PCV5
THE VARIABLE COST OF AN OPERATING ROOM MINUTE FOR VALVULAR PROCEDURES
Moore M1, Mallow PP1, Rizzo JA2
1Eduards Lifesciences, Inc., Irvine, CA, USA, 252 Statistical Solutions, Cincinnati, OH, USA
OBJECTIVES: Few studies have attempted to quantify the costs of operating room (OR) time. The purpose of this study is to quantify the variable cost per OR minute in isolated non-robotic valvular procedures – aortic valve replacement (AVR), mitral valve replacement (MVR), and mitral valve repair (MVRP).
METHODOLOGY: The Premier database, one of the most comprehensive hospital databases, was queried from 2007 to 2011 for patients undergoing AVR, MVR, or MVRP. This database contains complete billing, hospital cost, and coding data from 600 US facilities. Patients were identified using the following International Classification of Diseases 9th Revision (ICD-9) procedure codes: AVR 35.21, 35.22; MVR 35.23, 35.24; and MVRP 35.25, 35.26. Patients had to have had at least one ICD-9 procedure code for a valvular procedure. Patients with congenital heart disease, heart transplant, heart failure, renal failure, or obesity were excluded. The surgical approaches, right thoracotomy (RT) and any sternal incision, were identified for each patient with expert clinical assistance. Patients with right thoracotomy were then propensity score matched to patients with any sternal incision, adjusting for patient differences. Premier classifies variable costs of the OR into three categories; staff for the surgery room, anesthesia, and recovery room. Outliers were identified based on the cost per minute of the procedure. The top and bottom five percent were removed. All costs were adjusted to 2012 dollars using the Medical Care Component of the Consumer Price Index.
RESULTS: There were 2,657 valvular procedures - 1,604 AVR, 434 MVR, and 615 MVRP - that met the inclusion criteria. The average cost per OR minute was $31.7 (95% CI $29.5 - $31.9), $28.7 (95% CI $27.9 - $29.5) for AVR, MVR, and MVRP, respectively. CONCLUSIONS: Quantifying the variable cost of an OR minute from a multi-institutional database provides researchers with an important tool to use in economic evaluations for valvular procedures.

PCV6
THE DAVIDR STUDY: EVALUATION OF ECONOMIC AND MEDICAL CONSEQUENCES OF LEFT VENTRICULAR ASSISTED DEVICE IN SEVERE HEART FAILURE IN FRANCE
Molnier L1, Costa N2, Dutheil JF2, Pellicogn L2, Deroumieux-Burel H2, Duveau D2, Flecher E2, Legrand F3, Massétti M3, Patièn J4, Sabatier B5, Trochu A5, Khayat A1
1University Hospital of Toulouse, Toulouse, France, 2University Hospital of Caen, Caen, France, 3University Hospital of Toulouse, Toulouse, France, 4University Hospital of Nantes, Nantes, France, 5University Hospital of Rennes, Rennes, France, 6Hospital of La pitié Salpêtrière, Paris, France
OBJECTIVES: The objective of this study was to evaluate the medical, economic, and human consequences of left ventricular assist device (LVAD) implantation in France for patients with advanced heart failure. France is a developed country. One to two percent of the French population is affected by this disease. It also caused a substantial economic burden on society and cost 1.6 billion euros per year in France. Usually, cardiac transplantation is the most effective treatment. However, because of a limited donor organ supply, innovative technologies as left ventricular assist devices (LVAD) were developed for over 10 years. This study aims to assess the medical and economic consequences of LVAD in adults with advanced HF in France during one year after LVAD implantation. METHODS: The primary medical outcome was the discharge to the patient’s home. Secondary medical outcomes were defined as final situation of patient, survival, dependence and quality of life (QOL) evaluation, and Minnesota QOL survey. The economic analysis adopted the health care payer’s perspective and took into account direct medical and non-medical costs. RESULTS: Among the 55 patients included, 37 were discharged at home during an average of 160 days. At one year, 75% of the patients were still on device and spent 238 days at home, 15 were transplanted and spent 132 days at home and 17 were died and spent 13 days at home. The mean total cost per implanted patient was 164,154±37,104€. Costs drivers were the device (58%) and initial hospitalization (20%). The cost of home care was 6,084±7,388€ accounting for only 4% of total cost. According to the health care payer’s perspective, one day spent at home costs 44€. Survival, QOL and dependence analyses are being processed. CONCLUSIONS: Continuous LVADs represent a costly strategy in the HF treatment but allow the patient to be discharged at home instead of awaiting heart transplantation at hospital.

PCV7
INTRA-HOSPITAL COST OF IMPLANTING A LEVITRONIX ASSISTANCE DEVICE: A CANADIAN PERSPECTIVE
Guertin JP1, Sax GP2, Robertson N1, Lambert L1, Sanscartier C2, Miron J2, Bogaty P1
1Centre de recherche du CHUM, Montreal, QC, Canada, 2McGill University Health Centre, Montreal, QC
OBJECTIVES: To identify the total in-hospital cost associated with the index hospitalization for the implantation of a left ventricular assist device (LVAD) in a Quebec setting. METHODS: A retrospective patient chart review was conducted in all 3 hospital centers with an active LVAD program to identify all patients who received an Artiﬁcial Heart 4® (Levitronix, MA) implantation between January 1, 2011 and December 31, 2013. The costing evaluation had 4 distinct components: 1) LVAD acquisition cost, 2) implantation procedure cost, 3) hospital stay cost, and 4) inpatient drug costs. RESULTS: A total of 65 LVAD-implanted patients were identiﬁed between 2010 and 2013. The majority of these patients were male (n=49 [75.4%]) and the average was 52.2 years old (SD 14.2). Patient-specific costing was completed for 17 of these patients due to low volume. Among these 17 patients, average index hospitalization cost was $238,042±34,327 per patient and cost was $157,203 (range $115,911-222,933). CONCLUSIONS: This is the first province-wide evaluation of the cost for the index hospitalisation for LVAD implantation. These results should inform the decision-making process related to future resource allocation for the province’s LVAD program.