5th iHEF CARD
The 5th Indonesian Symposium on Heart Failure and Cardiometabolic Disease

in conjunction with :
WHFS25
World Heart Failure Society Congress 2025

Managing Heart Failure Patients in JKN Era: How to Stay Rational

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Introduction

- Heart failure (HF) represents a complex clinical syndrome affecting multiple organs and systems of the body

- It is a global public health concern because of its high prevalence, mortality, and medical cost

- Asia, especially Indonesia, diverse in ethnicities, and complex health care systems, faces challenges in the prevention and management of HF

Indonesia

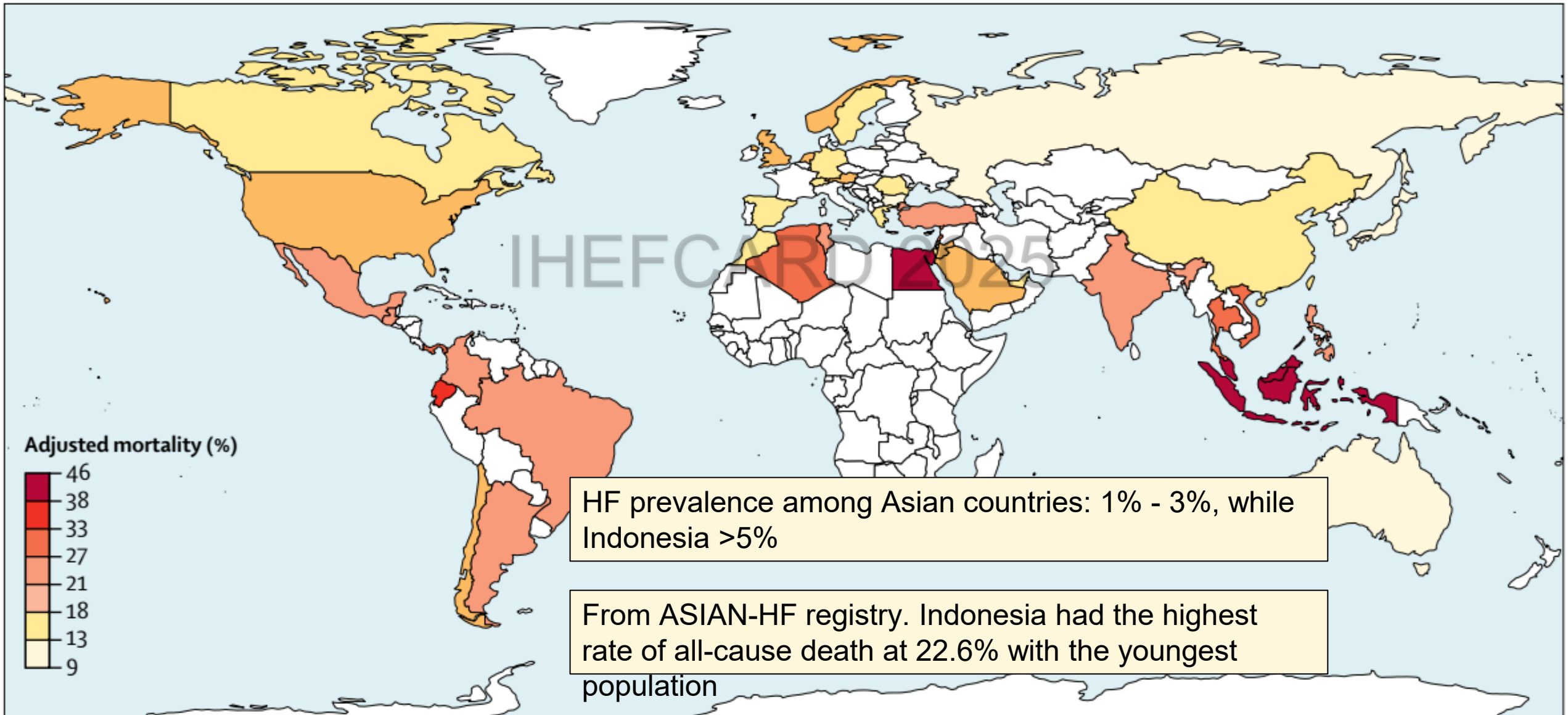
- 262 millions inhabitants
- 17,744 islands
- Middle-income
- Diversity in local living styles, health beliefs, human development, community participation

Unique challenges for health systems and universal health coverage (UHC)

Up to **30%** of death or readmissions after discharge within **3 months**

50% of patients diagnosed with heart failure will die within 5 years

Prevalence



HF prevalence among Asian countries: 1% - 3%, while Indonesia >5%

From ASIAN-HF registry. Indonesia had the highest rate of all-cause death at 22.6% with the youngest population

TABLE 1 Age-Adjusted Rates of Prevalence for HF Among 5 Asian Regions From GBD Data

Location	ASRs of Prevalence, % (95% UI)		ASRs of Prevalence per 100,000 Population and 95% UI	
	1990	2019	1990	2019
High-income Asia Pacific	0.61 (0.50-0.75)	0.49 (0.42-0.56)	571.60 (471.91-698.96)	445.28 (384.66-514.55)
Singapore	0.53 (0.43-0.65)	0.36 (0.29-0.44)	490.72 (398.39-602.78)	328.71 (268.09-402.06)
Japan	0.65 (0.54-0.79)	0.53 (0.46-0.60)	603.27 (499.89-735.11)	481.00 (418.37-550.97)
Brunei Darussalam	0.47 (0.38-0.59)	0.41 (0.34-0.51)	443.21 (357.85-551.32)	382.15 (310.24-472.02)
Republic of Korea	0.41 (0.33-0.51)	0.37 (0.29-0.46)	385.12 (309.65-483.11)	339.30 (270.67-419.87)
East Asia	1.10 (0.90-1.37)	1.09 (0.89-1.34)	1,060.30 (863.37-1,310.49)	1,014.06 (830.18-1,252.95)
China	1.12 (0.92-1.39)	1.11 (0.90-1.36)	1,079.37 (880.67-1,335.51)	1,032.84 (846.57-1,277.46)
Democratic People's Republic of Korea	0.58 (0.46-0.75)	0.58 (0.46-0.75)	560.87 (444.58-723.28)	549.64 (432.50-713.60)
Southeast Asia	0.74 (0.59-0.94)	0.79 (0.63-0.98)	729.15 (581.66-919.89)	755.95 (604.89-946.23)
Sri Lanka				0-950.23)
Malaysia				6-1045.58)
Thailand				57-823.55)
Maldives				8-904.68)
Timor-Leste				42-818.38)
Seychelles				2-955.05)
Mauritius				4-893.83)
Viet Nam	0.65 (0.50-0.85)	0.70 (0.56-0.88)	638.25 (490.27-840.14)	665.42 (536.62-839.93)
Myanmar	0.64 (0.49-0.82)	0.62 (0.47-0.80)	629.35 (485.63-811.73)	601.42 (460.08-780.42)
Cambodia	0.57 (0.44-0.75)	0.59 (0.45-0.76)	560.61 (430.86-734.26)	568.26 (434.83-741.38)
Philippines	0.75 (0.60-0.95)	0.82 (0.66-1.03)	731.70 (585.36-924.78)	787.31 (629.80-990.66)
Indonesia	0.85 (0.68-1.07)	0.94 (0.75-1.19)	835.45 (666.27-1,050.39)	900.90 (717.73-1,138.87)
Lao People's Democratic Republic	0.56 (0.43-0.73)	0.58 (0.45-0.76)	549.15 (422.46-713.94)	560.53 (434.91-724.73)
South Asia	0.38 (0.31-0.48)	0.40 (0.32-0.50)	374.17 (302.18-470.48)	389.97 (314.38-487.19)
Bhutan	0.25 (0.20-0.33)	0.26 (0.21-0.34)	251.56 (195.69-327.52)	255.54 (199.01-330.03)
Bangladesh	0.26 (0.20-0.34)	0.28 (0.22-0.37)	259.89 (200.46-337.34)	275.00 (213.50-355.43)
India	0.40 (0.32-0.50)	0.42 (0.34-0.52)	390.14 (315.11-487.72)	406.20 (328.33-505.76)
Nepal	0.23 (0.18-0.30)	0.22 (0.17-0.29)	226.08 (174.66-294.04)	211.86 (164.68-276.13)
Pakistan	0.40 (0.32-0.51)	0.42 (0.34-0.53)	396.82 (319.37-496.95)	405.12 (327.72-504.86)

