

Managing Advanced Heart Failure in 2019

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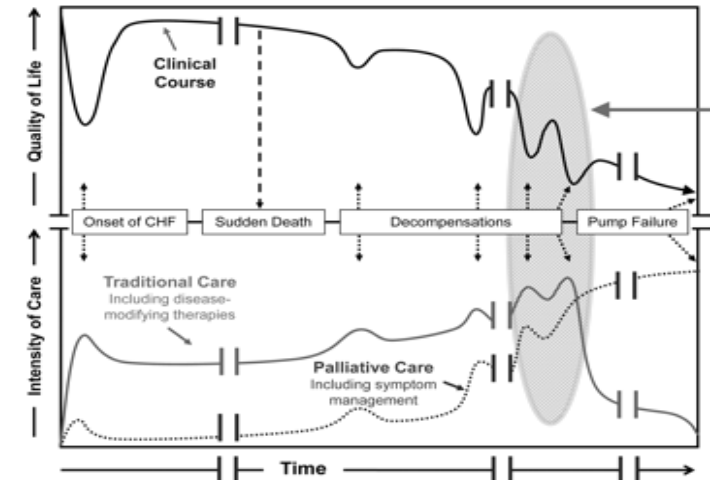
FROM THOUGHT LEADERSHIP
TO CLINICAL PRACTICE

Disclosures: None

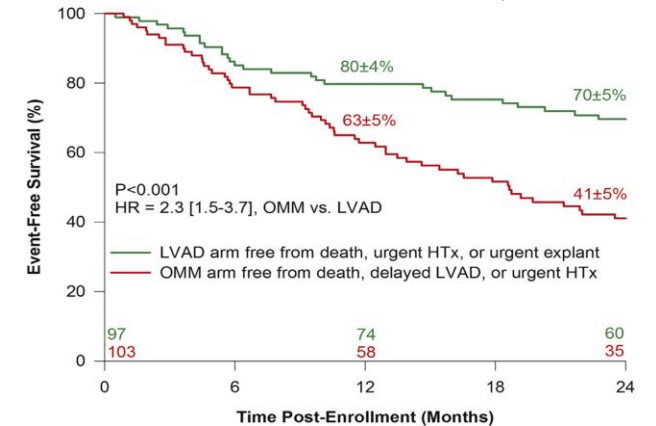


Who is the Advanced Heart Failure Patient in 2019?

- Significant functional impairment
- Abnormal cardiac structure/function
- Frequent encounters
- Persistent congestion
- Progressive end-organ dysfunction
- Intolerance to standard heart failure medications
- Abnormal biomarker profile
- Need for inotropic support
- Cardiogenic shock (acute or chronic)

