allogeneic transplantation ($1512), autologous ($1899) and allogeneic transplantation ($1906) with differences persisting in sensitivity analyses. Cell salvage resulted in net cost savings at a threshold of $556/patient. CONCLUSIONS: Use of autologous and autologous bone pre-donation appears cost-saving and cost-effective in pediatric surgery and should be encouraged.

PSU14
TOTAL BURDEN OF SURGICAL SITE INFECTIONS IN INITIAL ADMISSIONS AND READMISSIONS AMONG PATIENTS UNDERGOING TOTAL KNEE ARTHROPLASTY
Nicholas G1, Boatright A2, Hagerman E3, Baumer D1, Krishnan S4

OBJECTIVES: Surgical site infections (SSIs) associated with total knee arthroplasty (TKA) have a significant negative impact on outcomes and hospital reimbursement. Our study uniquely looks at the impact of patients having SSI in their initial admission with downstream readmissions of readmission to assess the complete sequences of TKA related SSI, beyond a single episode of care. METHODS: Thomason and associates (1) identified patients who were hospitalized at least 2 times with diagnosis related group for TKA (ICD-9-CM procedure code 81.54) between January 2007 and December 2009. Patient experiencing infections were defined by ICD-9-CM codes 998.5x, 998.66 and 998.67 as their secondary diagnosis in their index admission and as their primary or secondary diagnosis during their 90-day readmissions. Total SSI burden was assessed by evaluating differences in length of stay (LOS) and costs relative to those with no SSI in the 3 groups: 1) during the initial admission in patients developing SSI, 2) during the 90-day post-surgery for patients who had developed SSI in their initial admission, and 3) in patients experiencing SSI in their peroperative period. Groups were matched on age, gender, race, and comorbidities using sequential propensity score matching to control for confounding. RESULTS: A total of 59,229 patients were available for analysis (98.3%). Comparisons of Total Cost as well as OR and Supply costs were significantly lower for the Si-CAf cohort (p < 0.05). Adjusting for patient and hospital covariates also showed statistically significant lower estimated mean costs for Si-CAf for all outcomes (p < 0.05). Differences in estimated means for Total Costs were lower for Si-CAf $9831 and $7582 using normal and log-transformed values respectively. Estimated means for Supply Costs showed similar results of $7255 and $5274 for normal and log-transformed values respectively. Operating Room Costs were also similar, $561 and $489. CONCLUSIONS: After adjusting for hospital covariates Si-CAf patients had significantly lower Total Patient Costs. While Supply Costs showed similar results they do not fully explain the reduction in Total Cost suggesting that there are other cost advantages besides product acquisition cost. Further research should consider cost of complications and readmissions.

PSU17
RETROSPECTIVE DATA ANALYSIS ASSESSING HOSPITAL COSTS AND RESOURCE UTILIZATION ASSOCIATED WITH PERIOPERATIVE BLOOD LOSS IN PROSTATE SURGERIES
Panish N1, Hashemi L2, Morson M3

1Conidian, Manxfield, MA, USA, 2Conidian, Franklin, MA, USA, 3Conidian, New Haven, CT, USA

OBJECTIVES: The objective of this study was to compare costs and resource utilization in prostate surgery patients with perioperative blood loss (PBL) to those who did not experience perioperative blood loss (NPBL). METHODS: Male patients undergoing prostate surgery discharges (ICD-9-CM: 60.0, 60.12, 60.14, 60.15, 60.3, 60.5, 60.6X, 60.72, 60.73, 60.79, 60.8X, 60.93, 60.94) were identified from the Premier Per- spective® Database (CY 2009- Q2 of CY 2010). Discharges were categorized into the PBL group if they had received at least one blood transfusion (ICD-9-CM: 99.02- 99.07; CPT: 36430, 35455) during the hospital stay, otherwise were included in the NPBL group. Perioperative blood loss was determined to be occurring if patients were matched (1:1) on age, race and APR-DRG severity using propensity scores. Adjusted estimates for costs (total and departmental), days of stay in hospital (LOS), ICU, and operating room (OR) time in minutes were compared between the PBL and NPBL groups using generalized linear model (GLM) with gamma distribution and log link.

