. 2024;83(16):1568-1578.



Duvalyan A, et al. *J Card Fail*. 2024;30(8):1031-1040.

SGLT2 INHIBITORS AND UTI

Key Question

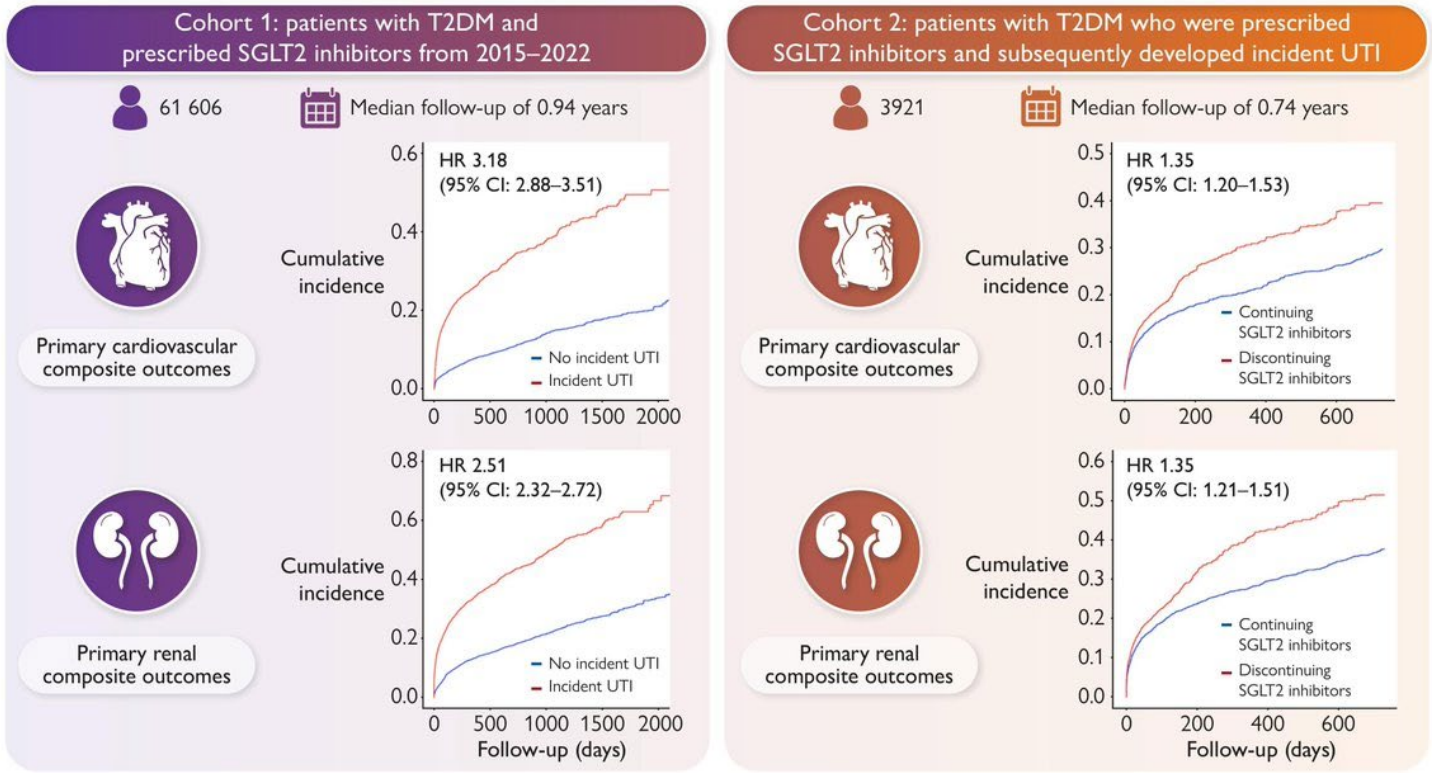
What is the prognosis of new-onset UTI and discontinuing SGLT2 inhibitors after UTI in patients with T2DM prescribed SGLT2 inhibitors?

Key Finding

Incident UTI was associated with a significantly higher risk of cardiovascular and renal events than no incident UTI. Discontinuing SGLT2 inhibitors following UTI was associated with a higher risk of cardiovascular and renal events, compared to continued therapy.

Take Home Message

Although new-onset UTI may serve as a marker of subsequent adverse events, continued use of SGLT2 inhibitors after UTI may effectively mitigate the complications.



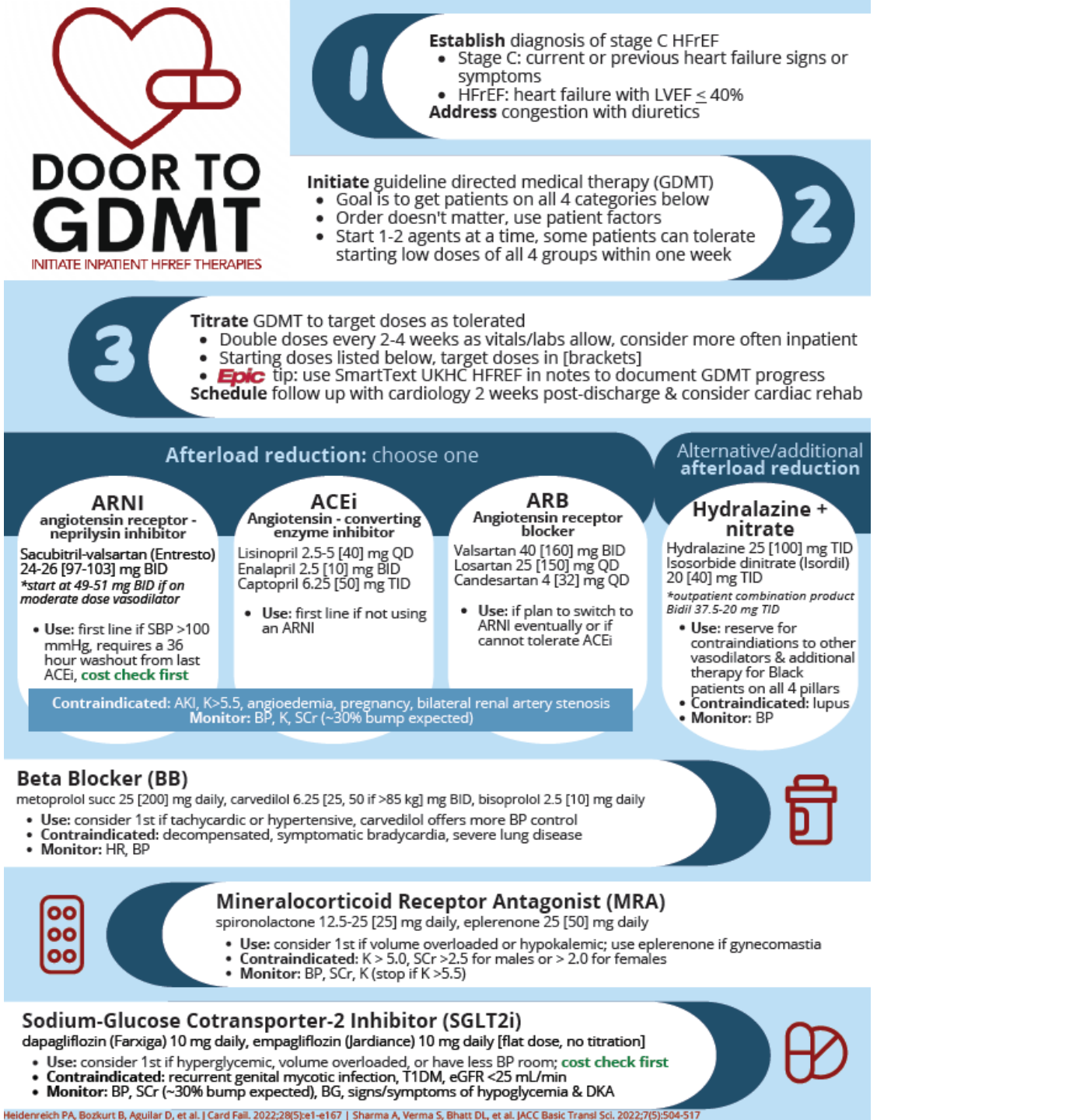
SGLT2, sodium-glucose cotransporter-2; T2DM, type 2 diabetes mellitus; UTI, urinary tract infection