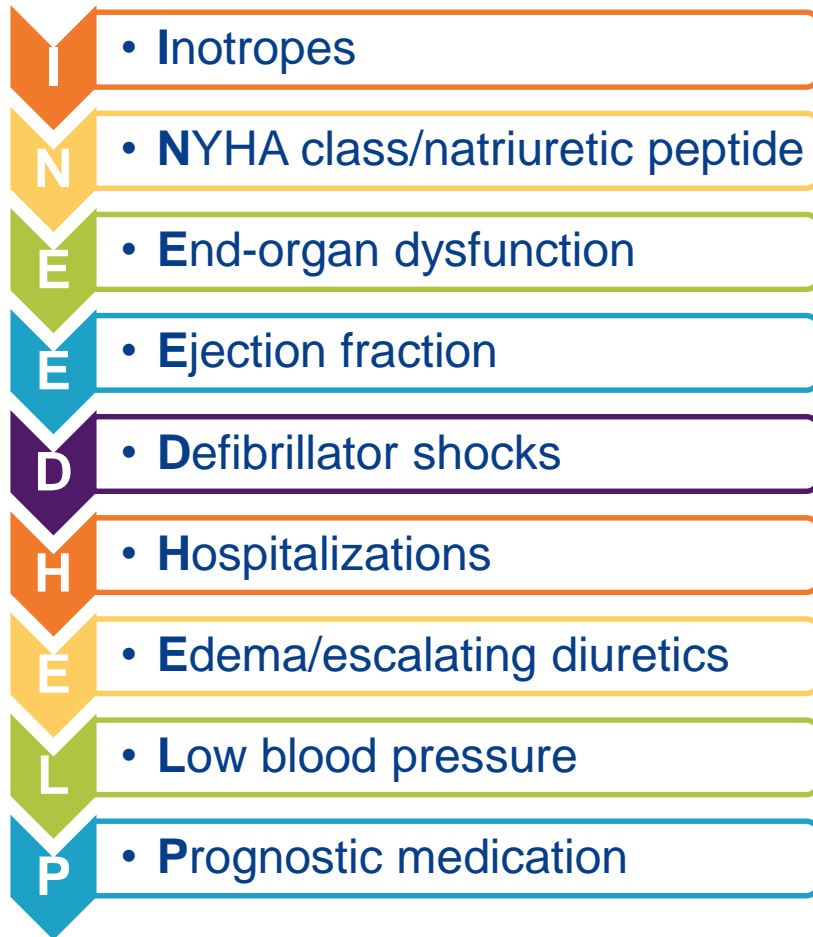


Circulation 2012;125:1928-52



JACC HF 2017; 5:518-27

“I NEED HELP”: Markers of Advanced Heart Failure



Previous or ongoing requirement for dobutamine, milrinone, dopamine, or levosimendan

Persisting NYHA class III or IV and/or persistently high BNP or NT-proBNP

Worsening renal or liver dysfunction in the setting of HF

Very low ejection fraction <20%

Recurrent appropriate ICD shocks

More than 1 hospitalization for HF in the last 12 months

Persisting fluid overload and/or increasing diuretic requirement

Consistently low BP with systolic <90 to 100 mmHg

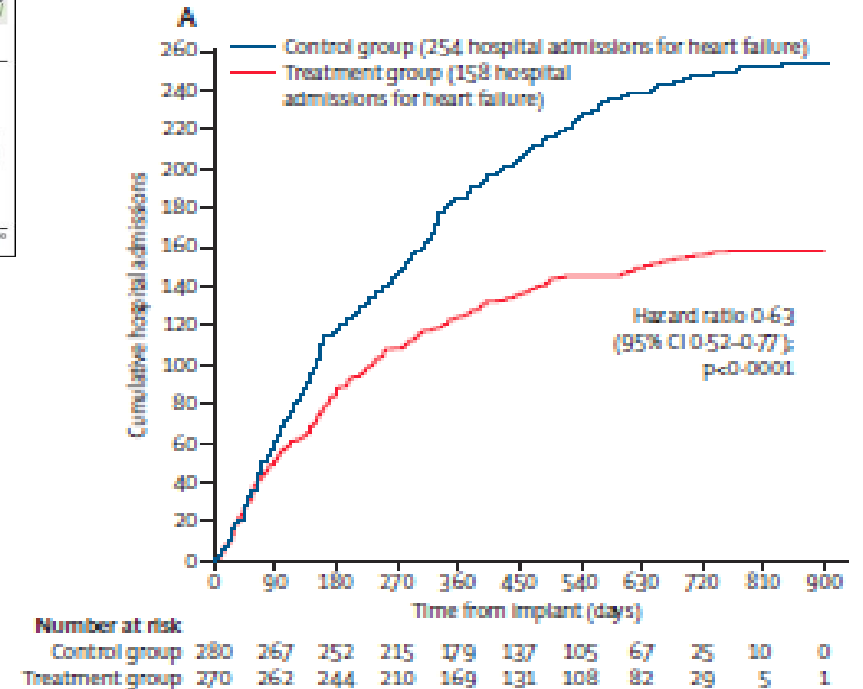
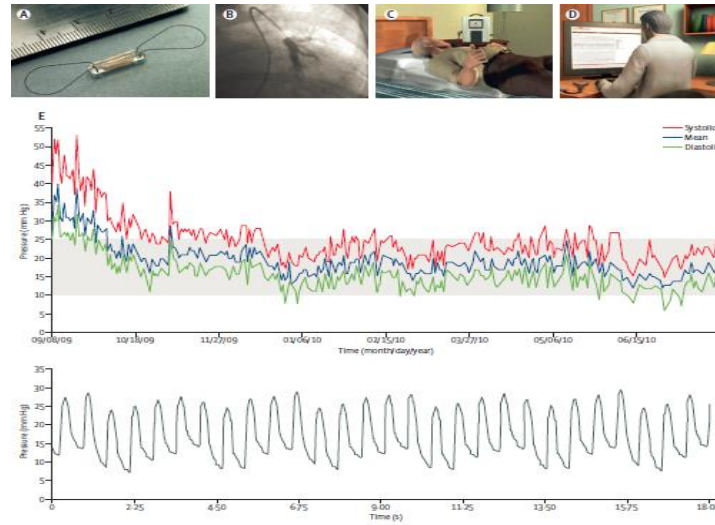
Inability to up-titrate (or need to decrease/cease) ACEI, beta-blockers, ARNIs, or MRAs

