

Hjertetransplantasjon

Liten del i stor prioriteringsdebatt i Norge

Einar Gude
Hjerteavdelingen, Rikshospitalet

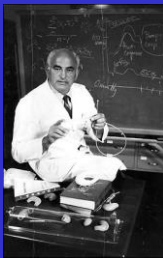


Christiaan Barnard



Norman E. Shumway

McRae D. Every second counts;
The race to transplant the first
human heart.
New York, NY: G.P. Putnam's
sons 2006



Adrian Kantrowitz



Richard Lower

Første hjertetransplantasjon 1967



Norge, en sen kveld 1983



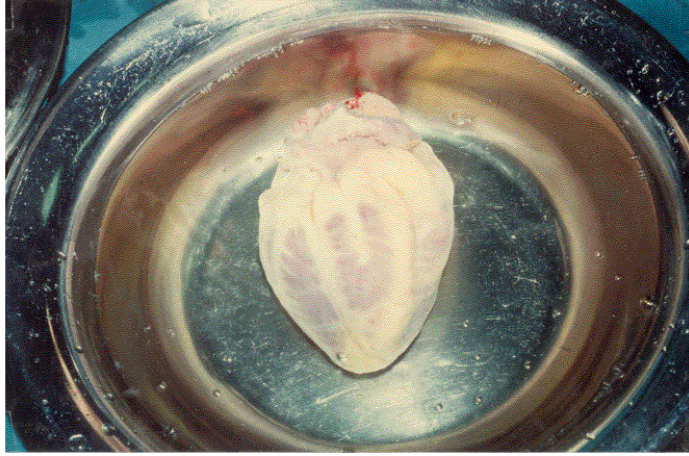
VG: 9/11.83

Sivil ulydighet

- Hvis mislykket ville sannsynlig en eller flere ha mistet jobben
- Programmet ville blitt utsatt i flere år.

HTx pr mill.

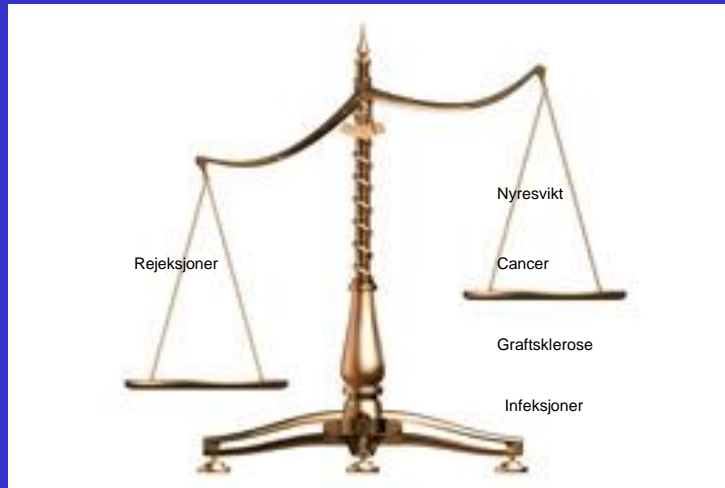




Flere utfordringer

- Pasienten er i utgangspunktet meget syk
- Stort kirurgisk inngrep
- Enda større biologisk inngrep.
 - Avstøtning
 - Medikasjon
 - Bivirkninger

Den fine balansen



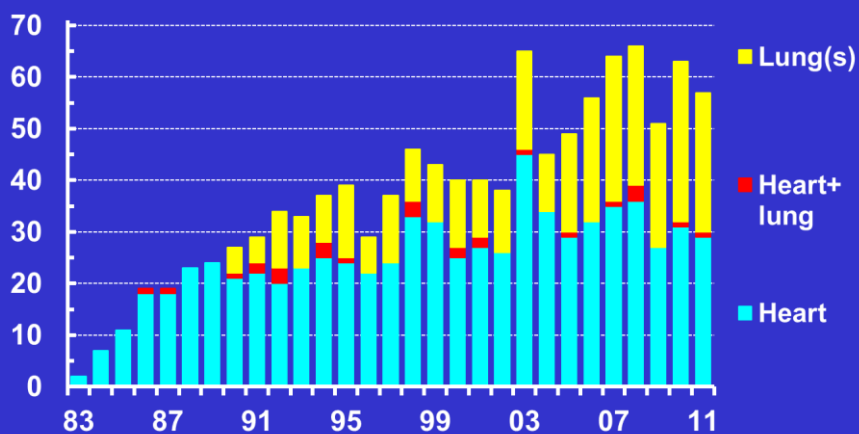
Hvor syke pasienter skal man redde??

