Hjärttransplantation

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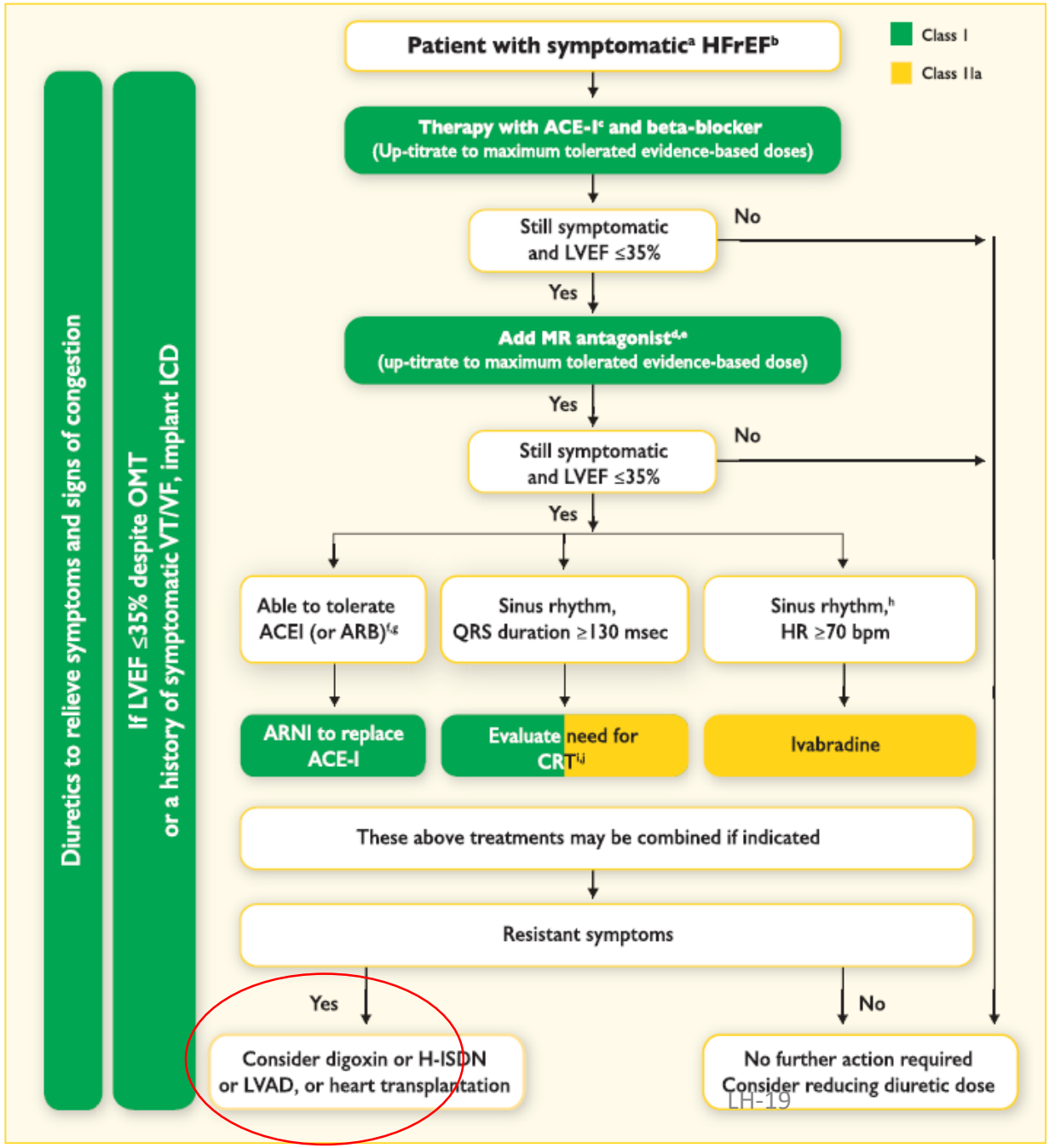
Vrinnevisjukhuset Norrköping

BB= Betablockare, ACEI= ACE hämmare. MRA= Mineralkortikoidantagonist. ARNI=Angiotensin receptor och neprilysin hämmare



ACE + betablockare

Symptom?

MRA (Spironolakton)

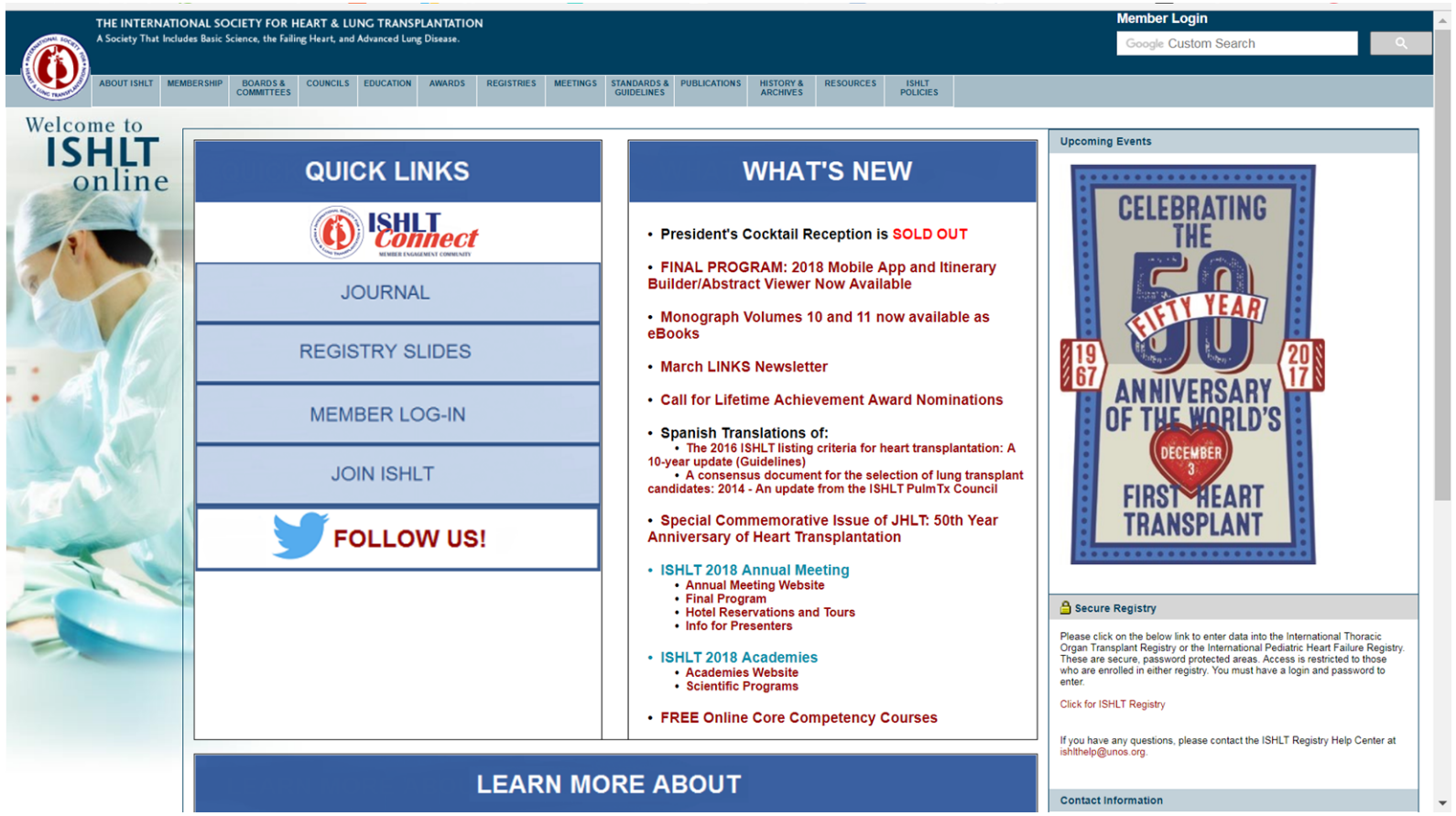
Symptom?