CardioMems

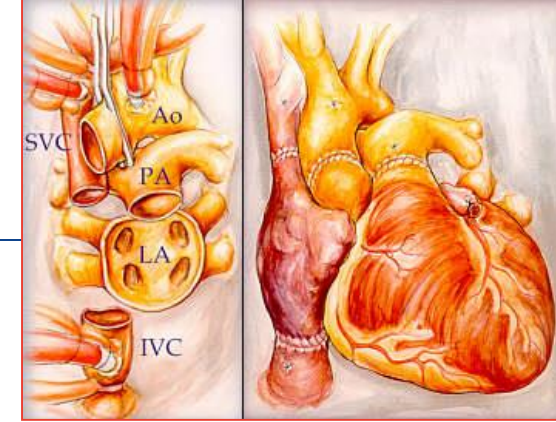


CHAMPION

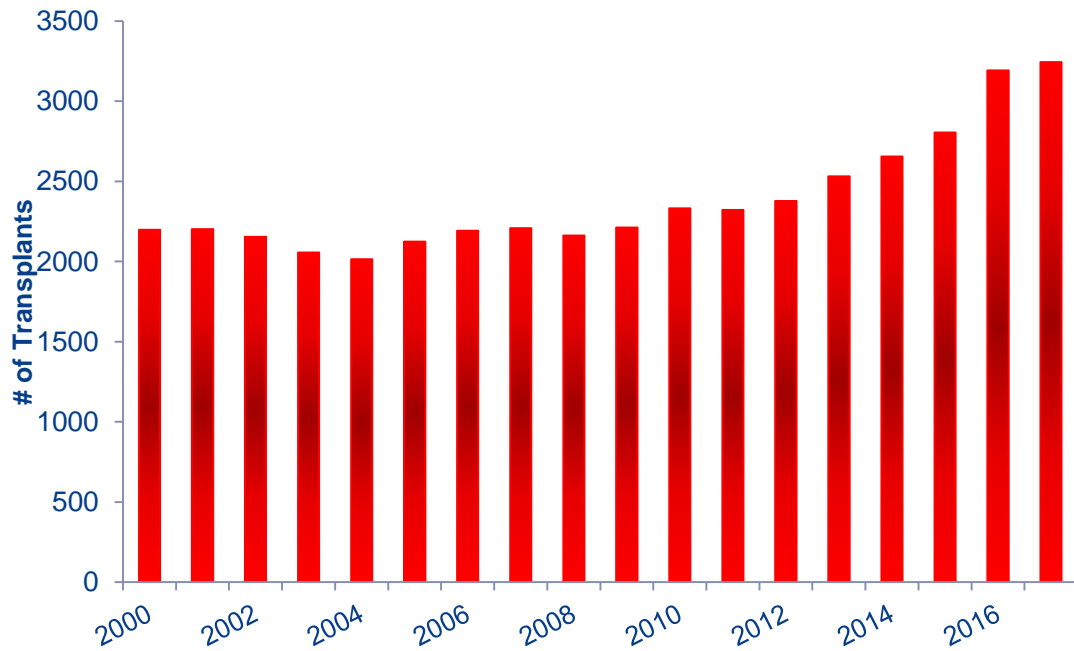
- 550 patients with Class III chronic heart failure
- GDMT
- One HF hospitalization in the past 12 months
- All received CardiomeMs
- Randomized to active intervention or standard care
- Preserved or reduced EF