Wu MZ, *et al. European Heart Journal.*

Mei-Zhen Wu et al, *European Heart Journal*, 2025

INPATIENT GDMT INITIATION GUIDE

COURTESY OF MAYA IGNASZEWSKI, MD AND JESSI CLARK, PHARMD, BCCP

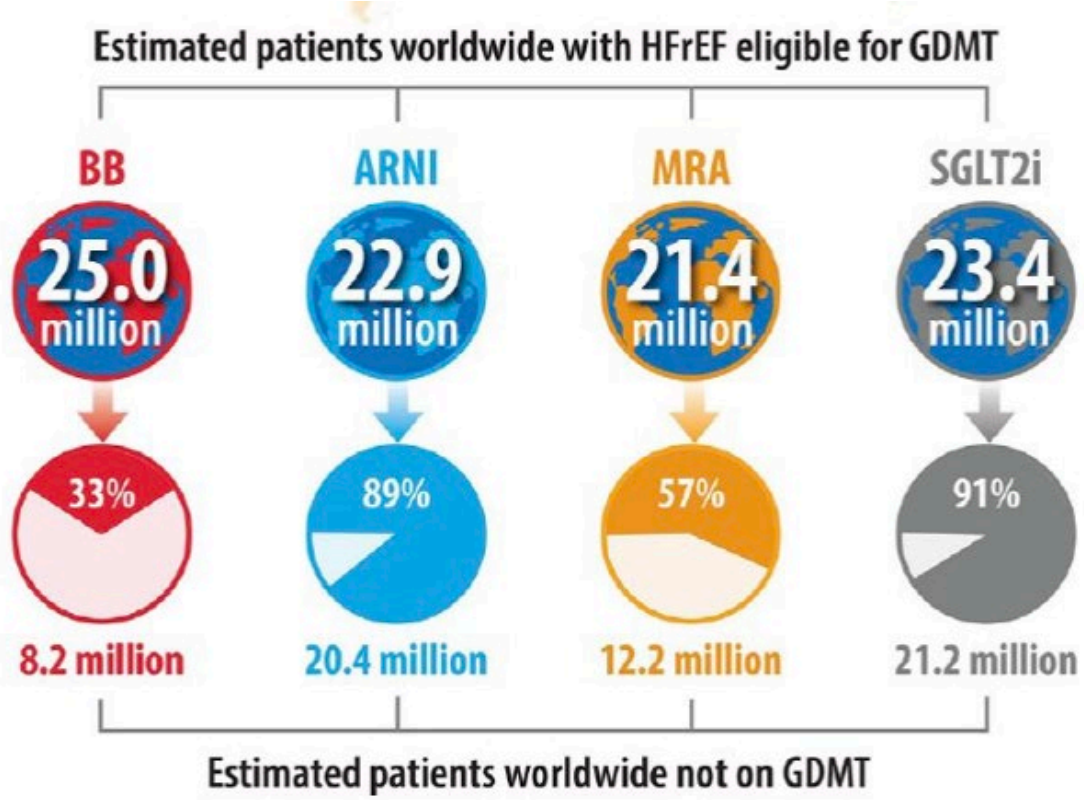


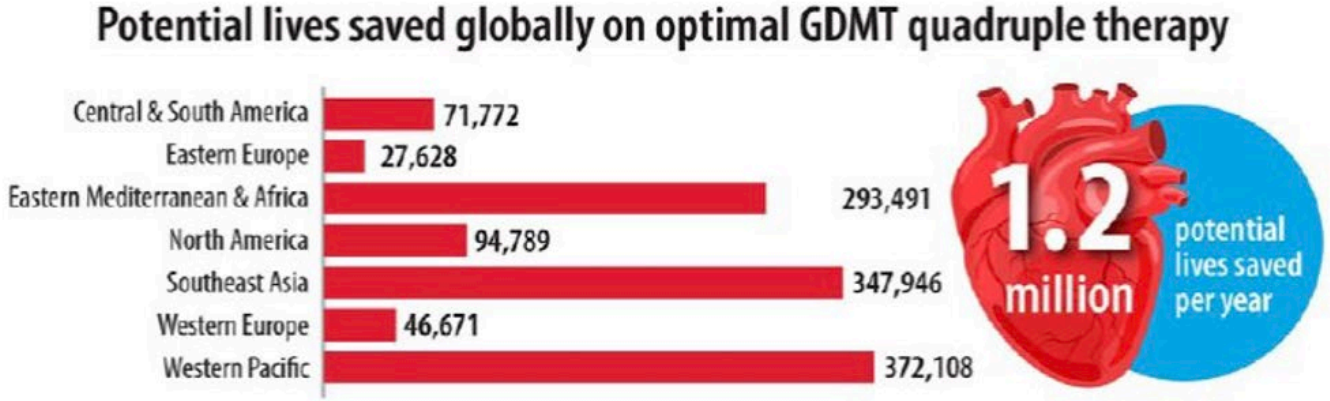
Heidenreich PA, Bozkurt B, Aguilar D, et al. J Card Fail. 2022;28(5):e1-e167 | Sharma A, Verma S, Bhatt DL, et al. JACC Basic Transl Sci. 2022;7(5):504-517