ARNI CRT/ICD Ivabradin

Hjärttransplantation
LVAD
Palliation

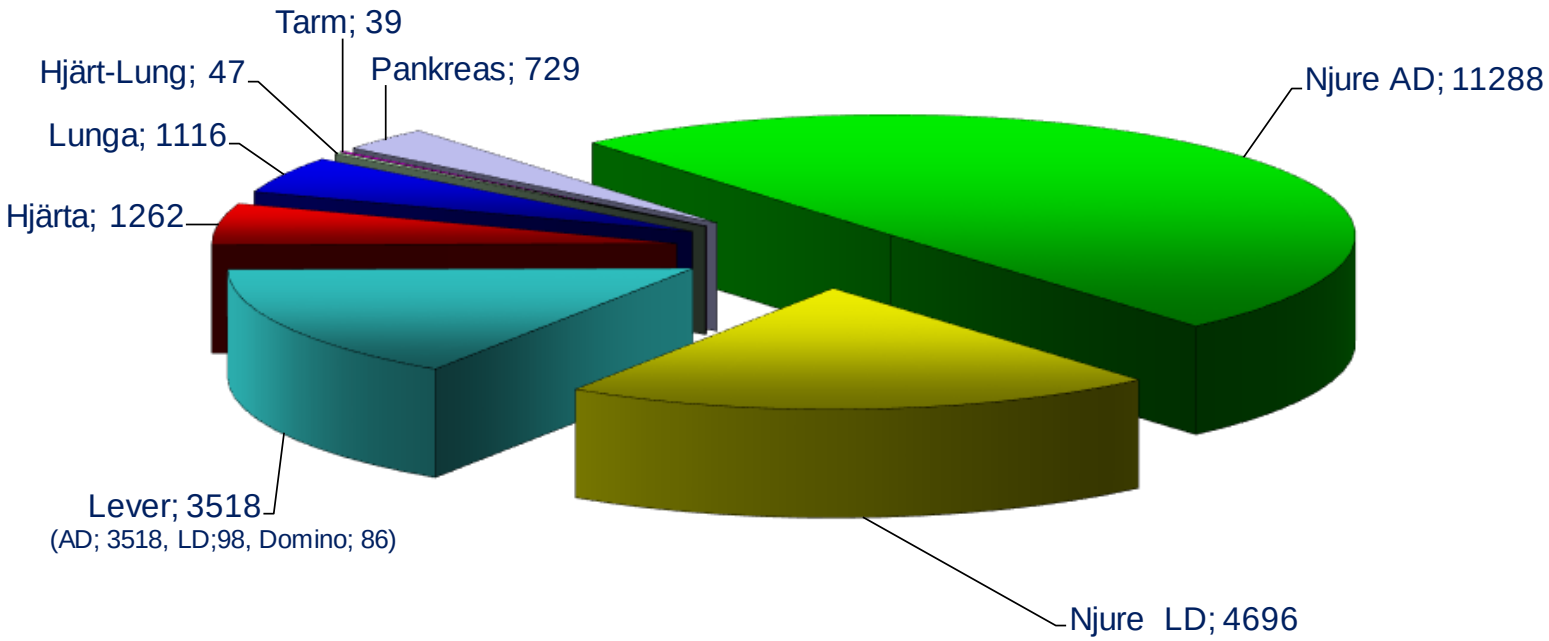
Circ Heart Fail. 2017;10:e003529. DOI: 10.1161/CIRCHEARTFAILURE.116.003529
EHJ (2016) 37 (27):2129-2200 - https://doi.org/10.1093/eurheartj/ehw128

