

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



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Brussels, Belgium

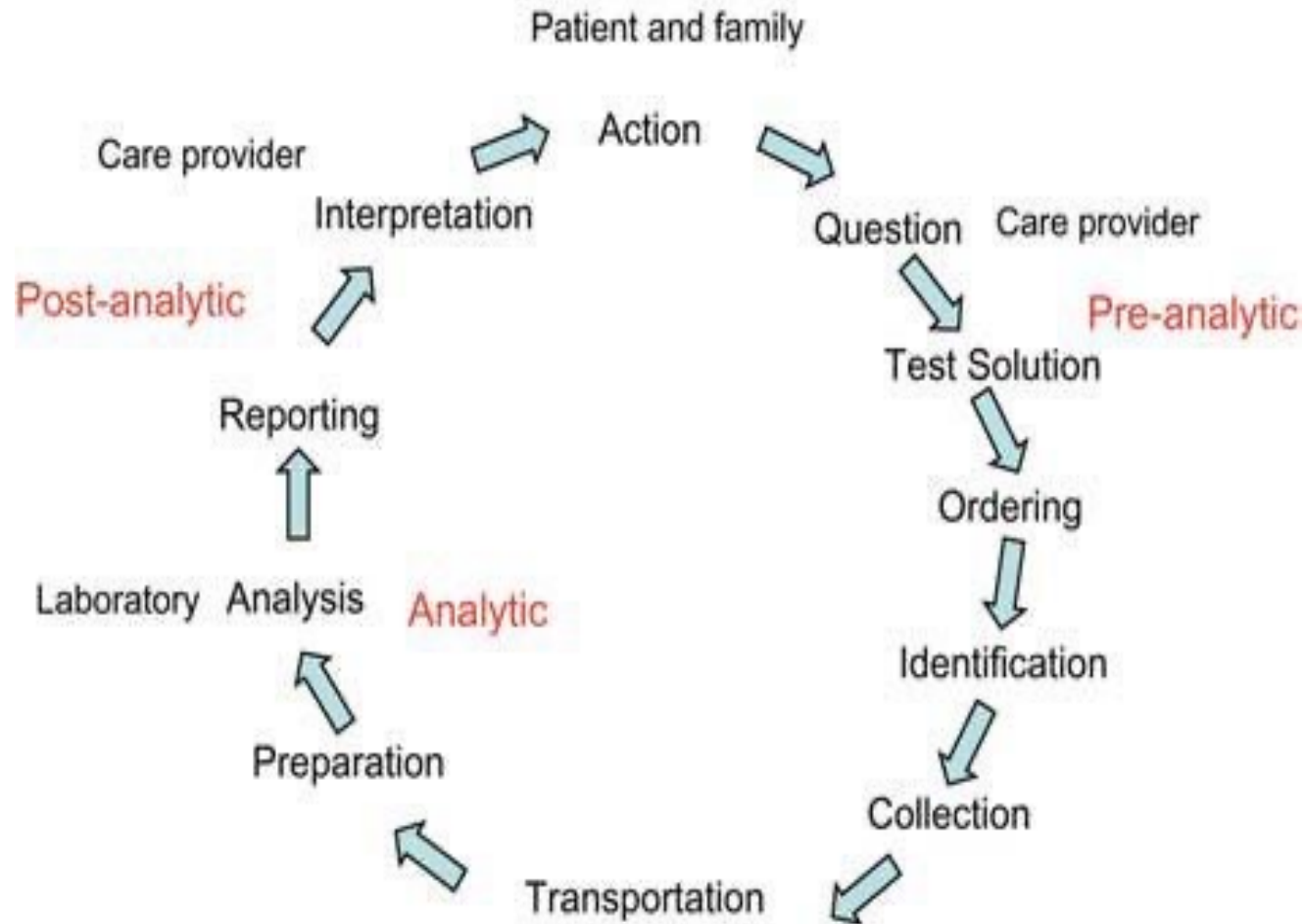


Huni

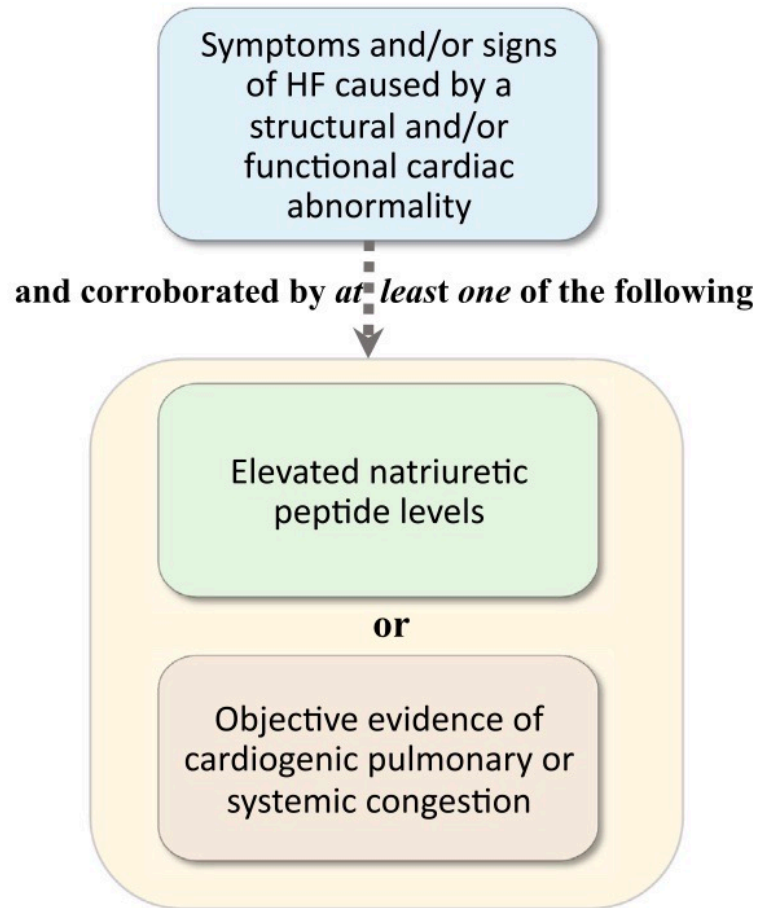
Epic

Clinical Laboratories as key contributor to medical decision

