Heart Failure: Advanced Therapies
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Background
- Heart Failure (HF) is a cardiac dysfunction in which the heart cannot meet the body’s metabolic demands.
- Affects 5.7 million Americans.
- 550,000 new cases annually.
- 50% of HF pts dies within 5 years.
- Costs about $30.7 billion yearly.

New York Heart Association Functional Classification
- Class I: No limitations.
- Class II: Slight limitations.
- Class III: Marked limitations.
- Class IV: Inability to carry our physical activities without discomfort at rest.

Current Medication Options
- Angiotensin-converting enzyme (ACE) inhibitors.
- ARB (angiotensin receptor blockers).
- Beta-blocker.
- Digoxin.
- Diuretic.
- Aldosterone blockade.

Principles of Treatment
- Diuretics
- Vasodilators
- Inotropes
- Natriuretic Peptides

Advanced Therapies
- Cardiac Resynchronization
- Ventricular Assist Devices (VAD)
- CentriMag VAD
- HeartMate II VAD
- HeartWare HVAD

Heart Transplant
- Performed as the last option.
- About 2,200 patients will receive a donor heart out of 4,200 on waiting list annually.
- Most patients cannot be listed for transplant.

In Summary
- Medications improves survival.
- Transplants is limited by shortage of donor organs,
- 15% will die while on transplant list.
- Mechanical assist devices show promise for symptom relief and improved survival.

References