

A Multistate Analysis of the Readmission Rates for Isolated Aortic Valves Replacement

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Introduction

- Readmission to the hospital is a costly part of cardiac surgical care
- Readmission rates are also used as an alternative to in-patient mortality rates to measure delivery of quality care

We sought to examine incidence and indications for readmission in the first 30 days after aortic valve replacement



Database

- Analyzed the State Inpatient Databases (SID), Healthcare Cost and Utilization Project, Agency for Healthcare Research and Quality
- Contains records of patients discharged from non-federal, non-psychiatric community hospitals
- More than 100 clinical/non-clinical variables
- AVR chosen to select a more homogenous study population with a large sample size



Methods

- Retrospectively reviewed all isolated aortic valve replacements (AVRs)
 - 2009-2011
 - California, Florida and New York
- Re-admissions within 30 days
 - Average length of stay (LOS) for index and readmission
 - Identify most frequent ICD-9 codes listed for readmission



Results

- 47,581 isolated AVR patients
- Overall 30-day mortality 2.6%
- Discharge disposition of index admission
 - Home with services 43%
 - SNF 23.5%
 - Home without services 17%
 - Rehabilitation 10.7%



Reasons for Readmission

- Readmission by 30 day in 8.8% of patients
- Average LOS for index admission: 10.2 d
- Readmission average LOS: 6.9 d
- Primary dx code at readmission:
 - Atrial fibrillation 7.9%
 - Congestive Heart Failure 6.5%



Implications and Next Steps

- Cost analysis of re-admission vs in-home health care/follow-up
- Investigate correlation between index LOS and likelihood of re-admission
- Relationship better discharge location and likelihood of re-admission



Limitations

- Variable criteria for re-admission across institutions
- Data entry errors
- Secondary data source
- Narrow scope of study

