

SPOTLIGHT ON INNOVATION IN DETECTION AND DIAGNOSIS OF CVD: BIOMARKERS

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I have no conflict of
interest for this
presentation



Unofficial declaration of interest

Engaged in the fight
against Heart Failure



Cliniques Universitaires Saint-Luc

Brussels, Belgium

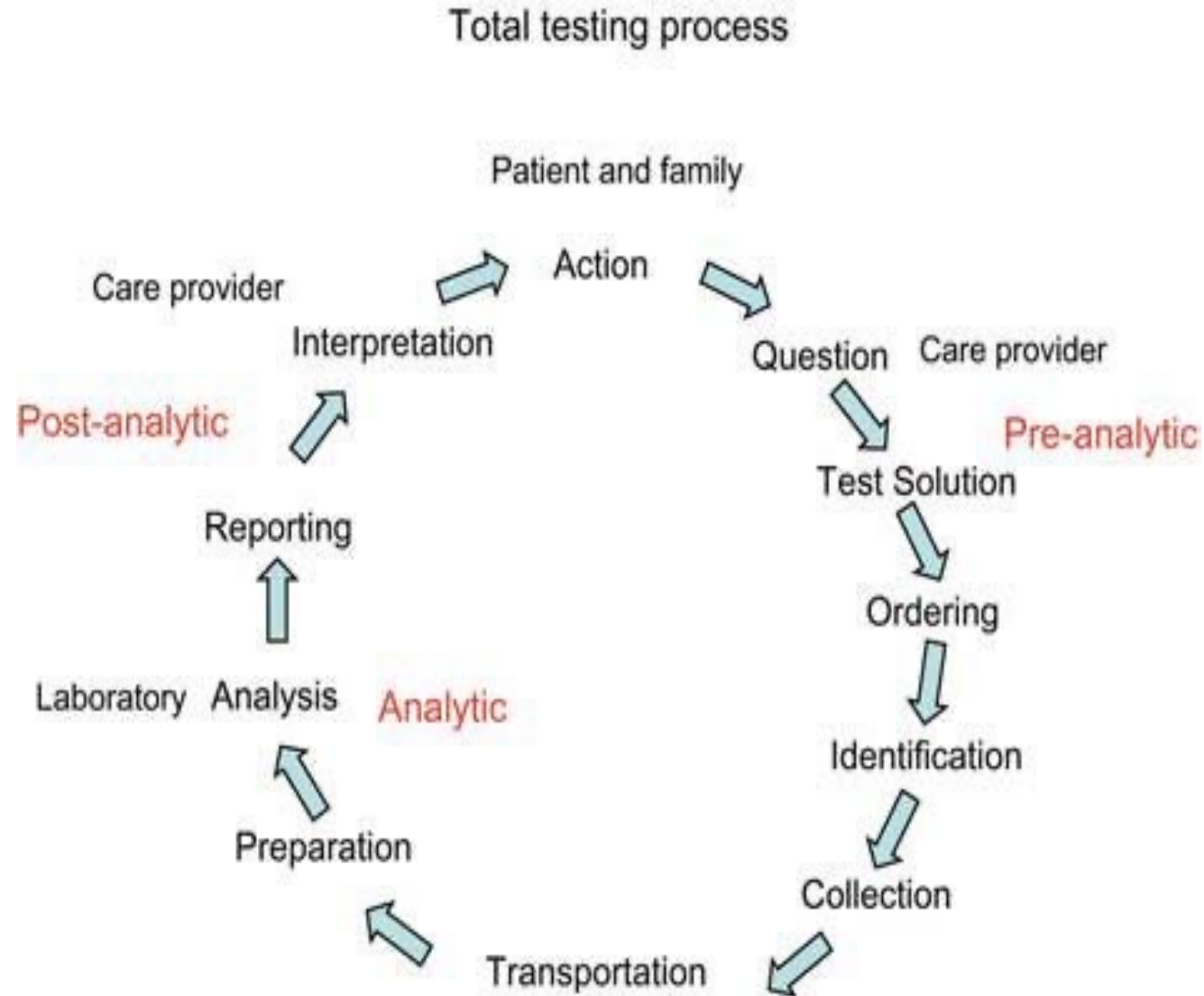


Huni

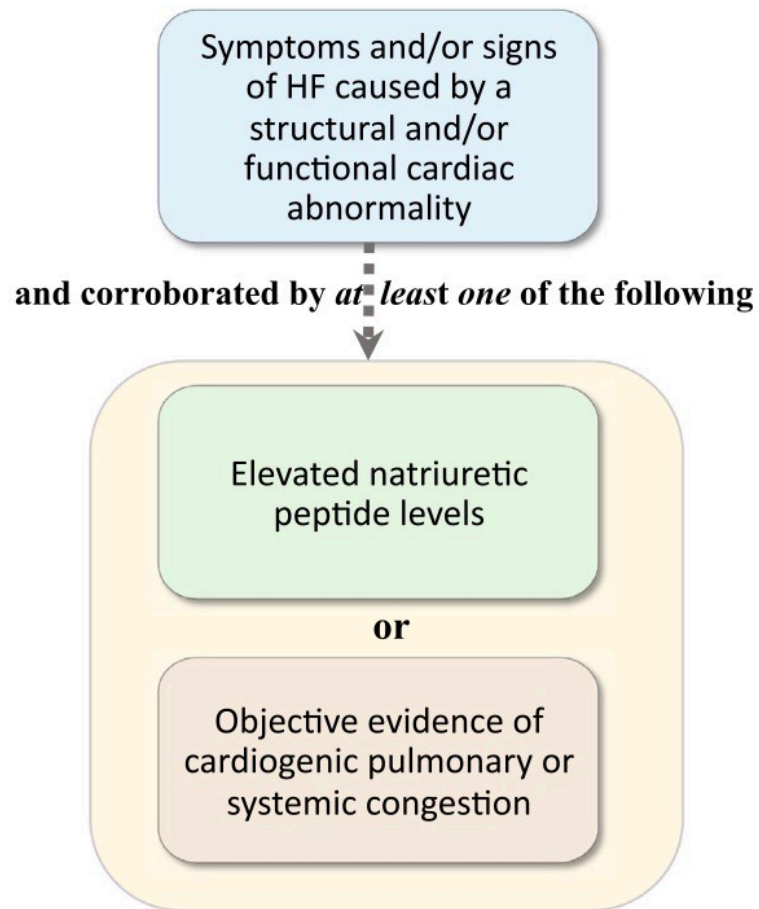
Epic

Image source: <http://www.international-saintluc.be>

Clinical Laboratories as key contributor to medical decision