From 1990 – 2019, the percentage change in the age-standardized rate of prevalence differed among Asian countries, Indonesia showed the largest increases (7.83%)

Feng et al. JACC Asia, Vol. 4, No. 4, 2024

TABLE 4 Characteristics and 1-Year Mortality of Asian Countries in the REPORT-HF Study

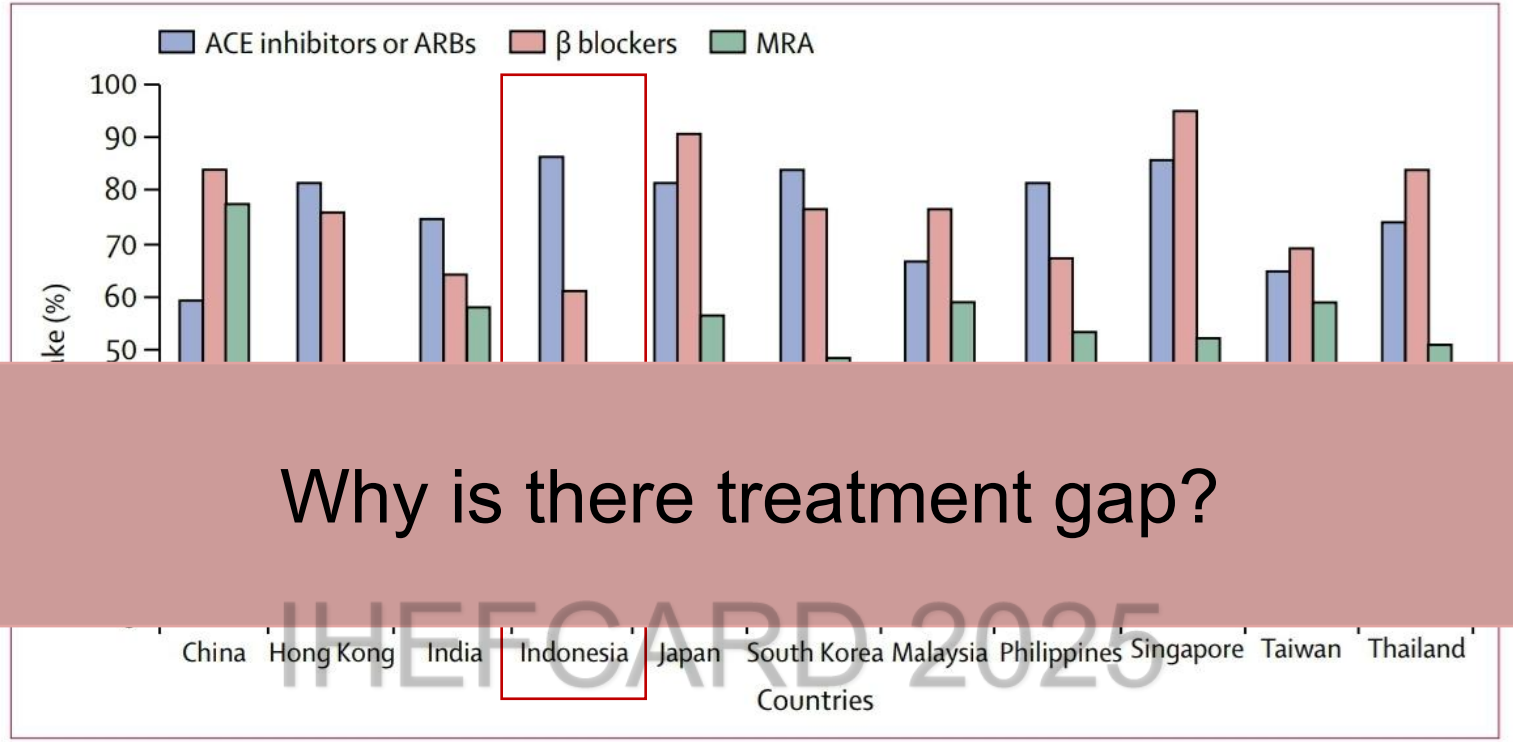
Country	Regions (as the Study Design)	Income Classification	No. of Patients Discharged Alive	Age, y Median (IQR)	Women, %	Crude Mortality Rate at 1 y
Indonesia	Southeast Asia	Lower middle income	337	56 (49-63)	38.6	34.1
Malaysia	Western Pacific	Upper middle income	134	54 (46-63)	20.9	27.6
Vietnam	Western Pacific	Lower middle income	182	66 (57-78)	46.7	25.8
Thailand	Southeast Asia	Upper middle income	472	65 (57-75.5)	48.7	20.6
India	Southeast Asia	Lower middle income	1,483	62 (53-70)	32.0	17.4
China	Western Pacific	Upper middle income	1,436	67 (57-77)	36.1	16.9
Philippines	Western Pacific	Lower middle income	508	61 (50.5-71)	41.7	16.1
Japan	Western Pacific	High income	108	79 (70-85)	40.7	11.1
Korea	Western Pacific	High income	558	73 (62-79)	50.5	10.9

Etiology

Table 1
Prevalence of heart failure (HF), demographic characteristics of patients and etiology in 9 Asian countries or regions, and Europe and the USA [2,3,20,22–29,31–34].

Prevalence or characteristic	Asia									Europe	USA
	Hong Kong	Indonesia	Malaysia	Philippines	Singapore	South Korea	Taiwan	Thailand	Vietnam		
Prevalence of HF	2%–3%[a]	5%	–	1%–2%	–	0.6%	6%	0.4%	–	1%–2%	2%
Demographic characteristics of HF patients											
Male	45%	66%	75%	57%	64%	55%	72%	–	59%	61%	53%
Female	55%	34%	26%	43%	36%	45%	28%	–	41%	39%	47%
Mean age at admission (years)	76.8	57.8	61.8	60	66.6	69	64	67	59	70	74
Cardiovascular risk factors											
Ischemic heart disease	29%	35%	68%	52%	37%	37%	44%	45%	32%	54%	46%
Valvular/rheumatic heart disease	6%	18%	29%	20%	–	14%	8%	19%	18%	–	–
Cardiomyopathy (non-ischemic)	1%	2%	28%	11%	–	21%	34%	14%	21%	–	–
Hypertensive heart disease	70%	8%	2%	6%	–	4%	7%	12%	21%	–	23%
Other causes[b]		2%	5%	7%	–	11%	7%	–	–	–	–
Hypertension		33%	75%	64%	69%		33%	31%	–	63%	76%
Current smoking	13%	28%	9%	54%	45%		24%	7%	31%	–	–
Diabetes mellitus	36%	37%	67%	41%	55%		43%	47%	–	33%	43%
Dyslipidemia		31%	52%	38%	65%		24%	51%	5%	–	44%
Overweight		47%	25%	21%	–		–	–	–	–	–
Renal disease		24%	31%	4%	–		31%	19%	5%	17%	50%
Atrial fibrillation		16%	24%	–	21%		26%	24%	22%	39%	31%
Coronary heart disease		35%	73%	52%	49%		43%	47%	–	54%	50%
Cerebrovascular disease		2%	7%	0%	15%		9%	12%	–	–	–
COPD		18%	13%	2%	12%		12%	8%[c]	3%	19%	–

- Ischemic Heart Disease (35%)
- Valvular/RHD (18%)
- HHD (8%)
- Cardiomyopathy non-ischemic (2%)



Why is there treatment gap?

