



The 5th Indonesian  
Symposium on Heart Failure and  
Cardiometabolic Disease



Indonesian Working Group  
on Heart Failure  
and Cardiometabolic Disease



*Patient Centric Approaches;*

# Personalising HF Treatment

Leonardo Paskah Suciadi, MD, FIHA, FAPSC, FESC, FHFA

June, 12-14 2025

Sheraton Grand Jakarta Gandaria City, Jakarta, Indonesia

☎ 0811-1900-8855 | ✉ [scientific\\_ihefcard@inahfcarmet.org](mailto:scientific_ihefcard@inahfcarmet.org) | 📷 [@ina.hf](https://www.ina.hf) | [ihefcard.com](http://ihefcard.com)

# Definition of Personalized Medicine

- The process of **tailoring medical decisions** and **interventions** to an individual person
- It is considered as an extension of traditional approaches, equipped with tools or algorithm that are **more precise**
- Although there are common risk factors, **we are all unique**, and everyone's genetic makeup and environment are slightly different.

<https://www.bhf.org.uk/information-support>



**Risk Assessment:**  
Genetic testing to reveal predisposition to disease



**Prevention:**  
Behavior/Lifestyle/  
Treatment intervention  
to prevent disease



**Detection:**  
Early detection of disease  
at the molecular level



**Diagnosis:**  
Accurate disease diagnosis  
enabling individualized  
treatment strategy



**Treatment:**  
Improved outcomes  
through targeted  
treatments and reduced  
side effects



**Management:**  
Active monitoring of  
treatment response and  
disease progression

## One-size fits-all medicine



## Stratified medicine



### Stratification

Patients are grouped  
by: Disease  
Subtypes  
Demographics  
Clinical features  
Biomarkers

### Personalisation

Patient individual:  
Preferences,  
Clinical features  
Medication history  
Environment  
Behaviours & habits  
Biomarker