Universal definition of HF



BOZKURT et al.; 2021



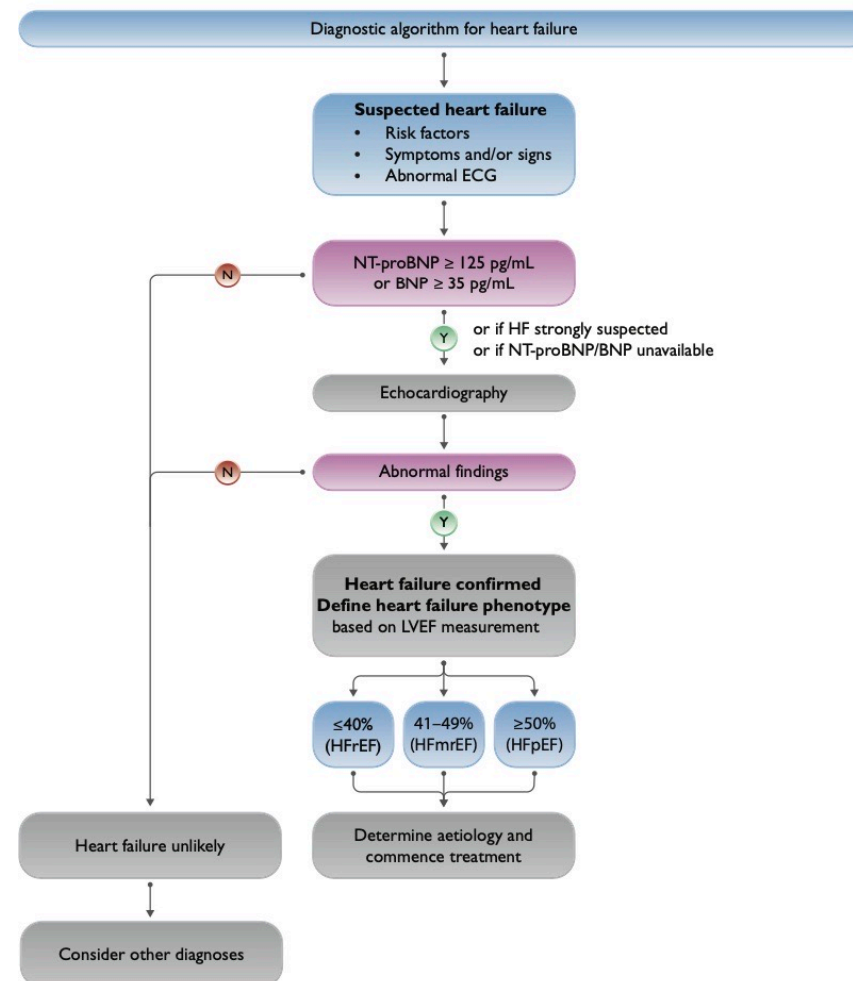
European Society of Cardiology

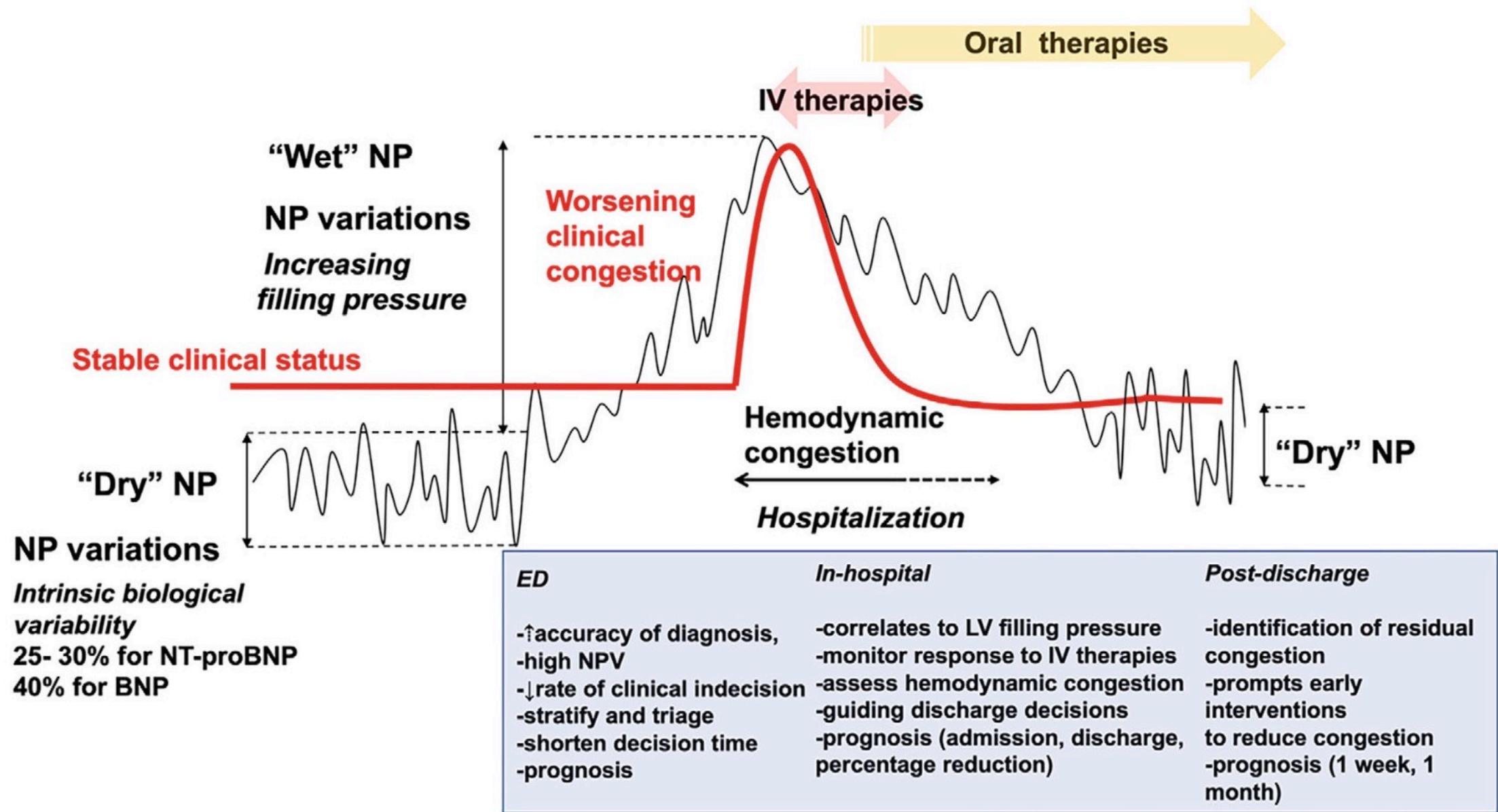
European Heart Journal (2021) 42, 3599–3726
doi:10.1093/eurheartj/ehab368

