PCI registry, despite higher total healthcare costs, the use of DES was cost-effective in patients who underwent 2- and 3- vessel PCI than in single vessel PCI.

**PMD33**

**COST-EFFECTIVENESS OF MOLECULAR IGE IN VITRO DIAGNOSTICS (IVD) IN CHILDREN SUSPECTED WITH PEANUT ALLERGY COMPARING TO DOUBLE BLIND PLACEBO CONTROLLED FOOD CHALLENGE (DBPCFC) IN EU, USA AND JAPAN**

**OBJECTIVES:** To compare the cost-effectiveness in Mexican pesos (MxP) of ANDCK and TST for the determination of blood erythrocyte variants in Mexico. ANDCK is cost-effective for the determination of blood erythrocyte variants in Mexico compared to TST. The initial costs of ANDCK are lower than TST, and the sensitivity of ANDCK is higher than TST.

**RESULTS:** The cost-effectiveness of ANDCK was lower than TST. The cost-effectiveness of ANDCK was lower than TST, and the sensitivity of ANDCK was higher than TST.

**CONCLUSIONS:** ANDCK is the preferred cost-effective intervention in Mexican hospitals.

**PMD34**

**COST EFFECTIVENESS MODEL: COMPARISON OF CLOSED INCISION MANAGEMENT USING NEGATIVE PRESSURE AND STANDARD OF CARE OVER OPEN INCLUSIONS BASED ON A 2012 RANDOMIZED CONTROLLED TRIAL**

**OBJECTIVES:** To evaluate the cost-effectiveness of closed incision management using negative pressure and standard of care over open incisions. The model demonstrated cost savings through the reduction of CLABSIs and local site infections as well as through decreased nursing costs. The model establishes that the use of CHG dressings has the potential to provide $869,867.49 of net cost savings in one hospital per year.

**RESULTS:** The model estimated cost per patient and incremental cost-effectiveness ratios (ICER). Costs and effectiveness do not were discounted. A deterministic sensitivity analysis was also performed. The model estimated cost per patient and incremental cost-effectiveness ratios (ICER). Costs and effectiveness do not were discounted. A deterministic sensitivity analysis was also performed.

**CONCLUSIONS:** The use of chlorhexidine gluconate impregnated sponge dressings for central venous and arterial catheter insertion sites proves to be a cost-effective intervention in Canadian hospitals.

**PMD35**

**COST-EFFECTIVENESS ANALYSIS OF CT CORONARY ANGIOGRAPHY VERSUS MYOCARDIAL SPECT FOR THE DIAGNOSIS OF DISEASE IN PATIENTS WITH CHEST PAIN**

**OBJECTIVES:** To evaluate the cost-effectiveness of CT coronary angiography (CTCA) and myocardial SPECT for the diagnosis of ischemic heart disease in patients with chest pain. The model was evaluated using the commonly used cost-effective criterion of the willingness-to-pay threshold of $50,000 per QALY.

**RESULTS:** The model showed that CTCA was cost-effective compared to myocardial SPECT. The sensitivity analysis demonstrated that the results were robust to changes in key parameters.

**CONCLUSIONS:** CTCA is a cost-effective alternative to myocardial SPECT for the diagnosis of ischemic heart disease in patients with chest pain.

**PMD36**

**THE USE OF CHLORHEXIDINE GLUCONATE IMPREGNATED SPONGE DRESSINGS FOR CENTRAL VENOUS AND ARTERIAL CATHETER INSERTION SITES: AN ECONOMIC ANALYSIS**

**OBJECTIVES:** To determine whether the use of CHG dressings for central venous and arterial catheter insertion sites proves to be a cost-effective intervention in Canadian hospitals.

**RESULTS:** The model estimated cost per patient and incremental cost-effectiveness ratios (ICER). Costs and effectiveness do not were discounted. A deterministic sensitivity analysis was also performed. The model estimated cost per patient and incremental cost-effectiveness ratios (ICER). Costs and effectiveness do not were discounted. A deterministic sensitivity analysis was also performed.