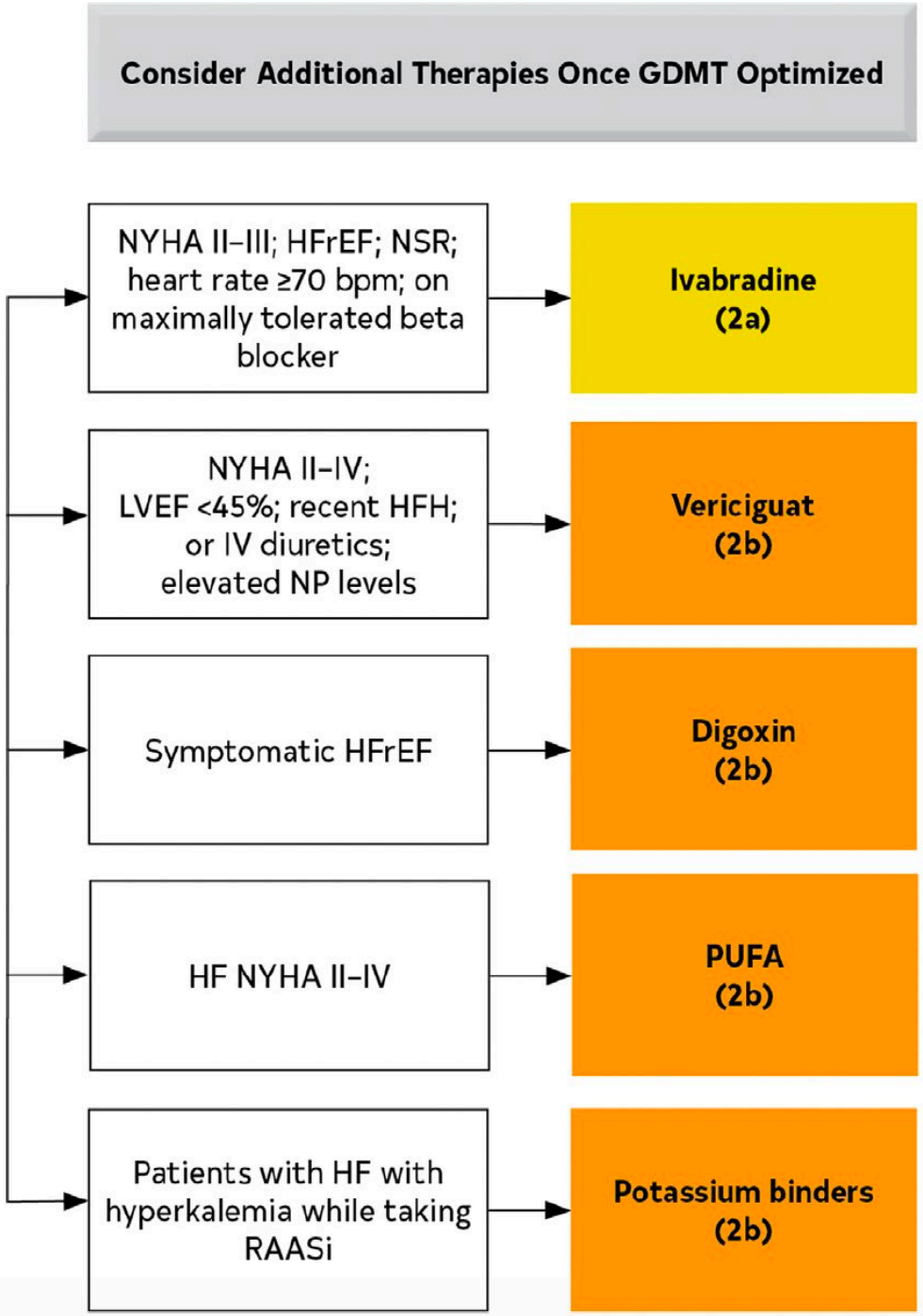
Medication Uptitration Clinic

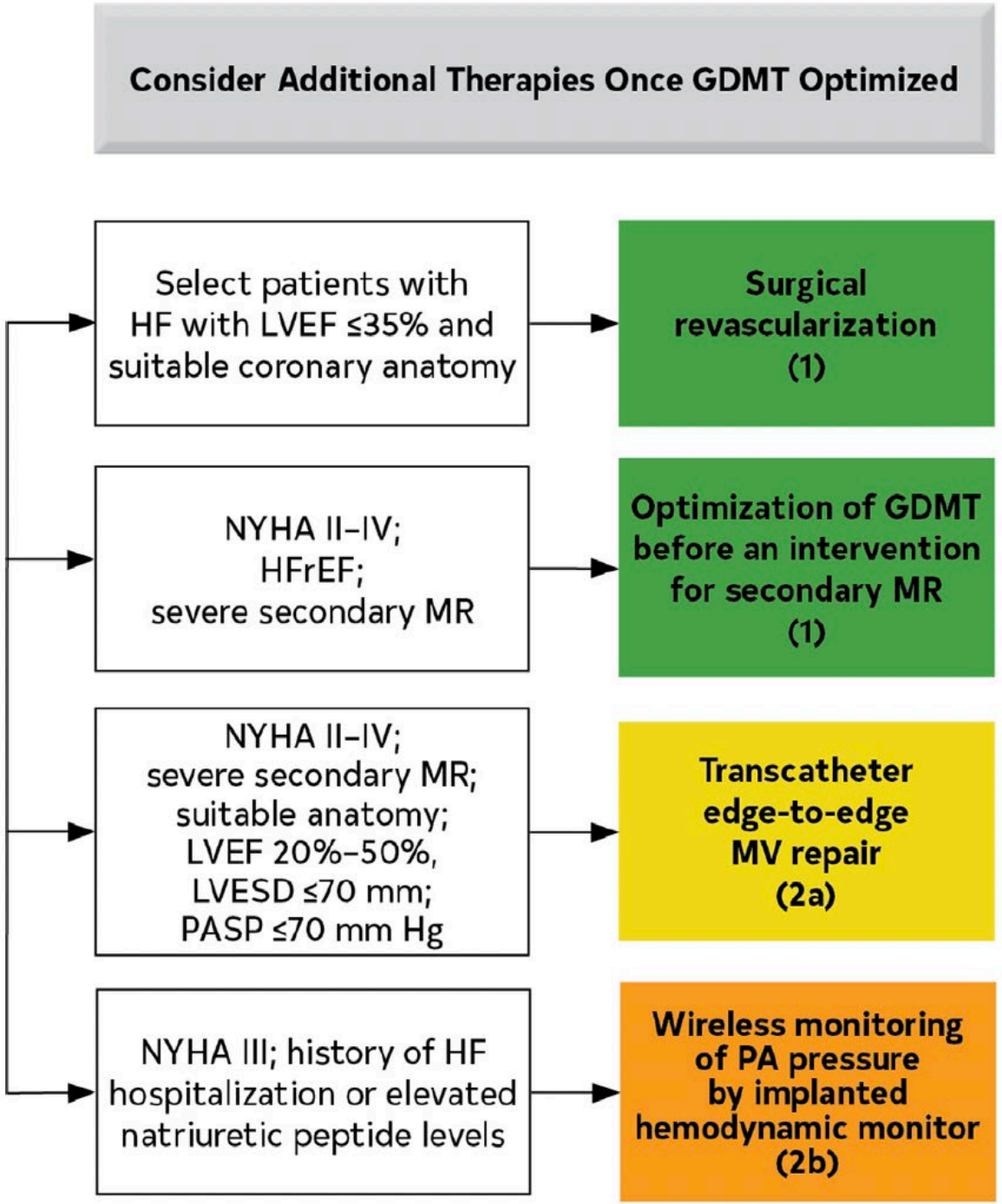
HFrEF Prevalence is Estimated at

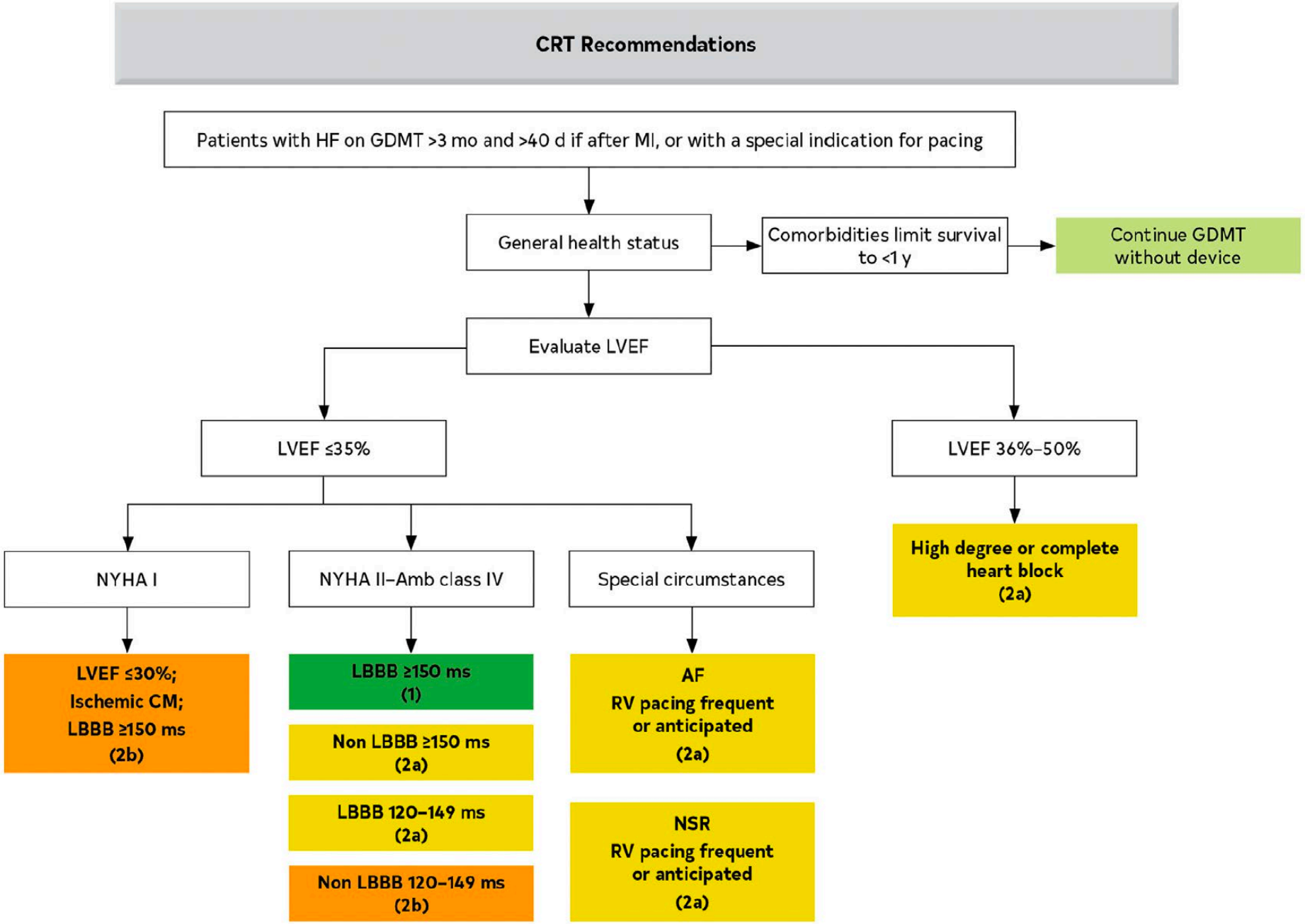
29 million worldwide





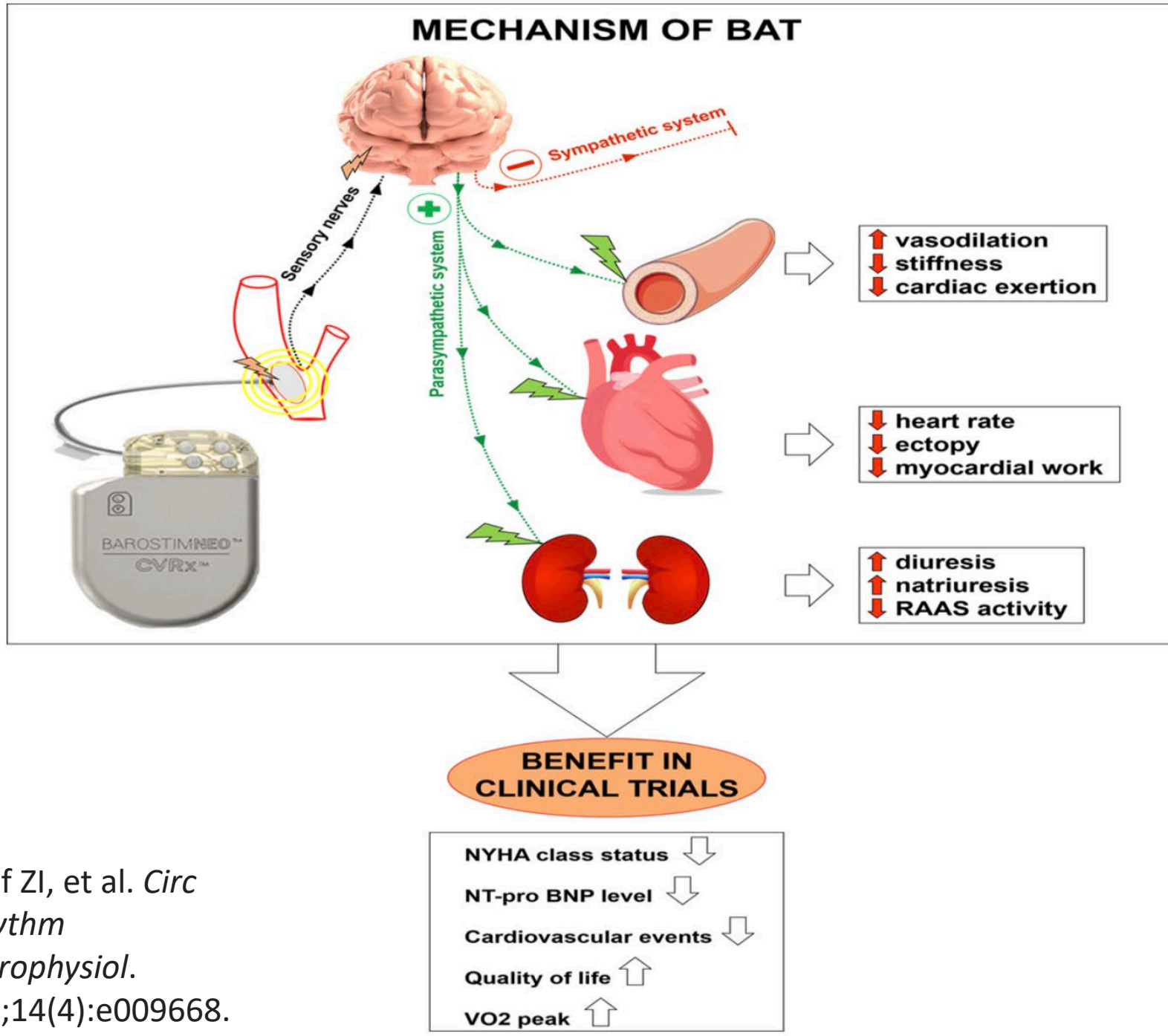

Consider Additional Therapies Once GDMT Optimized
NYHA II–III; HFrEF; NSR; heart rate ≥70 bpm; on maximally tolerated beta blocker
Ivabradine (2a)
NYHA II–IV; LVEF <45%; recent HFH; or IV diuretics; elevated NP levels
Vericiguat (2b)
Symptomatic HFrEF
Digoxin (2b)
HF NYHA II–IV
