OBJECTIVES: Surgical site infections (SSI) impose a heavy burden to healthcare systems due to additional hospital resource utilization, the negative consequences for patients and the impact in hospital's quality performance. Triclosan-coated sutures (TCS) have shown a significant reduction in SSI risk. The objective of this study was to estimate budgetary outcomes of a TCS-adoption strategy for wound closure in selected surgical procedures vs. non-coated sutures under the Mexican public healthcare system perspective. **METHODS:** A budget impact model was developed to estimate TCS-adoption cost implications for the public healthcare system in Mexico in coronary artery bypass graft (CABG), joint replacement (JR) and surgical colorectal (CR) procedures. Procedure-specific annual volume was internally estimated. Procedure-specific SSI rates and TCS-associated SSI risk reduction were taken from published international evidence and used to compute annual SSIs. An average number of sutures per procedure were assumed based on current clinical practice. Cost data for comparators and TCS were internally set at market value. A specific DRG from a public healthcare institution was used as proxy for SSI treatment cost. Considered time horizon was less than one year, thus no annual discount rate was used. No pediatric population nor mortality was considered. Results are shown in 2015-adjusted USD. **RESULTS:** TCS adoption would yield savings for $2.9, $5.2, and $22.7 million for CABG, JR and CR, respectively, while avoiding 73, 147, and 486 infections out of 5,900, 27,300, and 17,600 CABG, JR and CR procedures. Higher unitary costs for TCS are offset by significant savings due to SSI risk reduction. Breakeven point to offset the current practice was reached at 4.7%, 8.1% and 1.1% SSI risk reduction levels for listed procedures. **CONCLUSIONS:** Under provided scenario, TCS adoption in selected procedures could yield relevant benefits for the Mexican public healthcare system, with savings for payers and benefits for hospitals & patients.

PMD18

BUDGET AND CLINICAL IMPACT OF PRIMARY SCREENING WITH HR-HPV GENOTYPING TEST AND TRIAGE WITH P16/KI-67 DUAL-STAINED CYTOLOGY FOR CERVICAL CANCER IN THE MEXICAN PUBLIC HEALTH CARE SETTING

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OBJECTIVES: Cervical Cancer (CxCa) has become a major public health issue since it has the 2nd highest rates of incidence and mortality for Mexican women. This study aims to calculate within the Mexican public healthcare setting, the clinical and economic impact of the implementation of an hr-HPV testing with individual HPV-16/18 genotyping for CxCa primary screening and the use of p16/Ki-67 dual-stained cytology as triage compared with the current practice (cytology as primary screening and colposcopy as triage). **METHODS:** Mexican epidemiology of HPV and CxCa were simulated from a public-payer perspective for two screening-cycles. Both strategies were simulated with a decision tree model. Markov methodology was performed to model natural history of CxCa. Strategies evaluated were: 1)primary screening with hr-HPV testing with HPV-16/18 genotyping and reflex p16-Ki-67 dual-stained cytology, and 2)current practice. Cycle length was 3-yr and 1-yr length, respectively. Clinical data was taken mainly from ATHENA and PALMS trials. Direct costs were obtained from local sources. Costs for tests in strategy-1 were given by the manufacturer. All costs are in 2015 USD ($1USD=$17MXN). **RESULTS:** A 7.3 million cohort of women between 25-60 years-old was simulated. Percentage of ≥CIN2 detection over 2-cycles was 85.1% for strategy-1 vs 53% for strategy-2. Annual incidence of CxCa was reduced over 61.6% with strategy-1. Annual CxCa mortalities were also reduced in 60.0% with this strategy. An increased efficiency was observed with strategy-1 in colposcopies needed per ≥CIN2 case detected (3.5 vs 5.5, respectively). Total cost per screened patient/year was 54% less with strategy-1 ($8.4) vs strategy-2 ($18.4). Total costs per case ≥CIN2 detected were 8.2% lower with strategy-1 ($2,434.5 and $2,250.9, respectively). **CONCLUSIONS:** The incorporation of hr-HPV testing with individual HPV-16/18 genotyping as primary screening and p16/Ki-67 dual-stained cytology as triage for CxCa screening represents an efficient alternative with positive clinical and economic outcomes within the Mexican public healthcare system.

