

7th Advances in Heart Failure 2024

10 e 11 de Outubro

FACULDADE DE MEDICINA DA UNIVERSIDADE DO PORTO

Guia Prático de Abordagem da Insuficiência Cardíaca Aguda

- Estratégia diagnóstica e terapêutica na admissão

NEIC & GEIC

Elisabete Martins

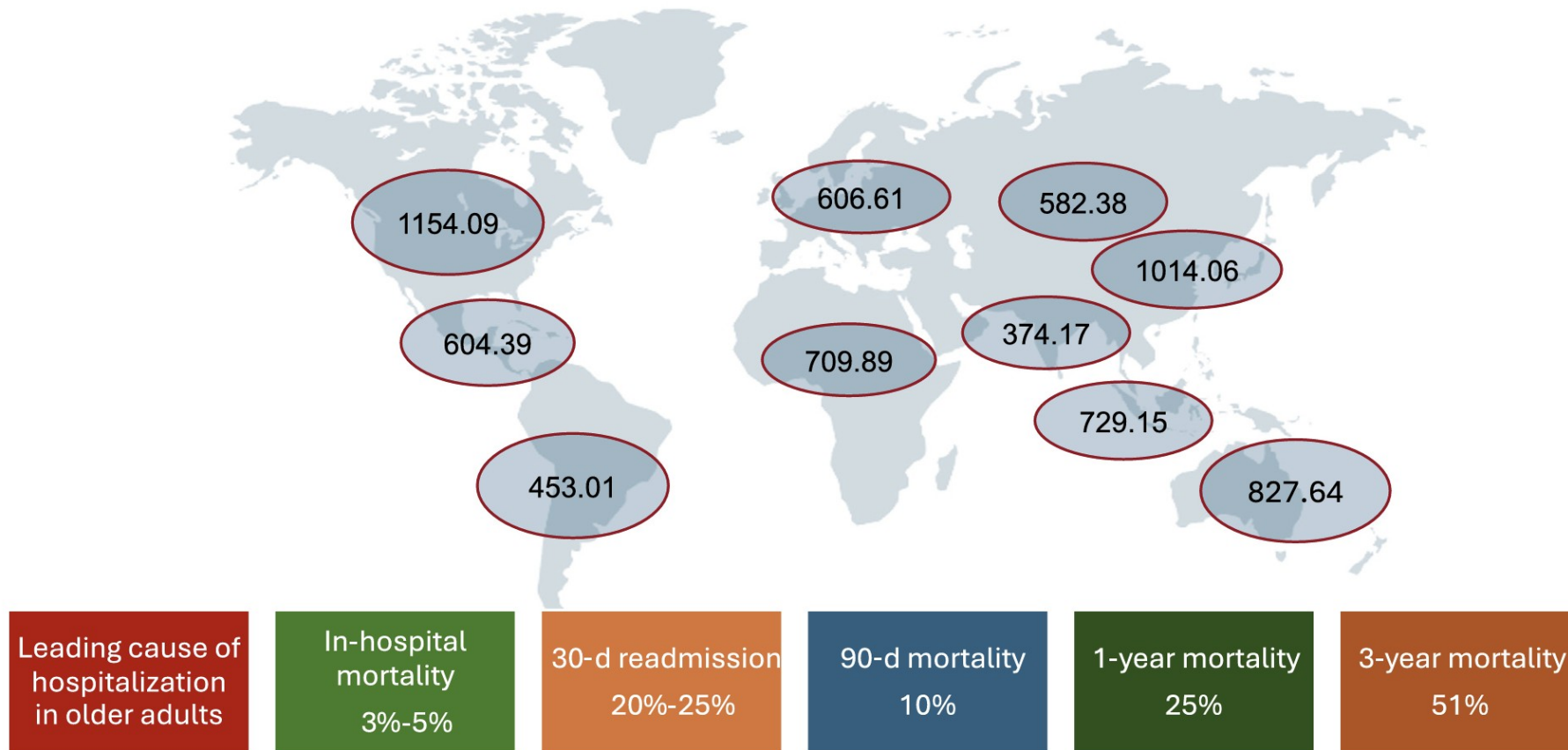


ACUTE HEART FAILURE

- **New onset or worsening of symptoms and/or signs of heart failure requiring urgent medical assessment.**