## Precision medicine

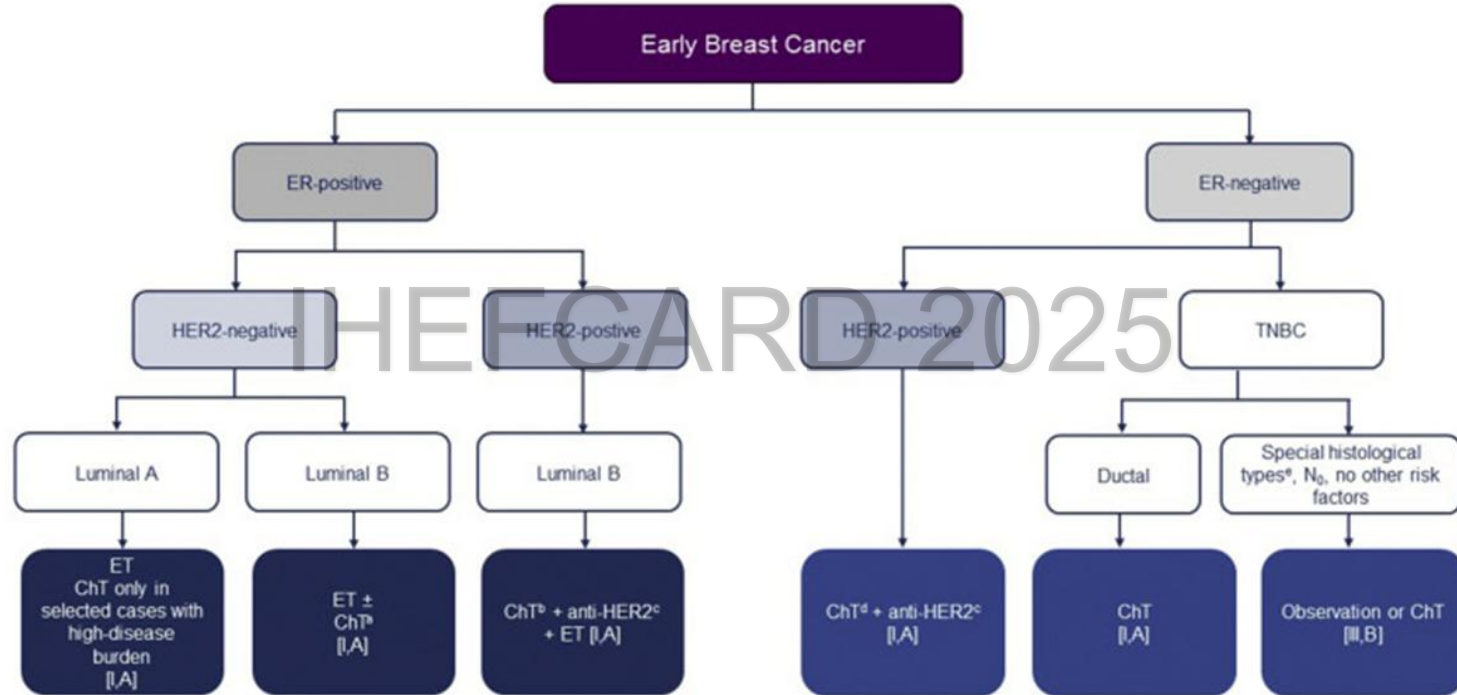


Precision medicine

**Best clinical  
outcomes &  
minimize side  
effects**

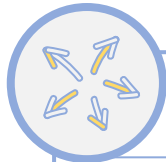


# Learning from medical oncology approaches



Park YH, Senkus-Konefka E, Im SA, et al. *Annals of Oncology*. 2020; 31(4): 451 - 469

# Principles and pathophysiologic targets of HFrEF pharmacotherapy



## 5 PATHWAYS

Modulation of five pathways shown to improve outcomes in the general HFrEF population

**Angiotensin 2**

**Norepinephrine**

**Aldosterone**

**Neprilysin**

**SGLT**



## 4 DRUGS

**ARNi**

May start with ACEi/ARB or ARNi in *de novo*. May use ACEi/ARB if cost or availability concerns

