#### **CONCLUSIONS:**

This systematic review addresses the know-do gap on social engagement in health technology development and implementation, from a global perspective, as a way of improving the Brazilian Ministry of Health's HTA activities and enabling a Brazilian strategy to reform health service delivery. Enabling social engagement as early as possible, during all the stages of the development cycle, grants a more effective and sustainable health care system.

# PP163 The Cost-Reimbursement Mismatch For Heart Transplant In Brazil

# **AUTHORS:**

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#### **INTRODUCTION:**

There is an important mismatch in the number of heart transplants performed and the patients in need of a new heart in Brazil, despite a large public transplant program providing universal health coverage for organ transplantation. It is unclear whether the limited number of heart transplants could be related to the high costs of the procedure and potential underpayment from public agencies. We sought to investigate costs of heart transplant in Brazil from the perspective of a transplant center and to compare results to the values reimbursed by the public health system.

# **METHODS:**

All adult heart transplants performed in an academic center from Jul/2015-Jul/2017 were reviewed. Both absorption costing and time driven activity based costing techniques were used to detail costs related to the transplant index admission. Patients' electronic records were reviewed, involved professionals were interviewed, and the hospital electronic system was queried. Costs associated with infrastructure, personnel, surgical materials, medications, laboratory and imaging were calculated. Brazilian Reais were converted to US Dollars using 2016 purchasing power parity data from OECD.

#### **RESULTS:**

All 27 patients who underwent heart transplants in the time period were included. Survival at 30 days was 94 percent. Average and median cost for the transplant admission was USD 62,336.27 and USD 47,105.52, respectively, while the current reimbursement value is USD 29,675. The lowest cost accrued by the hospital was USD 21,568.90, while the highest was over USD 300,000. Almost 70 percent of costs were related to personnel and hospital structure and not to direct consumption of medications, exams or materials. Total cost was highly dependent on the length-of-stay, particularly days spent in intensive care units.

## **CONCLUSIONS:**

The value currently reimbursed by the public system in Brazil for heart transplants is below the average costs for the procedure in a reference center. This large cost-reimbursement mismatch might limit the increase in the number of transplants that is needed to meet current demands.

# PP164 Identifying Complications Of Partial Nephrectomy Using Physician Claims

#### **AUTHORS:**

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#### **INTRODUCTION:**

Many population-based studies identify surgical complications using hospital discharge abstract databases (DAD). With DAD, however, complications occurring after the discharge date cannot be followed up. This study used physician claims data to identify the complications of partial nephrectomy, and to compare the rates of complications of open, laparoscopic, and robot-assisted nephrectomies.

#### **METHODS:**

Physician claims, DAD, and ambulatory care data from April 2003 to March 2016 were provided by Alberta Health. DAD and ambulatory care data were used to extract information on patients with kidney cancer who underwent partial nephrectomy. All physician claims within 30 days before and after surgery for the cohort

were extracted. The numbers of the same International Classification of Diseases, Ninth Revision (ICD-9), codes before and after surgery were compared. If a number increased after surgery, this diagnosis was initially identified as a complication. All diagnoses with neoplasms were excluded. The incidence rates of complications for the three surgery groups were calculated. Chi-squared tests were conducted for the following nephrectomy comparisons: laparoscopic versus open; robot-assisted versus open; and robot-assisted versus laparoscopic.

# **RESULTS:**

A total of 1,890 kidney cancer patients had partial nephrectomies. Among them, 1,080, 411, and 399 had open, laparoscopic, and robot-assisted nephrectomies, respectively. One patient who had two different nephrectomies on the same day was excluded from analysis. The robot-assisted group had lower rates of digestive complications (ICD-9: 537–578, 787, 789, 998.6) and infections (ICD-9: 004–041, 998.5) than the open group, and higher rates of genitourinary complications (ICD-9: 584–599, 788, 997.5) than the laparoscopy group. The robot-assisted group had lower rates than the open group for most of the complication categories, but the differences were not statistically significant.

## **CONCLUSIONS:**

Robot-assisted surgery appears to be superior to open surgery, but no better than laparoscopic surgery, in terms of minimizing the risk of complications following partial nephrectomy.

# PP165 The Resurrection Of The Cost-Minimization Approach In England

# **AUTHORS:**

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# **INTRODUCTION:**

For almost 20 years (1999–2017), the National Institute for Health and Care Excellence (NICE) focused primarily on cost utility analyses (CUA) for its health technology appraisals. This changed on the 01 April 2017, when a new fast track appraisal process was introduced for technologies that offer exceptional value for money.

Under this process, a cost-comparison analysis can be included for technologies that are likely to provide similar or greater health benefits at a similar or lower cost to comparator technologies already recommended by NICE. This is in contrast to other jurisdictions (e.g. Scotland and Australia) that have long accepted cost-comparison analyses such as cost-minimization analyses (CMA) when a technology has comparable efficacy to relevant comparators. This research aimed to investigate if this new approach will have an impact on future appraisals

#### **METHODS:**

Publically available technology appraisal documents from NICE, Scottish Medicines Consortium (SMC), and Pharmaceutical Benefits Advisory Committee (PBAC) were screened (01/01/2016-01/12/2016), and the supportive economic analyses were identified and extracted.

# **RESULTS:**

In 2016, the proportion of CMA submissions that formed the basis of technology appraisals were 0/53 (0 percent), 17/55 (31 percent) and 25/82 (30 percent) for NICE, SMC and PBAC, respectively. The likelihood that a technology was recommended (with or without restrictions) for those technologies that were assessed using a CUA was 60 percent, 66 percent and 33 percent for NICE, SMC and PBAC, respectively, while technologies that were assessed using a CMA were associated with higher positive recommendation rates: 76 percent and 76 percent for SMC and PBAC, respectively.

# **CONCLUSIONS:**

Incorporating a cost-minimization approach may result in more technologies being recommended by NICE through the fast track appraisal process, whereby the likelihood of a technology having a positive recommendation is much greater than the standard appraisal process.

PP166 RedETS: 10 Years Of Economic HTA (Medical Devices) In Spain, 2006–2016

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