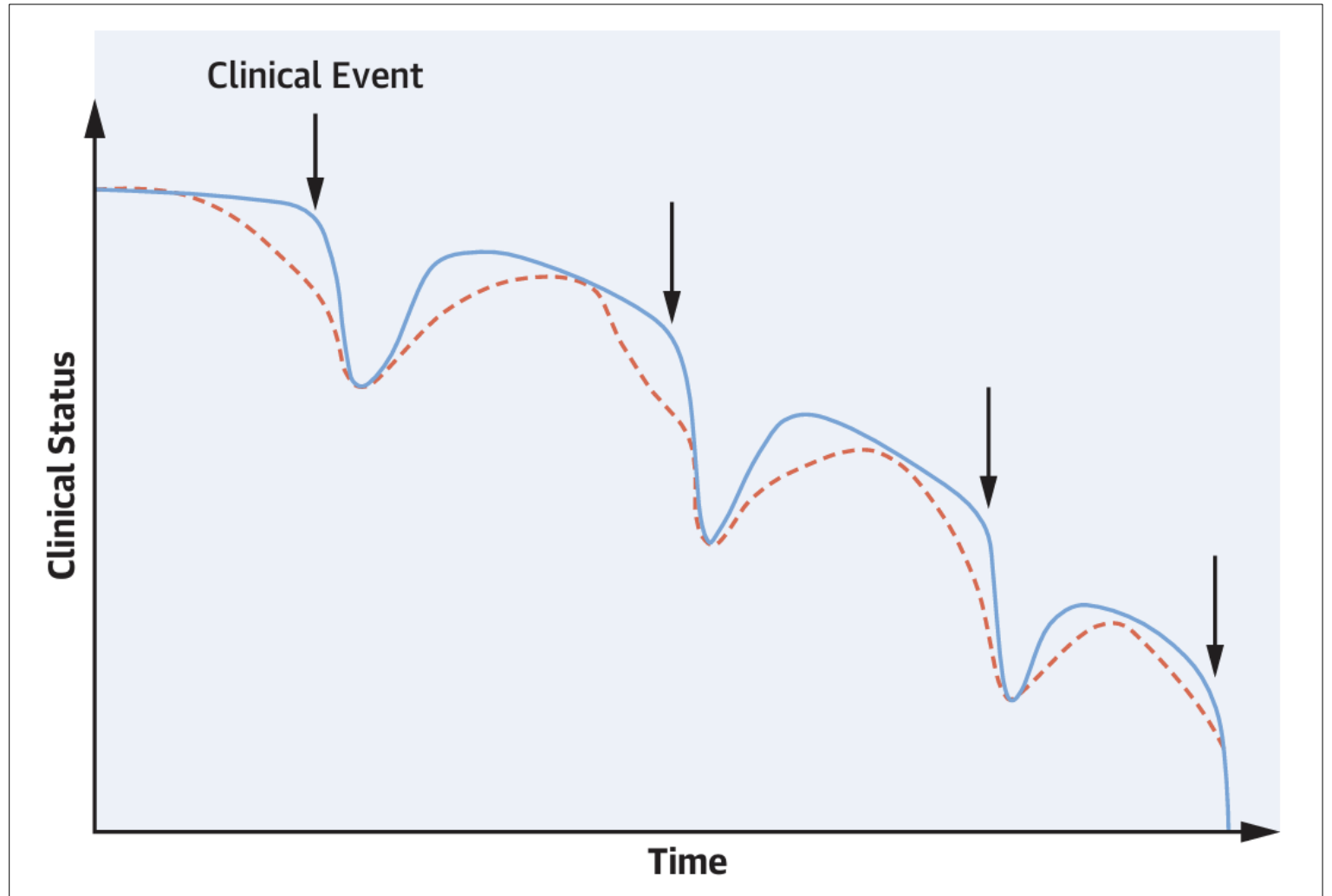
Patients need immediate HF-directed treatment and frequently unplanned hospitalization

