PVAD

Background: Temporary mechanical circulatory support through percutaneous ventricular assist devices (PVADs) are used to support patients in cardiogenic shock and patients undergoing high risk percutaneous coronary interventions during myocardial infarction. There is limited data on the optimal timing and practice patterns around the use of PVADs.

Methods: We identified 953 patients diagnosed with either acute myocardial infarction or congestive heart failure who underwent temporary mechanical circulatory support in the National Inpatient Sample between 1998 and 2011.

Results: Patients were a mean age of 63.9 years of age and were predominantly male (73.8%). <More Demographics>

Increased annual PVAD volume was associated with improved patient outcomes in a linear fashion. Patients from the hospitals in the top quintile of PVAD volume had 26.4% mortality rate compared to 33.3% mortality of patients from hospitals in the bottom quintile of PVAD volume.

Introduction of mechanical support earlier in the hospitalization was associated with decreased mortality. < Linear Model>

Next steps:  
Pull out number of people who ended up getting LVAD or OHT  
Identify whether PVAD volume/day of hospitalization/other factors influence eventual LVAD or OHT  
Identify number of people who needed dialysis.