PUFA (2b)
Patients with HF with hyperkalemia while taking RAASi
Potassium binders (2b)


Consider Additional Therapies Once GDMT Optimized
Select patients with HF with LVEF ≤35% and suitable coronary anatomy
Surgical revascularization (1)
NYHA II–IV; HFrEF; severe secondary MR
Optimization of GDMT before an intervention for secondary MR (1)
NYHA II–IV; severe secondary MR; suitable anatomy; LVEF 20%–50%, LVESD ≤70 mm; PASP ≤70 mm Hg
Transcatheter edge-to-edge MV repair (2a)
NYHA III; history of HF hospitalization or elevated natriuretic peptide levels
Wireless monitoring of PA pressure by implanted hemodynamic monitor (2b)



Heidenreich PA et al. *Circulation*. 2022;145(18):e895-e1032.

BARORECEPTOR ACTIVATION THERAPY



Sharif ZI, et al. *Circ Arrhythm Electrophysiol*. 2021;14(4):e009668.

HealthCare
GILL HEART & VASCULAR INSTITUTE

Baroreceptor activation therapy

Barostim Indications for Use

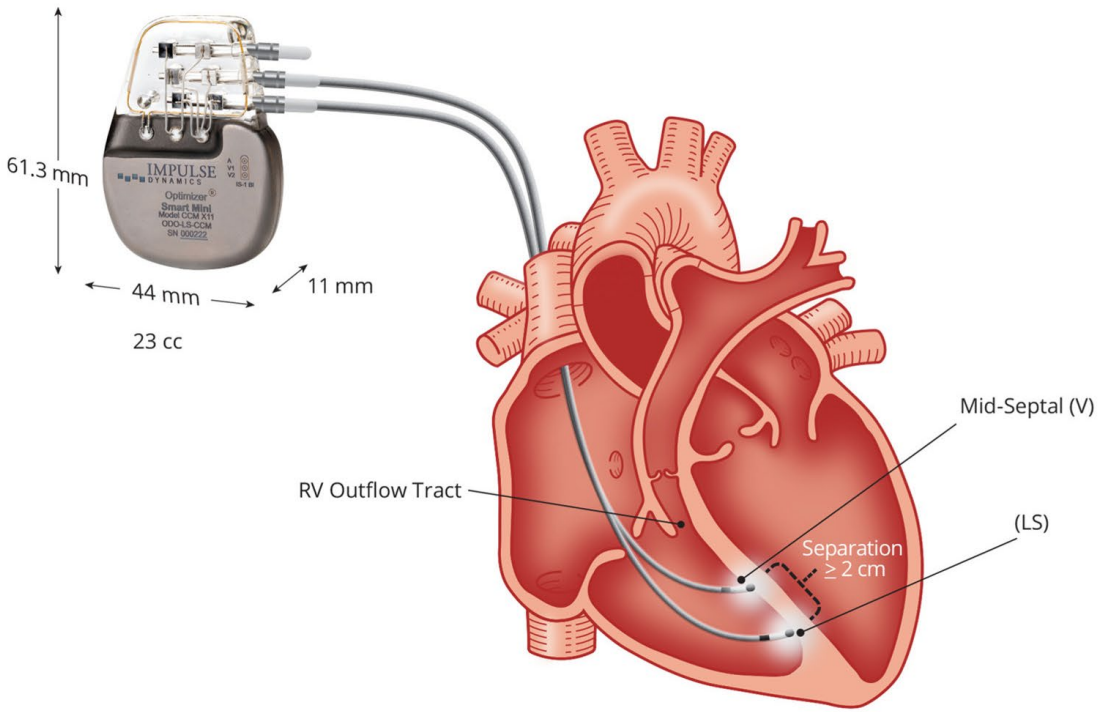
- NYHA III or NYHA II with recent history of NYHA III on GDMT*
- LVEF ≤35%
- NT-proBNP <1600 pg/mL
- Not indicated for CRT**

