PEDiatric RESOURCE EXPENDITURES IN CARDiac SPECIALTY ENCOUNTERS (PRECISE):
DEVELOPMENT OF A COST ADJUSTMENT MODEL FOR CONGENITAL CARDiac CATHETERIZATION

Poster Contributions
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Background: To better understand costs related to catheterization for congenital heart disease we sought to develop tools to measure resource utilization.

Methods: A single institution catheterization database with prospectively collected case characteristics was linked to hospital charges related and limited to an episode of care in the catheterization lab (fiscal year 2008-2010). Cath cost categories (CCCs) were developed to group types of cath procedures using a combination of empiric data and judgment methodology. A multivariable model with outcome charges was created using CCC and additional case characteristics.

Results: In 3 fiscal years 3839 cases were available for analysis. 43 cath procedure types were categorized into 7 CCCs yielding a grouper variable with an R2 explanatory value of 72.6%. In the final CCCs, biopsy cases are isolated in the lowest category, CCC 1, and percutaneous pulmonary valve placement alone makes up CCC 7. As shown in Figure 1, the largest proportion of cases is in CCC 2 which includes diagnostic cases without intervention. The final model included CCCs, number of interventions, and cardiac diagnosis, R2=74.2%.

Conclusions: We have developed a catheterization procedure type cost grouper that accounts for the diverse case population encountered in catheterization for congenital heart disease. CCC and our multivariable model could be used to understand financial characteristics of a population at a single point in time, longitudinally, and to compare populations.