RESULTS: A total of 18,681 prostate surgery discharges were identified. Of those, 1176 (6.3%) required at least one blood transfusion perioperatively. After matching, 1168 discharges were retained in each group for the final analysis. Adjusted mean total costs were significantly higher for the PBL group compared to NPBL group ($46,757 vs. $41,712, p<0.0001). Mean costs associated with room & board, surgery and pharmacy between PBL and NPBL group were also significantly higher for the PBL group (all p<0.05). Compared to the NPBL group, the PBL group had higher mean LOS (5.8 days vs. 3.6 days), and longer OR time (232 minutes vs. 211 minutes) (both p<0.05). CONCLUSIONS: Perioperative blood loss for prostate surgery patients adds significant burden to hospital costs and resources. Adopting strategies aimed at minimizing PBL during prostate surgery process may conserve valuable medical resources.

PSU18
RETROSPECTIVE DATA ANALYSIS ASSESSING HOSPITAL COSTS AND RESOURCE UTILIZATION ASSOCIATED WITH PERIOPERATIVE BLOOD LOSS IN RENAL SURGERIES
Panish N1, Hashemi L2, Morson M3

1Conidian, Manxfield, MA, USA, 2Conidian, Franklin, MA, USA, 3Conidian, New Haven, CT, USA

OBJECTIVES: The objective of this study was to compare costs and resource utilization in renal surgery patients with perioperative blood loss (PBL) to those who did not experience perioperative blood loss (NPBL). METHODS: Inpatient discharges for renal surgery patients (ICD-9-CM: 55.5X-55.6X, 55.8X, 55.9X-55.99) were identified from the Premier Per- spective® Database (CY 2009-2010). Discharges were categorized into the PBL group if they had received at least one blood transfusion (ICD-9-CM: 99.02-99.07; CPT: 36430, 35455) during the hospital stay, otherwise were included in the NPBL group. Blood transfusion was assumed to be an indicator for PBL group. Discharges were matched (1:1) on age, gender, race, CCI score, APR-DRG severity and elective admission type using propensity score. Adjusted estimates for costs (total and departmental), days of stay in hospital (LOS), ICU, and operating room (OR) time in minutes were compared between PBL and NPBL groups using generalized linear model (GLM) with gamma distribution and log link.

RESULTS: A total of 27,573 renal surgery discharges were identified. 4,868 (17.7%) of all the selected patients required at least one blood transfusion perioperatively. After matching, 4,699 discharges were retained in each group for the final analysis. Adjusted mean total costs were significantly higher for the PBL group compared to NPBL group ($48,583 vs. $35,298, p<0.0001). Mean adjusted costs associated with room & board, central supply, surgery, pharmacy, and laboratory and pathology between PBL and NPBL group were also significantly higher for PBL group (all p<0.05). Compared to the NPBL group, PBL group had higher mean LOS (10.5 days vs 7.9 days) and ICU days (4.5 days vs. 3.6 days) and had longer OR time (227 minutes vs. 194 minutes) (all p<0.05). CONCLUSIONS: Perioperative blood loss for renal surgery patients adds significant burden to hospital costs and resources. Adopting strategies aimed at minimizing perioperative blood loss during renal surgeries may be helpful.

PSU19
COMPARISON OF COST AND OPERATING ROOM TIME OF LOW ANTERIOR RESECTION (LAR) VERSUS ABDOMINOINFERIOR RESECTION (APR) PROCEDURES IN THE UNITED STATES
Hashemi L1, Geraci D2