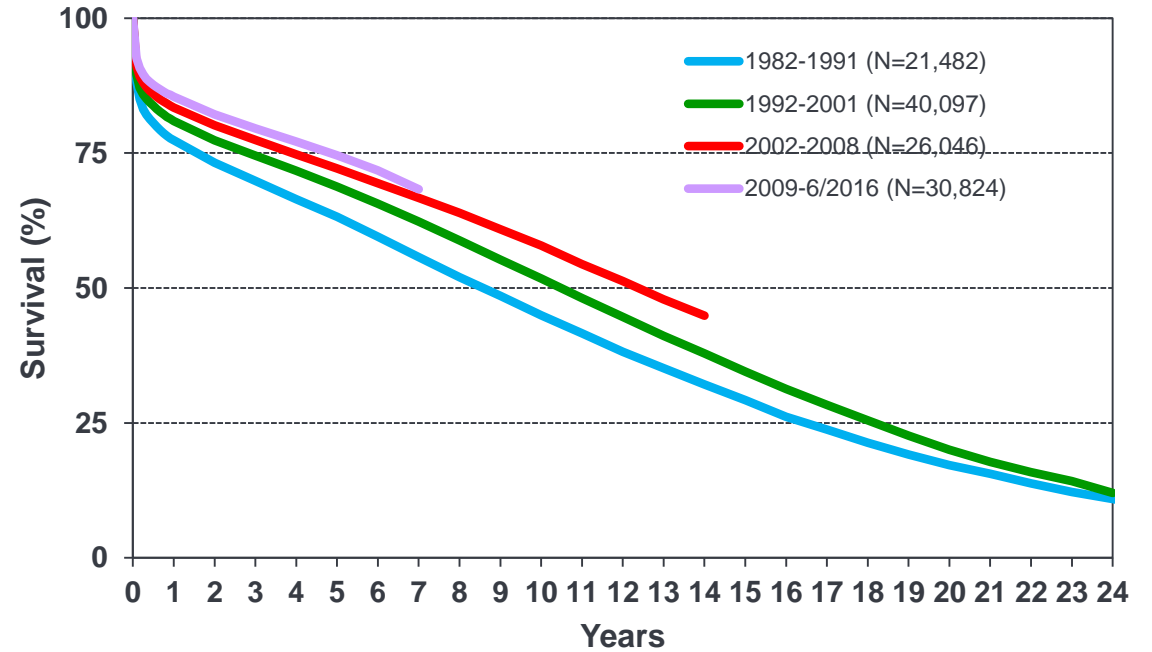
Heart Transplantation



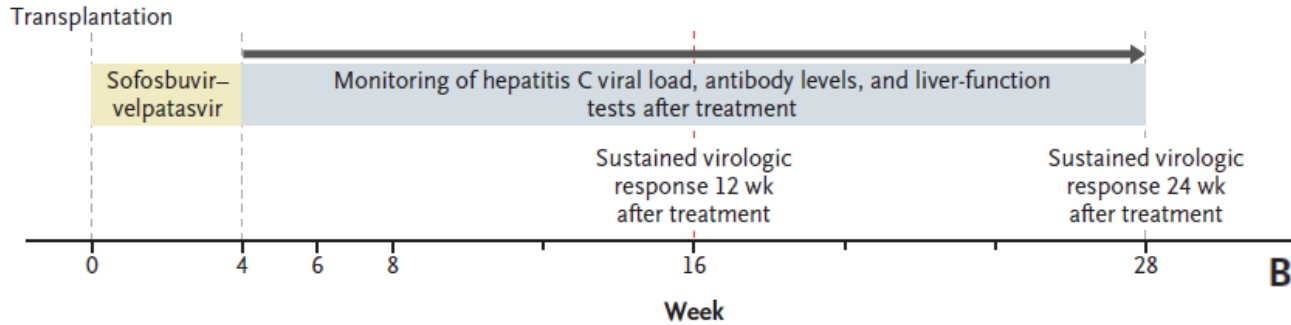
Number of Heart Transplants in US



Conditional median survival (yrs):
1982-1991=11.9; 1992-2001=13.2; 2002-2008=NA; 2009-6/2016=NA