www.ishlt.org



Antal transplanterade organ i Sverige
1964-01-01 - 2018-12-31

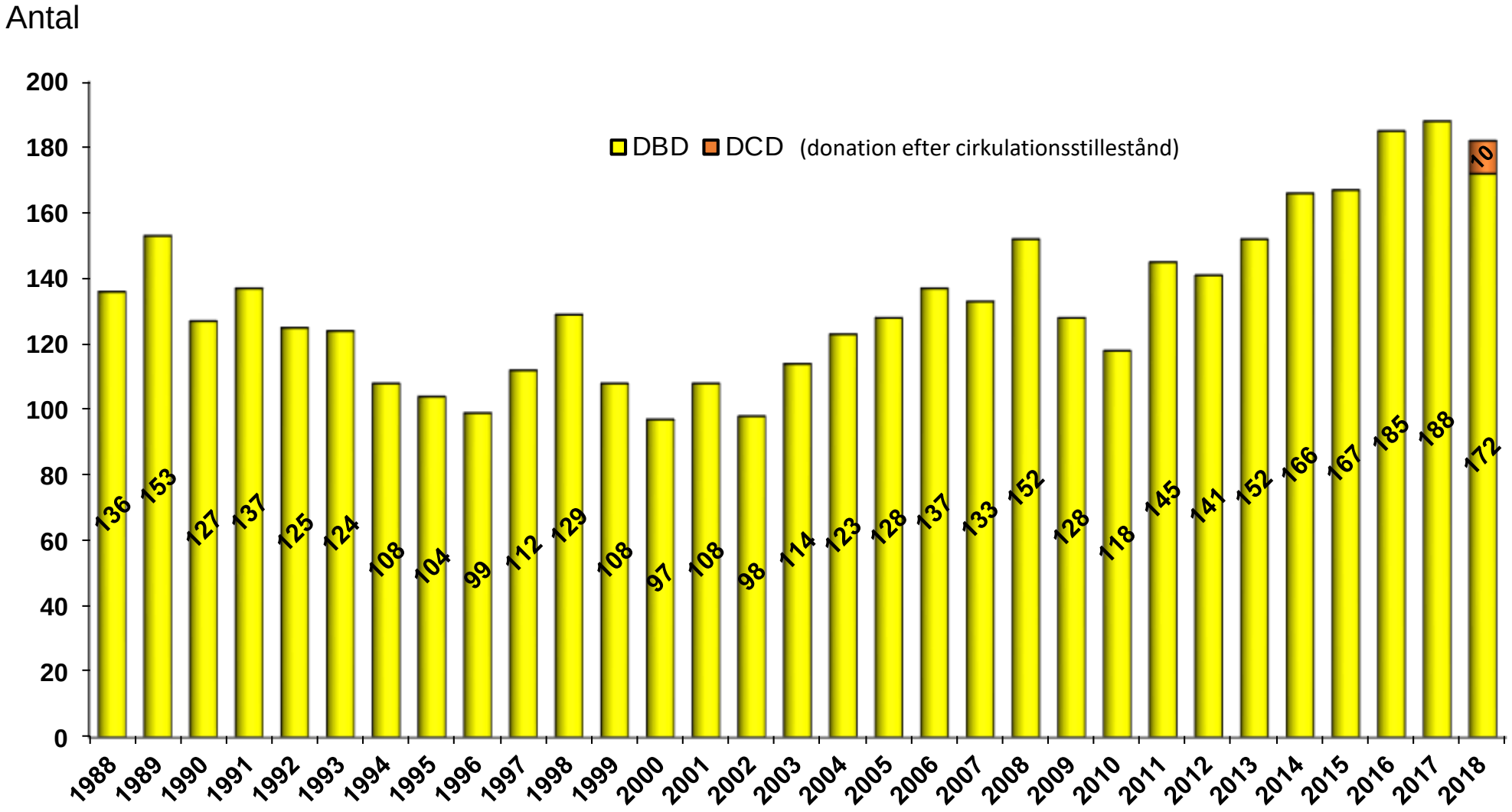
Totalt 22695



Källa: Svensk transplantationsförening

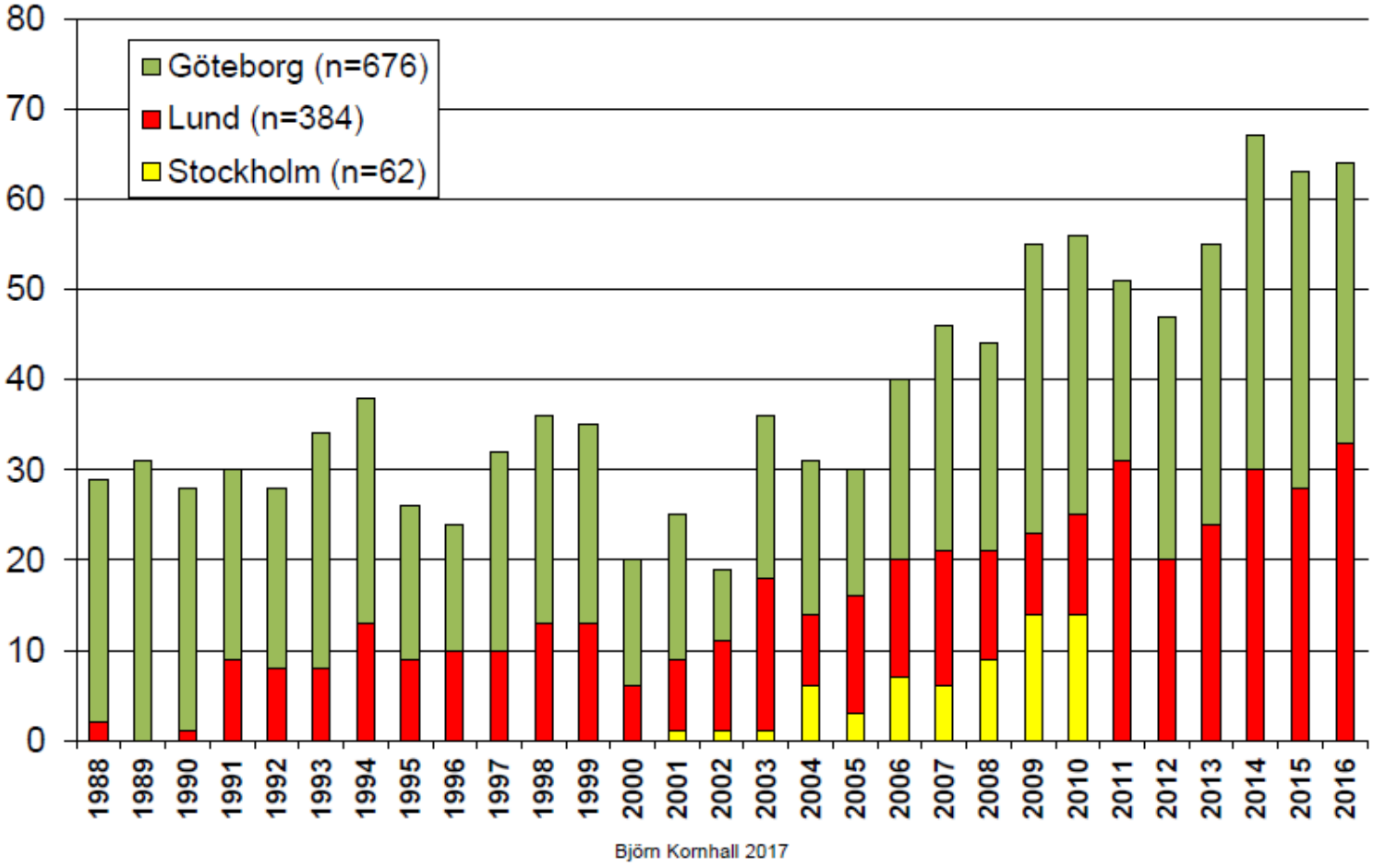
Organdonatorer i Sverige

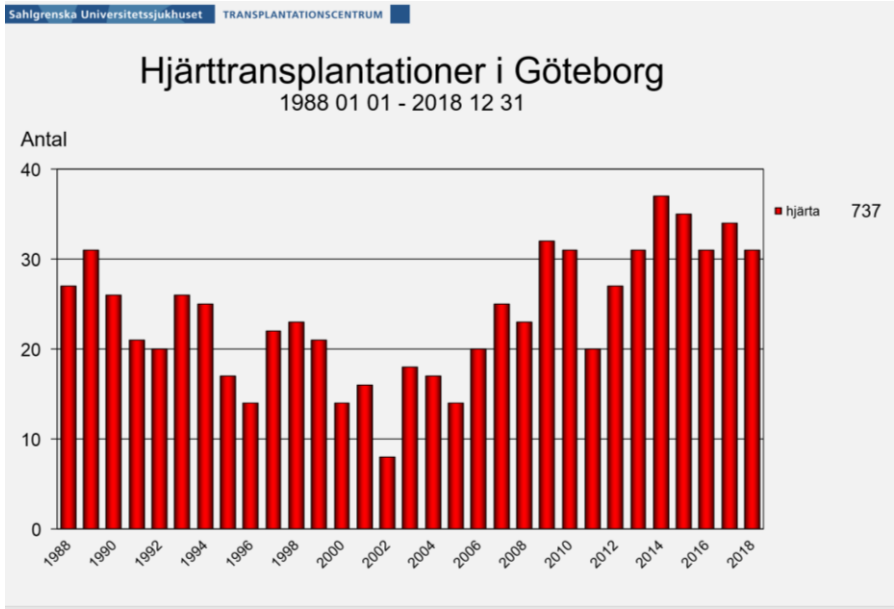
90 000 dödsfall/år

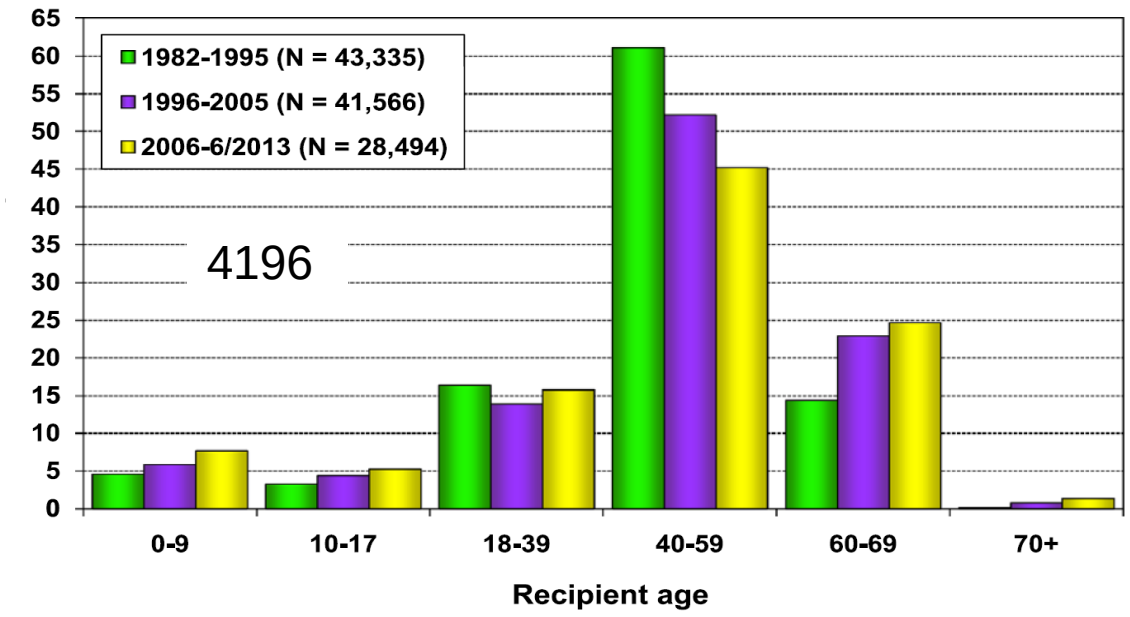


Hjärttransplantationer i Sverige 1988 – 2016

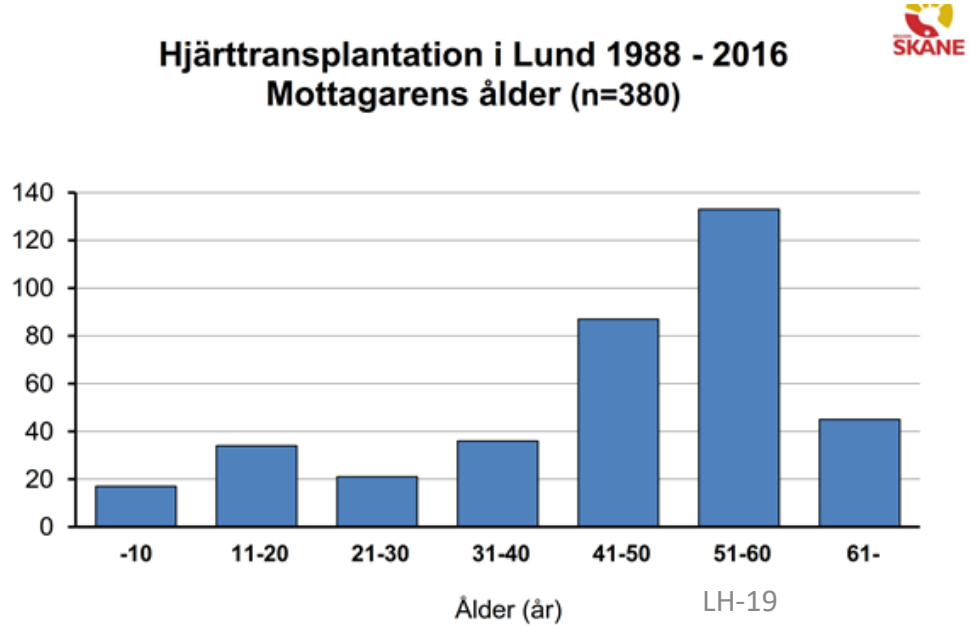
(n = 1122)