**CONCLUSIONS:** The use of chlorhexidine gluconate impregnated sponge dressings for central venous and arterial catheter insertion sites proves to be a cost-effective intervention in Canadian hospitals.
economic analysis of the HomePAP study, a multi-center randomized clinical trial that compared home-based versus lab-based testing for the management of OSA in accredited sleep centers. METHODS: A total of 373 subjects with a high risk for moderate to severe OSA were randomized to either unattended, home-based limited channel portable monitoring for diagnosis of OSA followed by unattended auto-titration with continuous positive airway pressure (CPAP), versus a traditional pathway of in-laboratory sleep study and CPAP titration. Given that 3 month outcomes were not inferior for the home arm in acceptance, adherence, and functional improvements, we pursued a cost minimization analysis from the payer perspective. 2011 Medicare prices were used. Interpretation of home-based (CPAP) test results is currently not reimbursed by Medicare, so we estimated it as one-third the Medicare reimbursement for interpreting a lab-based sleep study. RESULTS: Per subject costs, as randomized, were $2165 for the lab-based pathway and $927 for the home-based pathway (base case). In the per protocol analysis, costs related to CPAP for 3 months, per subject, were $1660 higher for the lab-based pathway ($1,863 vs. $866). In a sensitivity analysis, even after increasing the Medicare reimbursement for home-based titration studies to 100% that of lab-based studies, per subject costs per protocol were still higher for the lab-based pathway ($2,863 vs. $955). CONCLUSIONS: From the payer perspective, there are higher costs incurred within a lab-based versus a home-based diagnostic pathway without superiority in outcomes. The results suggest that the careful use of home-based sleep studies administered by trained personnel at board-certified sleep centers could save money without compromising short term outcomes.

PM39
PROJECTION OF HEALTH ECONOMICS BENEFITS OF CONTINUOUS GLUCOSE MONITORING VERSUS SELF-MONITORING OF BLOOD GLUCOSE IN TYPE 1 DIABETES, IN SWEDEN

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OBJECTIVES: Improvement in glycaemic control associated with Continuous Glucose Monitoring (CGM) testing compared to Self-Monitoring of Blood Glucose (SMBG) may lead to a reduction in acute and chronic diabetic complications. Our aim was to estimate the health economics benefits of CGM compared to Self-Monitoring of Blood Glucose (SMBG) in type 1 diabetes (T1DM) in the Swedish setting. METHODS: The Core Diabetes Model (CDM) is an internet-based, highly validated, computer simulation model to determine the long-term health outcomes and economic consequences of diabetes interventions. This model was used to evaluate the cost-effectiveness of CGM versus SMBG in T1DM over a lifetime horizon. Results from a recently published meta-analysis comparing CGM versus SMBG and a real life observational Swedish study were used. The meta-analysis showed that for a cohort of T1DM with average baseline HbA1C of 8.1%, and mean baseline age of 27 years and diabetes duration of 13 years, everyday use of CGM led to HbA1C reduction of -0.76% versus -0.13%, for CGM and SMBG respectively. The observational study demonstrated a reduction from 7.11 to 3.35 daily blood glucose tests when using CGM compared to SMBG only. RESULTS: The Incremental Cost-Effectiveness Ratio (ICER) for CGM vs SMBG only was 369,253 SEK ($42,940). A cost-effectiveness ratio (ICER) for CGM vs SMBG of more than 369,253 SEK ($42,940) per quality-Adjusted Life Year (QALY) was compared to the threshold set by the World Health Organization (510,300 MXP). This makes CGM cost effective relative to SMBG in Sweden. OBJECTIVES: To estimate the clinical and economic consequences of Continuous Subcutaneous Insulin Infusion (CSI) versus Multiple Daily Injection (MDI) for type 1 diabetes (DM1) through cost-utility analysis, from the perspective of the Mexican Social Security Institute (IMSS). METHODS: A lifetime, Markov model (CORE Model), together with published literature for clinical, quality of life and therapy effectiveness. Demographic information and incident complications for 131 patients with DM1 from the 21st Century Hospital (IMSS) were incorporated into the simulation. Direct and indirect cost data were obtained from the IMSS and Secretary of Health (SSA) National Economic Information. A simulation of the clinical and economic consequences in a lifetime follow-up of therapy was performed. Direct and indirect costs with a discount rate of 3% were input to the model. RESULTS: Lifetime, treatment with CSI gained 8.5 quality-adjusted life years vs. 7.6 quality-adjusted life years for MDI therapy. Over 50 years of treatment, CSI versus MDI, had an incremental direct cost of $422,187 Mexican Pesos (MXP) per quality adjusted life year (QALY). For indirect costs, CSI is cost saving relative to MDI (saving $15,851 MXP/QALY). For combined direct and indirect costs, the incremental cost-effectiveness ratio for CSI vs. MDI was $283,356 MXP/QALY. CONCLUSIONS: Better glycemic control, and increased quality of life for DM1 patients treated with CSI demonstrated incremental cost effectiveness below the willingness to pay threshold set by the World Health Organization ($10,300 MXP). This makes CSI a cost effective alternative to TPO in Mexico. The higher incremental direct cost of CSI relative to MDI is compensated by the savings in indirect costs.