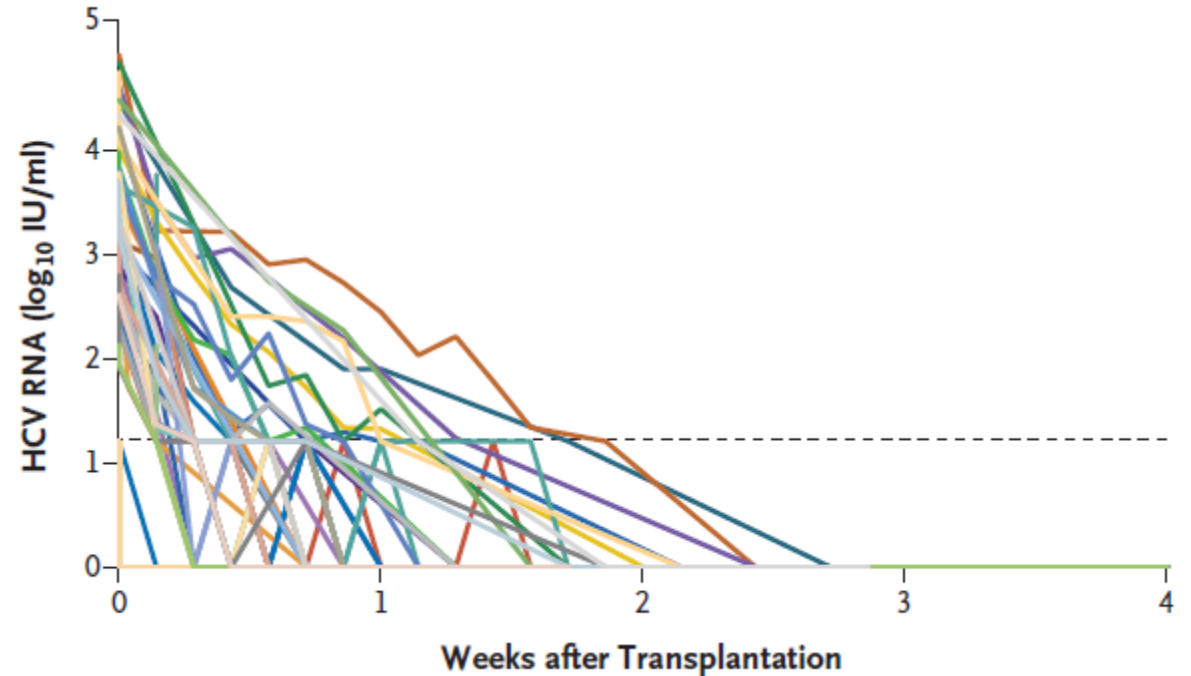


Use of Hepatitis C + Donors



At 6 months

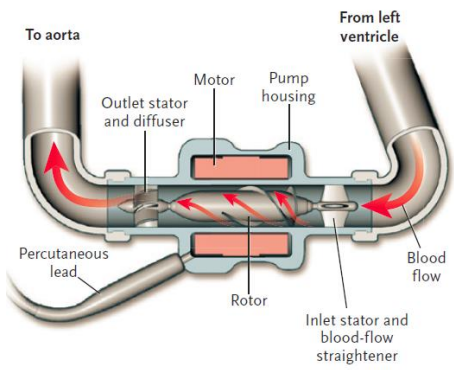
- All patients (n=35) were alive at 6 months
- Excellent graft function
- Undetectable viral load



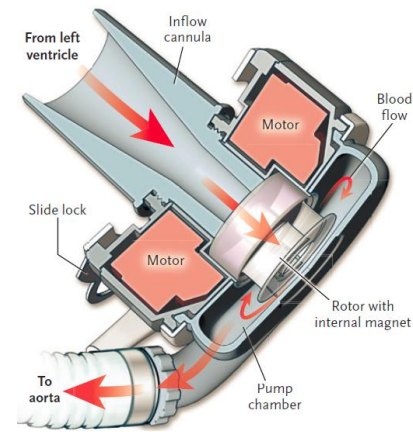
Evolving Strategies for Organ Preservation