Total testing process

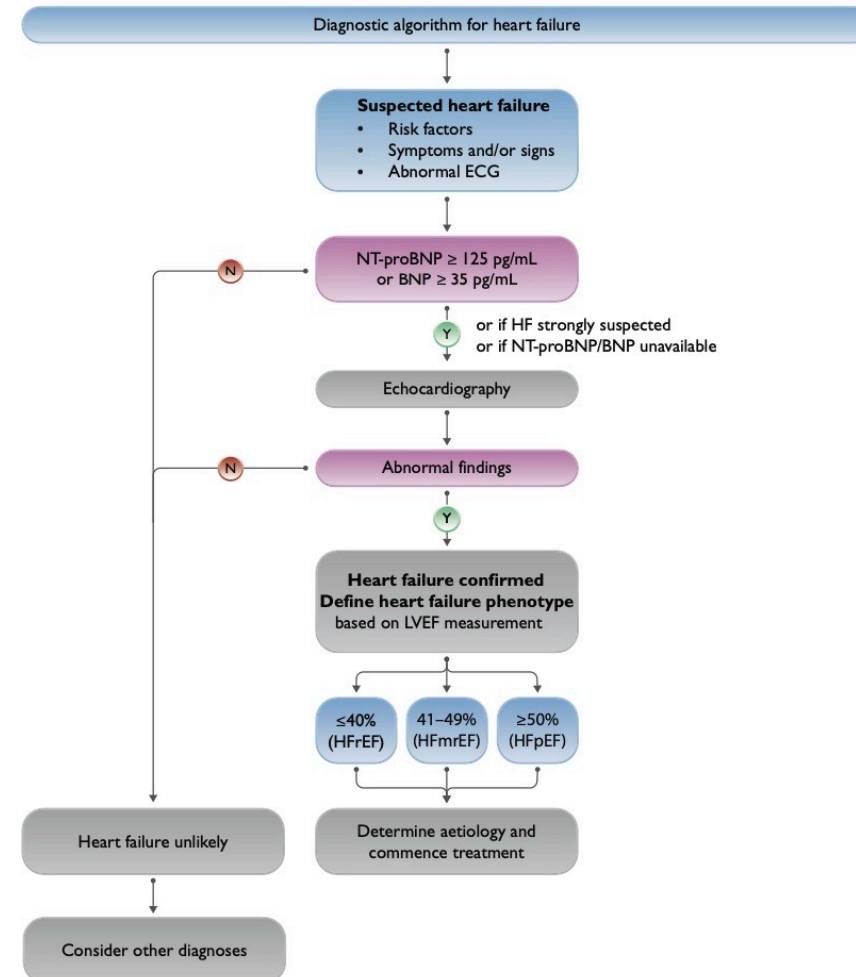


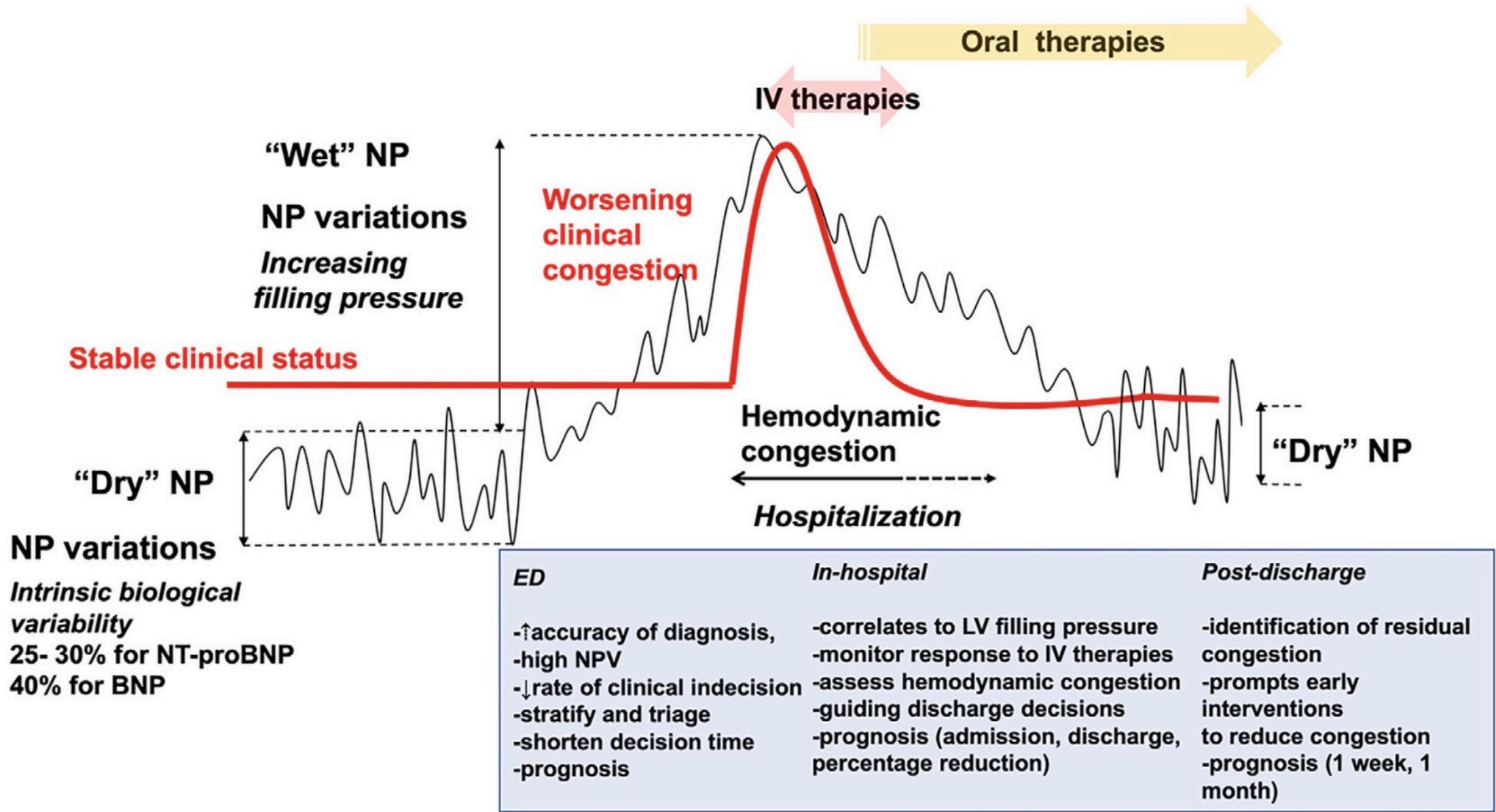
Universal definition of HF



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 3D anatomical model of a human heart, rendered in a reddish-pink color. The heart is shown from a slightly elevated, anterior-lateral perspective. The major blood vessels, including the aorta, pulmonary artery, and pulmonary veins, are clearly visible. The surface of the heart shows the branching pattern of the coronary arteries. The text "Subphenotyping Heart Failure" is overlaid in white, centered on the heart.