- Avhengig av pris på behandling?
- Prognose etter behandling?
- Alder?
- Del i framtidig forskning?
- Privat finansiering?

Prioritering

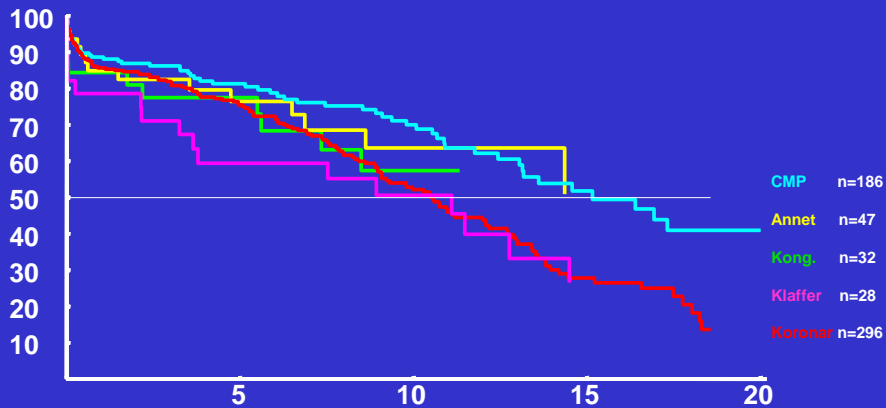
- Transplantere de sykeste og dermed hindre flest dødsfall
- Transplantere de vi vet har best prognose
 - Lever lenger
 - Billigere

Heart and lung transplantation Norway 1983-2011



TL 01.12

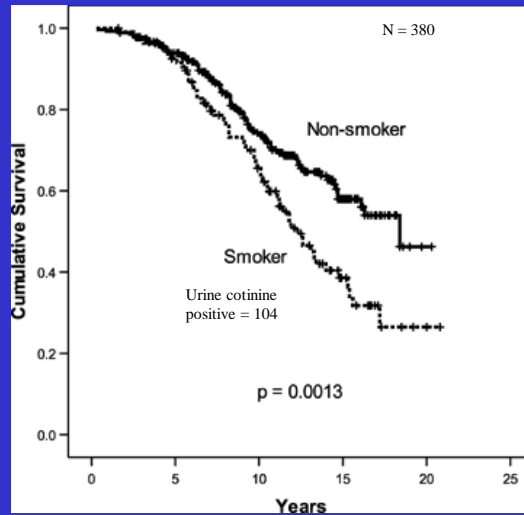
HTx survival 1983-2007



Hvem skal vi prioritere?

- Ung pasient med lenger utnyttelse av hjertet
 - Vil sannsynligvis få ny hjertesvikt
 - Dø midt i livet eller trenge et hjerte # 2
- Eldre vil kunne få noen gode år.....
 - Har tilleggssykdommer som kompliserer
 - Kortere levetid for det nye hjertet

Smoking after cardiac transplantation



Botha P et al. Am J Transplant 2008; 8: 866-71

- Må
- Bør
- Kanskje
- Pasienten vil, men

For de aller sykeste



Før 2005 har de aller sykeste blitt behandlet med ECMO

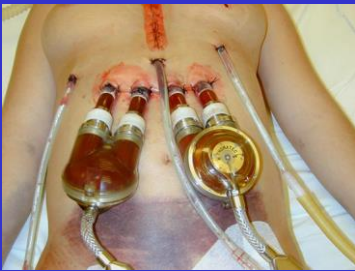
-50% mortalitet

-økt risiko for komplikasjoner

-kort tids beh (maks få uker)