- Extending travel distances
- DCD Donation

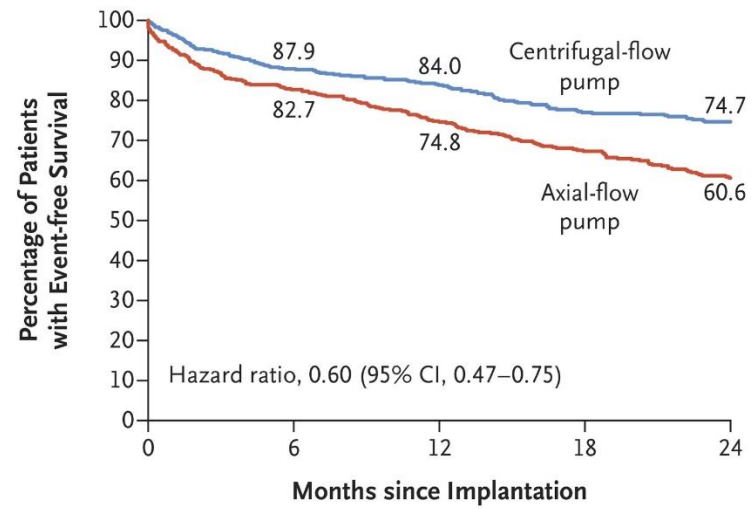




MOMENTUM 3: Two Year Outcomes



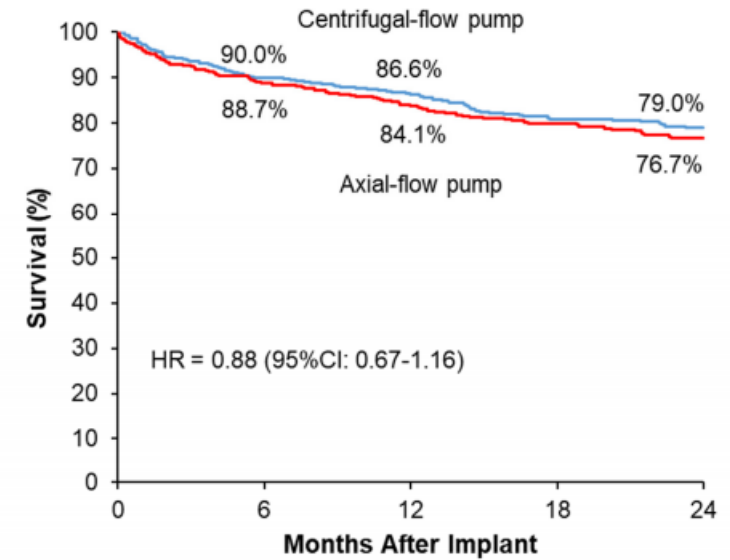
Event-Free Survival



No. at Risk

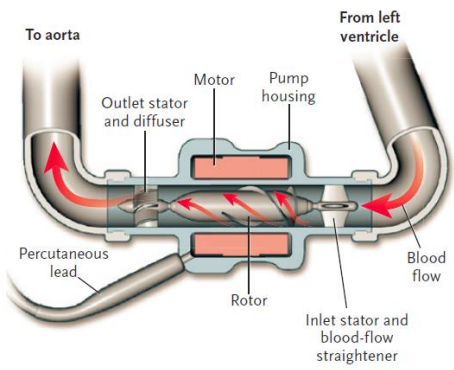
	0	6	12	18	24
Centrifugal-flow pump	516	438	373	313	280
Axial-flow pump	512	401	321	264	223

Actuarial Survival



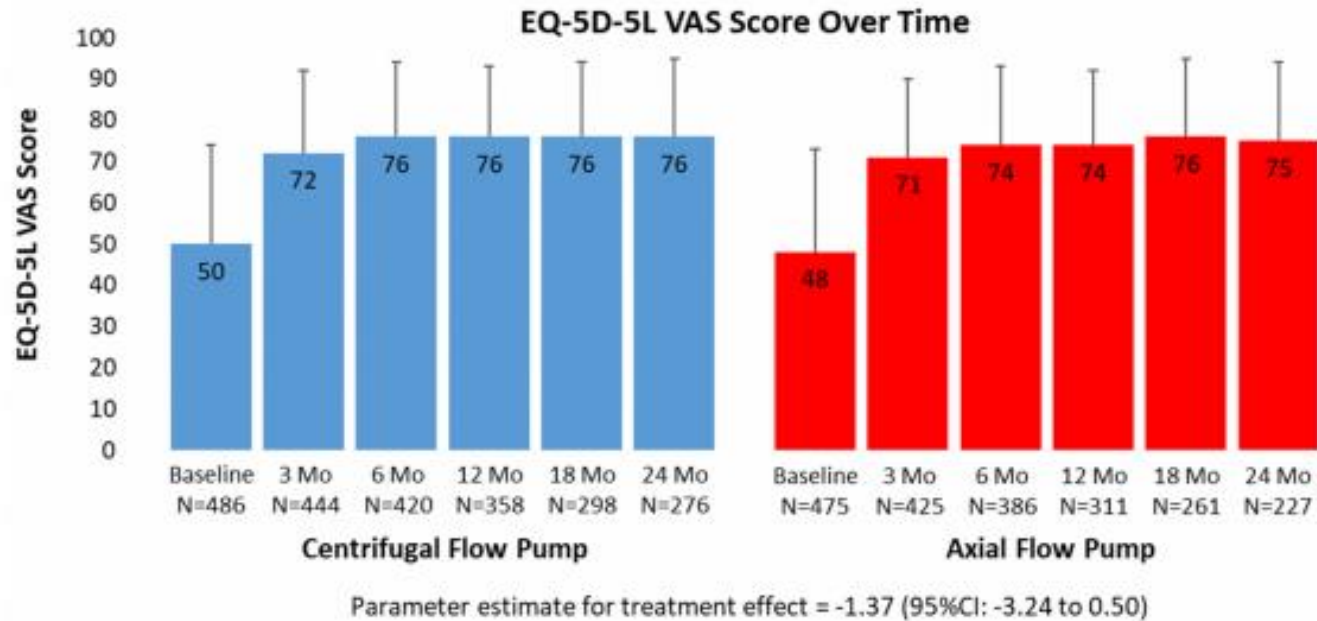
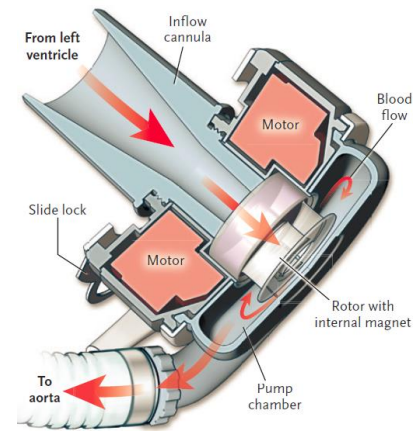
No. at Risk:

	0	6	12	18	24
Centrifugal-flow pump	515	447	383	322	289
Axial-flow pump	505	414	339	285	248

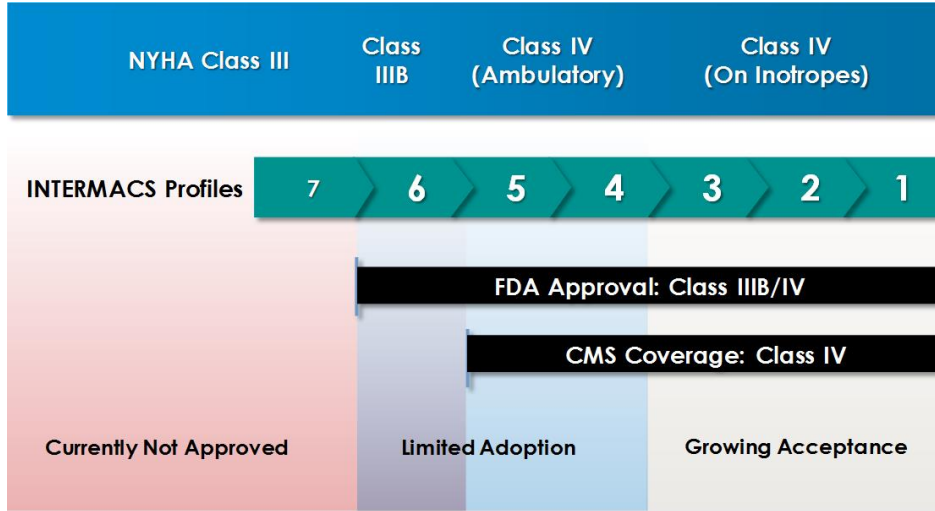


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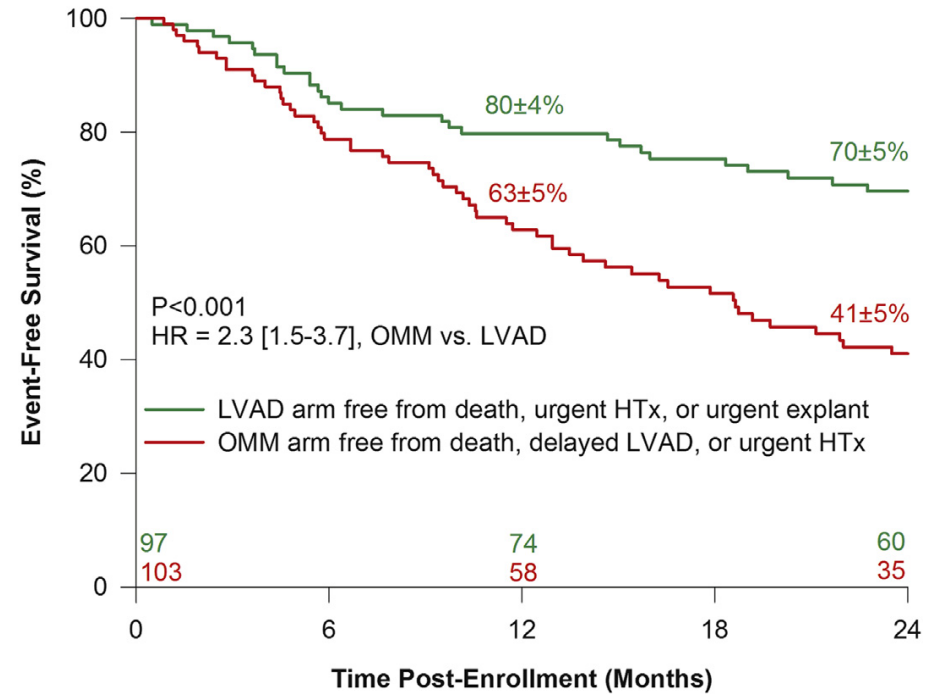
Quality of Life