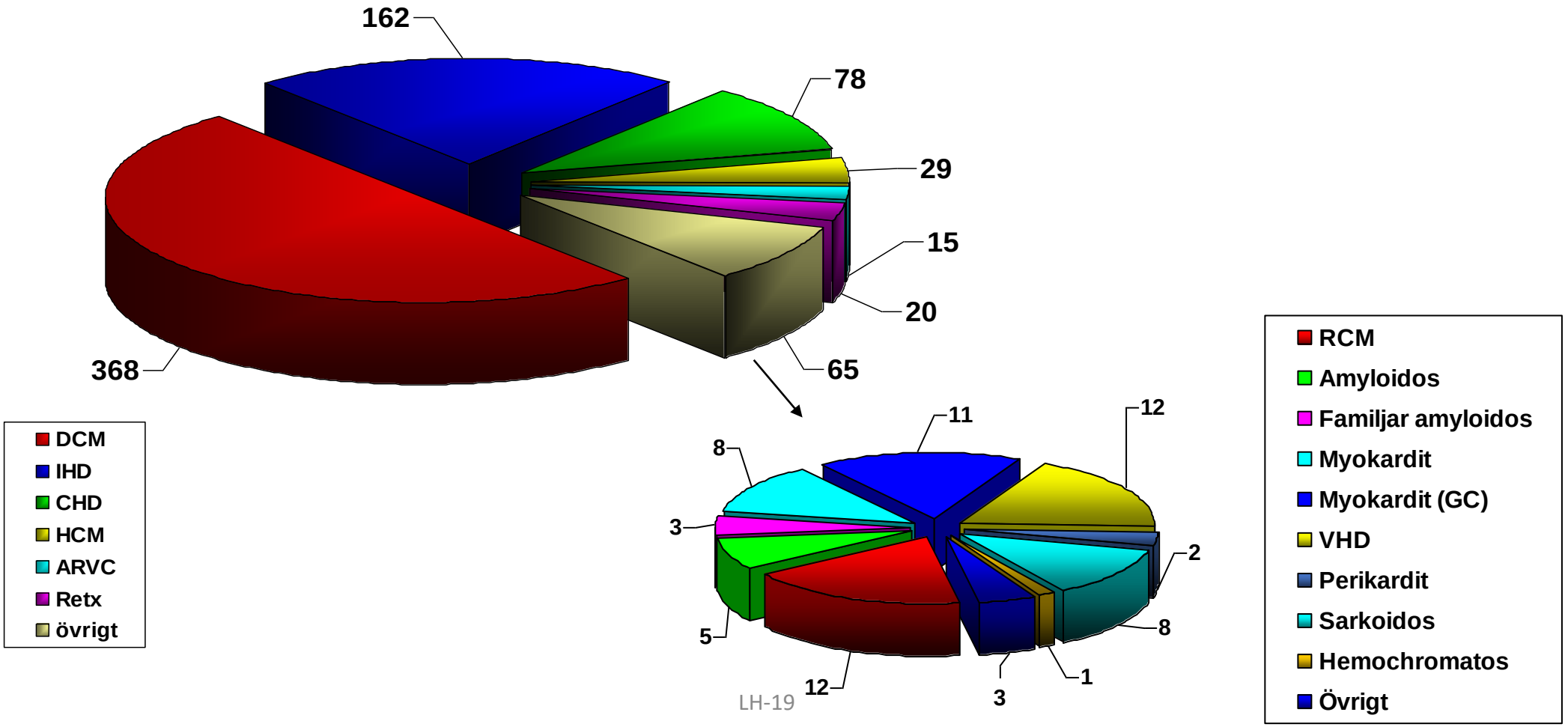
Medelålder 54 år
Andel i ålder >60 och <10 år ökar