MEDICAL DEVICE/DIAGNOSTICS - Patient-Reported Outcomes & Patient Preference Studies

PM42
COST-EFFECTIVENESS OF COFLEX® INTERLAMINAR STABILIZATION COMPARED WITH INSTRUMENTED POSTERIOR SPINAL FUSION FOR SPINAL STENOSIS AND Spondylolisthesis

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OBJECTIVES: Back and leg pain arising from spinal stenosis with degenerative spondylolisthesis have a substantial impact on the quality of life of patients. Using data collected on costs, resource utilization, and patient-reported outcomes from an ongoing randomized clinical trial comparing a novel, motion-preserving interlaminar stabilization device (coflex®) to control (instrumented posterior spinal fusion) for patients with lumbar spinal stenosis and spondylolisthesis, we report and compare the relative cost-effectiveness of these two treatments. METHODS: A model was developed to compare interventions. The primary source for the model’s clinical input parameters was the recent investigational clinical trial of coflex® supplemented with market approval data from FDA. Total costs for the first year were estimated based on claims data analyses and expert opinion. Oswestry Disability Index scores collected during the trial were converted to utilities. A third-party payer perspective was used, and costs (US $2011) and outcomes were discounted at 3% annually. Both Medicare and private payer costs were modeled. Sensitivity analyses examined the influence of costs, utilities, and discount rates. RESULTS: Patients receiving coflex had higher success rates and lower costs in both the Medicare and private payer models. Payments over five years were estimated at $14,534 for coflex® implant patients compared to $25,520 for controls (Medicare costs, $17,714 vs. $31,747 for private coverage). Utilities were higher for coflex®-treated patients at all assessments, and totaled 3.03 quality-adjusted life years (QALY) compared to 2.98 for controls. Incremental cost-effectiveness could not be calculated, as the novel implant dominated, demonstrating both lower costs and improved outcomes. Sensitivity analyses identified no scenario in which fusion was preferred over the coflex®-CONCLUSIONS: The use of coflex® to treat stenosis and spondylolisthesis is cost saving, and associated with improved patient outcomes. Subgroup analyses comparing indications and patient characteristics should be conducted to confirm robustness of findings.

PM43
PREFERENCES OF MULTIPLE SCLEROSIS PATIENTS FOR ATTRIBUTES OF SELF-INJECTION DEVICES

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OBJECTIVES: Current multiple sclerosis (MS) disease modifying medications frequently require the use of self-injection devices. These can present varied burdens for patients in terms of their portability, complexity in preparation and potential for causing discomfort. Furthermore, the necessity to self-inject is closely associated with levels of adherence to treatment and optimizing the acceptability of such high sensitivity troponin testing at presentation in most scenarios. The current guidelines recommending 10 hour troponin testing does not appear to provide cost-effective resource uses, we here in place to allow rapid decision making once delayed test results are available.