ESC GUIDELINES

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

Developed by the Task Force for the diagnosis and treatment of acute and chronic heart failure of the European Society of Cardiology (ESC)





A detailed 3D anatomical illustration of a human heart, showing the four chambers (right and left atria and ventricles) and the major blood vessels (superior and inferior vena cava, aorta, and pulmonary artery). The heart is rendered in a realistic reddish-pink color with visible coronary vessels on its surface. The background is a solid dark gray.

Subphenotyping Heart Failure



GAME CHANGER



Clinical Value

Prevention / Diagnosis /
Subphenotyping

Value for Patients

Operational Value

Economical Value



Education
Task Shifting

Legal Framework

Affordable

Equitable

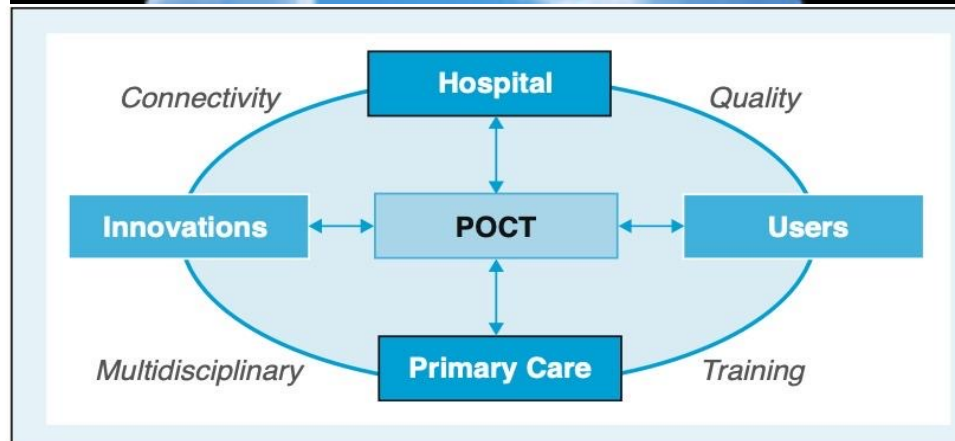
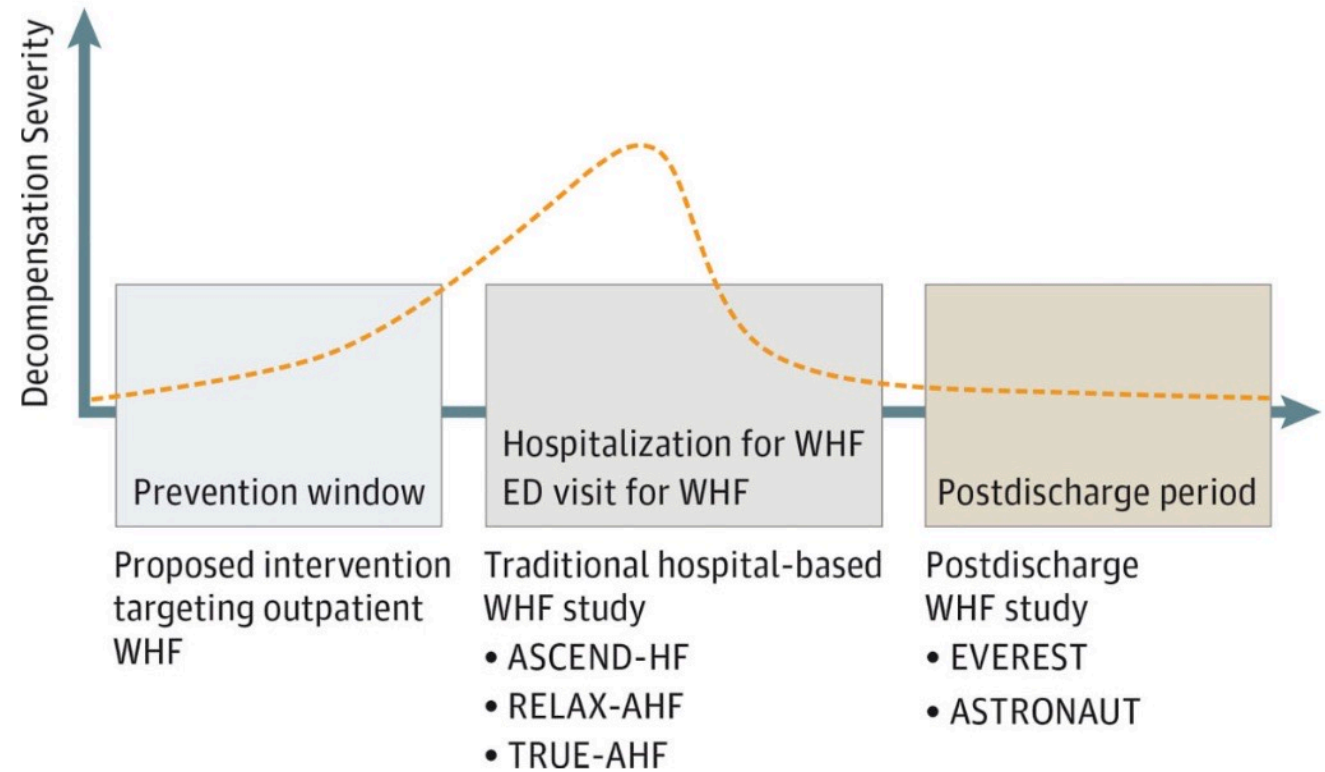


Figure 1. Le POCT au cœur d'un écosystème dynamique.

Gruson et al.; 2022

DATA

Outpatient Worsening HF as a Target for Therapy



Heart Failure: An Underappreciated Complication of Diabetes. A Consensus Report of the American Diabetes Association

Diabetes Care 2022;45:1670–1690 | <https://doi.org/10.2337/dci22-0014>

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Heart failure (HF) has been recognized as a common complication of diabetes, with a prevalence of up to 22% in individuals with diabetes and increasing incidence rates.

Data also suggest that HF may develop in individuals with diabetes even in the absence of hypertension, coronary heart disease, or valvular heart disease and, as such, represents a major cardiovascular complication in this vulnerable population;

HF may also be the first presentation of cardiovascular disease in many individuals with diabetes.

Given that during the past decade, the prevalence of diabetes (particularly type 2 diabetes) has risen by 30% globally (with prevalence expected to increase further), the burden of HF on the health care system will continue to rise.



