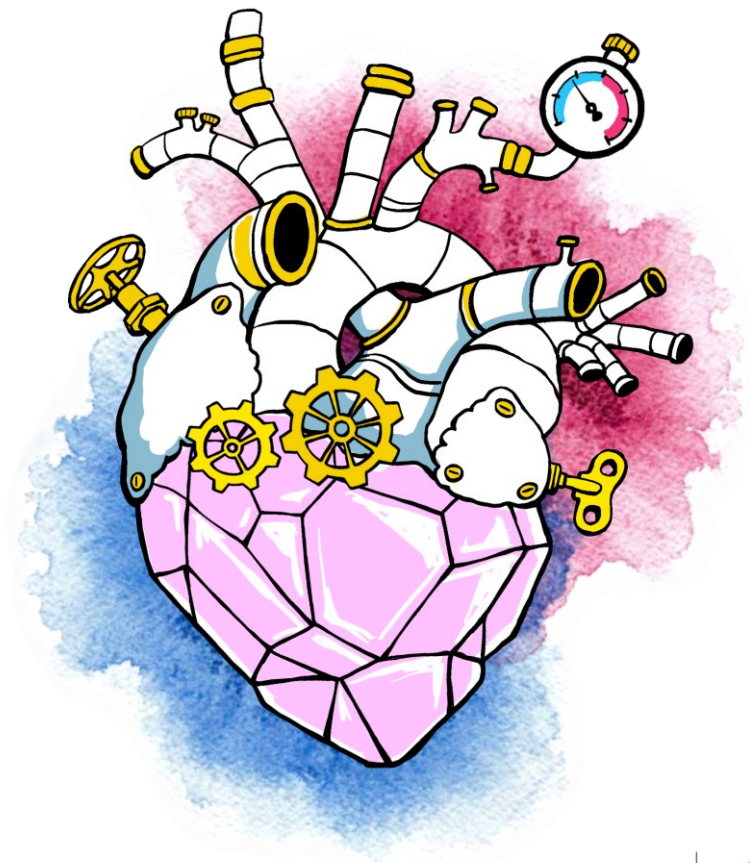


U-SCREEN-HF

Hembaserad screening för hjärtsvikt

Johan Sundström

Intressekonflikter: Medgrundare
av MinForskning och Symptoms



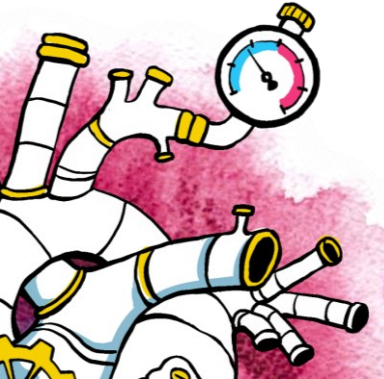


Background

HF remains under-diagnosed and under-treated especially in primary care and community-based settings.

Recent developments in point-of-care testing (natriuretic peptides and echocardiography), enhanced by artificial intelligence, have enabled the democratization of these HF diagnostic tools beyond hospital settings and to non-specialists.

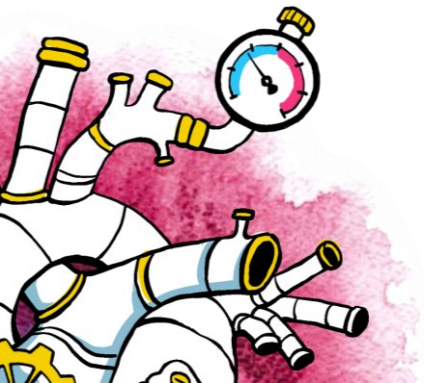
However, a significant gap in evidence exists linking earlier HF diagnosis to improved HF management and outcomes.





Hypothesis

We hypothesize that a stepwise multimodal home-based screening program with targeted rapid point-of-care testing in a general community setting can lead to earlier HF diagnosis, which provides an opportunity to prevent adverse HF outcomes.





1.

Ad campaign in the community, with QR code to study portal.
Obtain consent for the study.
Direct to symptom self-reporting tool.



2.

Identify subsample with high suspicion of heart failure (Table 2) and a functional class of II or worse. Start follow-up of the ITT population in registries.