FIGURE 1 Global Burden of Heart Failure



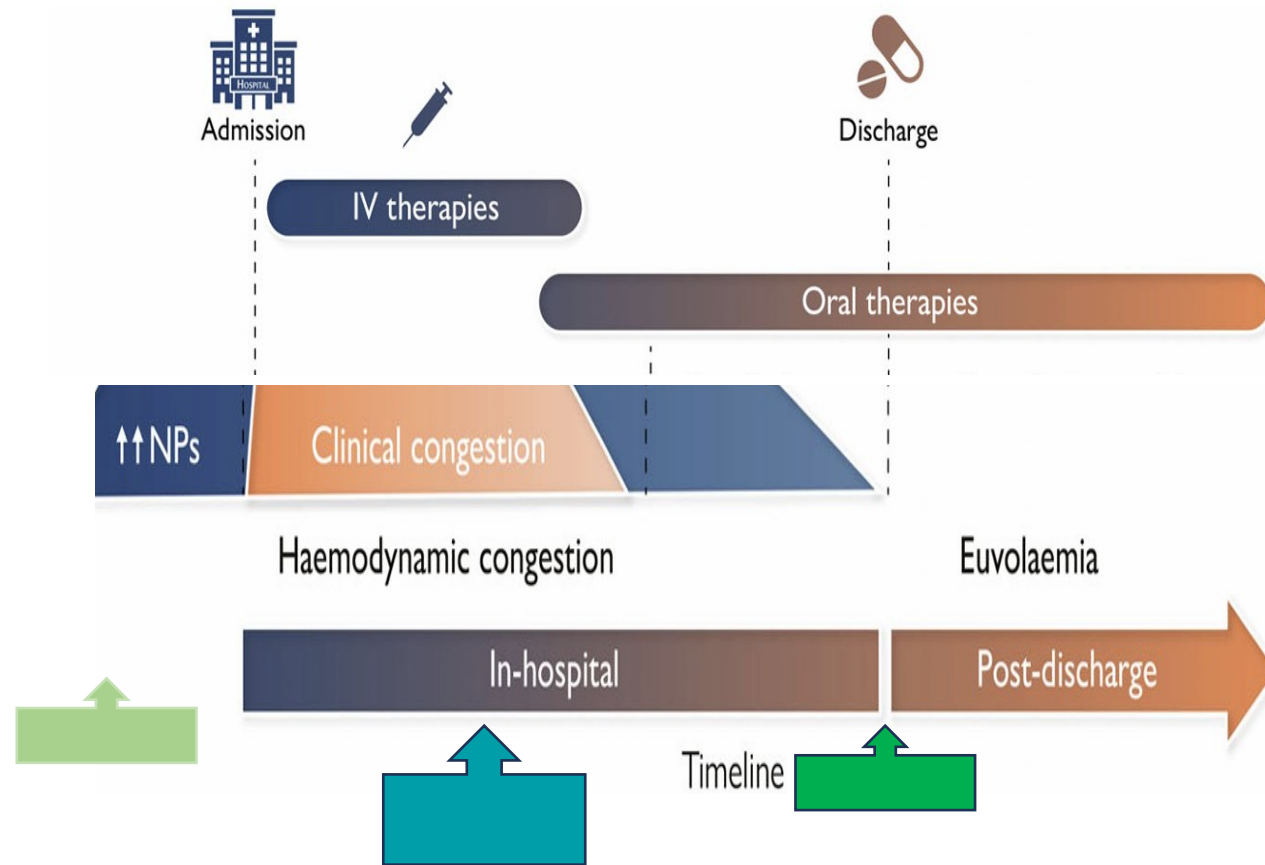
Hospitalisation for worsening HF is a critical point in the disease trajectory and provides an opportunity to review and optimise HF therapies

ACUTE HEART FAILURE AND PROGNOSIS



J Am Coll Cardiol. 2023;81(4):413-424.

Acute heart failure: *new evidence* changing the prognosis



Journey of the hospitalized patient with heart failure

ADMISSION (Immediate)

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graph TD; A[ADMISSION (Immediate)] --> B[STABLE PHASE (Intermediate)]; B --> C[PRÉ-DISCHARGE AND TRANSITION OF CARE];
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STABLE PHASE
(Intermediate)

PRÉ-DISCHARGE AND
TRANSITION OF CARE

ADMISSION



Rapid diagnosis of Acute Heart Failure



Determine the clinical presentation



Identification of acute causes (or triggering factors)



Rapid initiation of treatment

ADMISSION

- **Rapid diagnosis of Acute Heart Failure**

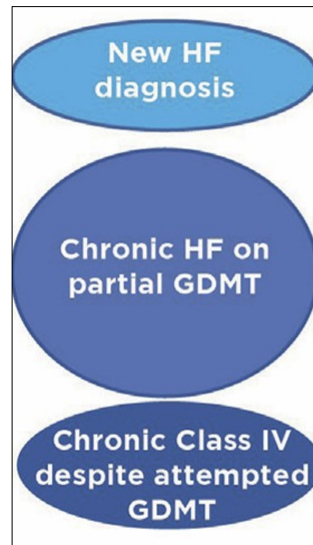


Heart Failure Fast Track (triage) to reduce “door-to-furosemide time”

Manchester discriminators: *dyspnea, edema, hyper/hypotension, low SO₂%*

ADMISSION

Clinical presentations :



- **Acute decompensated heart failure (50-70%)**
(»Wet and Warm)
- Acute pulmonary oedema
- Isolated right ventricular failure
- Cardiogenic shock