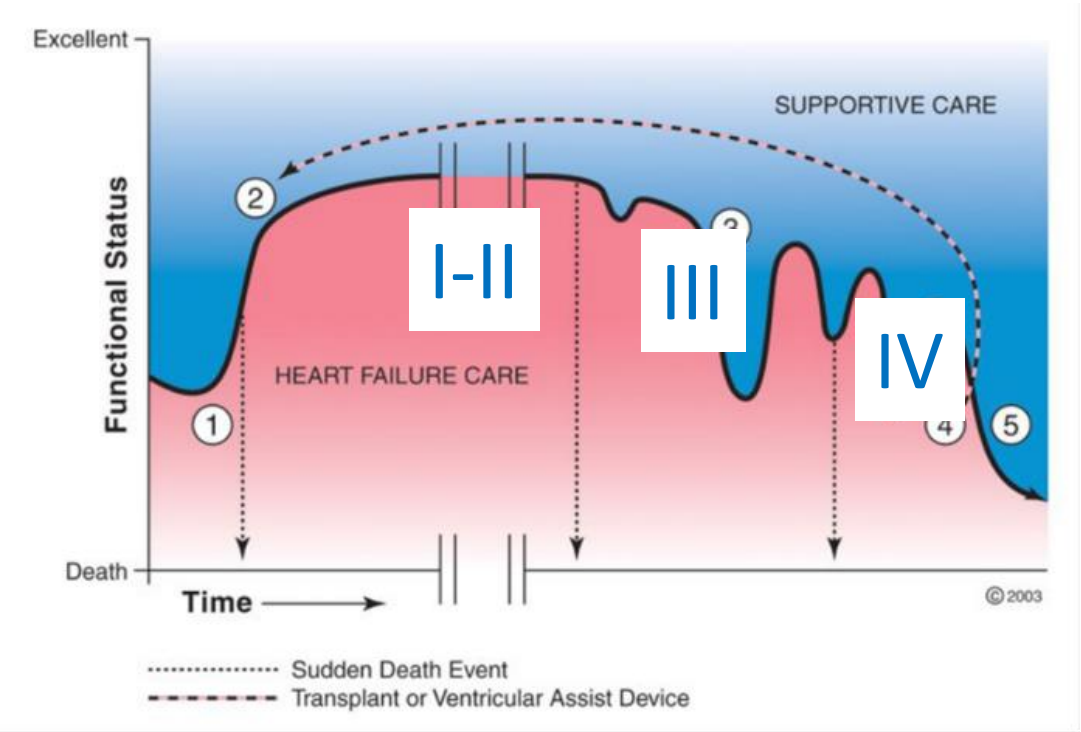
Hjärttransplantation

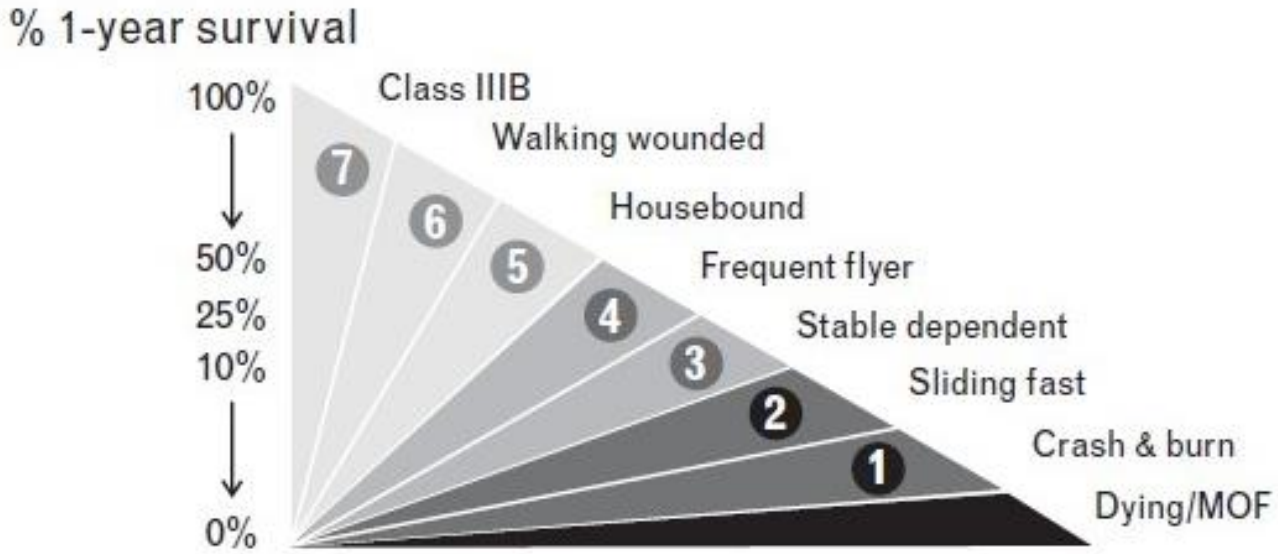
Göteborg 1988-2018

Diagnoser transplanterade patienter n=737



NYHA och INTERMACS gradering





Intermacs level	Survival	VAD benefit
5–7	Months to years	Not established
3–4	Weeks to months	Yes
1–2	Hours to weeks	Yes
MOF	Hours to days	Bridge to decision in selected cases

När är det dags för hjärttransplantation?

Table 13.4 Heart transplantation: indications and contra-indications

Patients to consider	End-stage HF with severe symptoms, a poor prognosis, and no remaining alternative treatment options. Motivated, well informed, and emotionally stable. Capable of complying with the intensive treatment required postoperatively.
Contra-indications	Active infection. Severe peripheral arterial or cerebrovascular disease. Pharmacologically irreversible pulmonary hypertension (LVAD should be considered with a subsequent re-evaluation to establish candidacy). Cancer (a collaboration with oncology specialists should occur to stratify each patient as to their risk of tumour recurrence). Irreversible renal dysfunction (e.g. creatinine clearance <30 mL/min). Systemic disease with multi-organ involvement. Other serious co-morbidity with poor prognosis. Pre-transplant BMI >35 kg/m^2 (weight loss is recommended to achieve a BMI <35 kg/m^2). Current alcohol or drug abuse. Any patient for whom social supports are deemed insufficient to achieve compliant care in the outpatient setting.

European Heart Journal (2016) 37, 2129–2200
doi:10.1093/eurheartj/ehw128

ESC GUIDELINES

2016 ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure

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

- Terminal symptomatisk, **fullmedicinerad och behandlad hjärtsjukdom.**
- Motiverad, informerad och emotionellt stabil.
- Compliance

<u>Kontraindikationer:</u>

Infektion

Perifier kärlsjuka

Missbruk

Cancer

Ulcus

Tromboembolisk sjuka

Leversjukdom

Njursvikt

Systemsjukdom med multiorganpåverkan

Obehandlad ostabil Psykiatrisk sjukdom

Hög resistens i lilla kretsloppet

Annan allvarlig sjukdom

Anamnes på detaljnivå.

Hur klarar man sig i vardagen? Hur ser dagen ut?
Städa? Cykla?
Gå runt på Ica? Bära kassarna till bilen?
Laga mat utan att vila?
Hur var det förra året vid den här tiden?
För tre månader sedan?

Ekokardiografi

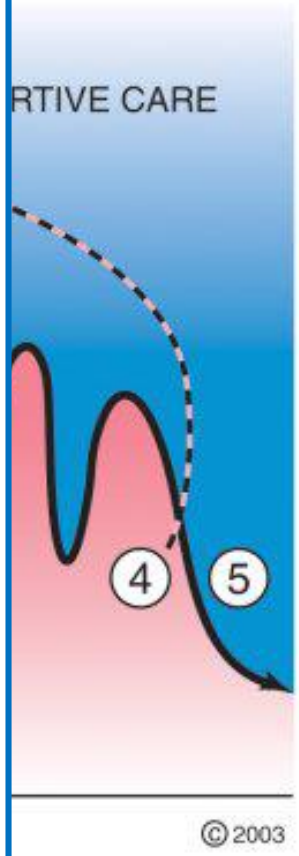
Storlek och funktion?
Har det ändrat sig och hur snabbt?

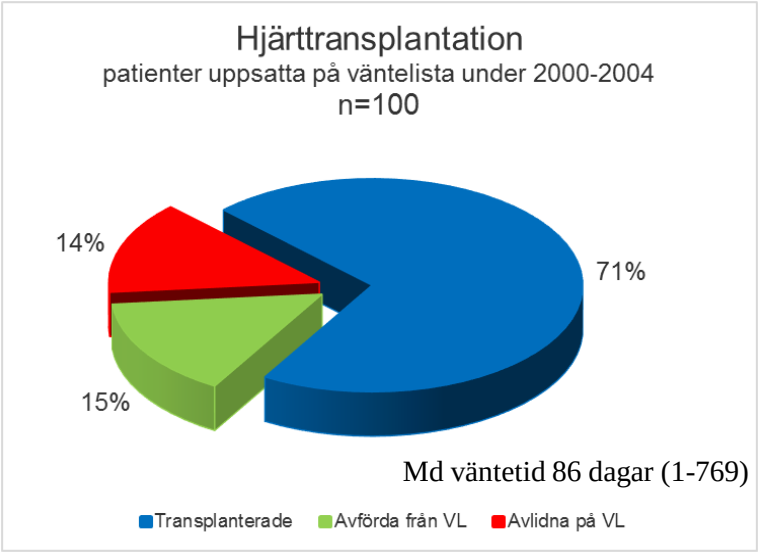
Arbetsprov med syreupptagningsmätning. (liter/kg/min)

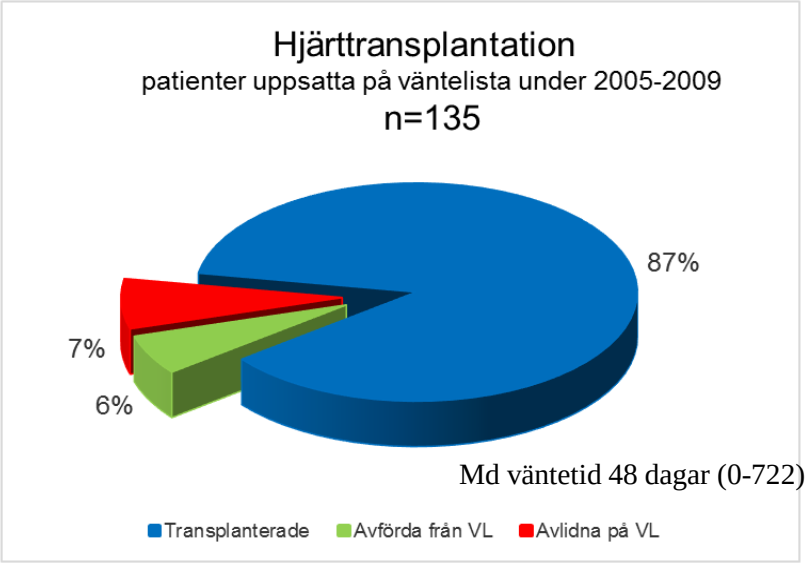
Vilka värden jmf med tidigare?
ca 20 vanligt hos stabil hjärtsviktspatient- närmar det sig 12-14?
Blodtrycksfall?
Arytmi?