**Beta-blockers**

Carvedilol, bisoprolol, metoprolol succinate

**MRAs**

**SGLT2i**

Dapagliflozin, empagliflozin



## 3 OTHERS

Three additional pathways shown to improve outcomes in specific populations

**Ivabradine**

NSR HR  $\geq 70$  bpm

**Hydralazine/nitrate**

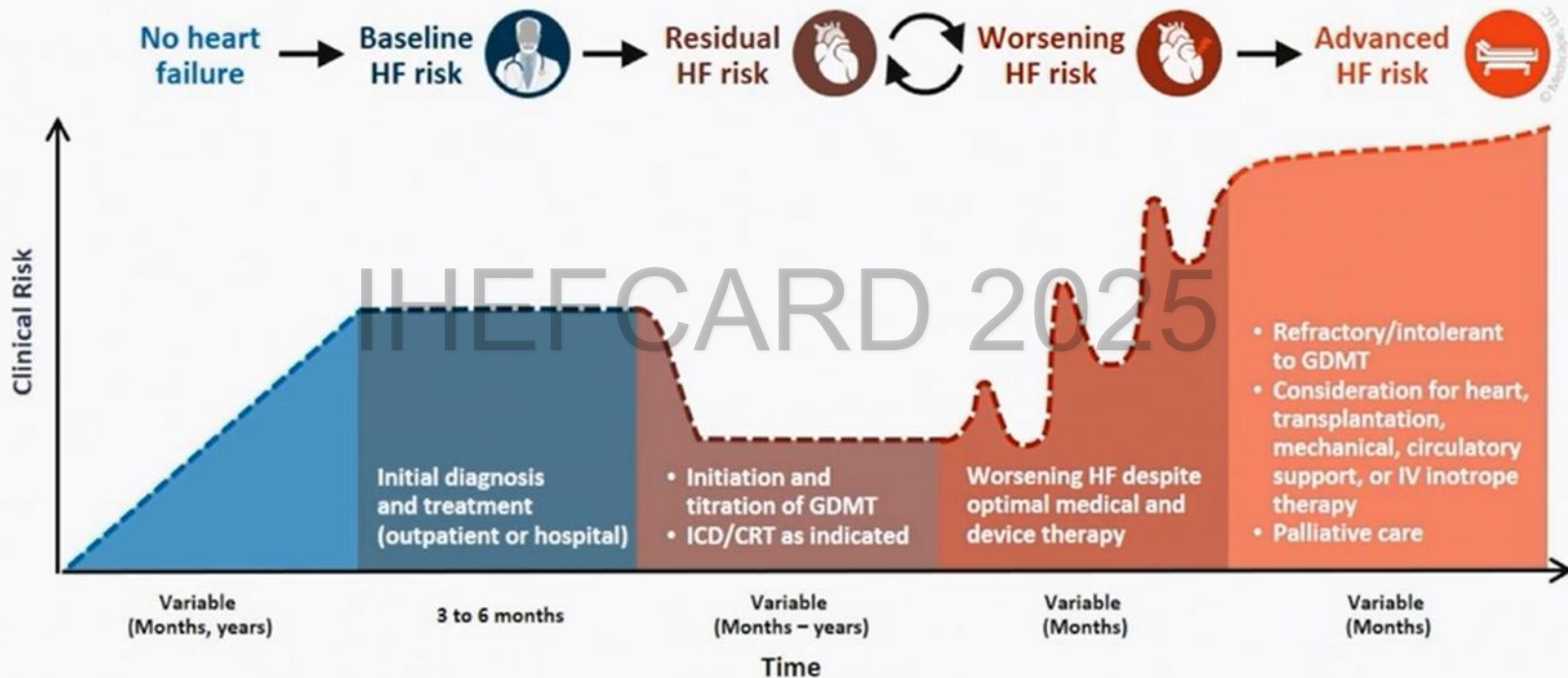
Self-identified Blacks

**Vericiguat**

Worsening HF

Tolerability, availability, costs, patient preference and other considerations may impact choices, doses and sequences of therapies – but pharmaco-pathophysiologic rationale suggests that **all attempts should be made to modulate all five pathways.**

# Personalizing in staging



Adapted from Greene SJ et al. *Circ Heart Fail.* 2020.

# Diagnose and Treat Specific Etiology

## Stage C HFrEF

### Treat Specific Etiology

BB

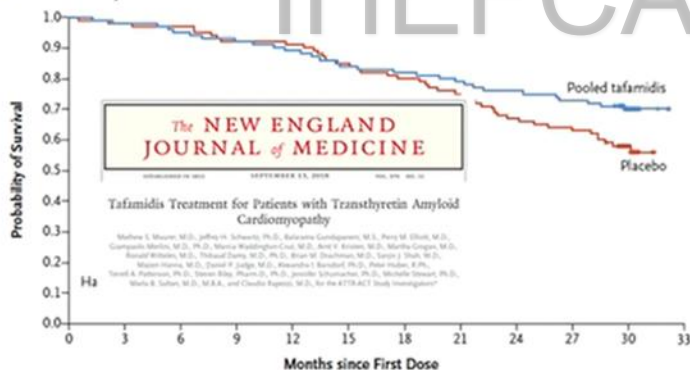
ACEi/ARB  
/ARNi

MRA

SGLT2i

- HTN
- Ischemic Heart Disease
- Amyloidosis
- Valvular Heart disease
- Hypertrophic CMP
- Chemotherapy ,
- COVID-19, Viral
- Illicit Drugs / ETOH
- Takotsubo/Tachycardia
- Metabolic
- MINOCA /Microvascul.
- RVF, PAH, RV Pacing
- Genetic CMP
- Peripartum

Analysis of All-Cause Mortality



Maurer et al. N Engl J Med 2018; 379:1007-1016



Bozkurt, et al. Universal Definition and Classification of Heart Failure, Journal of Cardiac Failure, 2021,  
Bozkurt et al. Circulation. 2016 Dec 6;134(23):e579-e646