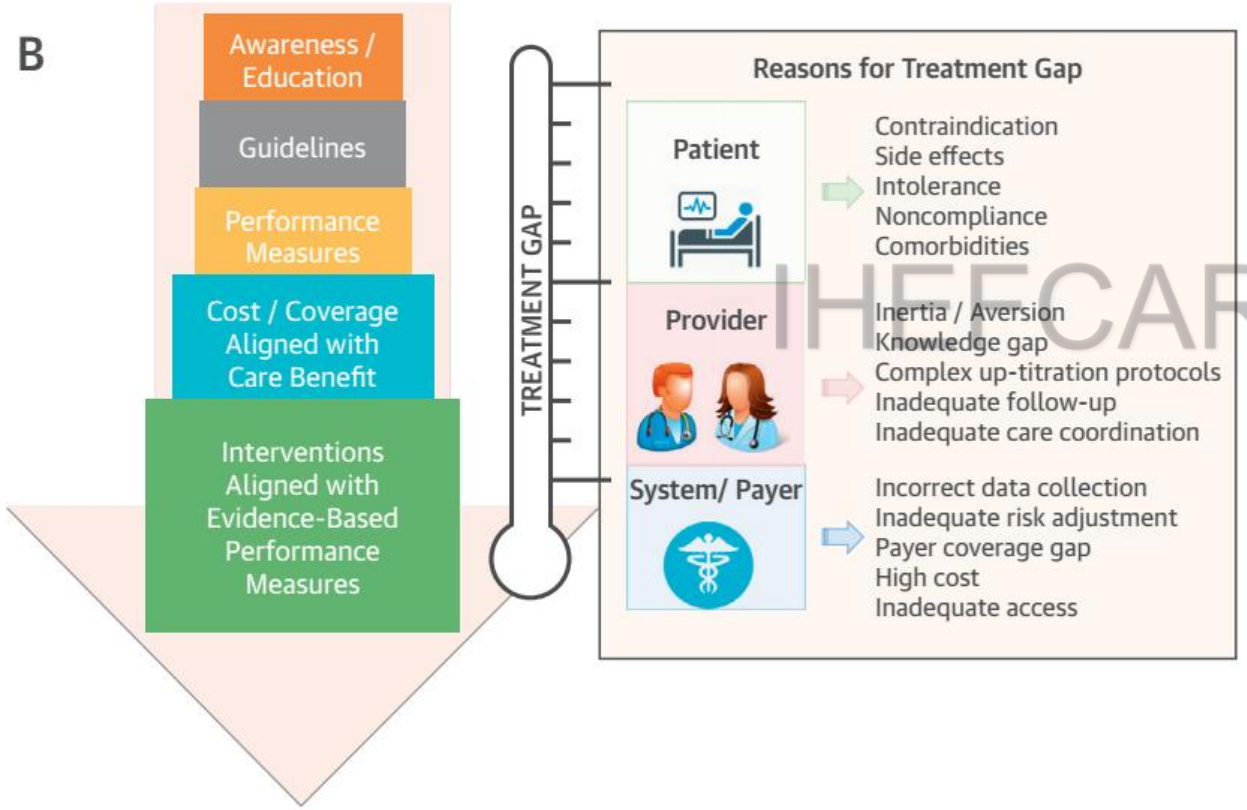
Figure 1: **Regional variation in uptake**
ACE=angiotensin-converting enzyme. ARB=angiotensin receptor blockers. MRA=mineralocorticoid receptor antagonists.

- Highest uptake for ACE inhibitors or ARBs.
- Lowest uptake for β blockers and MRAs.
- The gaps in administration of such therapy were monotherapy instead of combined therapy.
- Increasing achieved doses of ACEi or ARBs and β blockers were associated with improved outcomes

Heart Failure Reviews (2021) 26:1359–1370
https://doi.org/10.1007/s10741-020-09979-z

Clinical inertia in the treatment of heart failure: a major issue to tackle

Caroline Verhestraeten[1] · Ward A. Heggermont[2,3] · Michael Maris[1]



	QUALIFY [20]	ESC HF Long-term Registry [22]	TSOC-HFrEF [24]
ACEi/ARB	Worsening renal function	Worsening renal function	Worsening renal function
	Hypotension	Hypotension	
	Cough		
			Older age
BB	Worsening of asthma and COPD		Worsening of asthma and COPD
	Hypotension	Hypotension	
	Bradycardia		
	Fatigue		
		Bronchospasm	
			Older age
MRA	Hyperkalemia	Hyperkalemia	
	Renal dysfunction	Renal dysfunction	Renal dysfunction
			Older age

Bozkurt et al. JACC Vol. 73, No.19, 2019

Interventions that enhance evidence-based therapies are critical in closing this treatment gap

Potential solutions

Healthcare system

- Learning health systems
- Performance improvement registries
- HF disease management programs, telehealth
- Time to GRMT performance measures

Clinician-level

- Simultaneous GRMT initiation protocols
- GRMT team consults and navigators
- In-hospital initiation of GRMT
- Real-time performance feedback
- Digital health tools

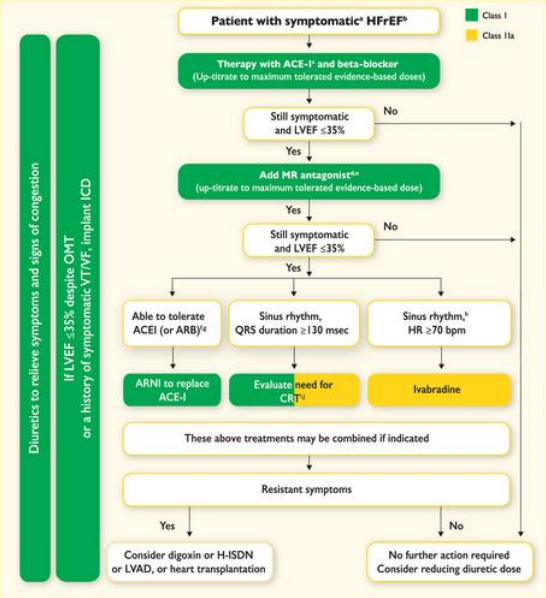
Patient-level

- Enhanced education and shared decision making
- Co-payment assistance program
- Medications to bedside program
- Patient engagement intervention (EPIC-HF)
- Digital health GRMT adherence tracking