-må ta det første og beste hjertet man får

-reduisert prognose etter transplantasjon



- Må
- Bør
- Kanskje
- Pasienten vil, men

ECMO and short-term VAD

ECMO
3-6 L/min



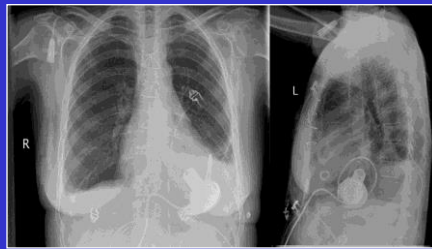
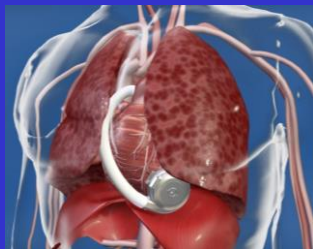
Impella Recover
Short-term
Percutaneous
Axial flow
2.5-5 L/min



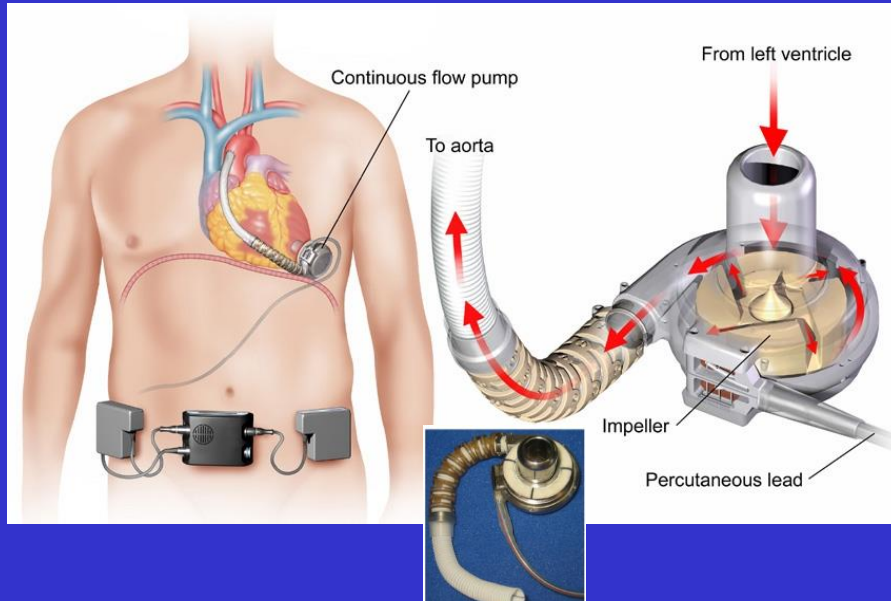
TandemHeart pVAD
Percutaneous
Centrifugal axial
flow



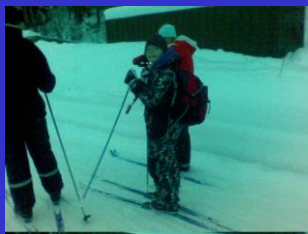
Circulatory assist/Left ventricular assist device (LVAD)



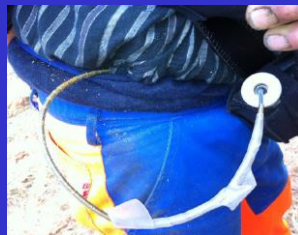
The HeartWare® Ventricular Assist Dystem (HVAD)



Activities at home with LVAD

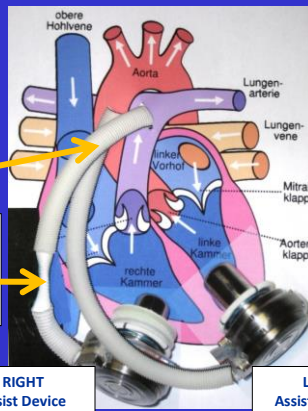
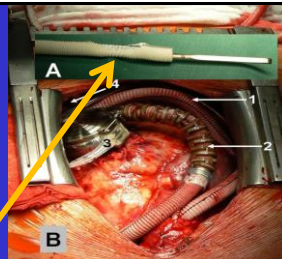