*Guideline-directed medical therapy (GDMT) according to 2022 AHA/ACC/ESC guidelines
**Or not receiving adequate response from existing CRT device

NYHA = New York Heart Association; LVEF = left ventricular ejection fraction; CRT = cardiac resynchronization therapy; AHA/ACC/ESC = American Heart Association/American College of Cardiology/European Society of Cardiology

Cardiac Contractility Modulation

CCM DEVICE AND ANATOMICAL LOCATION OF PACING WIRES



Mechanism of action

Application of non-excitatory electric stimulation to the interventricular septum during the absolute refractory period

Biomolecular changes

- Optimization of intra-cellular calcium homeostasis
- ↑ titin phosphorylation
- Upregulation of pivotal cardioprotective genes
- Amplification of downstream proteomic signaling

Alteration in myocardial properties

- Lusitropic effect with improved diastolic recoil
- Increased left ventricular contractility

Effect on functional and clinical outcomes

↑ ejection fraction reserve
↑ diastolic filling index
↑ exercise capacity
↑ functional status
↑ survival

Talha KM, et al.. *J Card Fail*. 2022;28(12):1717-1726.

CCM - Indications

- Indicated to improve 6-minute hall walk distance, quality of life and functional status of NYHA Class III heart failure patients who remain symptomatic
  - Despite guideline directed medical therapy
  - Who are in normal sinus rhythm
  - Are not indicated for CRT
  - have an LVEF ranging from 25% to 45%.

Decompensated Heart Failure

Evaluation

COR	RECOMMENDATIONS
1	Address precipitating factors
1	Evaluate severity of congestion
1	Assess adequacy of perfusion

Goals for GDMT

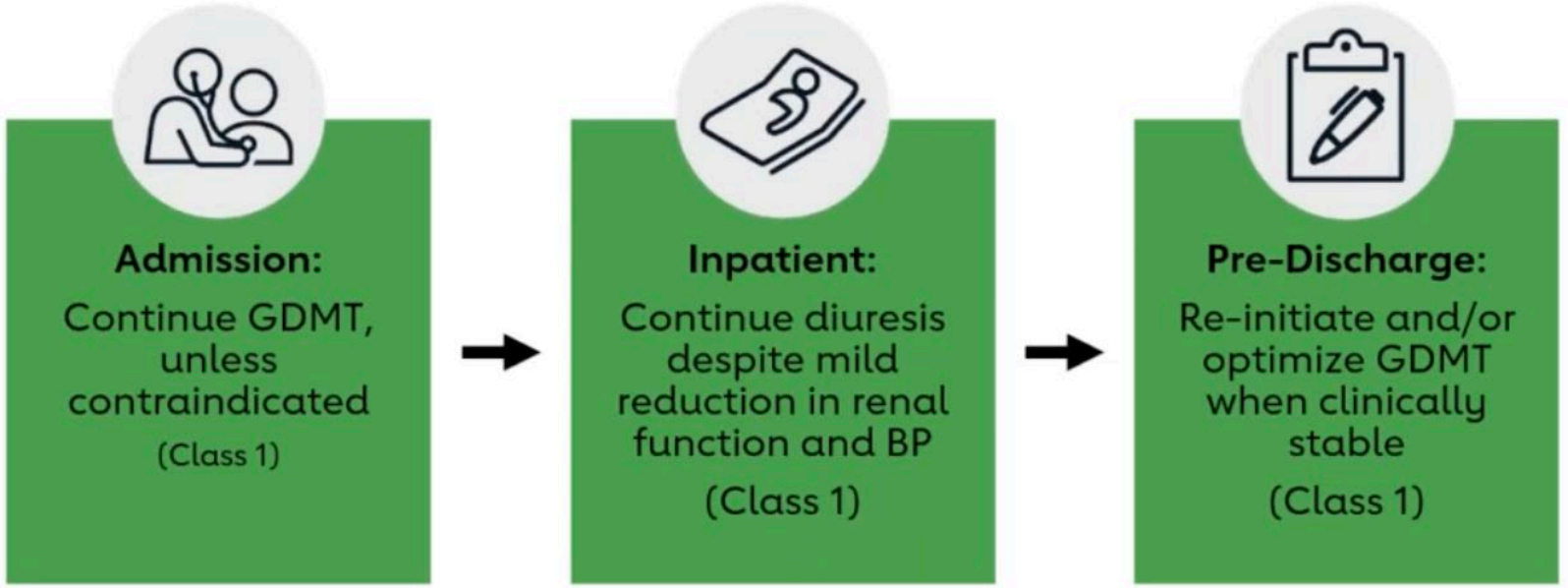
COR	RECOMMENDATIONS
1	Optimize volume status
1	Address reversible factors
1	Continue or initiate GDMT

COMMON FACTORS PRECIPITATING HF HOSPITALIZATION

- Acute coronary syndrome
- Uncontrolled hypertension
- Atrial fibrillation and arrhythmias
- Additional cardiac disease
- Acute infections
- Non-adherence to medications or diet
- Anemia
- Hypo-/Hyperthyroidism
- Medications that increase sodium retention
- Medications with negative inotrope

Heidenreich PA et al. *Circulation*. 2022;145(18):e895-e1032.

