leak, (2) the differences in LOS, readmission, post-operative infection, and total inpatient costs between the patients with anastomotic leaks and those without leaks (F-test). Chi-square test and T-test were used to compare the outcomes between two cohorts, before and after employing propensity-score matching technique based on a series of baseline covariates. Generalized linear model was also conducted. RESULTS: A total of 6174 (6.18%) patients with colorectal surgeries had 30-day anastomotic leak and 1889 (0.18%) patients had 30 days post-discharge anastomotic leak. The incidence of anastomotic leak had 1.3 times higher 30-day readmission (p<0.01), and 1.9 times higher postoperative infection (p<0.01) compared to the patient without anastomotic leak. Anastomotic leak incurred additional LOS of 7.3 days and additional average hospital cost of $24,399 for index hospitalization alone. When the extra burden of readmission was added, the average incremental LOS increased to 9.5 days, and the average incremental hospital costs increased to $28,597. CONCLUSIONS: Anastomotic leaks in colorectal surgeries increase clinical and economic burden by 0.5 to 1.8 times in terms of additional readmission, postoperative infection, LOS, and hospital costs. The results underscore the potential advantage of cost reduction by preventing the anastomotic leaks after colorectal surgeries.

PSU16 HIGH COST PATIENTS FOR CARDIAC SURGERY AND HOSPITAL QUALITY IN TURKEY
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OBJECTIVES: To encourage quality improvements and assess high expenditures for patients undergoing coronary artery bypass graft (CABG) surgery and hospital quality in Turkey. METHODS: Using the Turkish National Health Insurance Database (2009-2011), CABG surgery patients were identified using the appropriate International Classification of Diseases Tenth Revision Clinical Modification codes. High-cost surgery patients or hospitals had annual inpatient hospital costs in the top 20% post-surgery. The empirical Bayes approach was used to combine mortality rates with hospital volume for quality index, weighing observed mortality according to estimation reliability, with the remaining weight placed on hospital volume. The relationship between hospital quality and high-cost payments was assessed using chi-square tests. RESULTS: Total annual health care payments for 20,126 identified CABG patients were approximately 70 million. High-cost payments incurred 31% of the total expenditures. Although disease severity did not differ for patients across hospitals, those in the lowest quintile cared for 25% of high-costs surgery patients, compared with only 18% in the highest quality hospitals (p<0.0001). 74% in associated cost savings was calculated for patients shifting from low- to high-quality hospitals. CONCLUSIONS: Results imply that hospital quality improvements can reduce costs and improve morbidity and mortality rates in Turkey.

PSU17 THE COST OF SURGICAL PROCEDURE TO REMOVE ADHESIONS ABDOMIN OR PELVIS IN THE BRAZILIAN PRIVATE HEALTH CARE SYSTEM
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OBJECTIVES: Estimate the cost of a adhesiolysis (surgical procedure to remove adhesions abdomen or pelvis) in the Brazilian private health care system. METHODS: Using a claims database, 1,856 patients were classified according to code of the Brazilian Health Care System (Tusscod) and observed between January/2009 to December/2011 all costs associated with the surgical procedure to remove adhesions abdomen or pelvis were considered across seven major categories: materials, medications, procedure, exams, alimentation, rates and medicinal gases. RESULTS: Out of the 1,856 patients that used the private health care system and made a adhesiolysis in a period of 36 months, 93% are women and the majority between 30 - 34 years old (27,2%) with an expenditure of about $ 13million with average cost , per patient of $ 8,228,39 were hospitalized for 4 days. The 56% of patients remove the adhesion after a surgical abdominal or pelvic and them expenditure 51% was due to procedure and materials, followed by rates (21%), medication (20%), alimentation (3%), exams (3%) and medicinal gases (2%). CONCLUSIONS: Procedure spending of adhesiolysis could have been avoided if there was the use of barren.

PSU18 ASSESSMENT OF THE RESOURCE USE AND COSTS ASSOCIATED WITH PARATHYROIDECTOMY SURGERY FOR SECONDARY HYPERPARATHYROIDISM IN END STAGE RENAL DISEASE IN THE UK
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OBJECTIVES: A recent pilot study suggests the current NHS HRG Tariff for parathyroidectomy (PTX) (£2,110 and £2,209 in patients with and without complications respectively) is not representative of the true costs of surgery in patients with secondary hyperparathyroidism (SHPT). This study aims to describe the health care resources used to manage patients undergoing PTX, for SHPT, and estimate the cost in a UK tertiary care centre. METHODS: Resource use was identified by combining data from the FROTON renal database, and routine hospital data, for all adults undergoing PTX for SHPT at Cardiff and Vale University Health Board from 2000-2008. Data were supplemented by a questionnaire completed by clinicians in the Cardiff centre. Costs were obtained from the NHS reference costs, British National Formulary and published literature. These costs were applied for the following periods: pre-surgical, surgical, peri-surgical, and post-surgical to calculate the total cost of PTX. RESULTS: The analysis included 124 patients (mean age 51.0, SD 13.8). Patients’ underlying renal disease had a wide range of causes, undergoing renal replacement therapy for a mean of 7.3 years. SD 7.0 prior to PTX. The main costs identified included the surgical stay (average £4,100, SD £2,338, mean stay 5.6 days). Additional hospital care costs included $24,399. Chi-square tests and T test demonstrates that the cost of PTX surgery in SHPT exceeds the current NHS HRG tariffs for PTX.