Hjertepumpe som endelig behandling



Two LVADs

Heartware HVAD



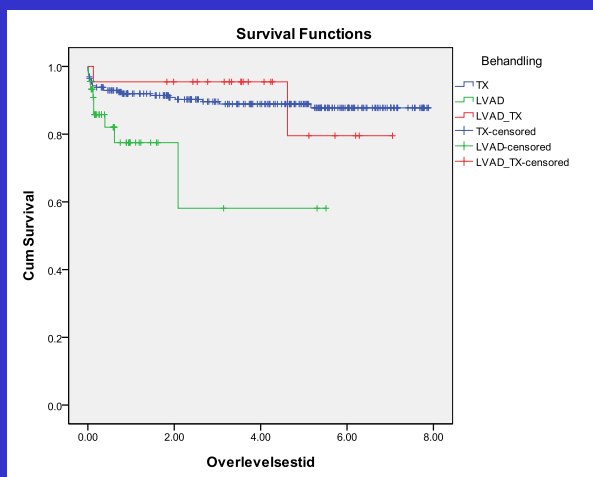
Narrowing of Outflow Graft = Increase of Afterload

Struelsen, P. *et al.* *Continuum* 2010;16(1):1-10. *Struelsen, P. et al. J Thorac Cardiovasc Surg.* 2010. eprint.

men

- Full jobb som maskin kjører
- God fysisk form
- 9 mnd på intensiv avd
- Høy infeksjonsrisiko
- Økt risiko for blodpropp
- Fortsette med pumpe eller transplantere??

Overlevelse Norge fra 2005-2012



55 LVAD

20 Ventriassist.
-15 transplantert
-1 ongoing (ønsker ikke tx)
-1 recovery
-3 døde

35 Heartware
-17 transplantert
-9 venter på transplantasjon
-1 tror han blir varig beh
- 8 døde

Editorial Comment: Journal of the American College of Cardiology Vol 50, 748-51, 2007

“When outcomes are consistently good beyond **2 years** the devices will be seen not only as a bridge to transplantation but as a **feasible alternative to transplatation** for the estimated 80,000 to 150,000 patients in the U.S.”

Lynne Warner-Stevenson, MD, FACC



Cost effective???

-Cost

~ € 110,000 LVAD (HeartMate II, HVAD)

~ € 100,000 Hospital care Hernandez, JAMA 2008

50% reduction since 2001 Slaughter, J Card Surg 2011

-Cost per QALY

BTT ~ € 250,000 Moreno, JHLT 2012

DT ~ € 130,000, 75% reduction, Rogers, JHLT 2012

Comparison:

”Vägverket”: 845,000 SEK

Medicare/Medicaid: pays for LVAD

Norway: Qualy year 500.000 NOK



President plans to kill off every single homosexual



President plans to kill off every single homosexual - Afrik-news.com Africa news, Maghreb news - The african daily newspaper

Gambian President Yahya Jammeh says he will "cut off the head" of any homosexual caught in his country. Addressing supporters at the end of his meet the farmers tour here Sunday, Jammeh also ordered any hotel or motel housing homosexuals to close down, adding that owners of such facilities would also be in trouble.
He warned all homosexuals in the country to leave, noting that a legislation "stricter than those in Iran " concerning the vice would be introduced soon.
President Jammeh said he was bent on making the Gambia one of the best countries to live in, adding that his government had spent over US\$ 100 million towards the development of the country since 1994.
He said, however, that almost 98 per cent of the amount had gone to foreigners

A claim by Gambian President Yahya Jammeh that he can cure Aids in three days has been lambasted by a leading South African HIV/Aids specialist.



I can treat asthma and HIV/Aids... Within three days the person should be tested again and I can tell you that he/she will be negative," he said in a statement.



DAILY OBSERVER

Forward with The Gambia www.observer.gm
 Thursday, January 15, 2009 ISSN 0796-0832 PRICE: D10.00 Vol 15, No 174

Dr Owl says...
Education is only useful if it is useful.

D5m ultrasound scanner for Westfield Clinic



An ultrasound scanning machine (GE Ving Med V10) worth over D5m, was on Thursday January 8, handed over to Westfield Clinic by Senegal from Gambia, Senegal.