ADMISSION

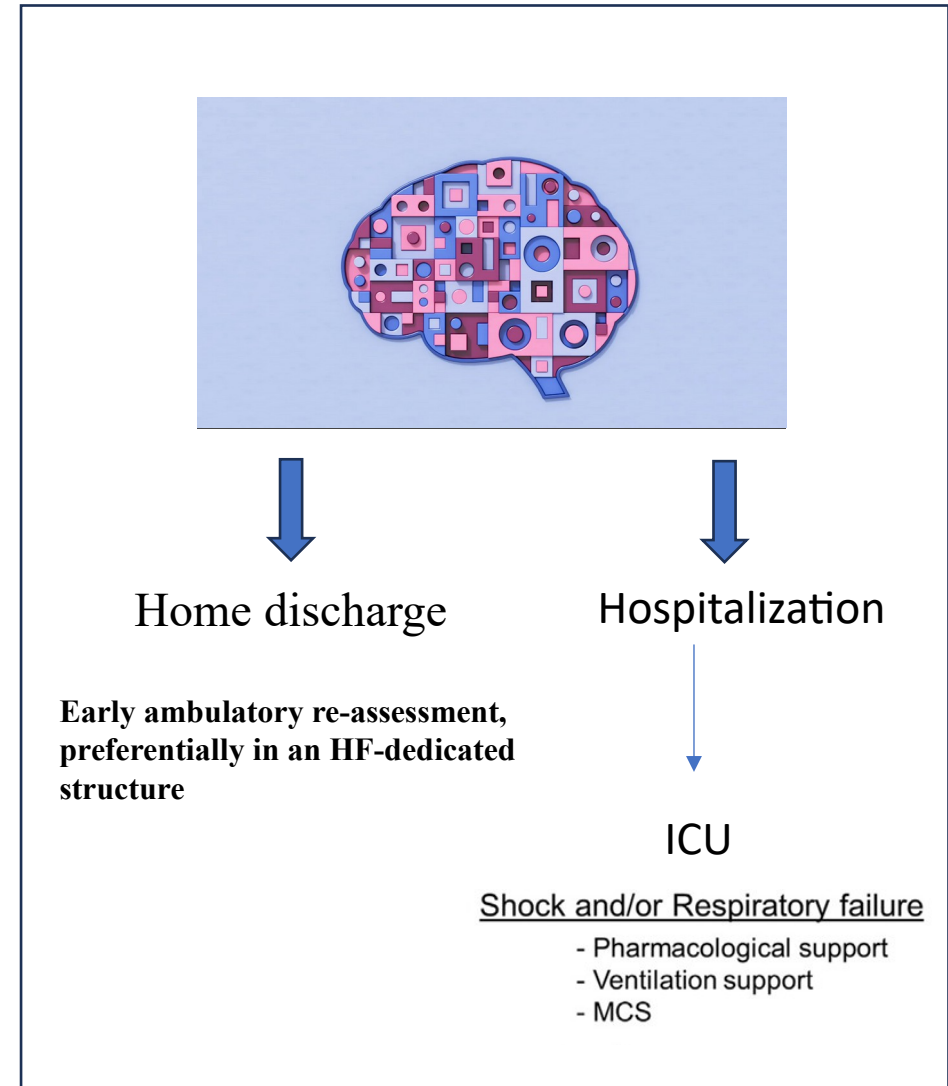
- **Assessment of severity, cause and response to immediate treatments**

Care setting decision

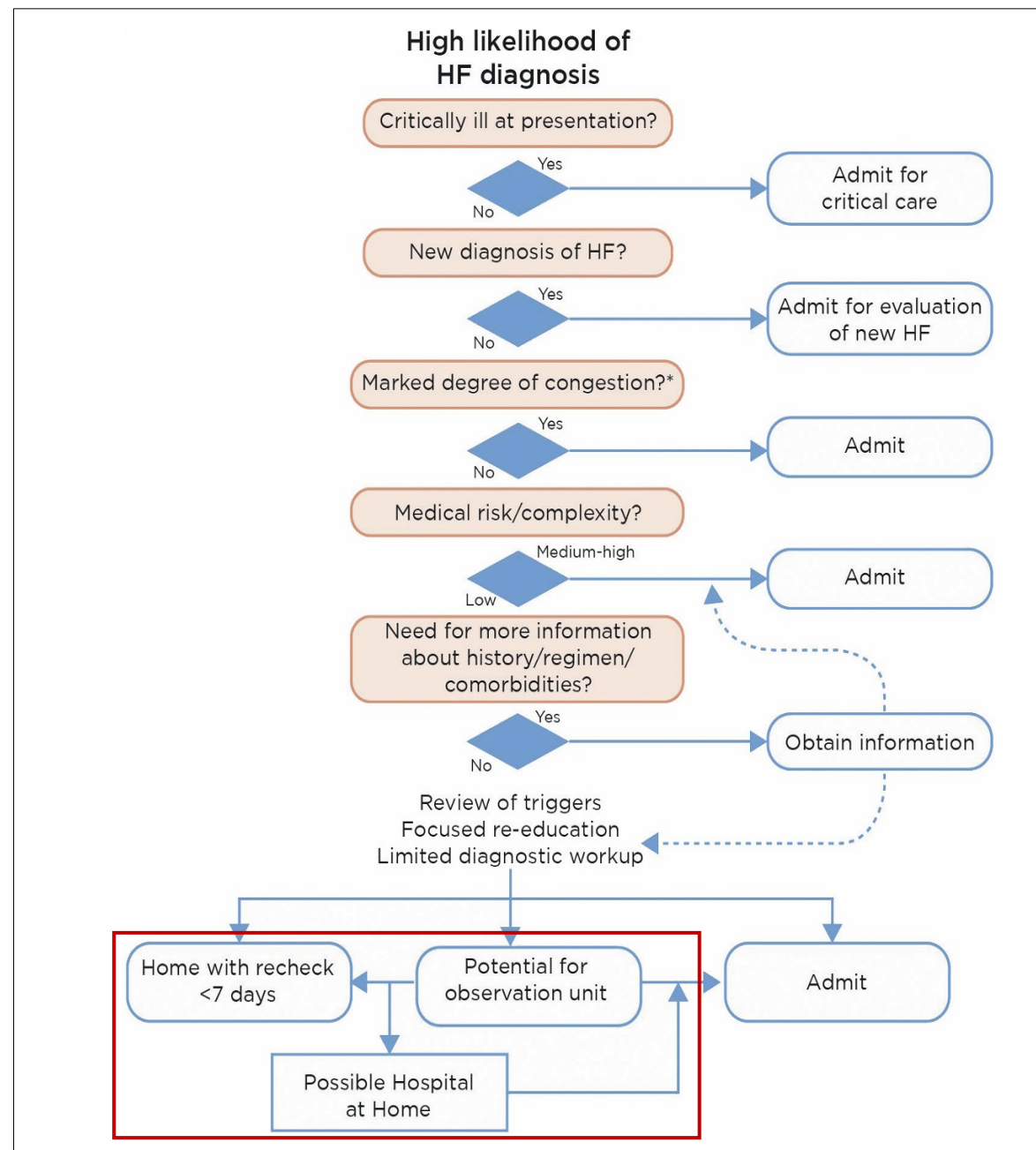
Hospital-based strategies to support clinical decision-making and rapid follow-up?