Decompensated Heart Failure



Special considerations

- Consider discontinuation of beta blockers in patients with low cardiac output, severe volume overload, advanced AV block or ACEi/ARNi with angioedema
- VTE prophylaxis is recommended in all hospitalized patients

Heidenreich PA et al. *Circulation*. 2022;145(18):e895-e1032.

Initial and Serial Evaluation

Adult patients with NYHA III HF

↓

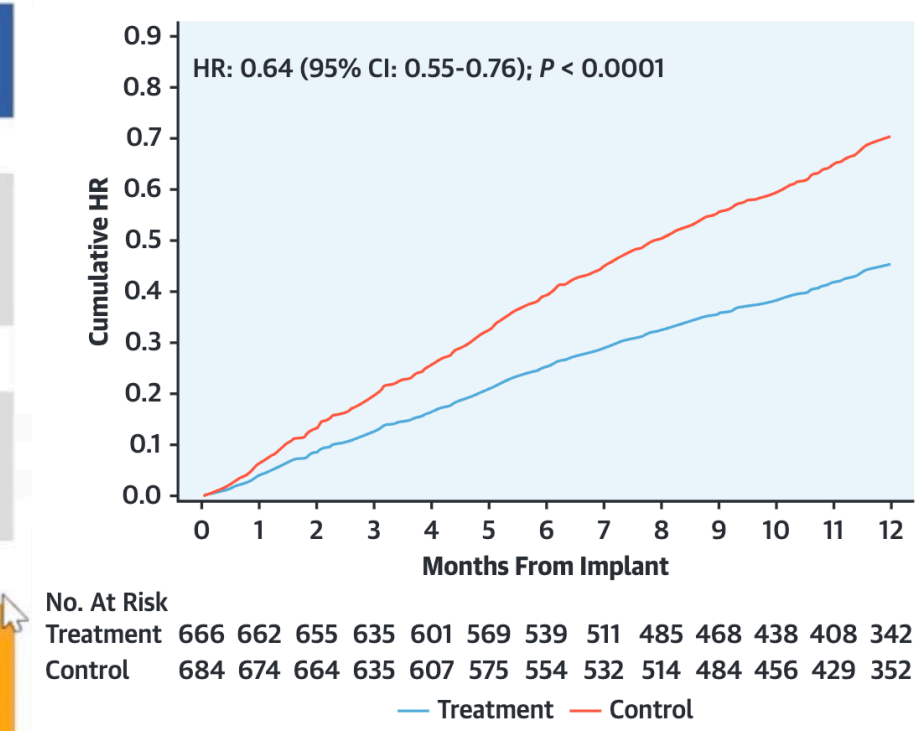
HF hospitalization in the past year or elevated natriuretic peptide levels

↓

Maximally tolerated stable doses of GDMT with optimal device therapy

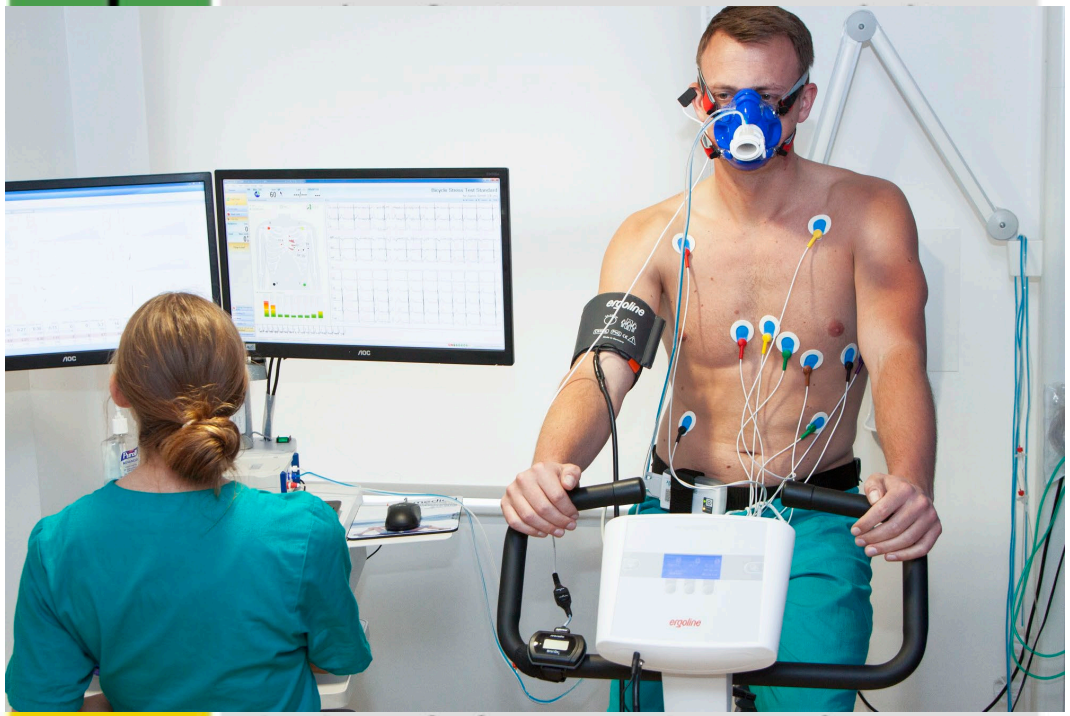
↓

The usefulness of wireless monitoring of PA pressure by an implanted hemodynamic monitor to reduce the risk of subsequent HF hospitalizations is uncertain. (Class 2b)