1Conidian, Franklin, MA, USA, 2Conidian, New Haven, CT, USA

A76
OBJECTIVES: Both Low Anterior Resection (LAR) and Abdominoperineal Resection (APR) procedures are utilized to treat rectal tumors. There may be occasions when the use of one is preferred over the other for reasons of demographically and clinical characteristics, but there is no strong evidence to suggest that a patient undergoing a procedure is more likely to experience complications or have a more difficult hospital stay compared to the same patient undergoing another procedure. We seek to compare the costs of LAR and APR procedures in comparable patient populations. METHODS: The Premier Perspective™ Database (FPD) was used to estimate the incidence and costs of LAR versus APR procedures in the large hospital-based, database in the USA providing detailed resource utilization and cost data categorized under a patients’ principal and secondary diagnosis code procedures. Patients with procedure code for LAR or APR procedures between January 1, 2009 to June 30, 2010 were selected. Procedure code for either LAR or APR were identified between January 1, 2009 and June 30, 2010. APR was used in 1991 (25%) patients and LAR in 6088 (75%) patients. Propensity score methodology was used to match LAR patients to APR patients based on patient’s demographics and hospital characteristics. Mean cost per patient was significantly higher in APR procedures compared to LAR procedures, $24,922 versus $21,709, respectively, p<0.0004. OR time was approximately 54 minutes shorter for patients undergoing LAR compared to patients with APR procedures, 250 minutes vs. 304 minutes, respectively, (p<0.0001). Patients undergoing LAR procedures had a significantly shorter hospital length of stay, compared to patients who underwent APR procedures, 9 days versus 10.4 days, respectively, p<0.001. CONCLUSIONS: LAR procedures were associated with shorter hospital lengths of stay, lower OR time and lower mean costs when compared to a matched set of patients undergoing APR procedures. These observations highlight the potential cost advantages of further developing methods or instrumentation that would preserve anal function and avoid an APR.

PSU20 HOSPITAL COSTS OF GASTROINTESTINAL STRICURE FOLLOWING LAPAROSCOPIC BARIATRIC SURGERY PROCEDURES UTILIZING CIRCULAR STAPLERS
Pankhi N1, Geraci EP, Hashemi L1, Minniali M1
1Coviden, Franklin, MA, USA
OBJECTIVES: Bariatric surgical procedure volumes have increased as more hospitals offer the service. Strictures following bariatric surgery using circular staplers are a common complication. The objective was to assess the cost of gastrointestinal strictures following laparoscopic bariatric surgery that employed circular surgical staplers in the index procedure. METHODS: Laparoscopic bariatric surgery inpatient discharges (ICD-9-CM:44.31, 44.39) with mention of circular staplers were identified in the Premier Perspective® Database for CY2008 and CY2009. Esophageal balloon dilation procedure codes (CPT:43235, 43245, ICD-9-CM:94.20) for inpatient and outpatient discharges were used to identify single or multiple strictures within 6 months following bariatric surgery. Patients were propensity score matched (1:1) on age, gender, race, region, hospital teaching status and APR-DRG severity. The initial bariatric surgery costs, hospital length of stay (LOS) and operating room (OR) time between the stricture and no-stricture groups were compared between the matched groups. The cost of strictures was assessed for patients in the stricture group. RESULTS: A total of 4,731 laparoscopic bariatric surgery discharges utilizing circular staplers were identified. 20.4% of these had at least one balloon dilation procedure within 6 months of the index procedure. 170 (84.6%) and 3115 (15.4%) were performed in outpatient and inpatient settings, respectively. 200 patients were propensity matched between the stricture and no-stricture groups. There were no significant differences in initial bariatric surgery costs, LOS and OR time between the two groups. For the outpatients having total costs of $1 (N=169), 2nd (N=29), 3rd (N=7) and the 4th stricture (N=3) were $1251, $1025, $1603 and $1610 respectively. One patient had more than 4 strictures. For the inpatient setting, mean total cost was $7110 for the 1st (N=31) stricture. CONCLUSIONS: Post-stricture bariatric surgery costs for patients with gastrointestinal complications following laparoscopic bariatric surgery procedures utilizing circular staplers.