Emergency Heart Failure Mortality Risk Grade (EHMRG)

COACH



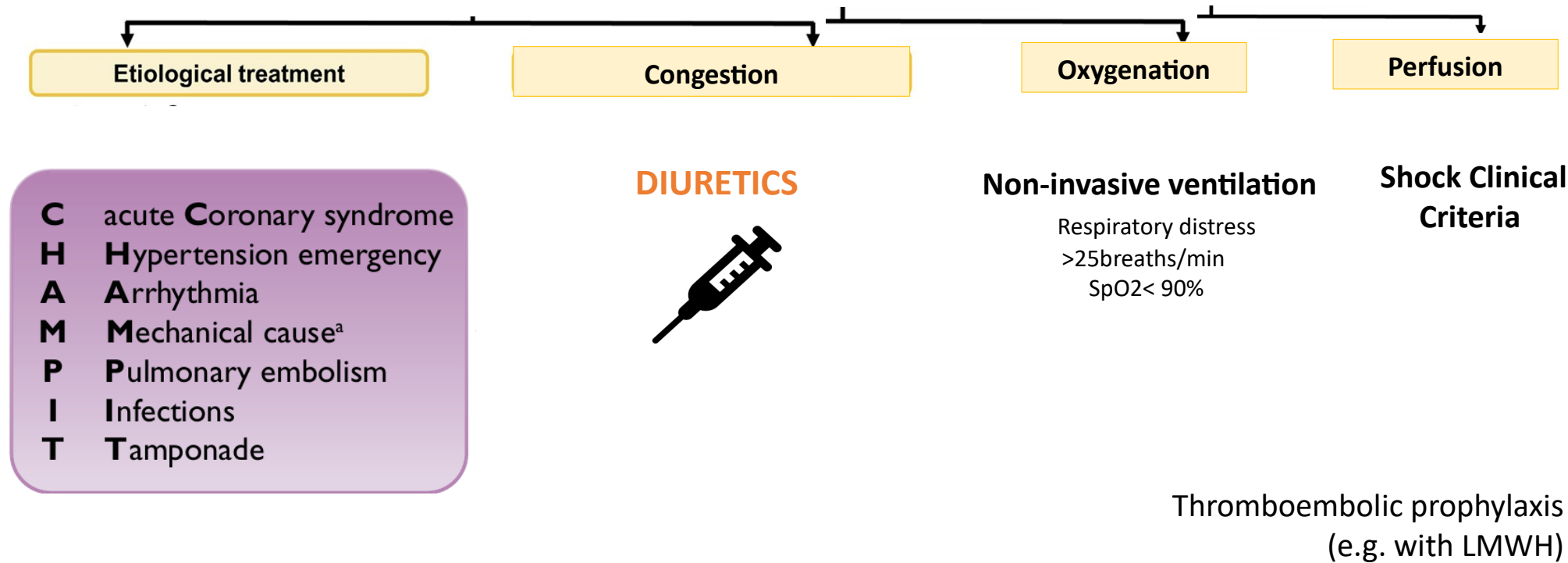
Care setting decision



*Marked leg edema, ascites, or scrotal or perineal edema may be clinical signs of marked congestion. The degree of radiographic and biochemical abnormalities may also indicate the degree of congestion