The ultrasound scanning machine has the possibilities to carry out heart, ultrasonical, tissue, abdominal, pregnancy and orthopedic examinations, among others.

The machine could also be used for detecting fluid in the body especially those around the heart, lungs, abdomen.

Speaking at the presentation ceremony, Dr Lamin Peters, managing director of Westfield Clinic said the machine will help them carry out their work easily.

He expressed profound gratitude on behalf of his staff to the donor for the kind and thoughtful gesture.

For his part, Elhadji Guadio, a team specialist from Senegal, who is currently in The Gambia to train the Westfield Clinic staff on how to use the ultrasound scanner machine, expressed delight in the donation.

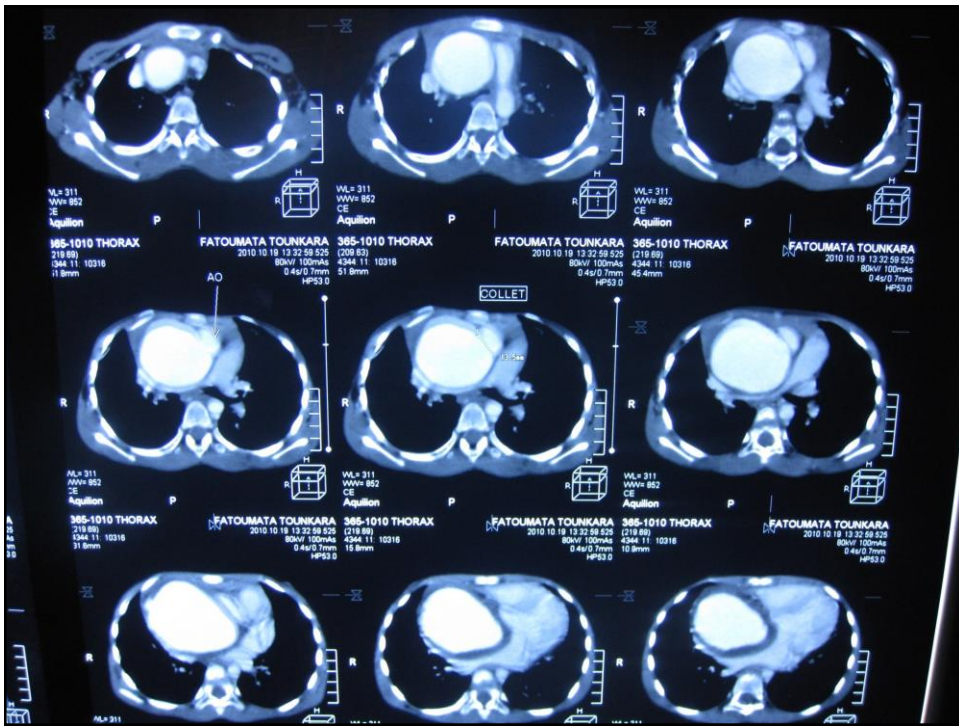
Other speakers included Dr Sheriff John Dumbuya, Senior Specialist, Gynecologist of the clinic and Mr Elhadji Jambou, Ambassador in charge of a ray of all whom expressed similar sentiments.



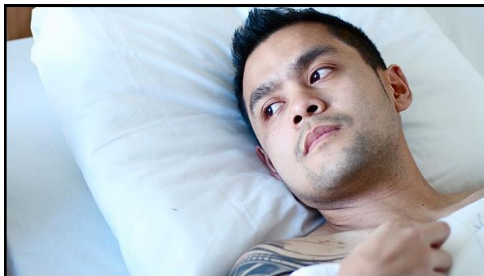
In attempted murder trial

Former AFI P coordinator









KREFT SOM 16-ÅRING. Småbarnstaren Jeremy fra Livet på vent fikk kreft i en alder av 16 år. 27 år gammel møtte han også gjennomfare en hjerte-transplantasjon. © TV 2

Cellegiftkur kan ha ødelagt Jeremys hjerte



Do you want to compete ?



Strategi videre?

- Så mange på transplantasjonslista at det automatisk blir noen som blir gående uten transplantasjonstilbud?
 - LHL?
 - Myndigheter ?
 - Politikere?





[Redacted text]