SEQUENTIAL ANALYSIS OF CONSECUTIVE PATIENTS OVER 13 MONTHS TO DETERMINE RELATIONSHIP OF DISEASE SEVERITY AND TECHNICAL PERFORMANCE TO OUTCOMES IN CONGENITAL CARDIAC SURGERY.

ACC Poster Contributions
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Background: Previous studies in our center have shown that RACHS-1 scores (Risk adjustment for surgery for congenital heart disease) and technical performances are the best predictors of outcomes in congenital cardiac surgery. We wished to confirm this with a consecutive analysis of outcomes in all patients undergoing cardiac surgery over a 13 month period at our institution.

Methods: All patients who had undergone cardiac surgery at our institution between June 1, 2005 and June 30, 2006 were included in this retrospective analysis. Technical performance (optimal=1, adequate=2, inadequate =3) was calculated using established criteria. Mortality and major adverse events (AE) were documented based on STS criteria. Case complexity was stratified using RACHS-1. Chi square test was used for comparative analysis.

Results: There were total of 750 pump and 138 non pump cases.

The median age for the entire cohort was 254 days (range 1 day to 57 years). There were 23 deaths (3.0%) in the pump group and 3(2.1%) in the non pump group. There were 115(16.4%) major adverse events in the pump group and 18(13.1%) in the non pump group.

Major AE was greater in the higher RACHS-1 categories (p <0.0001). On subgroup analysis, better technical performance had less AE (p <0.03) in the higher (>2) RACHS category. Figure 1.

Conclusion: Higher RACHS-1 scores and poor technical performance are associated with inferior outcomes. Better technical performance is associated with better outcomes even in the highest RACHS-1 category.