INTENTION-TO-TREAT POPULATION

3.

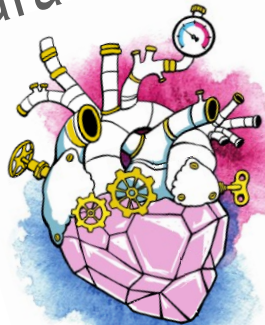
Randomize 1:1 to ACTIVE and CONTROL arms.



RANDOMIZATION



Nattlig andnöd kan vara hjärtsvikt!



Folksjukdomen vanligare vid högre ålder.
Delta i ny studie om hembaserad
screening för hjärtsvikt!



Läs av QR-koden med din mobilkamera för att komma till vår webbsida. Där kan du läsa mer om hur det går till och anmäla ditt intresse. Eller skriv in minforskning.se/study/u-screen-hf i din dators webbläsare för att komma till studien.

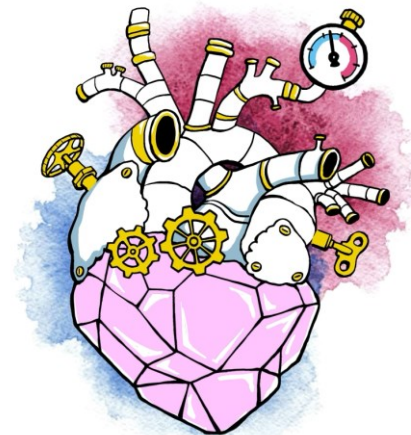
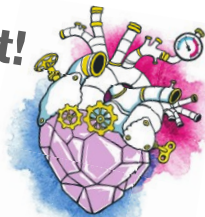


Andfåddhet kan vara hjärtsvikt!

Folksjukdomen vanligare vid högre ålder. Delta i ny studie om hembaserad screening av hjärtsvikt!



Läs av QR-koden med din mobilkamera för att komma till vår webb. Läs där mer om hur det går till och anmäl ditt intresse.
www.minforskning.se/study/u-screen-hf



minforskning.se



- Uppsala vårdcentral
Studieadministratör
- Översikt
- Information om studien
- Samtyckesloggen
- Resultat
- Vårdenhet
- Användare
- Forskningspersonsinformation
- Monitorering
- Intresseanmälningar

Samtycke

Lista på alla samtycken för vårdenhet.

Nytt manuellt samtycke

Nytt elektroniskt samtycke

Sök samtycke

Exportera

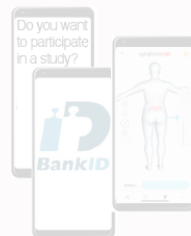
Filtrera

| Forskningsperson | Datum/Signatur | Studieläkare namn | Datum/Signatur | Samtyckestatus | Version & Typ | Monitorerad |
|---|----------------|----------------------|----------------|----------------|--------------------|-------------|
| Aamir Faried 198102078576 24542 | 2022/09/15 | Kartick Kapilashrami | 2022/09/15 | Aterkallat | 5.7 · Elektroniskt | • Visa |
| Iola Jackson 195803024487 142 | 2022/09/15 | Kartick Kapilashrami | 2022/09/15 | Aterkallat | 5.7 · Manuellt | • Visa |
| Zorita Gillespie 199409296275 476 | 2022/09/16 | Kartick Kapilashrami | 2022/09/16 | Giltigt | 5.7 · Manuellt | • Visa |
| Maria Storgårds 195711191402 1000 | 2022/09/19 | Maria Storgårds | 2022/09/19 | Aterkallat | 6 · Elektroniskt | • Visa |
| Leilani Cabrera 199409296275 584 | 2022/09/21 | Kartick Kapilashrami | 2022/09/21 | Giltigt | 6 · Manuellt | • Visa |
| Kartick Kapilashrami 199409296275 24542 | 2022/09/21 | Kartick Kapilashrami | 2022/09/21 | Giltigt | 6 · Elektroniskt | • Visa |
| Kartick Kapilashrami 199409296275 286 | 2022/09/21 | Kartick Kapilashrami | 2022/09/21 | Giltigt | 6 · Elektroniskt | • Visa |
| Jevin Ji Xu 198102263657 123 | 2022/09/21 | Aamir Faried | 2022/09/21 | Giltigt | 6 · Elektroniskt | • Visa |



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RANDOMIZATION





9:41 symptoms

U-SCREEN-HF enkät

0% avklarad 15 frågor

U-SCREEN-HF

Här besvaras frågor om tidigare sjukdomar och levnadsvanor som är relevanta för studien.