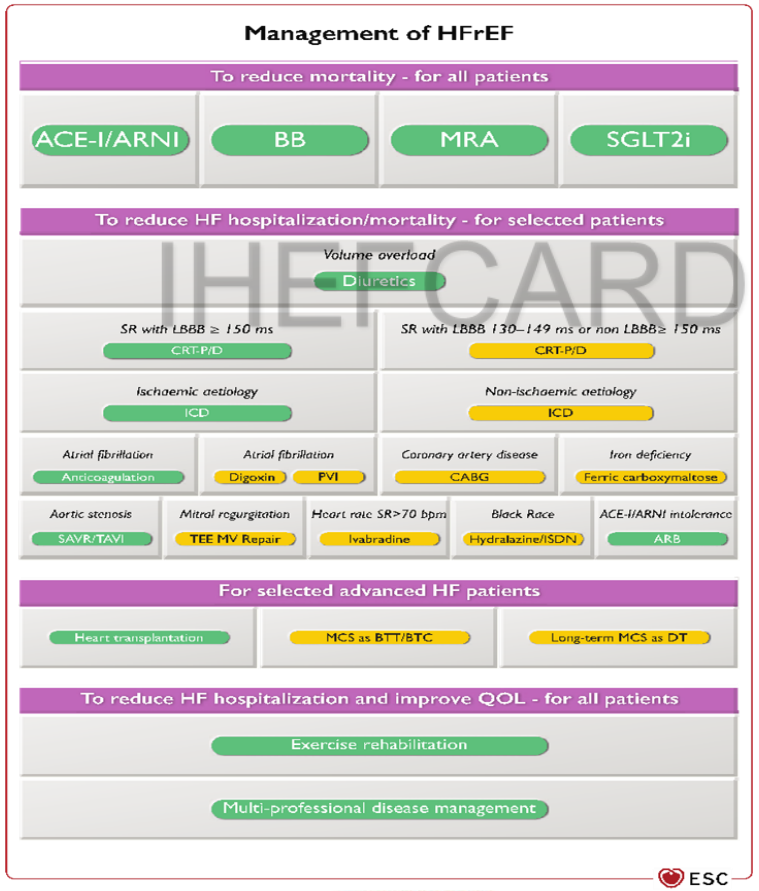
Brownell NK, et al.Eur Heart J.2023

Evolving management of HFrEF

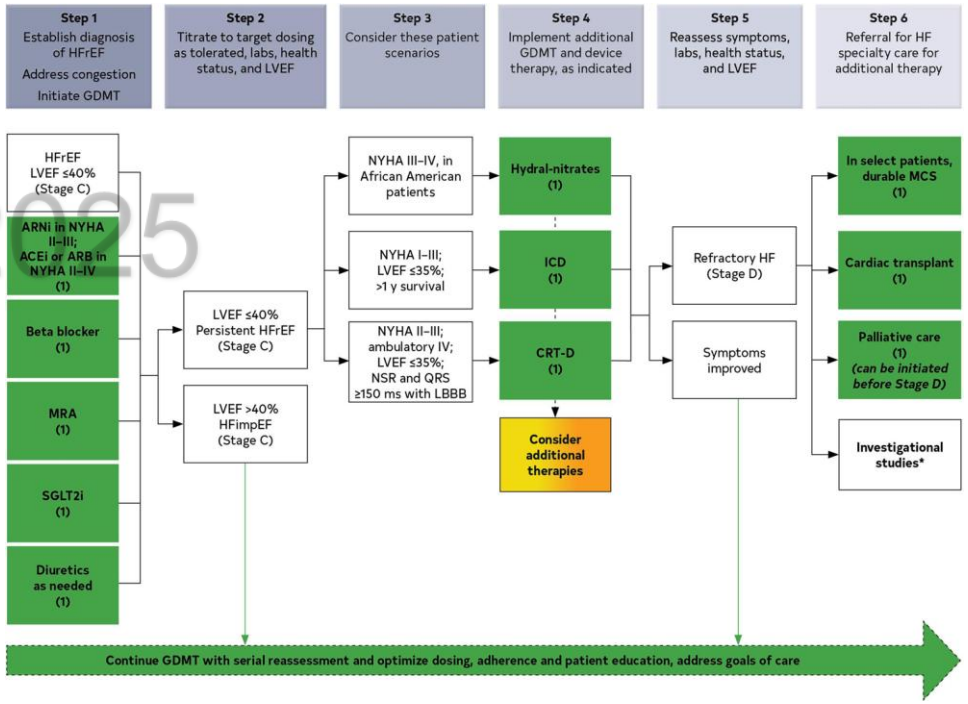
ESC 2016



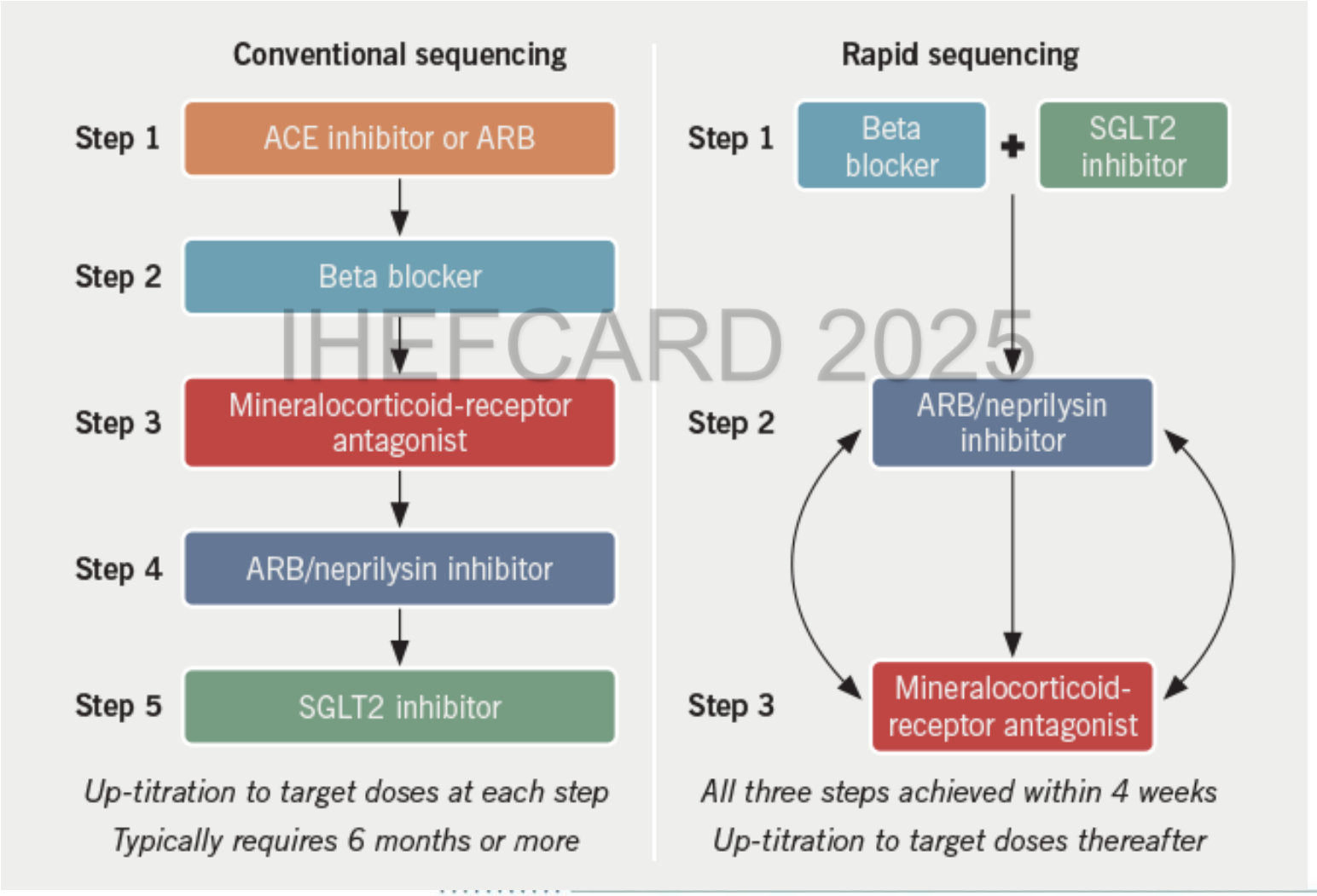
ESC 2021



American Heart Association. 2022



Evolving management of HFrEF



McMurray J, et al. Circulation. 2021

Principles of sequencing HF therapy

1. The efficacy of each foundation drug class is **independent** of treatment with other drug classes thus **the priority of drugs can be determined by considerations of relative efficacy, safety and ease-of-use**
2. **Low starting doses of each foundational drug has a meaningful therapeutic benefit**
3. The most important is the **4 pillars of HF therapy were started within 4 weeks as treatment act to reduce morbidity and mortality within 4 weeks of initiation**