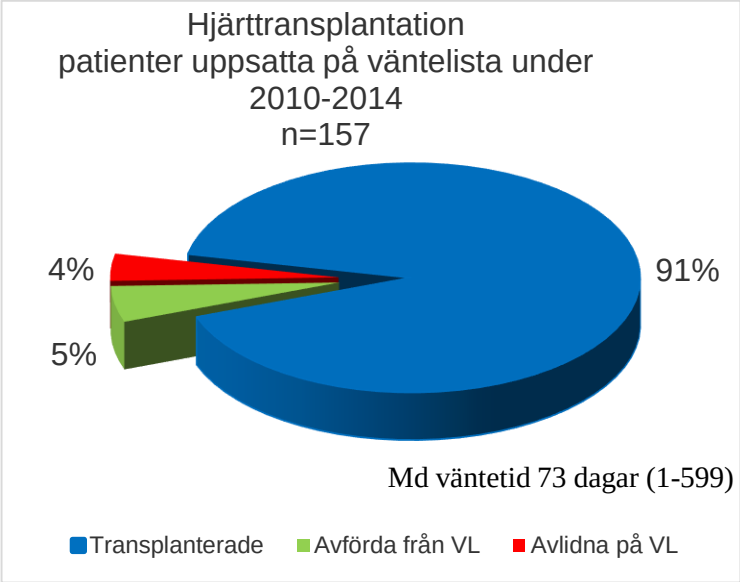
Njurfunktion? Leverfunktion? Humöret?

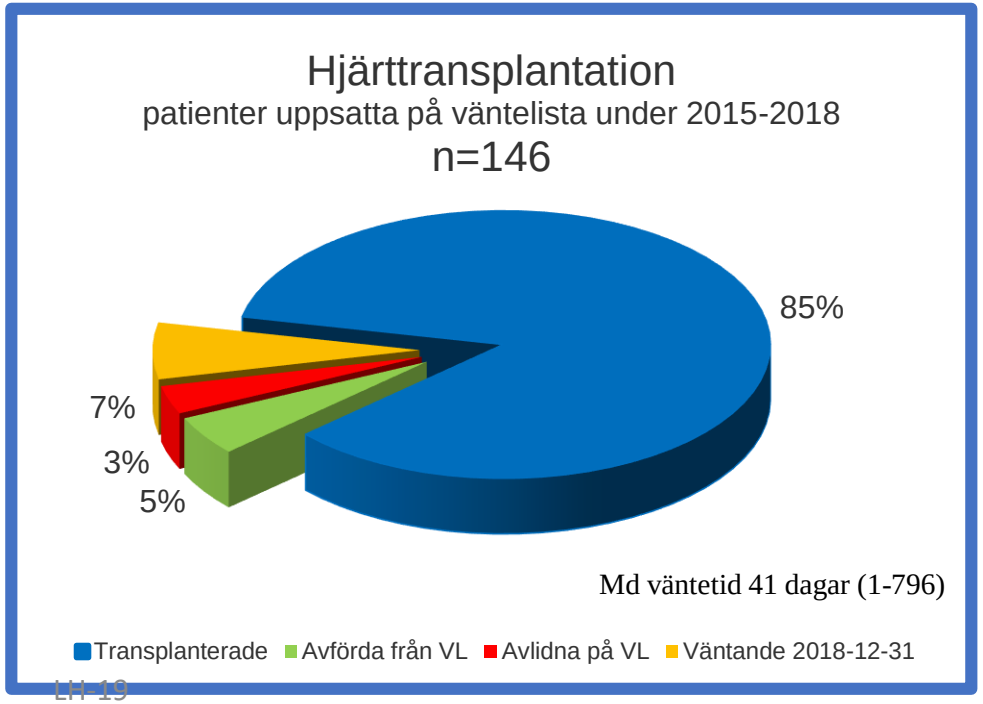
Multiorgansvikt?



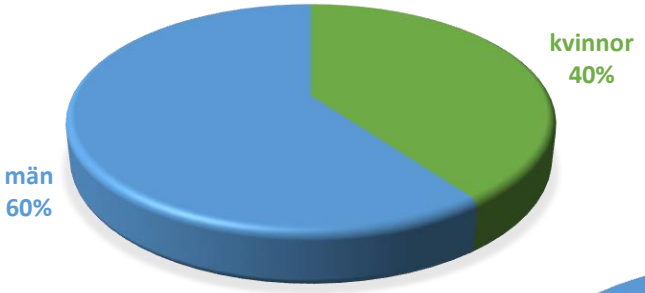

Hjärttransplantation
patienter uppsatta på väntelista under 2000-2004
n=100
14%
71%
15%
Md väntetid 86 dagar (1-769)
Transplanterade
Avförda från VL
Avlidna på VL


Hjärttransplantation
patienter uppsatta på väntelista under 2005-2009
n=135
87%
7%
6%
Md väntetid 48 dagar (0-722)
Transplanterade
Avförda från VL
Avlidna på VL

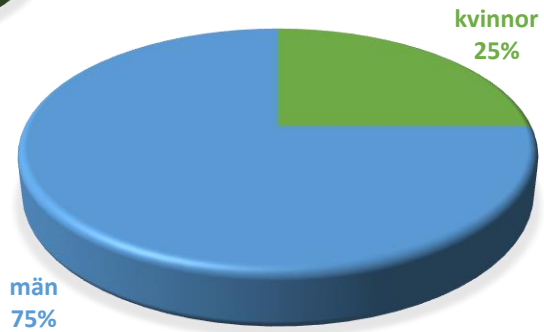

Hjärttransplantation
patienter uppsatta på väntelista under
2010-2014
n=157
4%
91%
5%
Md väntetid 73 dagar (1-599)
Transplanterade
Avförda från VL
Avlidna på VL


Hjärttransplantation
patienter uppsatta på väntelista under 2015-2018
n=146
85%
7%
3%
5%
Md väntetid 41 dagar (1-796)
Transplanterade
Avförda från VL
Avlidna på VL
Väntande 2018-12-31