Fråga 1 av 15 [Avbryt](#)

Har du något av följande symtom?

- ☐ — Bröstsmärta vid ansträngning
- ☐ — Andfåddhet vid ansträngning
- ☒ — Andfåddhet i vila
- ☐ — Försämrade andfåddhet i liggande
- ☐ — Nattliga anfall av andnöd

9:41 symptoms

U-SCREEN-HF enkät

80% avklarad 15 frågor

U-SCREEN-HF

Här besvaras frågor om tidigare sjukdomar och levnadsvanor som är relevanta för studien.

Fråga 14 av 15 [Avbryt](#)

Hur många standardglas dricker du i veckan? (bild)

Hed ett "standardglas" menas



standardglas

Föregående [Nästa](#)

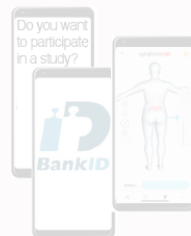
Age ≥ 40 years; functional class II-IV; and any one of the following symptoms of HF and at least two risk factors for HF:

| | |
|---------------------|--|
| Symptoms | Breathlessness |
| | Orthopnea |
| | Paroxysmal nocturnal dyspnea |
| | Reduced exercise tolerance |
| | Fatigue, tiredness, increased time to recover after exercise |
| | Ankle swelling |
| Risk factors | Diabetes (type 1 or type 2) |
| | Coronary artery disease (myocardial infarction or coronary artery bypass grafting or percutaneous coronary intervention) |
| | Persistent or permanent atrial fibrillation (not paroxysmal atrial fibrillation) |
| | Previous ischemic or embolic stroke |
| | Peripheral arterial disease (previous surgical or percutaneous revascularisation) |
| | Chronic kidney disease |
| | Regular loop diuretic use (any dose at any dosing interval) for >30 days |
| | COPD (diagnosis by respiratory physician, radiological emphysema or treatment with advocated COPD therapy) |



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RANDOMIZATION





4.

In ACTIVE arm:
Mail self-administered capillary
blood sampling kit with instructions
and pre-paid return envelope.

5.

In ACTIVE arm:
Analyze the returned dried blood
spots for NTproBNP at core
laboratory.
Report NTproBNP results to
participant on study portal.



ACTIVE ARM



CONTROL ARM



SUSPECTED
UNDIAGNOSED
HEART FAILURE



6.

In ACTIVE arm:
Summon persons with suspected
(based on self-reported data and
NTproBNP levels) undiagnosed
heart failure to the study clinic.
Perform confirmatory tests (point-of-
care NTproBNP, followed by AI-
echocardiography).
Refer to primary or other care.



CAUSE-OF-DEATH
REGISTRY



IN-PATIENT
REGISTRY



PRESCRIBED
DRUG
REGISTRY



ELECTRONIC
HEALTH
RECORDS



SELF-REPORTED
DATA BASE



Pakk ut innholdet i esken



1. Vask hendene med såpe og varmt vann og tørk dem.
Gri hendene kraftig mot hverandre for å øke blodstrømmen.
2. Trekk blodkortet ut av kortlommen.
Riv av kvitteringsdelen (venstre del) og spar denne (se bilde).
Du trenger ID koden for å hente resultatet på www.vitas-reports.no
3. Rens tuppen på langfingeren med spritservietten og la den tørke.

4. Stikk langfingertuppen med lansetten*.

* Vri av tuppen på lansetten.
* Plasser den smale enden av lansetten mot yttersiden av fingertuppen. Trykk bestemt lansetten mot fingeren til du hører et klakk**.

* Del ikke lansetten med andre. For å redusere sannsynligheten for infeksjon er lansetten kun for personlig bruk og skal kun benyttes én gang. Bruk alltid en ny lansett!