PSU21 HEALTH CARE COSTS AND UTILIZATION BETWEEN PATIENTS RECEIVING TOTAL KNEE REPLACEMENT SURGERY WITH AND WITHOUT MUSCLE ATROPHY/WEAKNESS
Chen BY2, Lee YC3, Wu N1, Zhao Y2
1United BioSource Corporation, Lexington, MA, USA; 2Eli Lilly and Company, Inc., Indianapolis, IN, USA
OBJECTIVES: To compare demographics, clinical characteristics, and healthcare costs and utilization between patients receiving total knee replacement (TKR) with and without muscle atrophy/weakness (MAW). METHODS: Medical and Pharmacy claims data from a U.S. population with commercial or Medicare supplemental insurance were analyzed to select patients aged 55+ receiving TKR (first hospitalization as the index date) between January 1, 2009 and June 30, 2010. Three cohorts were identified: patients with MAW medical claims in 1 year before the index year (pre-MAW), patients with first MAW claim during or within the 12-month after the index year (post-MAW), and patients without any MAW claim (no-MAW). Baseline demographics and clinical characteristics, and healthcare costs and utilization during 1 year prior to and after the index year were assessed. Multivariate regression analyses were performed to compare health care costs incurred within 1 year after the index year between cohorts. RESULTS: There were 46,058 Medicare (pre-MAW: n=17,620; post-MAW: n=43,613), and 40,588 MAW patients. Post-MAW $765,19/LY, and the probability that VATS is more cost-effective at $50,000-100,000/LY is 41-56%. CONCLUSIONS: This short-term CEA suggested that for newly diagnosed stage 1 NSCLC patients VATS is likely to be cost-effective when compared to open surgery. The result should be interpreted with caution because of potential endogeneity in treatment selection, and the small absolute difference and wide confidence interval observed in our data.

PSU23 AN ECONOMIC EVALUATION OF THORACOSCOPIC PLEURAL ABRASION AND THORACOSCOPIC TALCAGE AS TREATMENT CHOICES FOR PNEUMOTHORAX IN CYSTIC FIBROSIS PATIENTS
Yehla DC, Sangiyy SS
University of Houston, Houston, TX, USA
OBJECTIVES: Cystic Fibrosis (CF) is a chronic, progressive and regressive genetic disorder affecting one in every 2000 newborns. A frequent and life threatening complication reported in patients with CF is ‘Pneumothorax’ and is associated with significant economic burden. Chest tube drainage, Thoracotomy, and Thoracoscopy are the choice of treatment for pneumothorax in patients with CF. The objective of this study was to determine the cost-effectiveness of Thoracoscopic Pleural Abrasion (TPA) and Thoracoscopic Talcage (TT) for treatment of pneumothorax in patients with CF. METHODS: Cost-effectiveness analysis was conducted using efficacy data and costs associated with adverse events (ADE) obtained from literature review and using clinical trial and meta-analysis studies. Direct medical costs included cost of procedures, hospitalization and those associated with ADEs. All costs were obtained for a period of one year from US third party perspective and adjusted to 2011 USD using consumer price index. Effectiveness operationalized as success rate (no recurrence within one year) was evaluated by developing a decision tree model using TreeAge Pro 2009. One way sensitivity analysis was performed on ADE and total cost for each therapy. Incremental cost-effectiveness ratio (ICER) was computed to compare procedures. RESULTS: Success rate over one year period was found 91.9% for TPA and 95% for TT. Total cost of treatment for TPA and TT was found to be $2535 and $3614, respectively. The expected cost of treatment per unit change for TPA was $27.58 while that of TT was $38.04. An ICER demonstrated TT ($3614) to be more costly than TPA ($2535). Sensitivity analyses performed were robust to the results. CONCLUSIONS: Thoracoscopic Pleural Abrasion (TPA) is more cost-effective than Thoracoscopic Talcage for treatment of pneumothorax in patients with CF, from US third party perspective in our study.

PSU24 COST-EFFECTIVENESS OF BARIATRIC SURGERY: LAPAROSCOPIC GASTRIC BYPASS AND BANDING
Sato K, Horiguchi K, Inoue M, Tanaka S, Kogure S
University of Southern California, Los Angeles, CA, USA
OBJECTIVES: Perform a cost-effectiveness analysis to evaluate laparoscopic Roux- en-y gastric bypass (RYGB) and banding procedures (LAGB) against each other and no treatment through simulation. METHODS: A backwards induction cost-effectiveness model was utilized and analysis was conducted from a societal perspective. Lifetime costs and life expectancies for RYGB, LAGB morbidly obese patients were compared to those on no treatment and to each other. Efficacy and probabilities estimates were obtained from a literature review. Costs and quality-adjusted life years (QALYs) were discounted by a 3% annual rate, and costs are reported in 2011 USD. A one-way sensitivity analyses was done to assess the model’s robustness. RESULTS:...