PSU19 DOES THE NOVEL RENAL MARKER NGAL (NEUTROPHIL GELATIONASSOCIATED LIPOCAPLIN) RESULT IN COST SAVINGS IN PATIENTS WITH RENAL IMPAIRMENT FOLLOWING CARDIAC SURGERY?
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OBJECTIVES: Cardiac surgery can result in renal impairment necessitating hemofiltration (HF, dialysis) which prolongs the length of therapy (LOT), days in the intensive care unit (ICU) and is associated with an overall higher mortality. The decision to initiate HF-therapy is currently made on increased plasma creatinine levels, a relatively late marker (peaking days after a potentially reversible renal dysfunction). The novel urine marker NGAL (neutrophil gelatinase-associated lipocalin) measures the acute structural damage and identifies the need for HF within hours with high accuracy. METHODS: Based on data collected in 2005-2009, we prospectively included NGAL in an algorithm to modify the management of HF-therapy in 2010. Changes in incidence of HF and LOT, all costs associated with neutrophil gelatinase (NGAL) and ICU stays were calculated. RESULTS: A total of 528 patients were operated with no statistical difference in numbers, case mix, risk scores and outcomes to the previous years. The expected number of patients with HF was 45.3 with an LOT of 7 days (2005-2009). Introduction of NGAL testing added € 60,000/day ($ 61,860/year). Although € 2047,50/day could be realized through public health refunding, the fixed associated costs were € 3249,70/patient/day ($ 892,52 for all supplies to operate the HF (Prismaflex, Gambron, Germany) and € 2537,18 for institutional ICU expenditure (incorporating personnel costs) resulting in a deficit of € 1202,19/day with, and € 751,58 without HF-therapy. Using the new marker, only 32 patients required treatment with HF for a mean of 5.5 days and earlier initiation (1.1 days) in 2010 (p<0.001). A total of 41.6 days of treatment in ICU (occupancy) were saved with savings of € 44,664 with savings per patient of € 861. CONCLUSIONS: Routine NGAL testing and consecutive changes in management reduced the number of HF-therapies, lengths of therapy and ICU stay in our institution and proved to be cost-saving.

PSU20 A COST-EFFECTIVENESS ANALYSIS OF MINIMALLY INVASIVE VERSUS OPEN SURGERY TECHNIQUES FOR LUMBAR SPINE FUSION
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OBJECTIVES: Minimally invasive surgery techniques (MIS) for lumbar spine fusion allow the treatment of back and leg pain while at minimizing tissue injury and accelerating patient recovery. The objective of this study was to estimate the cost-effectiveness of MIS compared to open surgery (OS) for the treatment of degenerative lumbar spinal conditions in a UK setting. METHODS: Resources, costs, and consequences in Health Related Quality of Life (HRQoL) after MIS and OS were based on a literature review or derived from other public sources. Resources included were: staff and operating room, surgical equipment, consumables, blood loss, surgical drainage, duration of hospitalization and post-operative complications. The main case it was assumed that the surgeons hadn’t reached the top of the learning curve. The cost-effectiveness was expressed as the incremental cost per QALY gained using a time horizon of two years after surgery. The costs included the total direct medical cost associated with either procedure and the utility gain was estimated from the Swedish national spinal registry data. RESULTS: Modeling showed that MIS was the dominant strategy vs. open surgery yielding both cost savings and improved HRQOL. Cost savings were driven mainly by shorter length of hospital stay, less blood loss and fewer complications. The total cost-saving was £2576, £2792 with a small improvement in HRQoL (0.04 QALY gain after 2 years). CONCLUSIONS: MIS may be a dominant treatment option compared to OS for spinal lumbar fusion in a UK setting. Lower costs and increased HRQoL in the MIS group compensate for potential higher upfront costs of MIS implants and equipment. Future analyses should consider the inclusion of indirect costs as the majority of the patient population is below age 65 and will probably return to work.

PSU21 SENTINEL LYMPH NODE BIOPSY LESS EXPENSIVE THAN AXILLARY LYMPH NODE DISSECTION IN EARLY BREAST CANCER STAGING
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OBJECTIVES: As part of the information needed for recommendations making, we aimed to compare the cost of systematic axillary lymph node dissection and sentinel lymph node biopsy –with axillary dissection only if the sentinel node contains metastases- , with or without intra-operative histological examination. METHODS: Unit costs collected in a French national study were included in a model simulating