** Det er viktig å kaste lansetten på en sikker måte for å unngå skade eller stykelom. Brukte lansetter er å anse som smittefarlig avfall. Følg de relevante retningslinjene i ditt aktuelle land.



5. Drypp én stor dråpe blod i hver sirkel.

Tørk av den første lille dråpen med spritservietten. Idem så lett på fingeren til det dannes en stor hengende dråpe. Vær tålmodig! La dråpen, men ikke fingeren, berøre papiret midt i sirkelen. Fyll den andre sirkelen på samme måte.

Ta ikke på papiret!



De to flekkene til venstre er akseptable



6. Sett på plaster.

7. Skyv blodkortet inn i kortlommen. Legg så kortlommen med kortet i aluminiumsposen, press ut luften og lukk lynlåsen ordentlig!

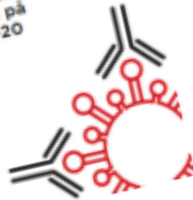
Posen med tørkemiddel skal ikke tas ut av aluminiumsposen!

8. Legg aluminiumsposen i den ferdigfrankerte konvolutt og send i posten samme dag eller senest neste dag.

* Brukerens data ligger i ID koden inne i konvolutt. Skriv ikke avsender på konvolutt eller blodkortet for å opprettholde anonymitet.



9. Benytt din personlige ID kode som står på kvitteringsdelen av blodkortet for å hente resultatet av testen på www.vitas-reports.no etter 10-20 arbeidsdager.



-30°C

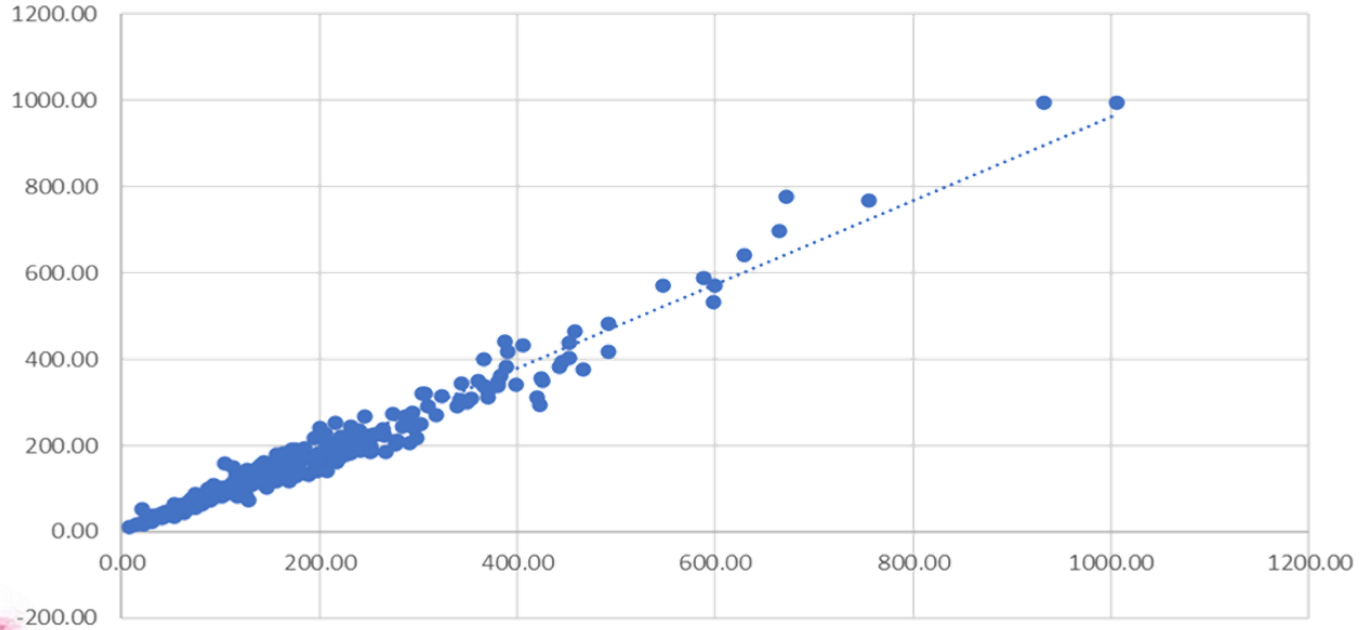


RDA Spot, UAB
12 Biržėlo 23-los St.
LT-03205 Vilnius
rdaspot.com



Korrelasjon Plasma vs DBS (NT-pro-BNP test prøver)