ADMISSION

Initial management of AHF



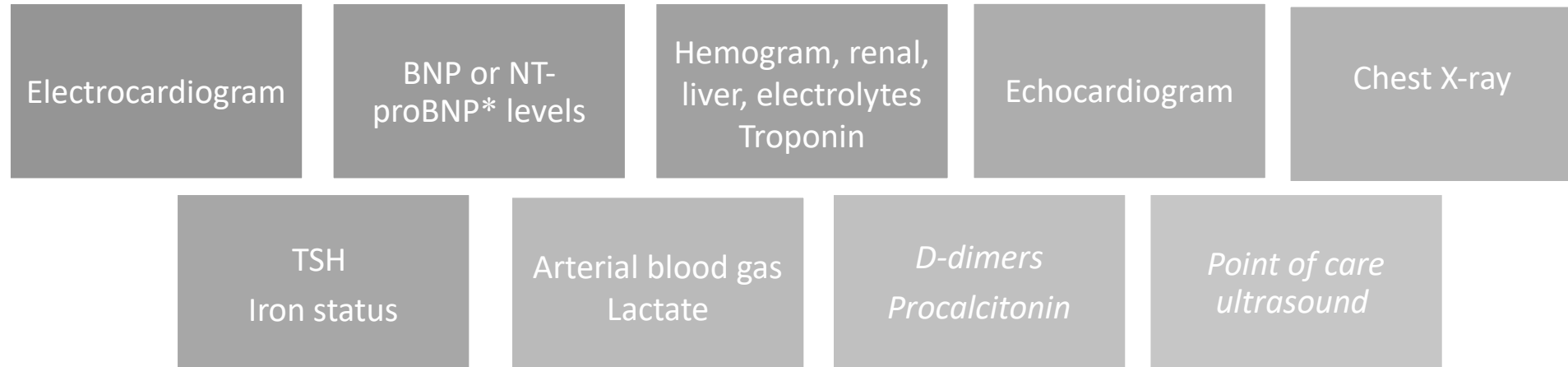
- **Common Factors
Precipitating
Acute HF**

Acute Coronary Syndromes
Uncontrolled hypertension
AF and other arrhythmias
Additional cardiac disease (e.g., endocarditis)
Acute infections (e.g., pneumonia, urinary tract)
Nonadherence with medication regimen or dietary intake
Anemia
Hyper- or hypothyroidism
Medications that increase sodium retention (e.g., NSAID)
Medications with negative inotropic effect (e.g., verapamil)

ADMISSION

- **First-line exams**

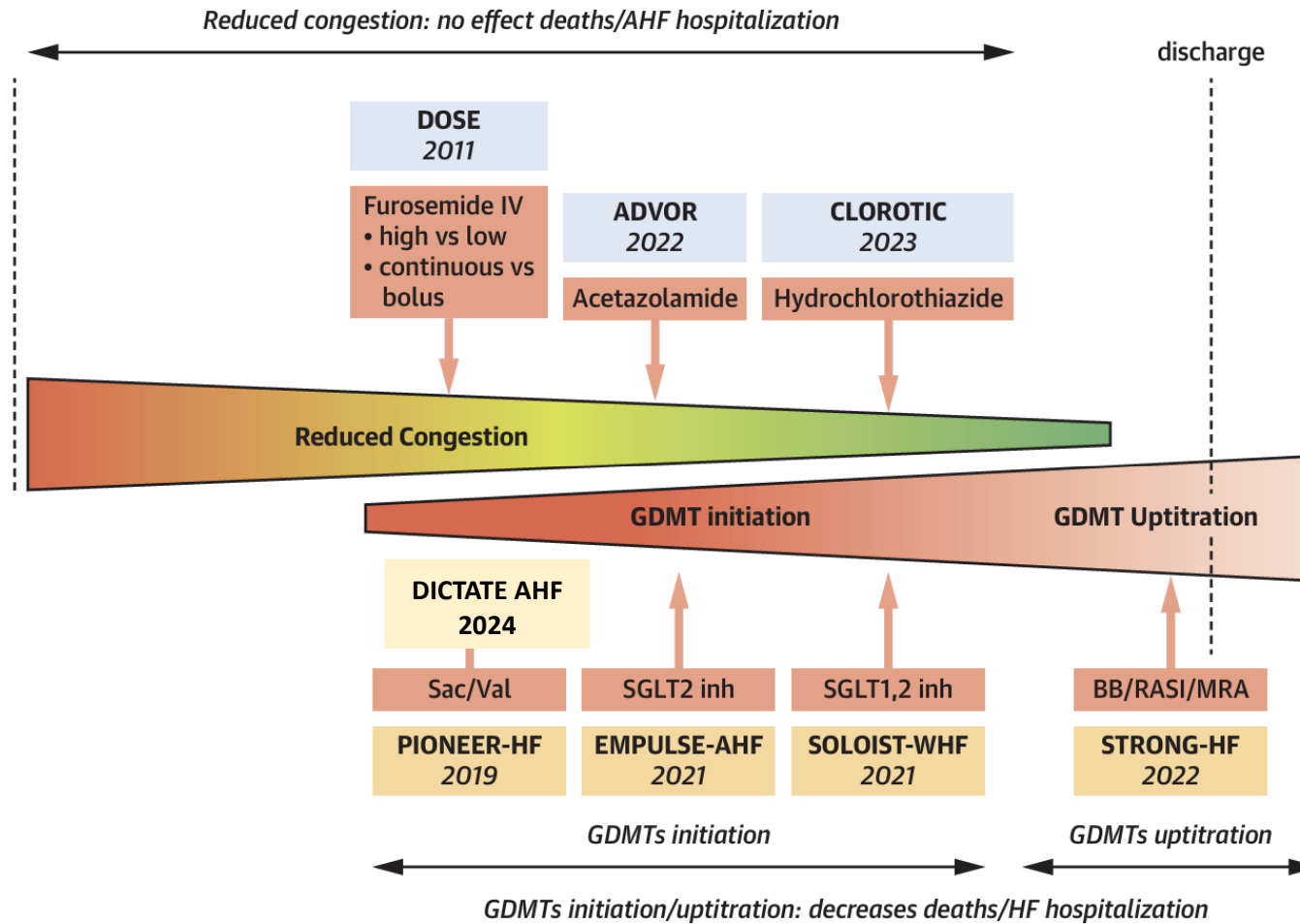
AHF diagnosis confirmation and identification of acute causes / triggering factors