Global HF Prevalence

64 million



Estimated HF patients eligible
for **SGLT-2 inhibitors**



50 million



Number needed to treat to
prevent one **worsening HF
event** or **cardiovascular
death** with SGLT-2 inhibitors
over 3 years



LVEF \leq 40%: 5 – 6

LVEF >40%: 10 – 12



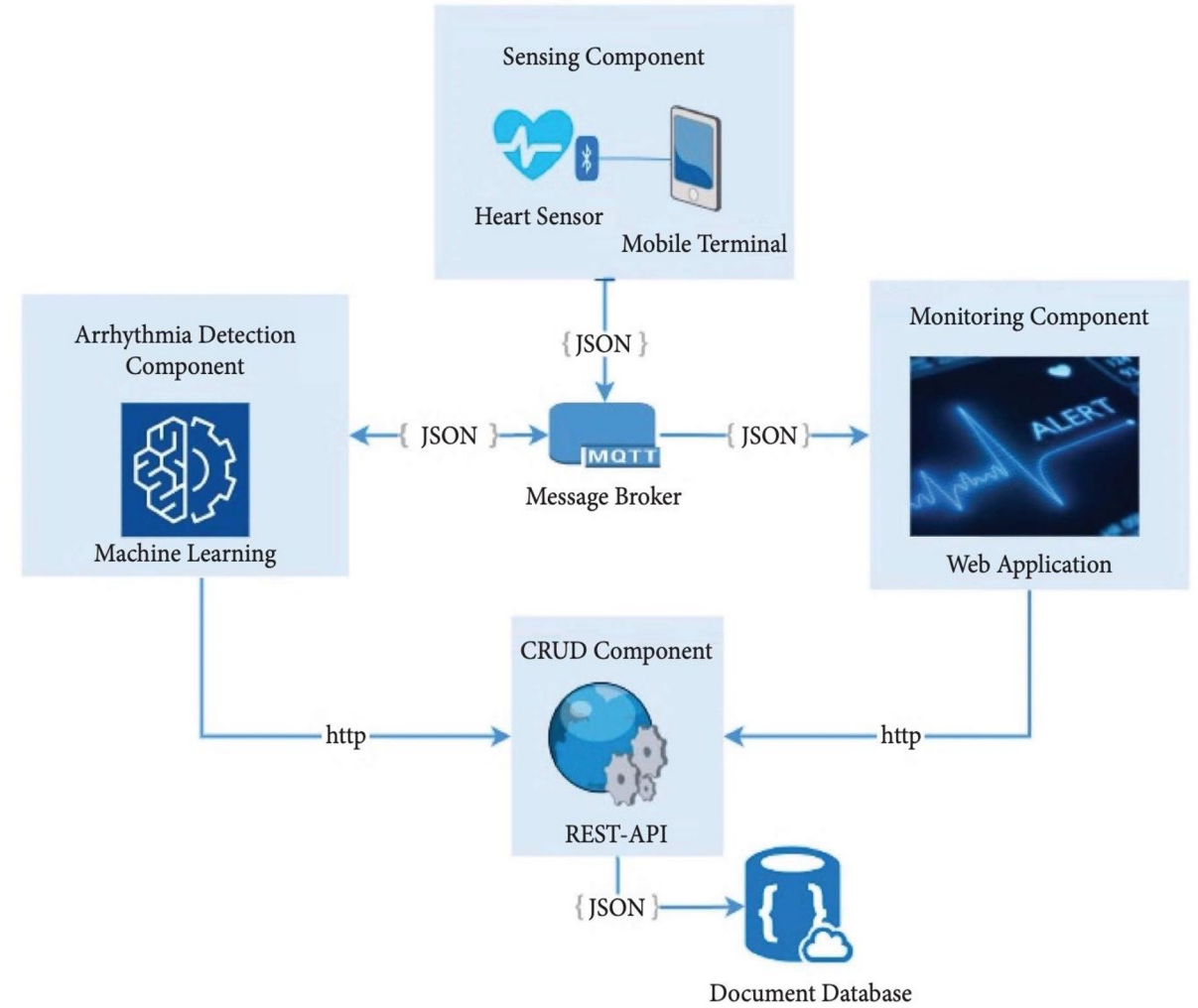
Projected global reduction in
worsening HF events and
cardiovascular deaths with
optimal implementation over 3
years



7 – 8 million



Artificial Intelligence to support Human Intelligence



Cañon-Clavijo et al.; 2023





Thank you for your
attention



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