How to optimize?
When to think of 2nd line therapy?

Management of HFrEF

To reduce mortality - for all patients

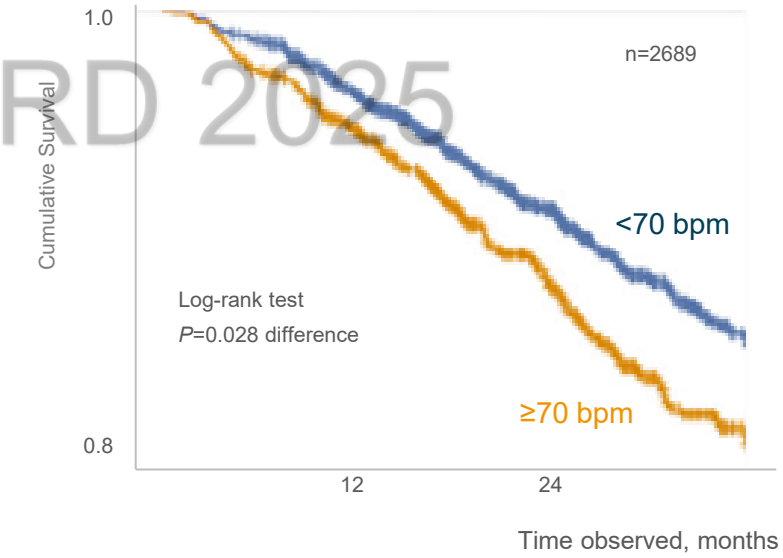
- ACE-I/ARNI
- BB
- MRA
- SGLT2i

Atrial fibrillation → Anticoagulation	*Atrial fibrillation* → Digoxin, PVI	*Coronary artery disease* → CABG	*Iron deficiency* → Ferric carboxymaltose
Aortic stenosis → SAVR/TAVI	*Mitral regurgitation* → TEE MV Repair	*Heart rate SR>70 bpm* → Ivabradine	*Black Race* → Hydralazine/ISDN	*ACE-I/ARNI intolerance* → ARB

Despite wide use of beta-blockers, heart rate remains elevated even in well-managed patients

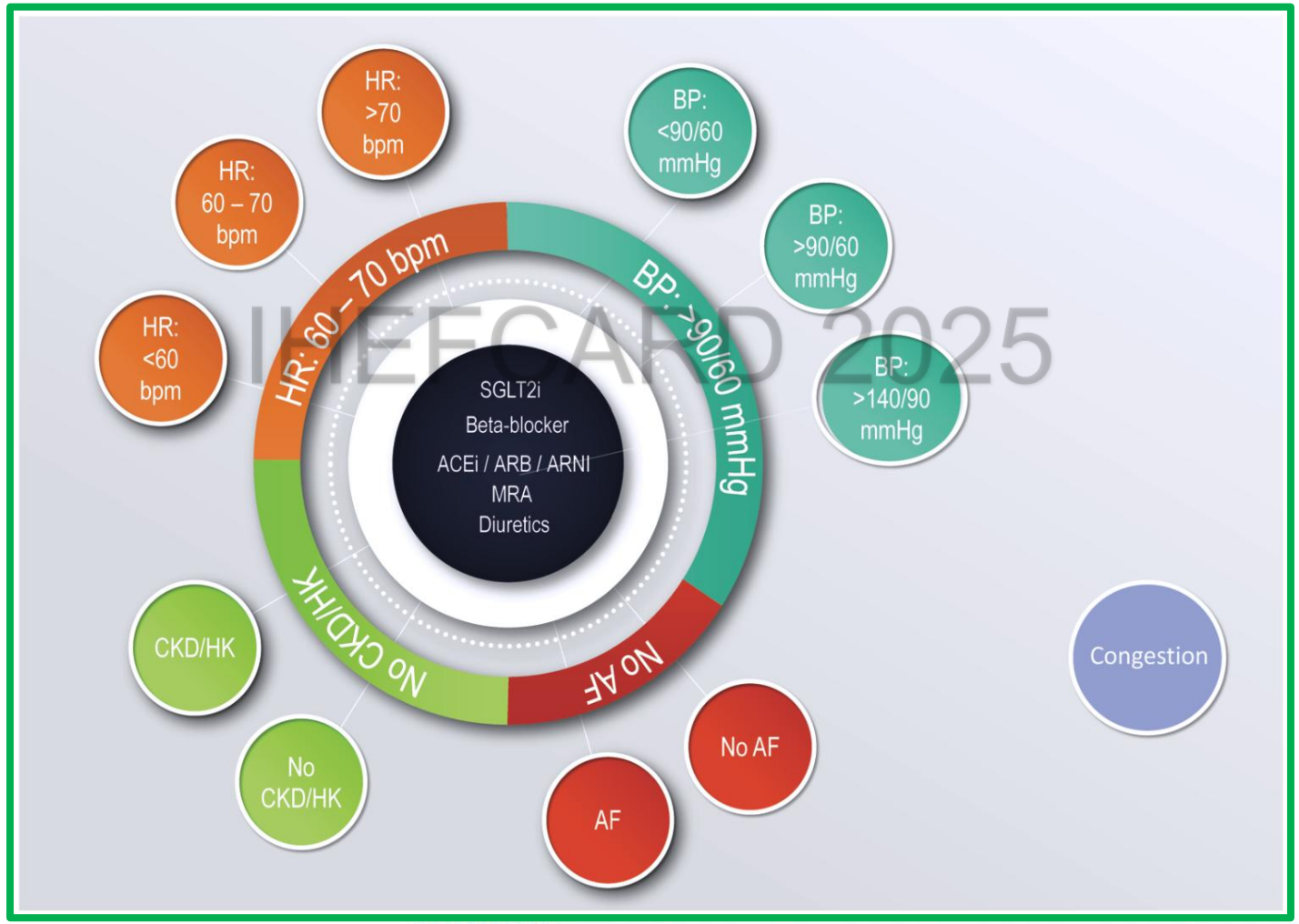
1 out of **3** patients had a resting **HR≥70 bpm**