Subphenotyping Heart Failure



GAME CHANGER



Clinical Value

Prevention / Diagnosis /
Subphenotyping

Value for Patients

Operational Value

Economical Value



**Education
Task Shifting**

Legal Framework

Affordable

Equitable

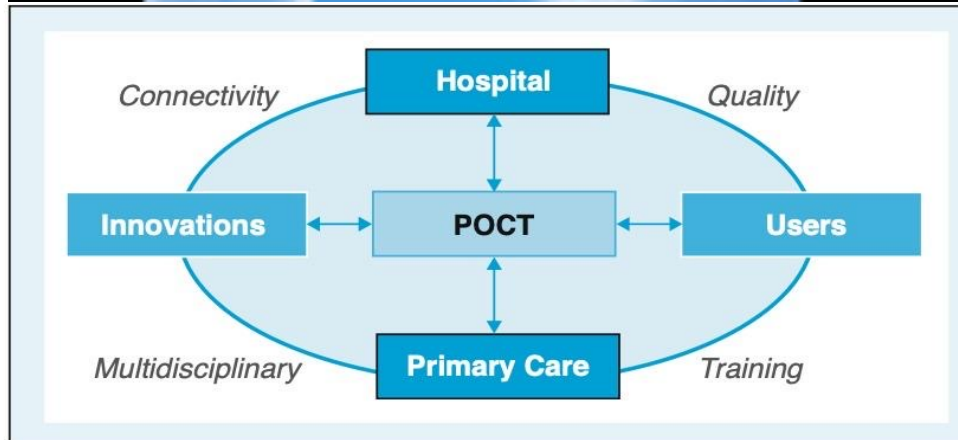
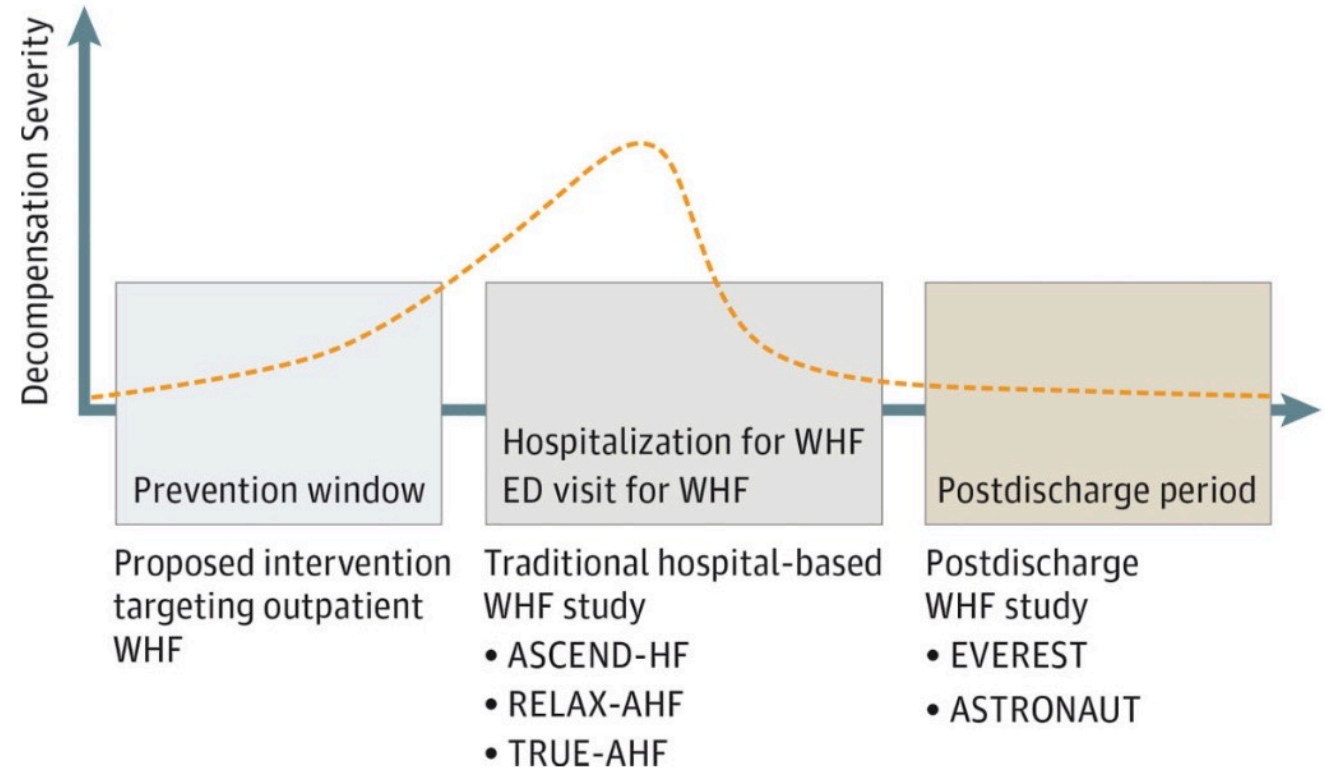


Figure 1. Le POCT au cœur d'un écosystème dynamique.