# Heart Failure is a Systemic Disease Related With Multimorbidity

## Cardiovascular comorbidities in HF

Hypertension

Valvular heart disease

CAD

Arrhythmias eg AF

Stroke

## Non-cardiovascular comorbidities in HF

Diabetes

Iron deficiency & anaemia

Frailty, cachexia, sarcopenia

Obesity

Electrolyte disorders eg hyperkalaemia hypokalaemia

Lung disease eg COPD, sleep-disordered breathing

Hyperlipidaemia

Kidney dysfunction

Thyroid disorders

Depression

Infection

Erectile dysfunction

Gout and arthritis

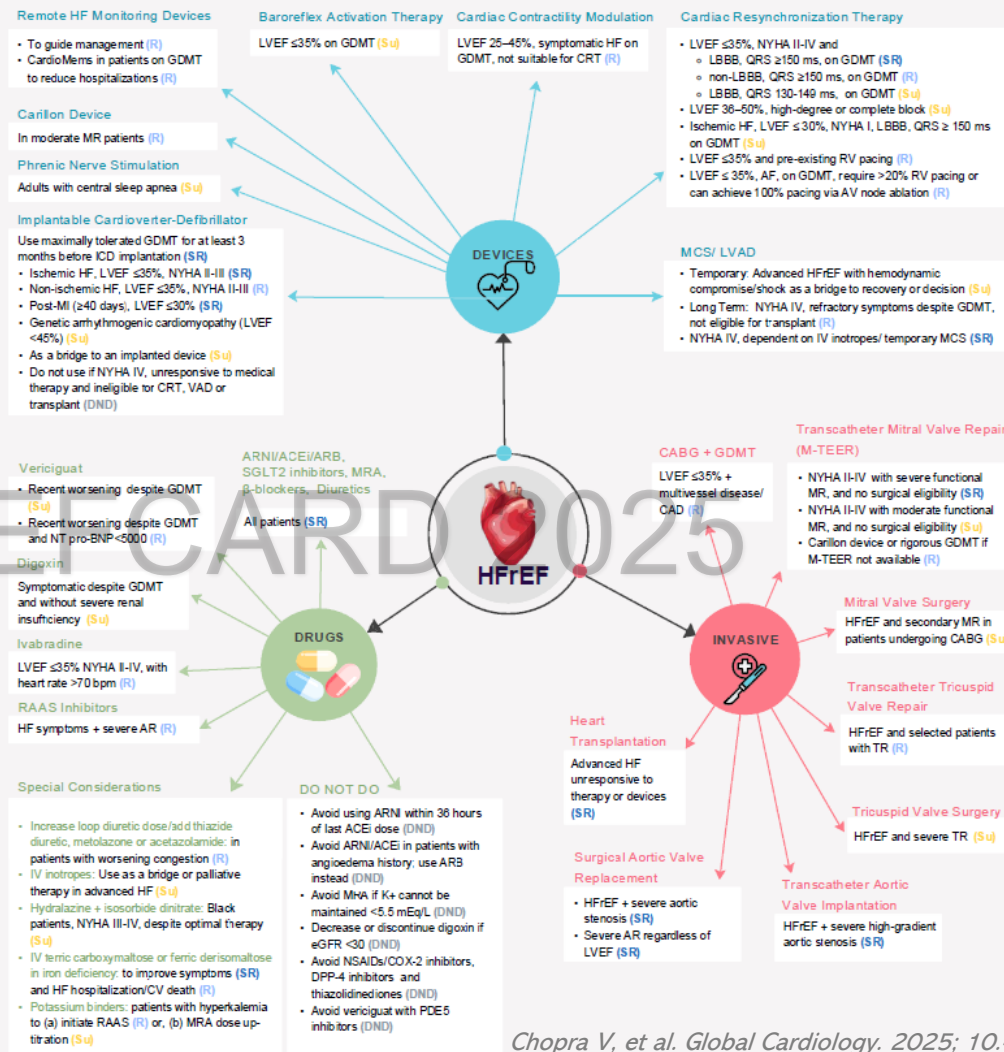
Cancer

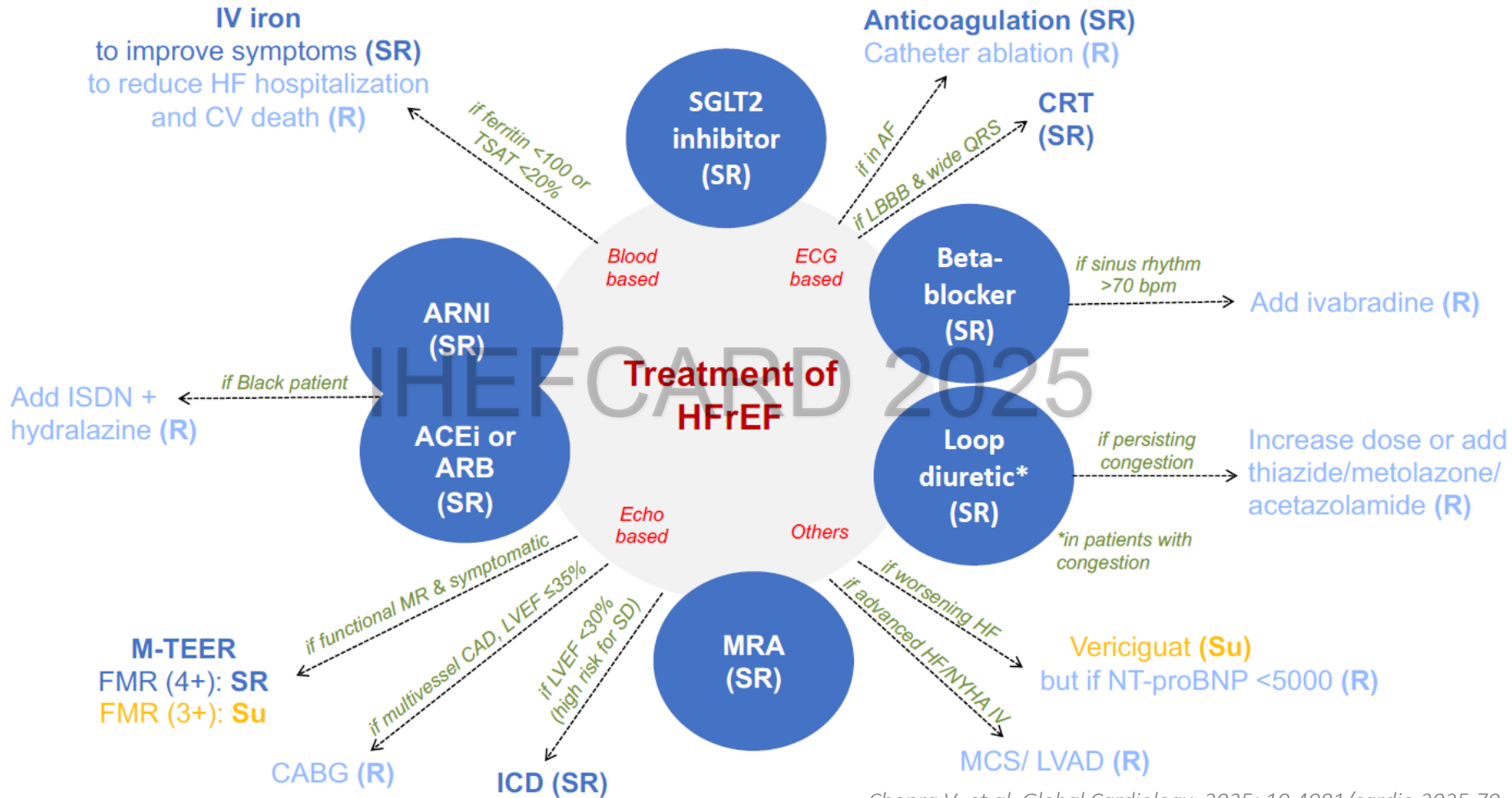
- 2021 ESC Guidelines identify a diverse set of overlapping comorbidities seen in HF
- Accumulating comorbidities and polypharmacy can be a burden for patients, and a management challenge for their treating physicians