95.3% Received a β-blocker at stable follow-up

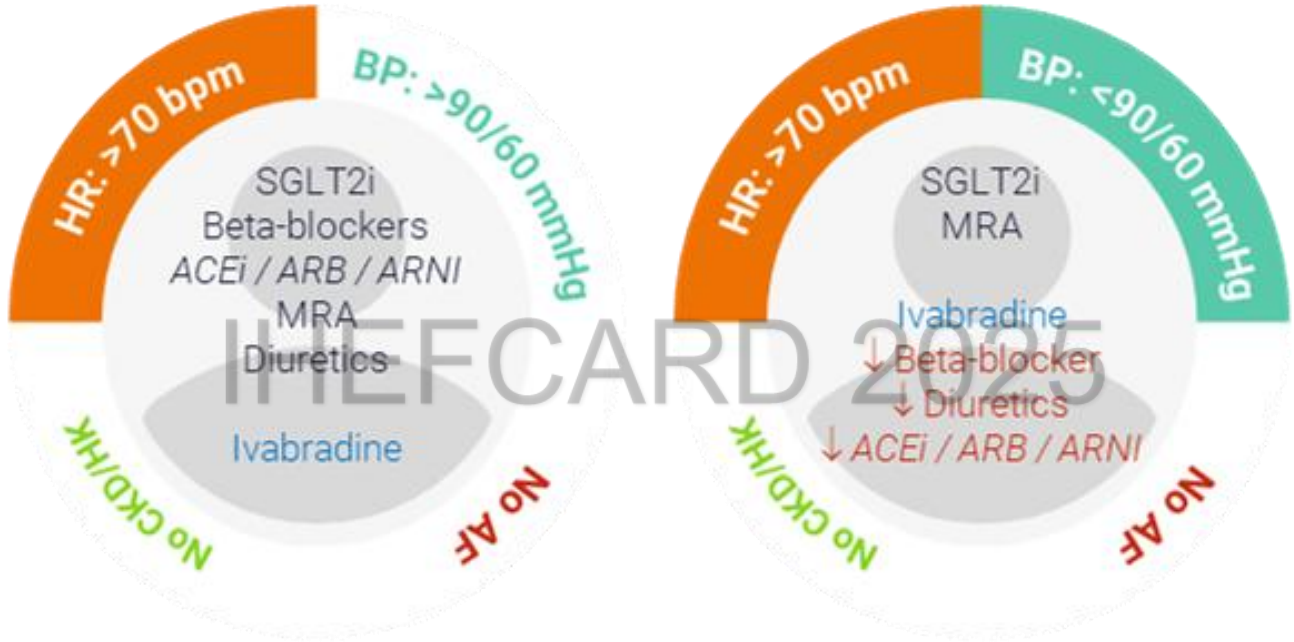


Eriksen-Volnes T et al. Biomed Hub. 2020;5(1):9-18

Not All Patients Are the Same
The Importance of Individualized Heart Failure Treatment



Rosano, et al. Eur J of Heart Fail, Vol. 23, Issue 6. 2021



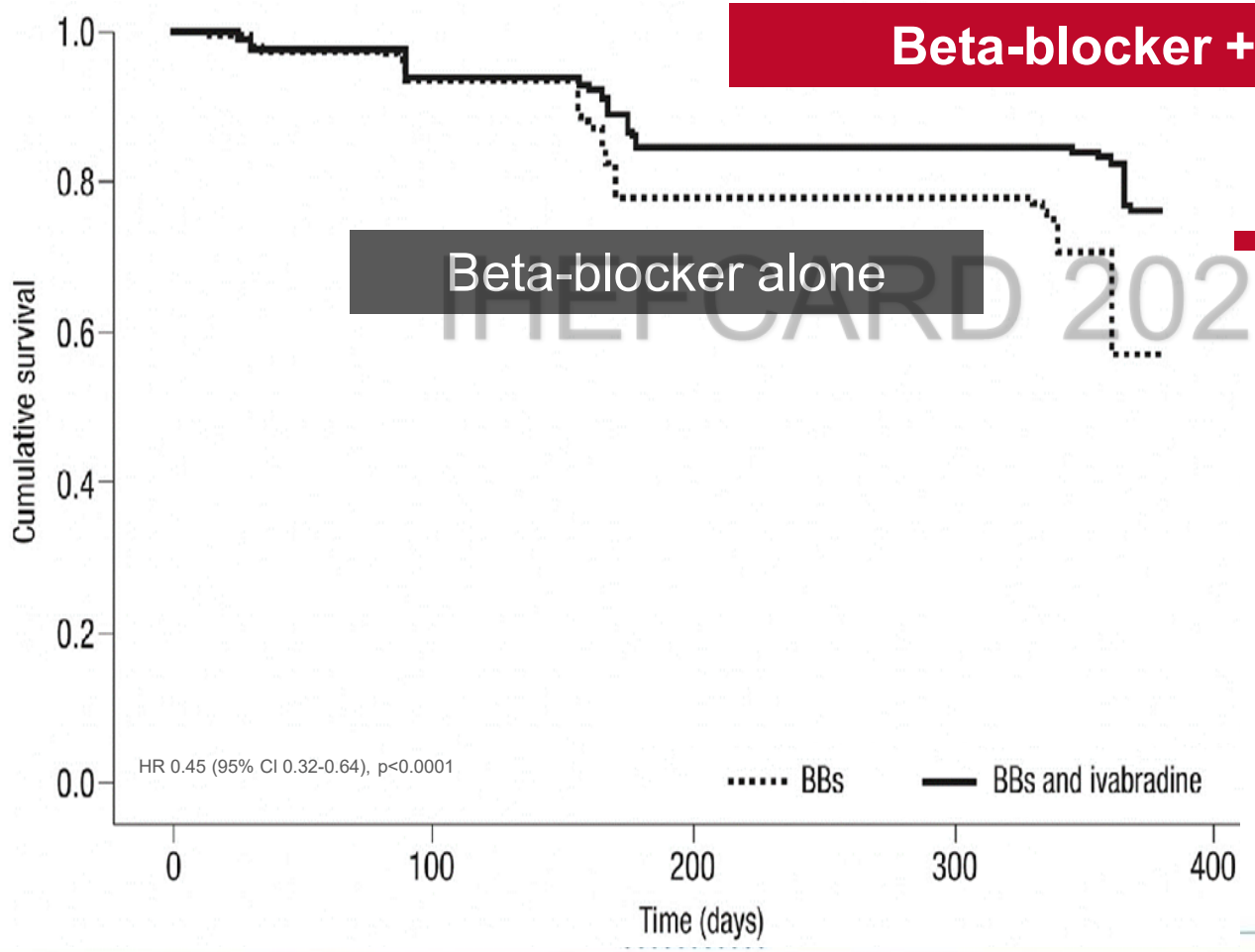
Strategy in patients with elevated heart rate

Lower heart rate is associated with improved survival in HFrEF and sinus rhythm, and the most favorable outcome is observed with a heart rate around 60 bpm

Rosano, et al. Eur J of Heart Fail, Vol. 23, Issue 6. 2021

Earlier initiation of Ivabradine with BB reduced all cause mortality or HF re-hospitalization

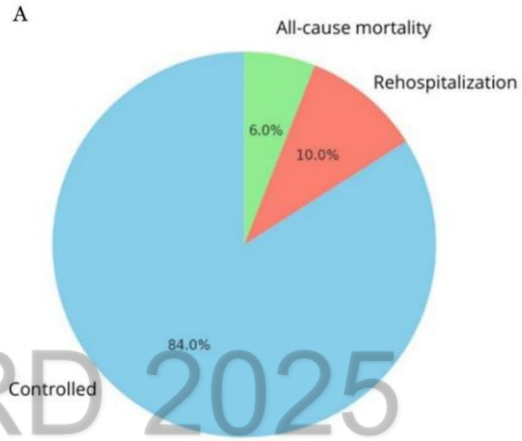
All cause mortality or HF re-hospitalization