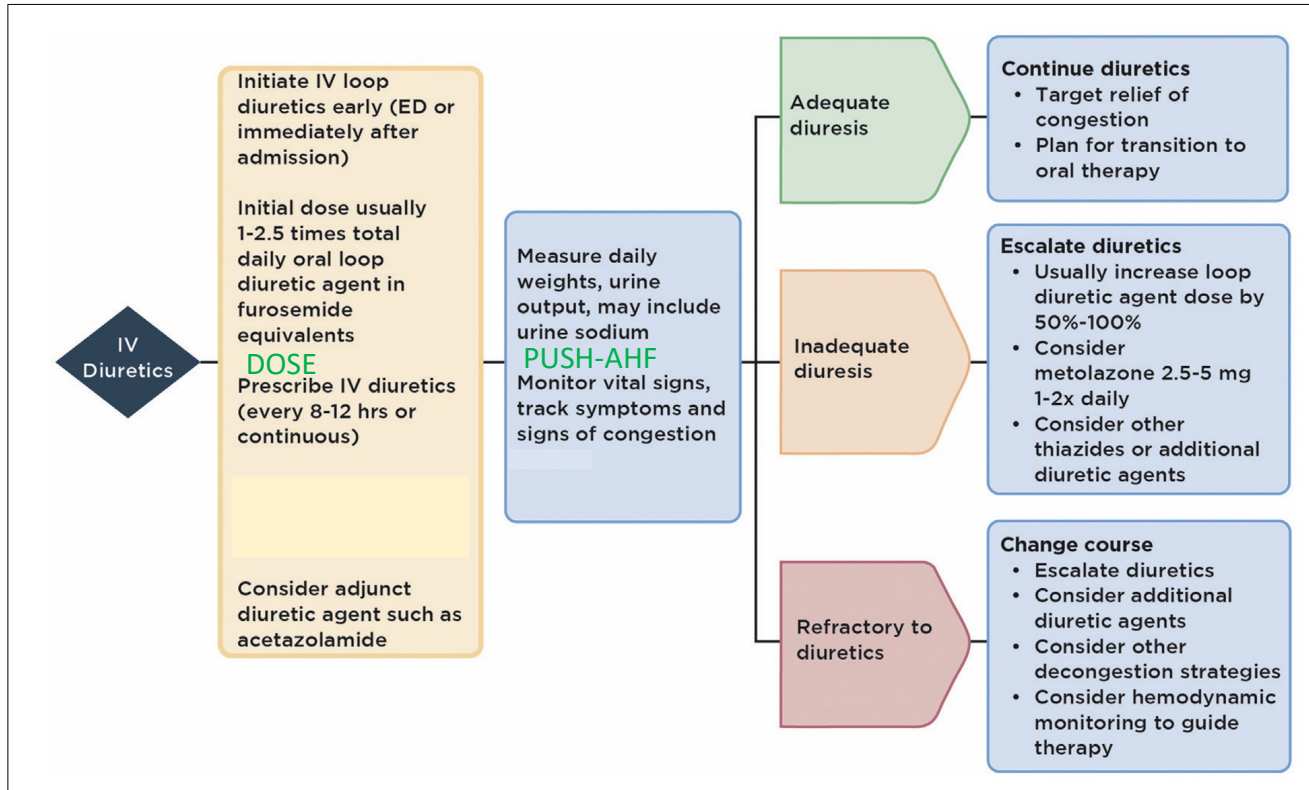
***Rule-in values for the diagnosis of acute HF:**

NT-proBNP >450 pg/mL if aged < 55 years; 900 pg/mL if aged between 55 and 75 years; >1800 pg/mL if aged >75years