McDonagh TA, et al. Eur Heart J. 2021;42:3599-726.



# Armamentarium that we have now





**Statins to control hyperlipidemia (SR)**  
**Control hypertension (SR)**

**GLP-1 RA (SR)**  
CPAP/BiPAP/Adaptive  
servo ventilation (**Su**)

**SGLT2  
inhibitor  
(SR)**

*for OSA*

*Sleep  
study*

*Others*

**ARNI  
(R)**

*for CV disease*

**ACEi or  
ARB  
(Su)**

**Treatment of  
HFpEF**

**Loop  
diuretic\*  
(SR)**

*if persisting  
congestion*

**Increase dose or  
add thiazide/  
acetazolamide (R)**

*\*in patients with  
congestion*

*Others*

*for obesity*

**GLP-1 RA (SR)**

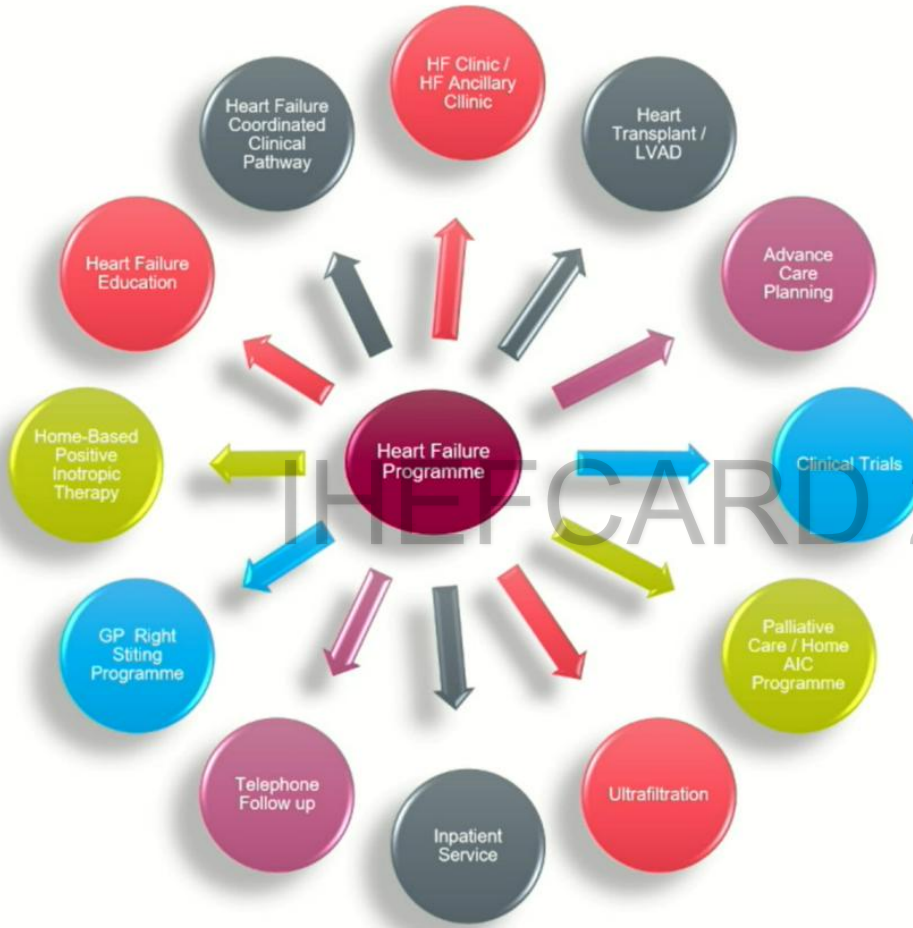
*for amyloidosis*

**MRA  
(R)**

*for HCM*

**Mavacamten/aficamten (R)**  
**Septal reduction therapy (R)**

**Tafamidis, acoramidis,  
vutrisiran (SR)**



**Complex disease requires comprehensive service**

**Multidisciplinary Personnels;**

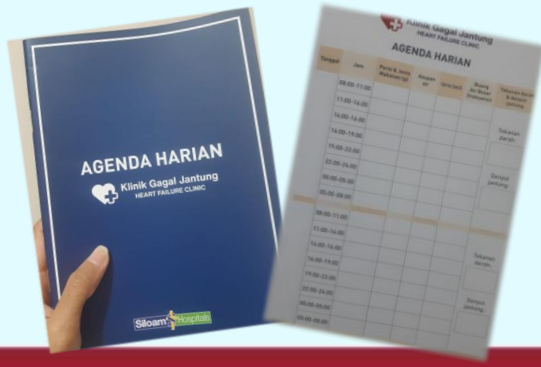
HF Cardiologists  
Other Sub-Cardiologists & Specialists  
HF nurses  
Dedicated GPs  
Nutritionists  
Clinical Pharmacists  
Physiotherapists  
Psychologists  
Social workers



# Heart Failure Ancillary Clinic

(est. 2021)

- MDT education (MO, nurses, pharmacy, nutritionist)
  - Home telemonitoring
  - Cardiometabolic clinic
    - INR monitoring
    - Research (e-MR)



Hotline:

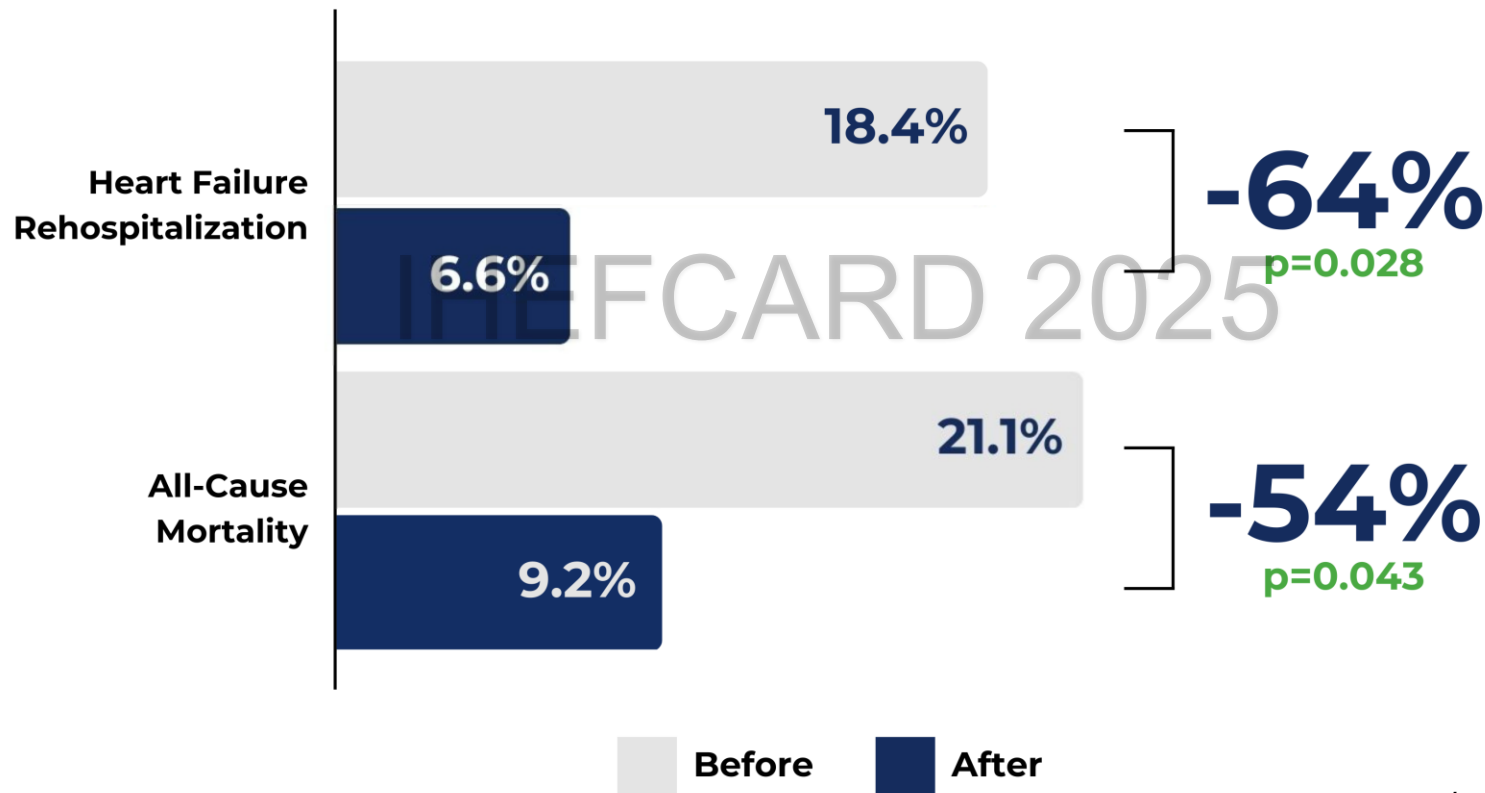


081510499636



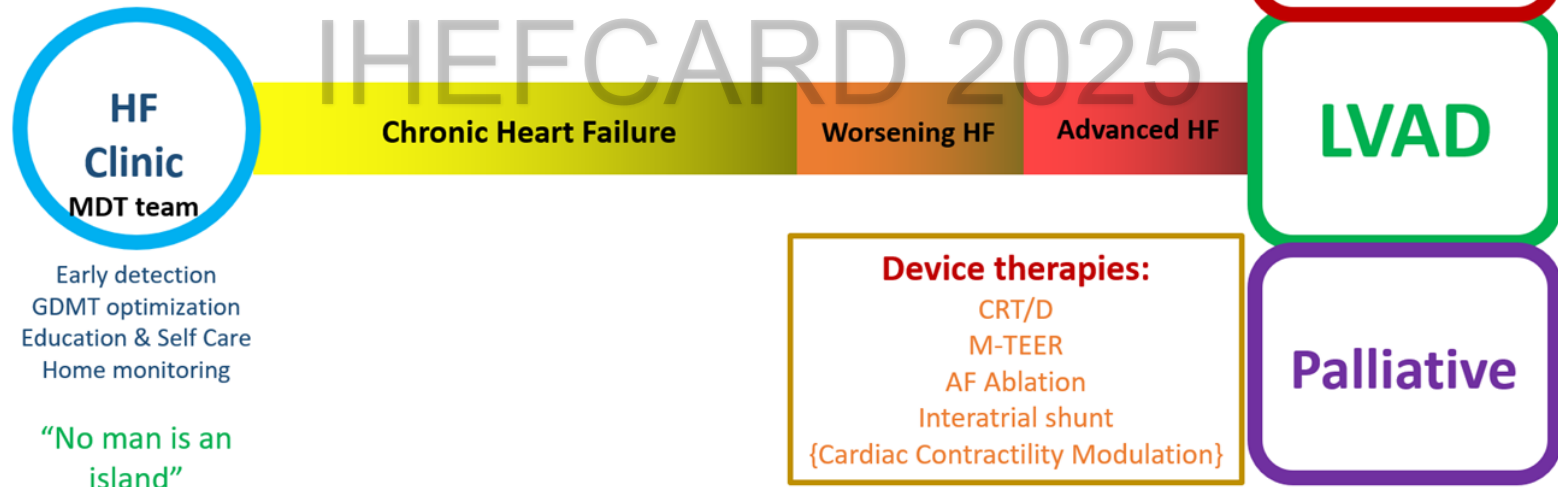
@klinikgagaljantung

# Six-Month Outcomes Before vs After Heart-Failure Ancillary Clinic

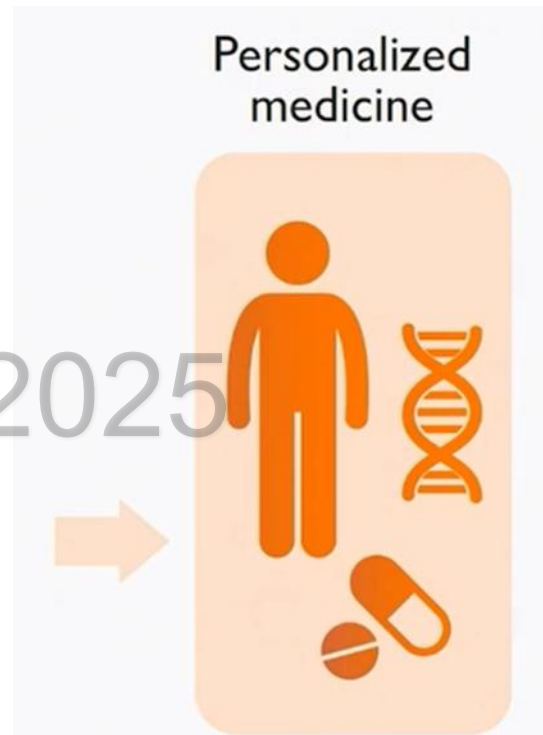
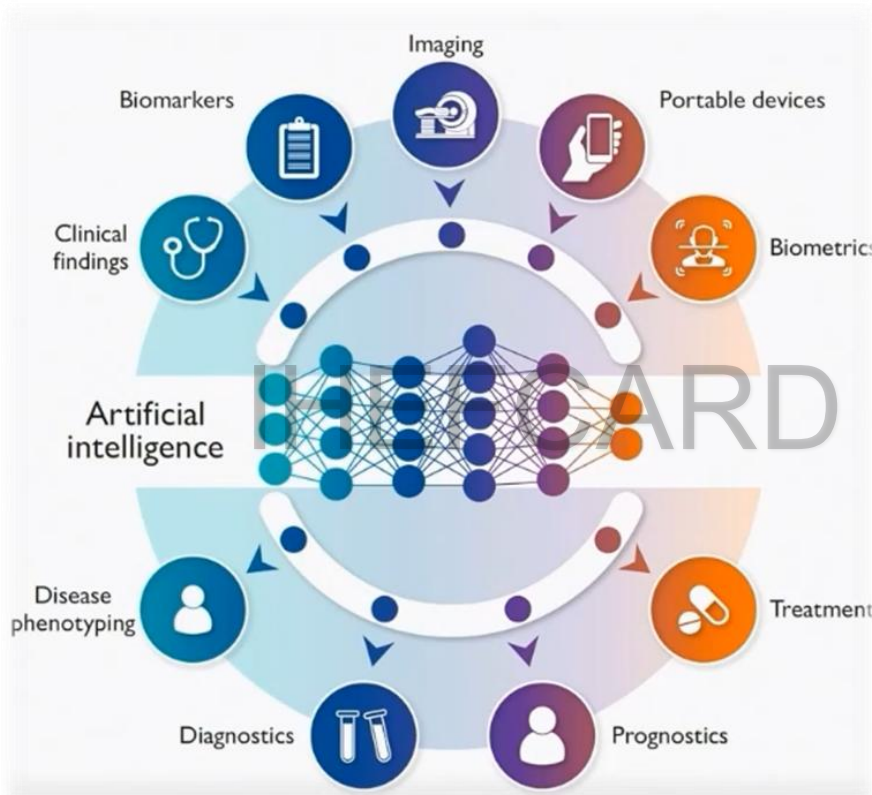


# HF Trajectory and Decisive Therapies

Synergy of Drugs, Interventions, and Devices



# The future: Artificial Intelligence



Faster, more consistent, more integrative,  
more precise

Luscher TF, et al. Eur Heart J. 2024



# Conclusion

- Personalized medicine is a way to enhance more **precise diagnosis** and management, aiming to **improve clinical outcomes**
- Tailoring treatment in HF can be based on **clinical stage, etiology, comorbidities, hemodynamic condition, biomarkers and other exams (ECG, imaging, etc)**
- **Multidisciplinary team base**, eg. HF Clinic, is the best approach to optimize HF service

5<sup>th</sup> HEF  
CARD

The 5th Indonesian  
Symposium on Heart Failure and  
Cardiometabolic Disease



June, 12-14 2025

Sheraton Grand Jakarta Gandaria City, Jakarta, Indonesia

☎ 0811-1900-8855 | ✉ [scientific\\_ihefcard@inahfcardmet.org](mailto:scientific_ihefcard@inahfcardmet.org) | 📷 [@ina.hf](https://www.instagram.com/ina.hf) | [ihefcard.com](http://ihefcard.com)



Indonesian Working Group  
on Heart Failure  
and Cardiometabolic Disease