PMD19

BUDGET IMPACT OF USING EITHER ULTRASONIC ENERGY OR OTHER ENERGY DEVICES FOR TISSUE DISSECTION IN ADULT DEFORMITY SPINAL FUSION SURGERY

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OBJECTIVES: Spinal fusion procedures (SFPs) in adult deformity (AD) result in significant blood loss and bleeding-related complications, blood product transfusions and higher hospital costs. Two approaches (monopolar/bipolar dissection [MBD] and ultrasonic dissection [UD]) are used to remove soft tissue in SFPs. 50% blood loss reduction has been demonstrated in UD versus MBD [Cakir et al.2006]. This study determined the budget impact of MBD versus UD. **METHODS:** A budget impact model was created using preclinical data, literature review and surveys to clinical and economic stakeholders. The outcomes are reflective of a hospital with 50 AD cases yearly. The model accounts for unit cost, number of units used, and frequency used to determine the cost of bleeding management products (BMPs) and surgical consumables used during the exposure phase of SFPs along with exposure phase operating and anesthesia times and hospital length of stay. Three scenarios were calculated comparing MBD and UD assuming that dissection time with UD is decreased by 25% and 50% blood loss reduction using UD would show 50% reduction in the use of BMPs. **RESULTS:** The cost savings of UD ranged from $460.69 per case ($23,034.57 yearly; Scenario A: UD used 50.2% of BMPs compared to MBD) to $629.12 per case ($31,456.17 yearly; Scenario C: Scenario A plus UD used 50.2% use of frequency compared to MBD). Higher surgical consumable costs were seen with UD compared to MBD, but the cost of BMPs was lower using UD. **CONCLUSIONS:** The UD approach for soft tissue removal results in less bleeding and the potential for fewer complications compared to MBD. Even though UD device costs are higher than MBD, this model provides evidence that UD, which is potentially more effective and clinically better for the patient, does not result in large additional device costs and even provides cost savings versus MBD.

PMD20

ASSESSING THE BUDGET IMPACT OF ROCHE'S POINT-OF-CARE PCR INFLUENZA TEST VERSUS A RAPID ANTIGEN TEST ON THERAPY USE AND PATIENT MANAGEMENT FROM A HOSPITAL SYSTEM PERSPECTIVE

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OBJECTIVES: Management of patients presenting with influenza-like-illness (ILI) is a source of cost and clinical concern for hospital systems. Influenza test methods vary in cost, accuracy, and convenience. We compared the clinical and economic impact of different test modalities, such as: rapid antigen followed by provider judgment vs. Roche's point of care polymerase chain reaction (PCR) test. **METHODS:** A budget impact model was developed to compare rapid antigen testing followed by provider judgment to resolve negative results versus the **cobas®** Influenza A/B nucleic acid test used on the **cobas®** Liat® System (**cobas®** Liat® test) in patients presenting with ILI to a healthcare system. The model is based on 100,000 patients stratified by age and risk status presenting to the hospital or physician office. Based on diagnosis, patients receive an antiviral, antibiotic, or no treatment and are sent home/discharged, admitted, or placed into observation. Complications or an additional episode of care are also assessed. Patient management and cost for both strategies was then compared. Inputs were derived from published literature, HCUP data analysis, and clinical expert opinion. **RESULTS:** The **cobas®** Liat® test brings the high sensitivity of PCR to the point of care, enabling lab quality results at the time of visit. Compared to rapid antigen testing with provider judgment, Roche's **cobas®** Liat® test increased appropriate therapy selection (50% vs. 25%) while decreasing inappropriate therapy selection (3% vs. 54%). Appropriate therapy defined as antiviral use in influenza positive patients and antibiotic use in influenza negative patients. The **cobas®** Liat® test reduced resource utilization (admissions, complications, observations) in approximately 1,633 patients and overall cost of patient management was reduced by $3,408,853. **CONCLUSIONS:** Adoption of Roche's **cobas®** Liat® test may improve appropriate therapy use and reduce resource utilization resulting in overall patient management cost savings. Further validation using real world data is warranted.