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>

Rodica Pop-Busui,¹ James L. Januzzi,² Dennis Bruemmer,³ Sonia Butalia,⁴ Jennifer B. Green,⁵ William B. Horton,⁶ Colette Knight,⁷ Moshe Levi,⁸ Neda Rasouli,⁹ and Caroline R. Richardson¹⁰

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



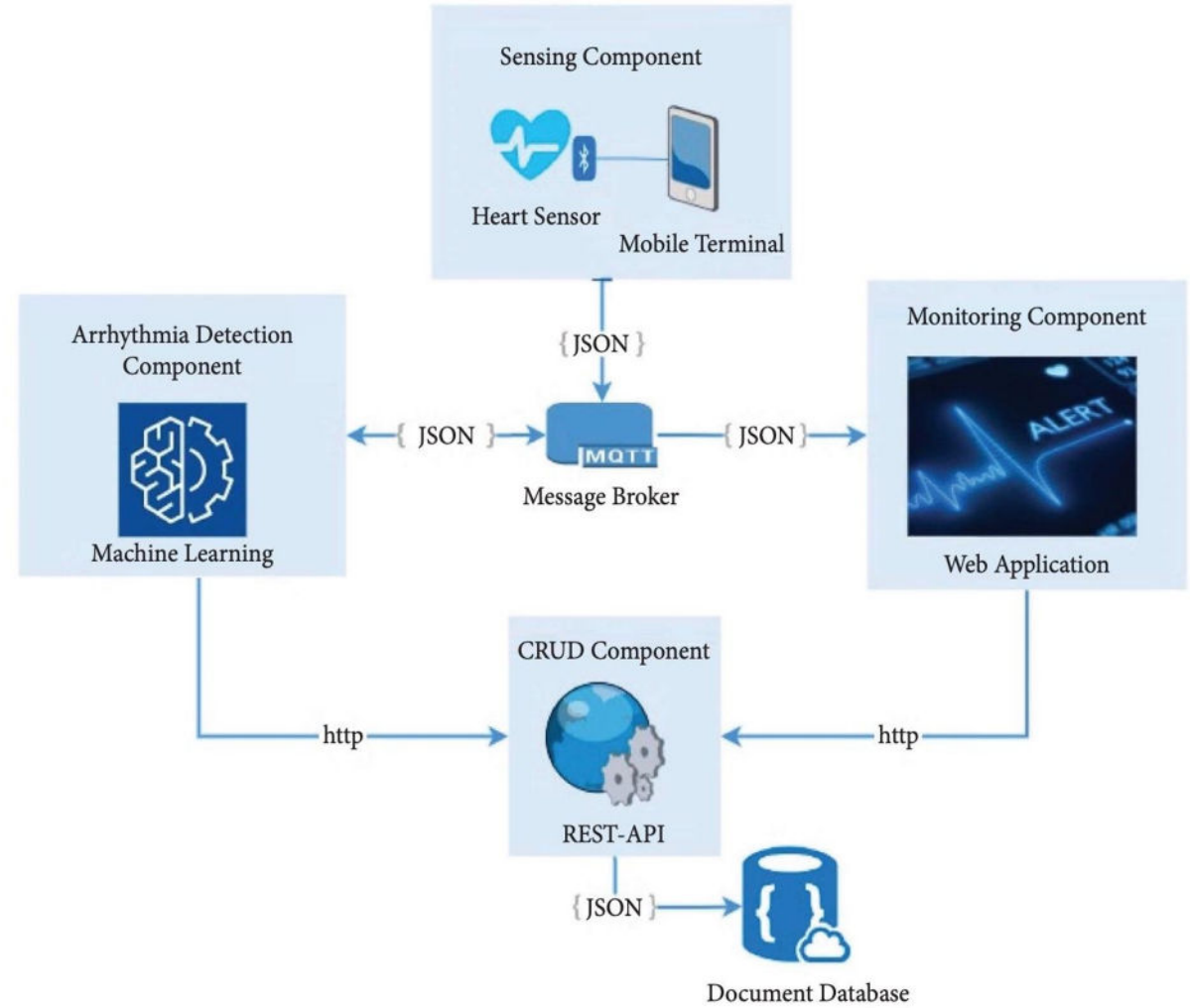
Projected global reduction in **worsening HF events** and **cardiovascular deaths** with optimal implementation over 3 years



7 – 8 million



Artificial Intelligence to support Human Intelligence



Cañon-Clavijo et al.; 2023





Thank you for your
attention



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