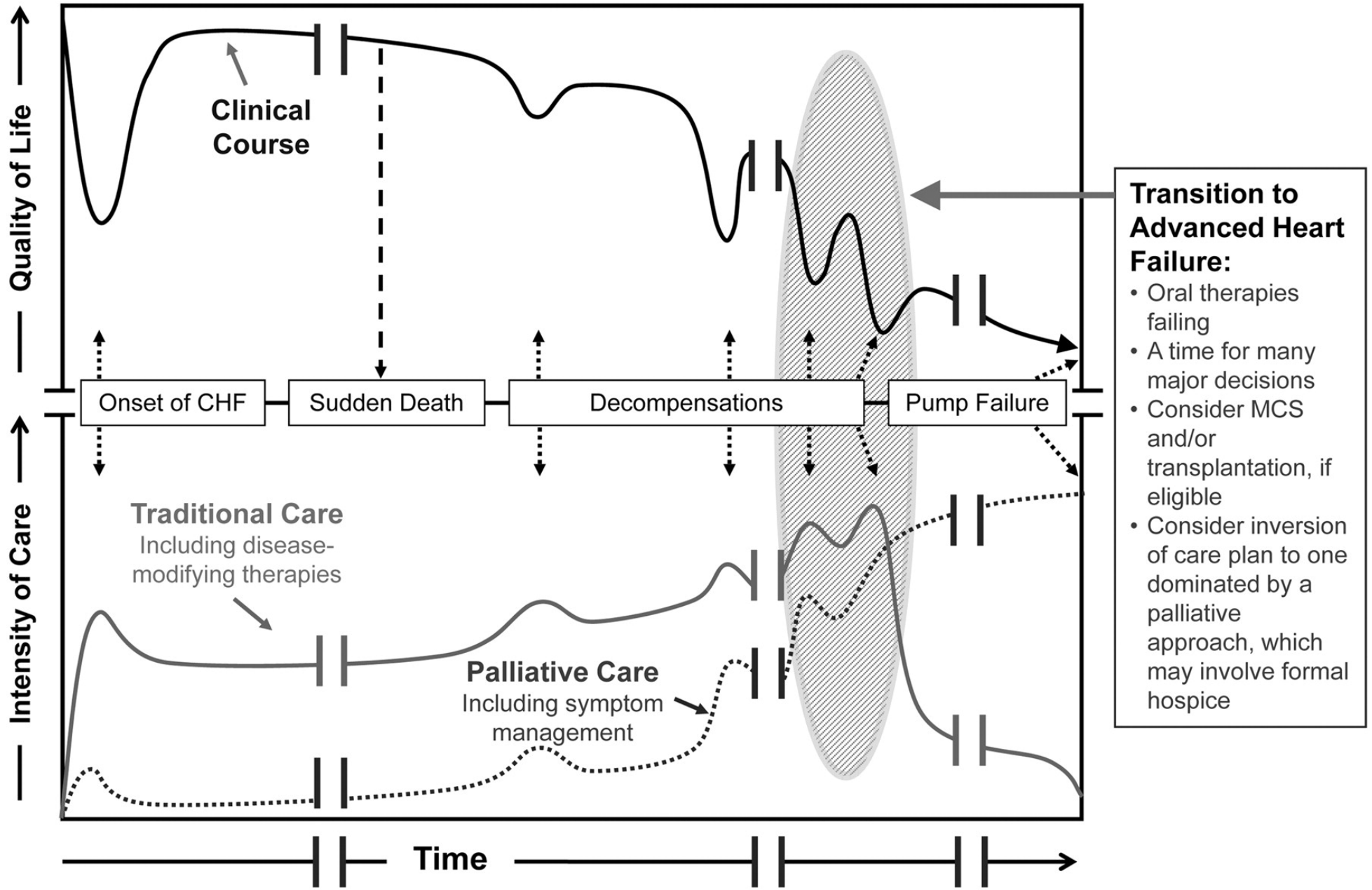
Heart Failure Hospitalizations for Implantable Hemodynamic Monitoring and Medical Therapy in Pooled Population

COR	RECOMMENDATIONS
1	1. In patients with HF, assessment and documentation of NYHA functional
2a	4. In ambulatory patients with unexplained dyspnea, CPET is reasonable to **evaluate the cause of dyspnea**



HealthCare GILL HEART & VASCULAR INSTITUTE

Heidenreich PA et al. *Circulation*. 2022;145(18):e895-e1032.



Allen LA, Stevenson et al. *Circulation*. 2012;125(15):1928-1952.

IS IT STAGE D HEART FAILURE?

I	Need for **inotropes**
N	**New** York Heart Association Class IV
E	Worsening **end-organ** dysfunction
E	**Ejection fraction** <20%
D	**Defibrillator** shocks for ventricular arrhythmias
H	Recurrent **HF** hospitalizations
E	**Escalating** diuretic dose
L	**Low blood pressure**
P	**Progressive** intolerance of GDMT

How important is the family physician in the care of heart failure patients?

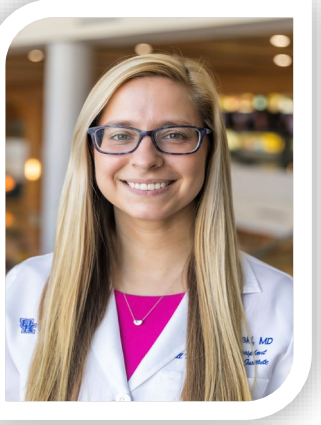
Advanced Heart Failure, VAD & Transplant Program

Medical Team

Emma Birks, MD, PhD
Section Chief, Heart Failure

Andrew Kolodziej, MD
Medical Director of Heart Transplant

Navin Rajagopalan, MD
Director, Gill Affiliate Network



Maya Ignaszewski, MD

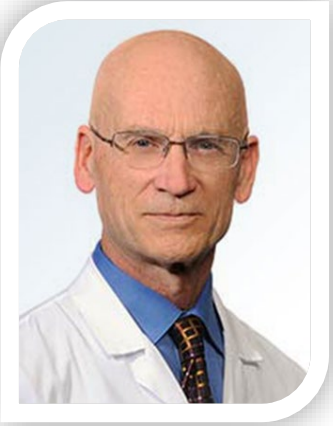
Sonu Abraham, MBBS

Surgical Team

Matthias Loebe, MD, PhD
Surgical Director, Heart Transplant

Masashi Kawabori, MD
Surgical Director, MCS

Jin Woo Chung, MD



Michael Sekela, MD
Chief, Cardiothoracic Surgery

Specialized Care – Complex Cardiomyopathies

- Accepting referrals for diagnosis and/or management of cardiac amyloidosis (TTR and AL), sarcoidosis, and HCM.

- Comprehensive evaluation:
  - Heart biopsy
  - PYP nuclear scan
  - Cardiac MRI
  - Genetic screening
  - Multidisciplinary collaboration through UK Amyloidosis Alliance.

- Offering management of patients on long-term pharmacologic therapy (Tamafidis, Acoramidis, Amvuttra, Camzyos).

Sonu Abraham, MD, FACC

sonu.abraham@uky.edu

Specialized Care – Cardio-Psychiatry

Holistic, Integrated patient care

- Allows for simultaneous treatment of cardiac and mental health needs

Improved patient outcomes

- Improved patient quality of life, medication adherence, and potential for reduced readmissions

Early detection and intervention of psychological impact

- Allows for prompt identification of issues following new diagnosis or after heart transplant/LVAD

Aaron Harris, DNP, APRN, PMHNP-BC

THANK YOU