PMD21

BUDGET IMPACT ANALYSIS OF ADOPTING THE LAPAROSCOPIC SURGERY APPROACH IN PATIENTS WITH COLORECTAL CANCER FROM THE PRIVATE PAYER PERSPECTIVE IN BRAZIL

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OBJECTIVES: The objective of this study was to analyze the difference between laparoscopic (LAP) and open (OP) surgery in terms of costs and estimate the budget impact of the colorectal laparoscopic surgery inclusion in the list of reimbursement, under the private payer perspective in Brazil. **METHODS:** A decision analytic model was developed to compare total costs for LAP vs. OP surgical approaches, taking into account medical and complication costs. Outcomes rates, probabilities and costs of complications were obtained from clinical literature. Direct medical costs were obtained from public lists. The time horizon was 30 days, so a discount rate was not applied. The number of expected surgeries was calculated based on incidence of colorectal cancer in Brazil and indication for surgery (80% of diagnosed cases). Market share was estimated at 30% for laparoscopic and 70% for open surgery. **RESULTS:** As the length-of-stay (LOS) was 7.4 days for OP versus 5.2 days for LAP, LAP resulted in 30% decrease in hospital costs (R$ 4,038 OP vs R$ 2,837 LAP). LAP might as well as offer a 38% reduction in complications costs (R$ 6,637 OP vs R$ 4,140 LAP). The BIA showed that the weighted average cost per patient would be R$ 32.360 in the case of LAP incorporation, compared to R$ 31.338 in the case of 100% open surgeries. Overall, the inclusion of LAP was estimated to increase 3.2% in total costs under the private payer perspective. **CONCLUSIONS:** The results suggest that LAP may provide an optimized allocation of resources, once complication and hospitalization costs may be reduced by this approach and the budget impact of LAP incorporation would be 3.2% in total costs under the private payer perspective.

PMD22

BUDGET IMPACT ANALYSIS OF ADOPTING THE VIDEO-ASSISTED THORACIC SURGERY FOR PATIENTS WITH LUNG CANCER FROM THE PRIVATE PAYER PERSPECTIVE IN BRAZIL

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OBJECTIVES: The objective of this study was to analyze the difference between video-assisted thoracic surgery (VATS) and open surgery (OP) in terms of costs and estimate the budget impact of VATS in the list of reimbursement for patients with lung cancer, under the private payer perspective in Brazil. **METHODS:** A decision analytic model was developed to compare total costs of VATS vs. OP surgical approaches, taking into account direct medical and complication costs. Outcomes rates, probabilities and costs of complications were obtained from clinical literature. Direct medical costs were obtained from public lists. The time horizon was just the length of stay (LOS) in hospital, so a discount rate was not applied. The number of expected surgeries was calculated based on incidence of non-small cell lung cancer in Brazil and eligibility rate for surgery (28% of diagnosed cases). Estimated market share was 30% for VATS and 70% for OP. **RESULTS:** As the LOS was 13.3 days for OP versus 8.3 days for VATS, VATS resulted in 38% decrease in hospital costs (R$ 7,258 OP vs R$ 4,530 VATS). VATS might offer a reduction in complications costs of 38% (R$ 948 OP vs R$ 646 LAP). The BIA showed that the weighted average cost per patient was R$ 22,574 when 30% of the patients underwent VATS, compared to R$ 21,827 when 100% of the patients underwent open surgeries. Overall, the inclusion of VATS in the list of reimbursement was estimated to increase 3.4% in total costs under