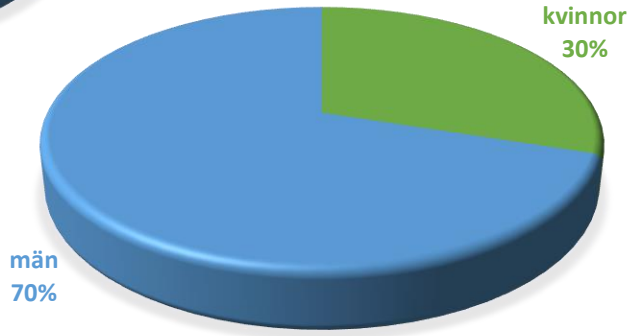
HJÄRTSVIKT



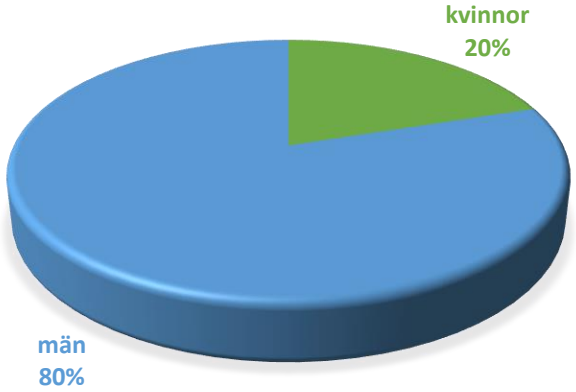
ENTRESTO



HJÄRT TRANSPL



LVAD

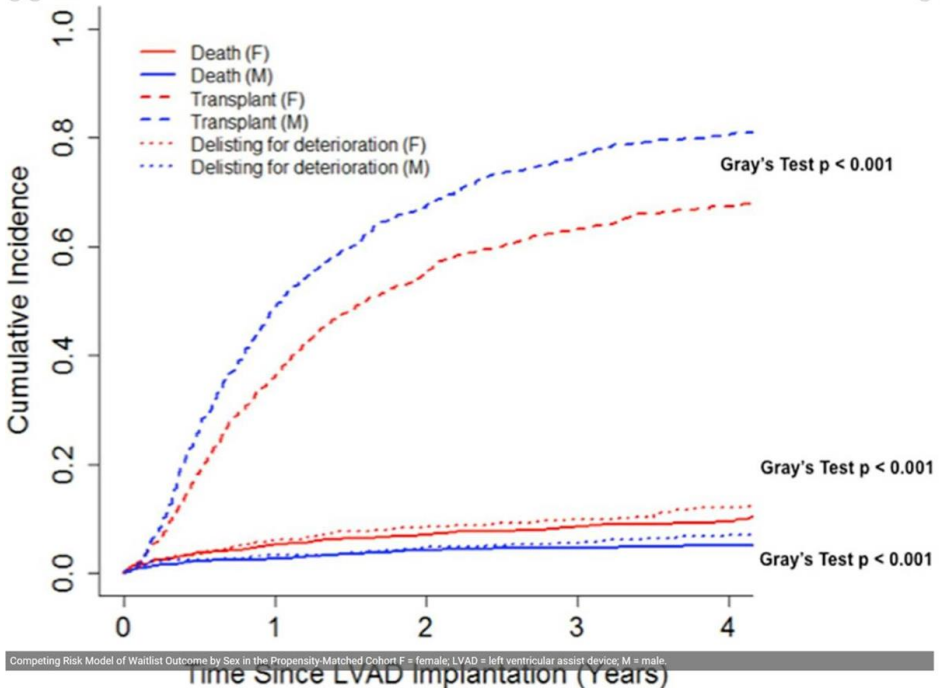


United Network for Organ Sharing registry, UNOS 2008 – 2018
13 305 pat 2 771 women, 20.8%

Sex-Related Differences in Use and Outcomes of Left Ventricular Assist Devices as Bridge to Transplantation

Ersilia M DeFilippis, Lauren K Truby, A Reshad Garan, Raymond C Givens, Koji Takeda, Hiroo Takayama, Yoshifumi Naka, Jennifer H Haythe, Maryjane A Farr, Veli K Topkara

JACC. Heart Failure 2019, 7 (3): 250-257



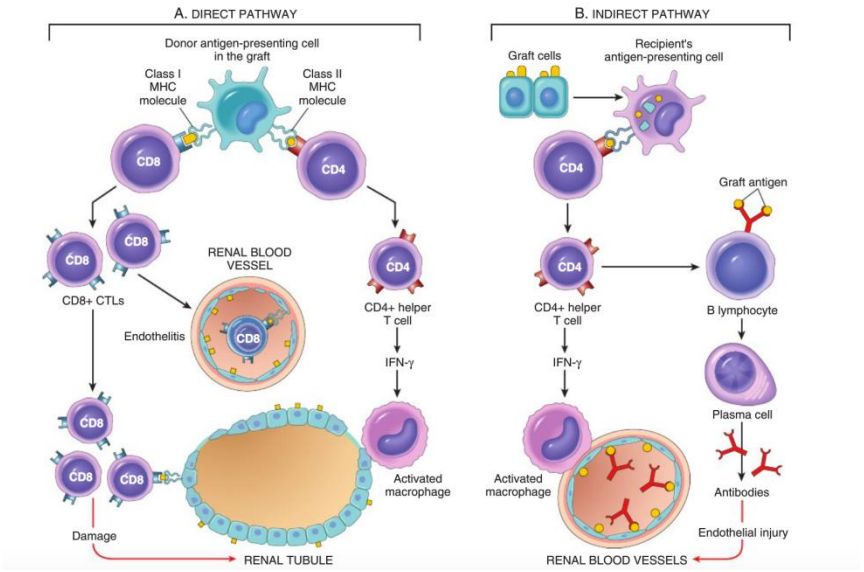
Competing Risk Model of Waitlist Outcome by Sex in the Propensity-Matched Cohort F = female; LVAD = left ventricular assist device; M = male.

Increased risk of waitlist mortality	7.0% vs 4.2%
Lower use of LVAD	18.9% vs 29.9%
Lower chances of heart transplantation	55.1% vs 67.5%
Delisting for worsening clinical status at 2 years post LVAD implantation	8.5% vs 4.7%

HeartMate II or HeartMate 3 as BTT

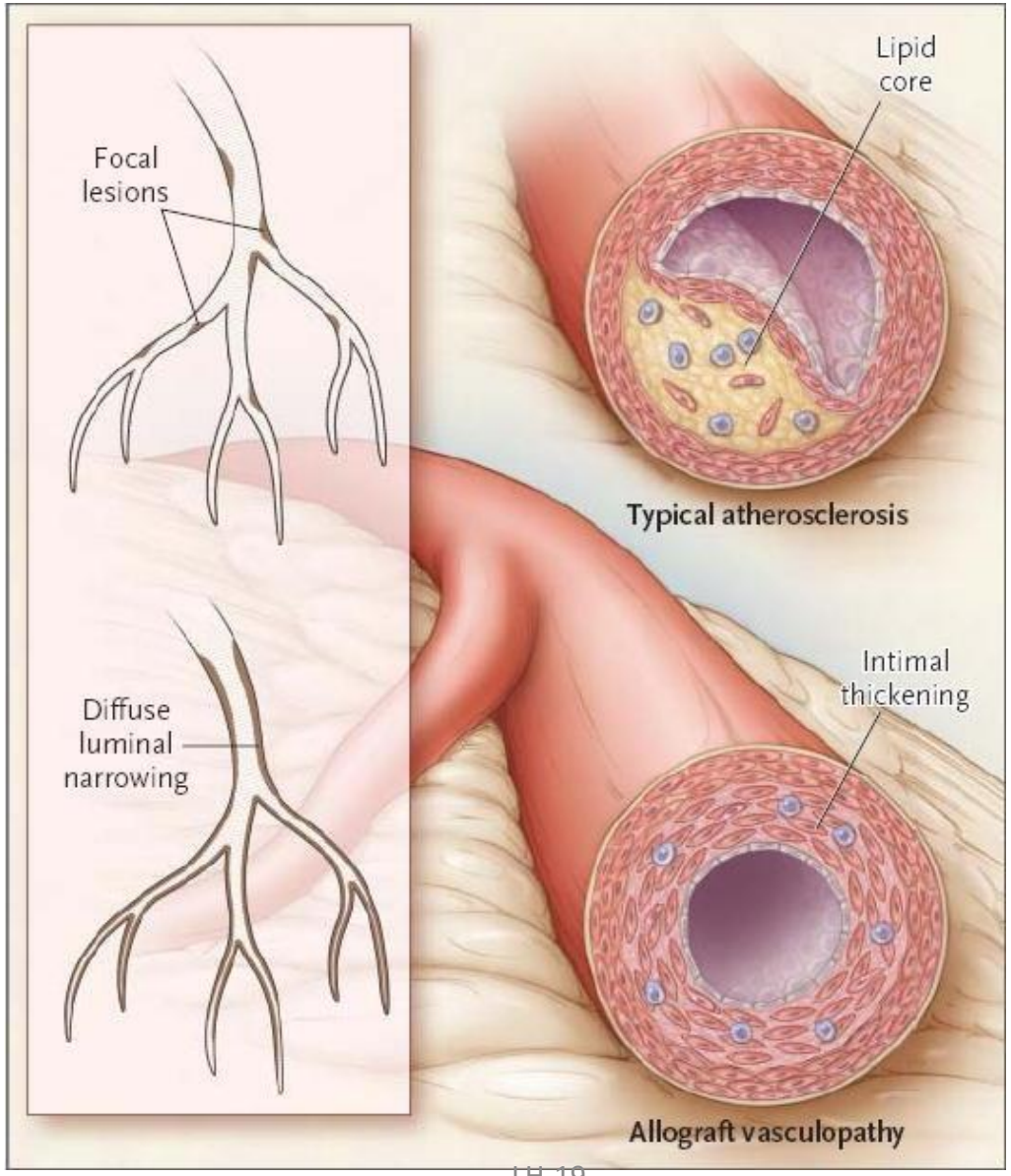
Medicinering efter transplantation

- Ciklosporin Sandimmun N®
- Tacrolimus Prograf ® Adport®
- Azathioprin Imurel®
- Everolimus Certican®
- Mucofenolatmofetil Cellcept® Myfenax®
- Steroider