How to manage therapy: Randomized Clinical Trials



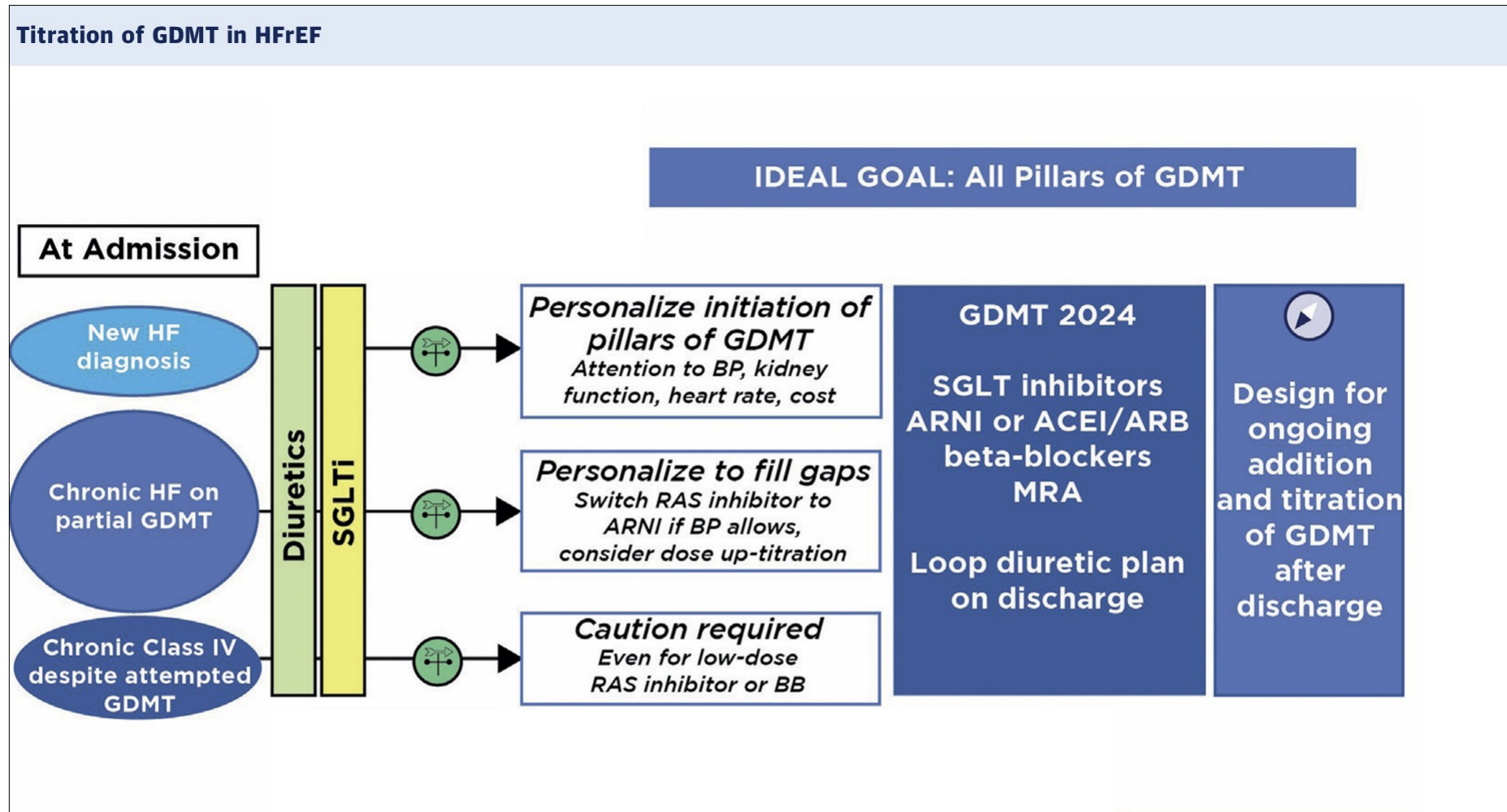
How to manage diuretics



Diuretic Dosing		
Class	Drug	Usual Inpatient Dosing* (Maximum)†
Loop diuretic agents		
	Furosemide	40-160 mg IV 1-3 times daily (200 mg/dose) OR 5-20 mg/h IV infusion (40 mg/h) Max 400 mg per day
Carbonic anhydrase inhibitors	Acetazolamide #	500 mg orally/IV once daily or in divided doses
Thiazide-type diuretic agents		
	Chlorthalidone	12.5-25 mg orally once to twice daily (100 mg/d)
	Metolazone	2.5-5 mg orally once to twice daily (20 mg/d)

#Serum bicarbonate if used for longer duration

How to manage GDMT (HFrEF)



Lower blood pressure: first step may be a low dose of an ARB, with a potential switch to sacubitril/valsartan before discharge once a low dose of beta-blocker has been tolerated (starting with metoprolol 6.25mg or carvedilol 3.125mg twice per day)

How to manage SGLT inhibitors

Before initiating SGLT inhibitors:

- SBP of at least 100 mm Hg
- No inotropic support for at least 24 hours
- No symptoms of hypotension
- No hypovolemia
- No increase in IV diuretic dose in the previous 6 hours
- No IV vasodilators
- No T1 DM

After initiating SGLT inhibitors

- In T2DM - Glucose levels reassessed

How to assess congestion and
use “decongestive” therapies?

How to assess hypoperfusion and
use vasoactive therapies?
