Operational characteristics of a clinical algorithm to optimize the detection of undiagnosed heart failure in primary care: insights from a prospective, multicenter study

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BACKGROUND

The initial detection of heart failure (HF) typically occurs when a person is hospitalized with acute HF.

Even among high-risk cases, HF remains chronically undetected in the primary care setting.

STUDY AIMS

To examine the operational characteristics of a pragmatic clinical algorithm designed to optimize the detection and care of previously undiagnosed HF in the primary care setting.

METHODS

PANACEA-HF is a prospective, multicenter, HF surveillance study and nested RCT in which a pragmatic screening algorithm is being applied.

RESULTS

Cohort: 50 men (70.3±7.6 years) and 50 women (70.8±7.2 years) with a combination of hypertension and diabetes (but no HF diagnosed).

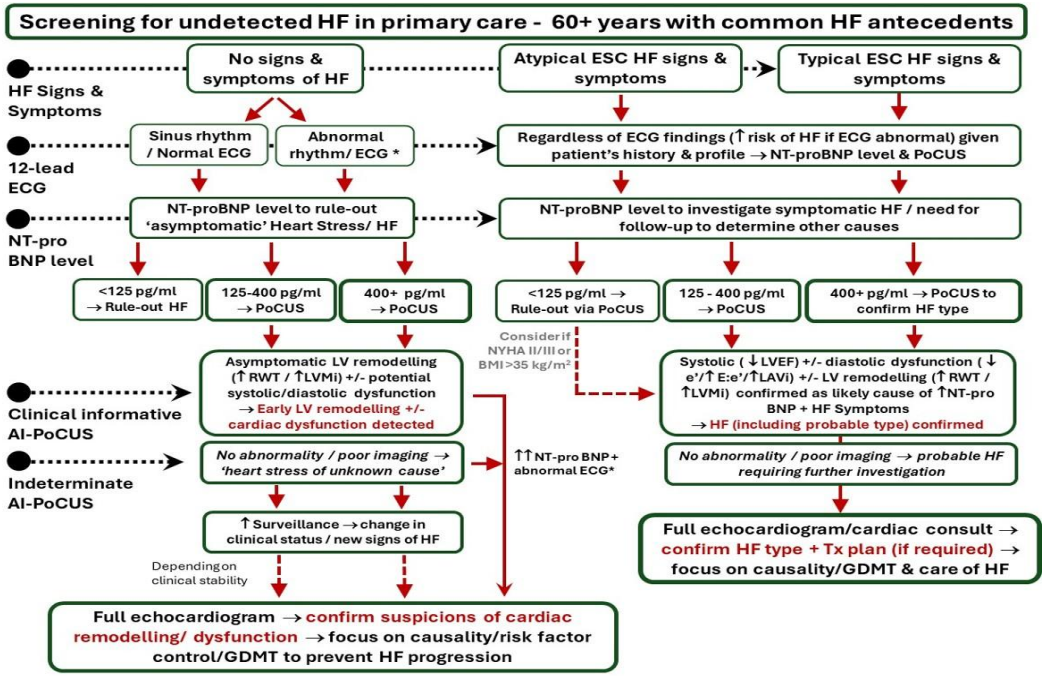
Profile: 60/100 had ESC-defined signs/symptoms of HF (27 and 9 NYHA II or III) and 43/100 had ↑NT-proBNP (289, IQR 172-684 pg/ml).

Rule-out: 34/100 cases had any form of HF initially ruled out - no cases were then found to have an abnormality on AI-PoCUS.

Potential HF: 66/100 had *'heart stress of unknown origin'* to HFrEF.

GPs referral: 29/100 had a formal echo – resulting in 9 and 20 'false and true positive' cases of HF (*100% sensitivity | 88.8% specificity*).

Clinical algorithm referral: resulted in 1 and 19 'false and true positive' HF cases on formal echo - ***96.7% sensitivity, 98.8% specificity and a* 77.3% *positive likelihood ratio***).



CONCLUSIONS

The operational performance of the PANACEA-HF algorithm in identifying potential HF cases is encouraging. In August 2026 we will report on the full spectrum of HF detected in 700+ patients screened in metro, rural & regional GP clinics across Australia.