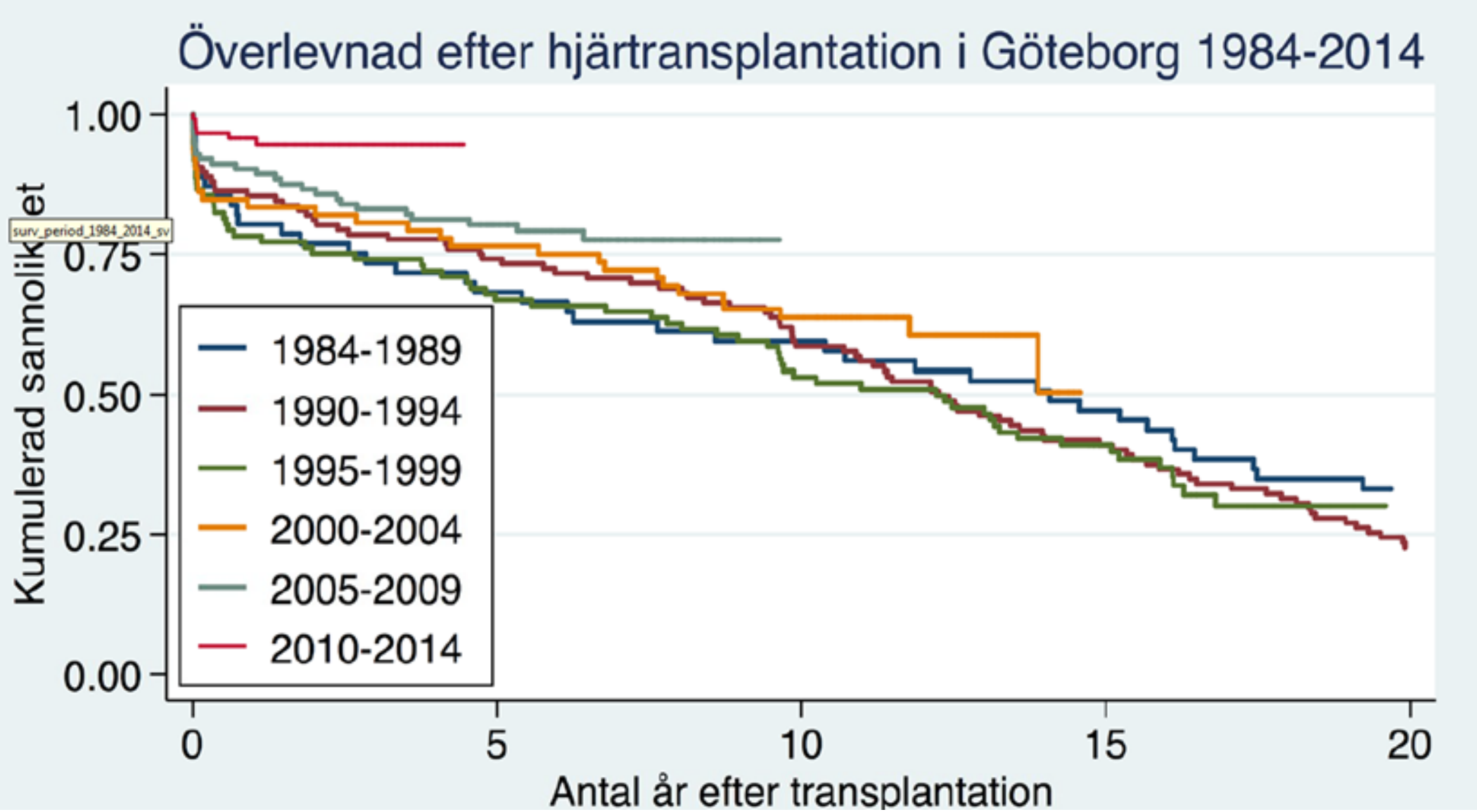


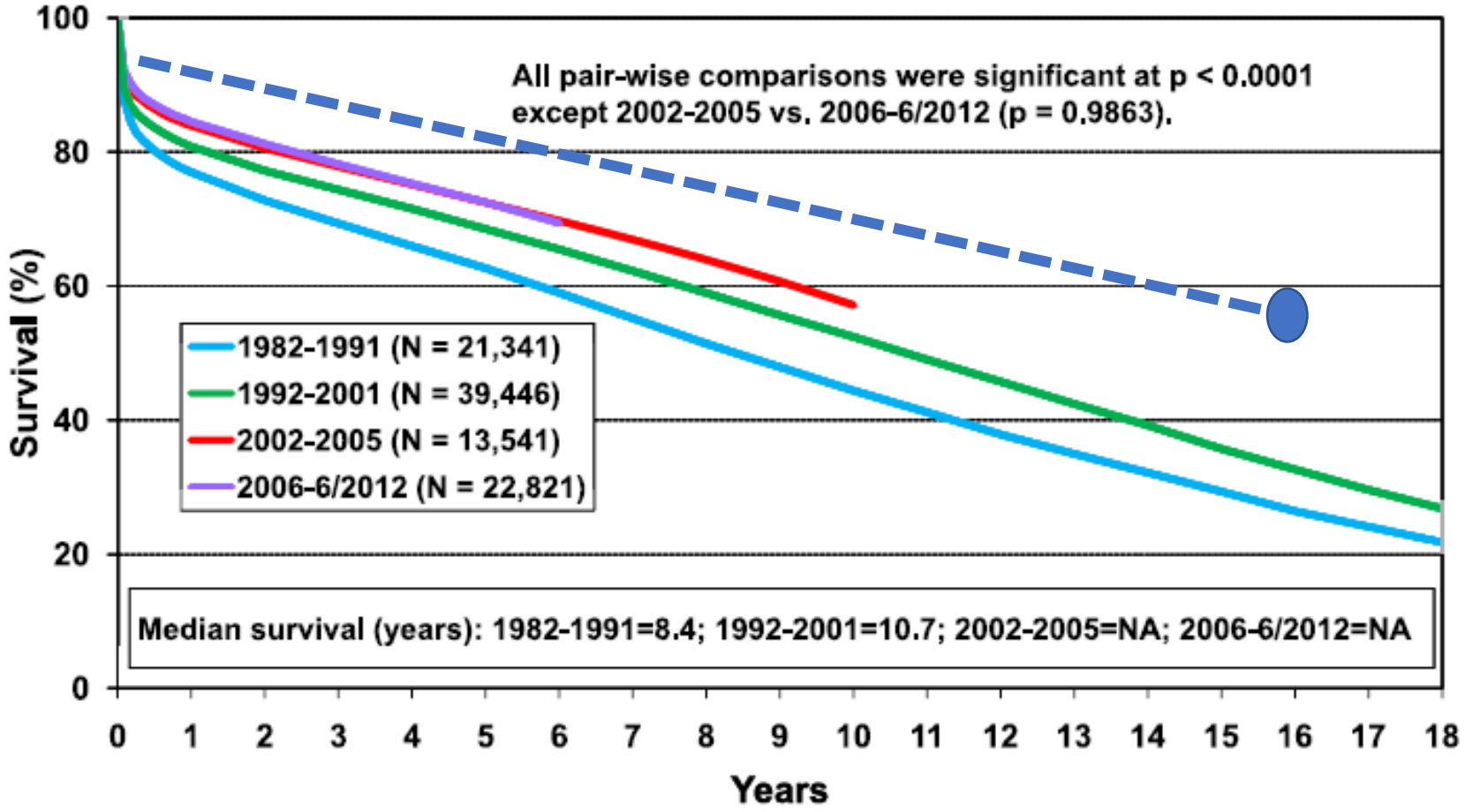
- Statiner
- Antikoagulation/trombocythämmare
- Diuretika
- Aciklovir, Bactrim Forte o Fluconazol
- Antihypertensiva
- E-vitaminer, Omega III

Cardiac allograft vasculopathy, CAV.



N Eng J Med 2003;349:829-30


Överlevnad efter hjärtransplantation i Göteborg 1984-2014
Kumulerad sannolikhet
1.00
0.75
0.50
0.25
0.00
surv_period_1984_2014_sv
1984-1989
1990-1994
1995-1999
2000-2004
2005-2009
2010-2014
0
5
10
15
20
Antal år efter transplantation



1 års överlevnaden i Linköping 94%,
5 år 85%,
10 år 75% och efter
20 år lever 42% av patienterna.