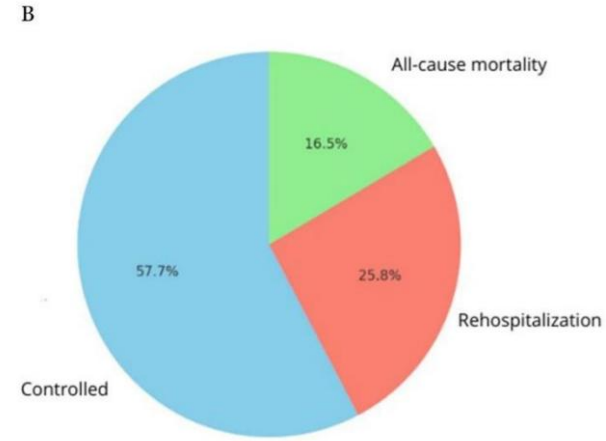


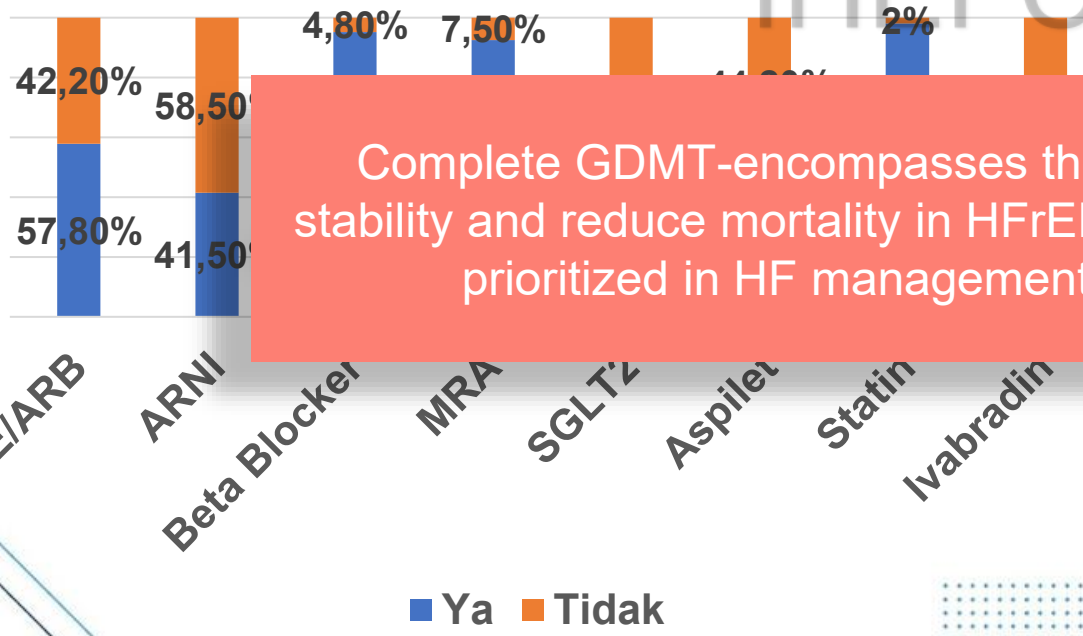
Lopatin YM et al. Int J Cardiol. 2018;260:113-117.

Data from Adam Malik Hospital Medan

A prospective cohort study was conducted from 2023 to 2024, to evaluate the impact of comprehensive GDMT implementation (the 4 pillars) on rehospitalization and mortality rates in HFrEF patients.



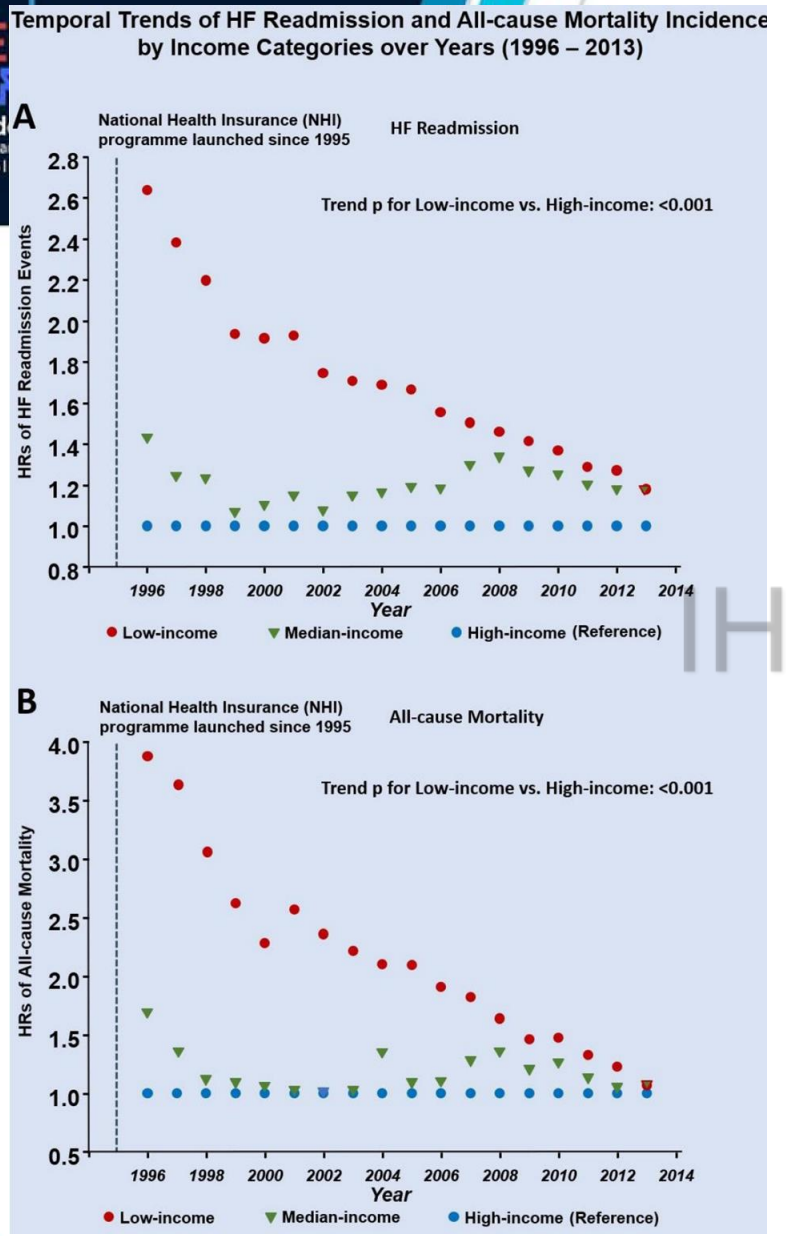




Complete GDMT-encompasses the 4 pillars class-significantly improves clinical stability and reduce mortality in HFrEF patients. Optimizing implementation should be prioritized in HF management, particularly in resource-limited settings

...ete (B) Guideline-Directed

				Nilai Odds Ratio dengan 95% CI
			<0.001*	3.844 (1.632-9.053)
GDMT tidak lengkap	56 (57.7%)	41 (42.3%)		



Original research

Income level and outcomes in patients with heart failure with universal health coverage

Chung-Lieh Hung ,[1,2,3] Tze-Fan Chao,[4,5] Cheng-Huang Su,[1,2,3] Jo-Nan Liao,[4,5] Kuo-Tzu Sung,[1,2,3] Hung-I Yeh,[1,2,3] Chern-En Chiang[4,5,6,7]

Objective We aimed to investigate the influence of income level on guideline-directed medical therapy (GDMT) prescription rates and prognosis of patients with heart failure (HF) following implementation of a nationwide health insurance programme.