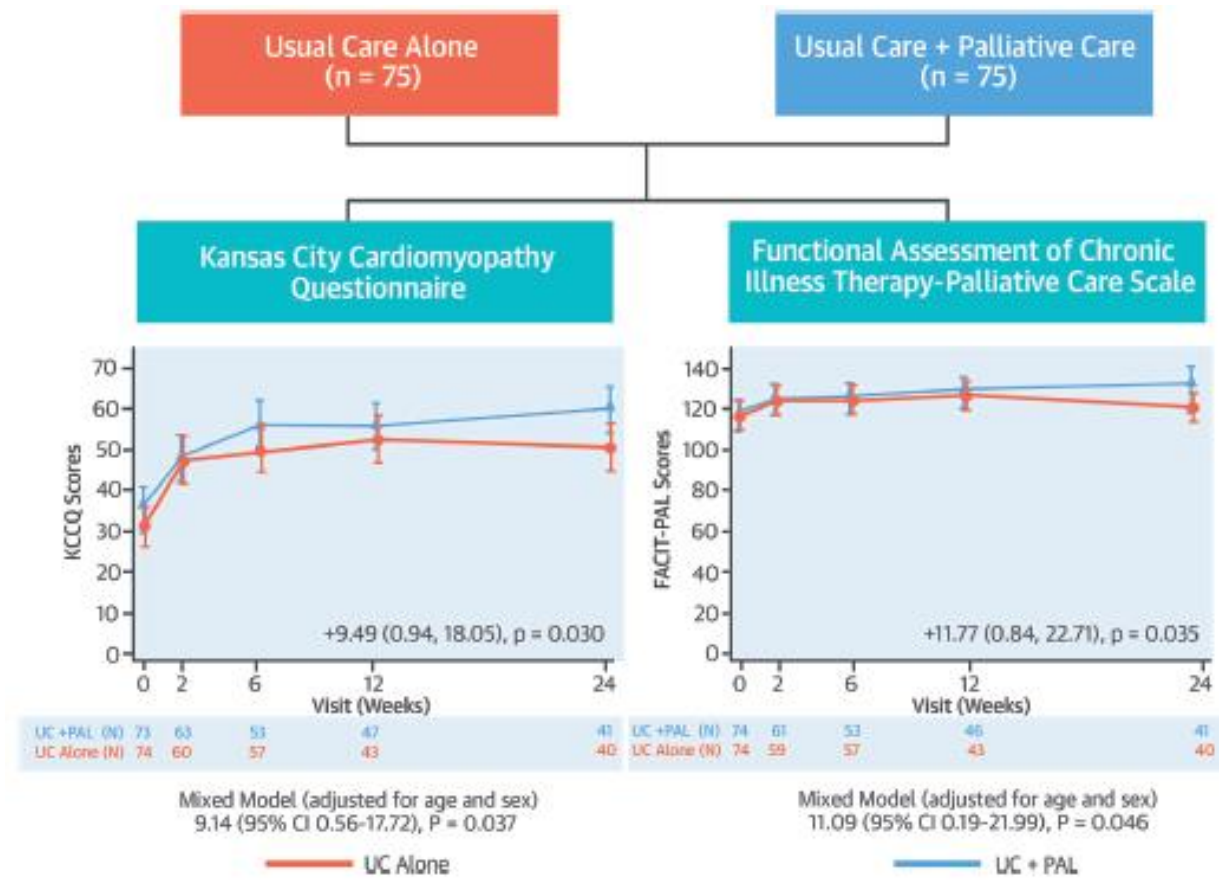
Should VADs Be Implanted in Less Sick Patients?



- Non-randomized
- Current indication for DT VAD but not on inotropes
- 6MWD < 300 m
- Primary endpoint: survival + 6MWD



- RCT of palliative care intervention in patients with advanced HF and high mortality risk
- Focus on advance care planning, symptom reduction
- Inpatient and outpatient intervention by palliative care NP and MD



Conclusions

- The clinician must use all available tools to make the diagnosis of heart failure and develop a prognostic profile.
- New monitoring devices have been shown to detect subtle decompensation and reduce hospitalizations if acted upon.
- Cardiac transplantation remains the gold standard treatment for advanced heart failure. Use of hepatitis C + donors and new warm perfusion devices may extend the benefits of transplantation.
- Mechanically assisted circulation has become a mainstay of advanced heart failure therapy and now has short-term survival that rivals transplant.
- Palliative care interventions improve quality of life. More data is needed to understand generalizability and examine other relevant endpoints.

