



Novel technology for NT-proBNP-assisted remote monitoring of heart failure patients

THE PROBLEM & OPPORTUNITY

- CHF affects 26 million people worldwide & 6 million Americans
- 30% of global hospital readmissions are due to CHF
- Costs will grow with aging populations
- NT-proBNP is a blood biomarker used to reliably detect, diagnose, and evaluate the severity of heart failure.



• 2017 ACC guidelines have upgraded NT-proBNP to a Class-1 recommendation for prognostication¹.

RESULTS FROM ALPHA TESTING

IRB approved studies demonstrate analytical performance with fingerstick, venous whole blood and plasma samples.

Method comparison

Equivalent performance against the Roche Cobas e-411 analyzer with 291 whole blood samples.



Matrix comparison

Equivalent performance with direct fingerstick, venous whole blood, and plasma samples.



Precision

Under 12% CV across the measuring range with whole blood samples.

Whole blood sample level	Mean Value (pg/mL)	%CV
L1	667	7
L2	1251	7
L3	3134	11

JANA CARE'S NOVEL TECHNOLOGIES



Aina X1 is both the world's first fingerstick-compatible & mobile connected NT-proBNP monitoring system designed for the prognosis and monitoring of congestive heart failure.

Its unique flexibility allows for fingerstick capillary, venous, or plasma blood samples, and requires no sample preparation.

A wireless cloud connection enables self-calibration and automatic syncing to enable remote, real-time disease management.

SUCCESSFUL FEASIBILITY STUDY FOR HABITS DIGITAL PLATFORM AT MGH²

Methods and Results:

- 23 patients with HF were randomized to intervention (smartphone with the Habits Heart[®] App installed and Bluetoothlinked scale) or control (paper education material) groups (53.6% HF with reduced ejection fraction, 71.4% male, 59.5 years of age).
- 9/12 patients used the App regularly and 1/11 control patients retained patient education material by the end of the 6-week follow up period (p-value=0.003).
- Patients in the intervention group averaged more than one daily session of 5-minute duration and 22 weight entries per patient.
- The longer a patient engaged with the App, the greater the improvement in HF knowledge as assessed by AHFKT-V2 (Spearman ρ =0.59, p=0.04) and quality of life as assessed by KCCQ-12 (ρ =0.63, p=0.03) scores. Correlation between App use and weight change was p=-0.40 (p=0.19).
- **Conclusions:** Preliminary results suggest the Habits Heart[®] App is a feasible way to engage patients in HF management.

App Group p=0.003 **Control Group**







Designed for **HF** prognosis



Selfcalibrating



compatible



Remote dashboard



No sample preparation



Affordable