Methods A total of 633 098 hospitalised patients with HF from 1996 to 2013 were identified from Taiwan National Health Insurance Research Database.

Conclusions Low-income patients with HF had nearly a twofold increase in the risk of in-hospital mortality and postdischarge events compared with the high-income group, partly due to lower GDMT utilisation. The differences between postdischarge HF outcomes among various income groups appeared to mitigate over time following the implementation of nationwide universal health coverage.

Hung C-L, et al. Heart 2021;107:208–216. doi:10.1136/heartjnl-2020-31679

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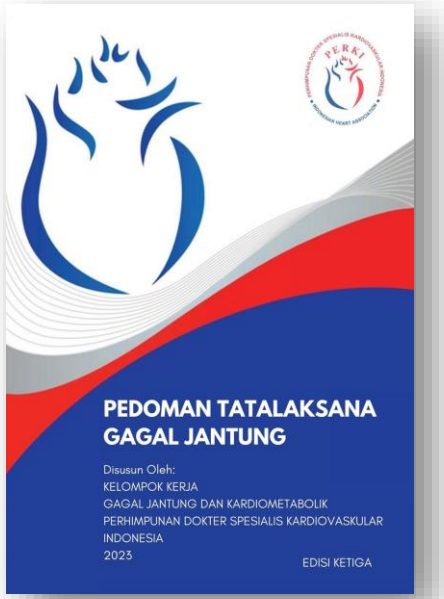

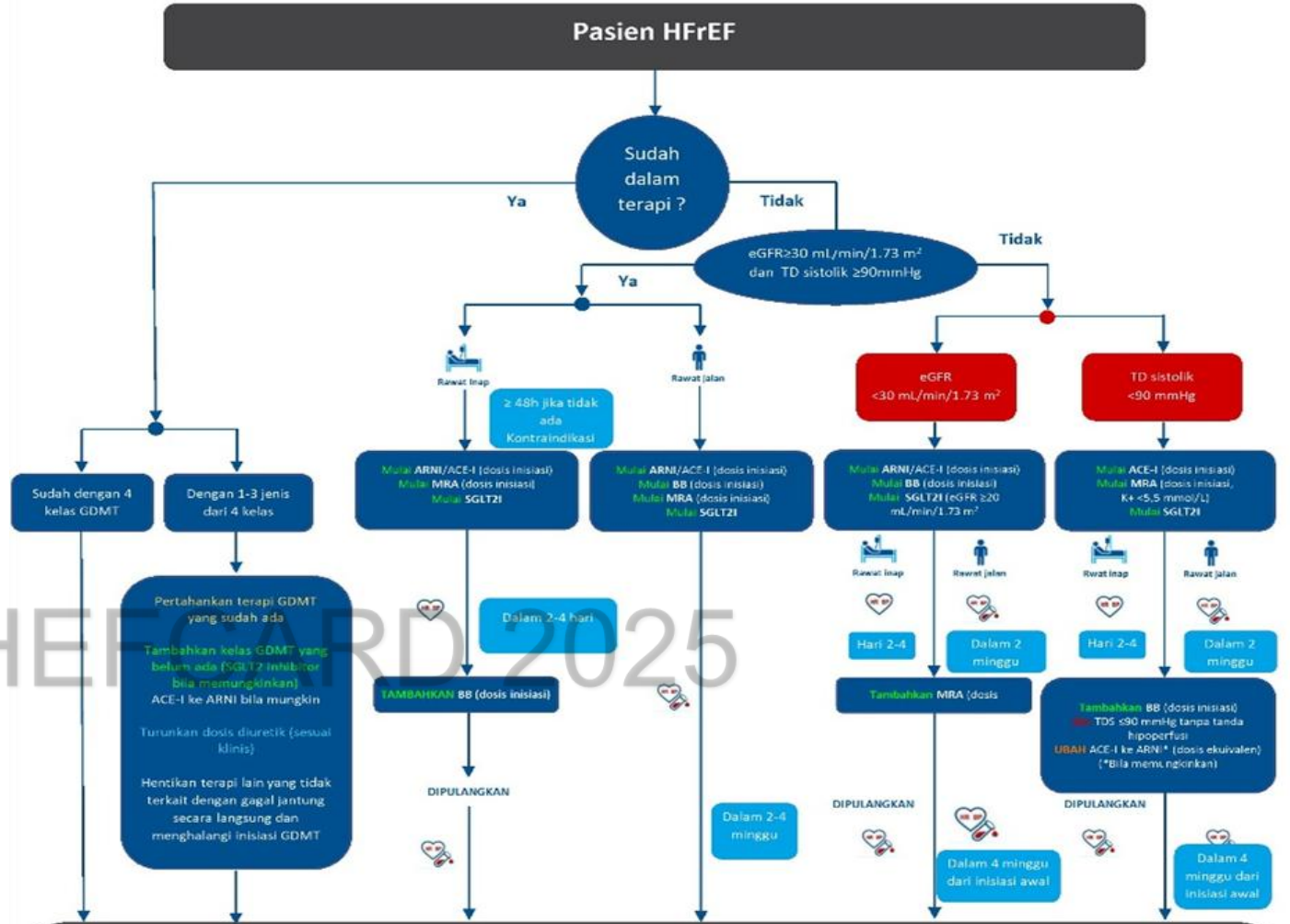

TITRASI TERAPI GDMT

- Titrasi naik setiap 2-4 minggu sampai dengan dosis yang dapat ditoleransi pasien (lebih cepat lebih baik)
- Titrasi 1-2 jenis obat bersamaan (dapat dilakukan titrasi 3 jenis obat gagal jantung bersamaan pada pasien dengan fungsi ginjal baik dan perfusi baik).
- Sesuaikan dosis diuretik sesuai klinis.
- Evaluasi fungsi ginjal dan elektrolit setelah melakukan titrasi naik kelas obat (bila memungkinkan paling tidak dalam 4 minggu dilakukan evaluasi).
- Telemonitoring setelah titrasi naik obat (kolaborasi perawat gagal jantung).
- Pada usia ≥75 tahun, dosis inisiasi diberikan lebih rendah dan titrasi naik lebih perlahan.

Lakukan pemeriksaan fungsi ginjal dan elektrolit setiap setelah inisiasi atau titrasi naik kelas obat, 3-5 hari pada pasien rawat inap, setidaknya dalam 4 minggu untuk pasien rawat jalan

Monitor tekanan darah dan laju nadi setelah melakukan inisiasi atau titrasi naik kelas obat

0811-1900-8855 | pokjahf@gmail.com | @ina.hf |

So, how to manage HF patients in JKN era – how to stay rational?

Start all 4 classes of GDMT at diagnosis, and when to think 2nd line therapy

In-hospital initiation and rapid uptitration of GDMT following discharge (STRONG-HF)

Real time performance feedback (GWTG-HF, IMPROVE-HF)

HF disease management program

Enhanced patient's education and shared decision making

Thank You

First Announcement

MECUP 2025
THE 16th Cardiovascular Event in Sumatera

Heart Health Frontier:
Innovations through multidisciplinary collaboration

4th - 6th July 2025 | Adimulia Hotel, Medan

Symposium | Workshop | SmartMed Village

SmartCardio Cup | Call for Abstract

Recorded Case Session

SKP Kemenkes

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