R = 0.9829





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Main Findings

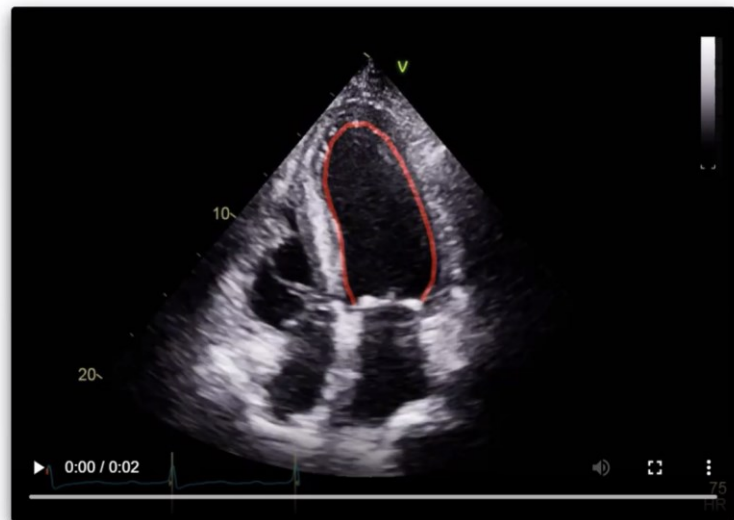
| | | |
|---|-----------------------|---|
| ✓ | LV Systolic Function | Moderately abnormal |
| ✓ | LV Diastolic Function | Increased LAP and grade III diastolic dysfunction |
| ✓ | LV Size | Moderately abnormal |
| ✓ | LV Geometry | Eccentric hypertrophy |
| ✓ | RV Function | Normal |
| ✓ | RV Size | Normal |
| ✓ | LA Size | Mildly abnormal |
| ✓ | RA Size | Normal |

Notes

| | | |
|---|-------------------------|------------------|
| ✓ | Pulmonary Hypertension | High probability |
| ^ | Clinical considerations | Consider HFrEF |

| | |
|------------------------------|------------------------|
| LVEF MOD biplane | 38.0 % |
| LAESVi MOD biplane | 36.7 ml/m ² |
| PASP (assuming RAP = 5 mmHg) | 74.60 mmHg |
| TR Vmax | 4.17 m/s |
| LVMI | 136.3 g/m ² |
| RWT | 0.38 |

Please correlate clinically: In the presence of symptoms and/or signs of heart failure, a left ventricular ejection fraction $\leq 40\%$ suggests the presence of heart failure with reduced ejection fraction (HFrEF), especially if circulating natriuretic peptides are raised. [Ref: 2021 ESC heart failure guidelines doi:10.1093/eurheartj/ehab368]



Follow-up

| Registry | Contents |
|---|--|
| Swedish Total Population Registry | Place of residency; country of own and parents' birth; marital status; date of death or emigration |
| Swedish Censuses | Socio-economic group; education; income; sick leave Sick leave; pensions |
| Swedish National Insurance Agency Swedish Education Registry | Highest education |
| Swedish 9th Grade Registry | Junior high school grades |
| Swedish Multi-Generation Registry | Number of children and siblings; identity of parents if born after 1932 and alive in 1961 |
| Swedish Medical Birth Registry (since 1973) | Numbers of pregnancies and births; pregnancy outcomes |
| Swedish Prescribed Drug Registry (since 2005) | Pharmacy-expedited drug prescriptions |
| Swedish Inpatient Registry (since 1964, with complete national coverage since 1987) | Diagnoses of all hospitalizations; surgical and other procedures |
| Swedish Cancer Registry (since the 1950s) | All cancer diagnoses |
| Swedish Cause-of-Death Registry | Causes of death, including contributing factors |
| Swedish Out-Patient Registries (day-care surgery since 1997, all others since 2001) | All diagnoses. Hospital-based mandatory; primary care voluntary |

