societal perspective, CK costs $8,400/QALY compared to surgery; CK remained dominant versus IMRT and PT. Results were most sensitive to cost of CK and surgery, and utility weights for GU and SD. CONCLUSIONS: CyberKnife was found to be cost-effective versus surgery, and resulted in cost savings and improved quality-adjusted survival compared to radiation options for the treatment of local-
ized PC.

PMD22
COST-EFFECTIVENESS ANALYSIS OF THREE WOUND DRESSINGS FOR THE TREATMENT OF PRESSURE ULcers FROM THE PUBLIC HOSPITAL PERSPECTIVE
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OBJECTIVES: Each year in Brazil, 42.3% of all inpatients present skin ulcers during the hospitalization period. Current clinical practice guidelines have not established a gold standard protocol of care for pressure ulcers. Thus, this study aimed to develop a cost-effectiveness analysis comparing these three different dressings: hydrocolloid, silver sulfadiazine 1% cream (SSD) and saline gauze (SG), under the perspective of Brazilian public hospitals.

METHODS: The mean time to healing (MTH) for each protocol was obtained from systematic reviews. Data from the Brazilian Hospital Information System from January 1st to December 31st 2009 was used to define the number of hospital admissions due to pressure ulcers (only non-surgical records with L89 ICD-10 code were included). The model assumed that SG is the current practice in Brazilian public hospitals and patients and cost differences at the time their wound healing. The difference in MTH was applied to the average length of stay (LOS) reported in the database. Resource use was estimated through expert panel and unit costs were obtained from Brazilian official price lists.

RESULTS: 934 hospitalizations were identified with mean LOS of 13.72 days. Hydrocolloid and SSD reduced the MTH in 4.72 and 2.72 days, respectively. Adopting hydrocolloid as wound management protocol would save −342.89BRL per patient and −BRL220,559 for the 2009 cohort. SSD projected savings was −5.49BRL per patient and −BRL15,125.79 for the entire cohort.

CONCLUSIONS: Hydrocolloid dressing has shown higher efficacy when compared to SG or SSD dressings, with fewer costs. The clinical and economic incremental results between different dressings reinforce the need of evidence-based decision making and rational resource allocation.

PMD23
COST-EFFECTIVENESS OF SPECIFIC USE OF THE LANCET BD QUIKHEEL® IN SCREENING PROGRAM OF NEONATAL CONGENTIAL HYPOPHYTISMID IN MEXICO
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OBJECTIVES: Congenital hypothyroidism (CH) is a serious conditions and expensive illness. The purpose of this study was to develop an economic model in order to evaluate the cost-effectiveness ratios between two heel lancet devices in terms of the procedure in neonates undergoing the newborn screening test at the Social Security Institute (IMSS) for the health care payer’s perspective.

METHODS: A cost-effectiveness analysis was developed using a decision-tree model. The model simulates costs and effectiveness outcomes in a 15 years period. The comparators were: Heel lance BD Safety-Flow lancet® and the BD Quikheel lancet. The economic effectiveness measure was the number of cases of severe congenital hypothyroidism avoided at the end of the follow-up period. Effectiveness data and transition probabilities were taken from international published literature. The estimation of resource use was performed employing local expert opinion surveys. Costs and effectiveness were discounted 5% annually. The model was calibrated according to international pharmacoconomics guidelines. One-way and probabilistic sensitivity analyses were performed using Monte Carlo Simulation second-order approach.

RESULTS: Regarding effectiveness, the lancet Contact Activated would prevent 75% of patients with CH detected in advanced stages and with the use of the lancet Quikheel the percentage would increase to 98%, preventing 22% more cases of severe CH. The mean cost per newborn screened in case of using the lancet type would Contact Activated $12.2 and with the lancet Quikheel type $11.71. The potential savings from the use of the lancet Quikheel would be around $72,945 and $54,423 in the first year. CONCLUSIONS: It is estimated that the use of the lancet Quikheel type is the best alternative, as it offers better effects at lower cost. In Mexico the use of the lancet Quikheel brings significant clinical and economic benefits that make of the neonatal screening program a better one.

PMD24
GLYCOSYLATED HEMOGLOBIN OR FASTING GLUCOSE TESTING FOR SCREENING DIABETES IN COLOMBIA: A COST-EFFECTIVENESS ANALYSIS
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OBJECTIVES: Diabetes is a growing cause of death and morbidity in middle-income countries carrying a large financial burden for health systems. In recent years, diabetes screening practices in Colombia have shifted from using the fasting glu-
cose test (FGT) relying on glycylated hemoglobin (HbA1c) as physicians consider it a more reliable tool to early detect diabetes. This analysis assesses the cost-effectiveness of alternative screening strategies in general population in Co-
lombia from a health system perspective. METHODS: A decision-analytic model was designed to compare four strategies: (1) FGT + confirmatory FGT (standard practice); (2) FGT + confirmatory HbA1c; (3) Only HbA1c and (4) no screening. Long-term health outcomes (life years) and cost-outcomes were modeled via a 20-year Markov model with three health states: non-complications, complications and death. Parameter values were based on data from the National Health Survey and from the Ministry of Social Protection on general population. The model projections were comparable to those published elsewhere using CORI and Colombian medical costs and diabetes costs. One-way sensitivity-analysis on the HbA1c cut-off was also performed. RESULTS: No significant differences on costs per life-year saved were found when comparing FGT + confirmatory FGT ($1,047) and FGT + confirmatory HbA1c ($1,069) against no-screening. However, the use of only HbA1c was associated with a higher cost per life-year saved ($2,455.93) when compared against no-screening. This result was mainly driven by not using a confirmatory test rather than by the test itself. CONCLUSIONS: This analysis found the performance of FGT + confirmatory FGT and FGT + confirmatory HbA1c to be similar and highly cost-effective in general population older than 45 when in comparison to no-screening. This finding has implications in both clinical and health policymak-
ers in Colombia and in other Latin American countries with similar diabetes prev-
ance and treatment options.

PMD25
THE COST-UTILITY AND VALUE OF INFORMATION OF TRANSCATHERET ARotic VALVe ImPLANTATION COMPARED TO STANDARD MANAGEMENT AND SURGICAL ARotic VALVe REPLACEMENT IN PATIENTS WITH SEVERE SYMPTOMATIC ARotic VALVe STENOSIS
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OBJECTIVES: The primary analysis of this study was to estimate the cost-effectiveness of TAVI compared to standard management (SM) in inoperable patients with severe, symptomatic aortic valve stenosis (SSAVS). The secondary analysis was to explore both the cost-effectiveness and cost-utility of TAVI compared to surgical aortic valve replacement (SAVR) in operable patients at high surgical risk with SSAVS. METHODS: A combined decision tree and Markov model was developed to compare the costs, life-years (LYs) and quality-adjusted life-years (QALYS) of TAVI (transfemoral (TF) and transapical (TA) approaches) to SM and SAVR over a 5-year time horizon. This evaluation was conducted from a third party payer’s perspective. RESULTS: In the primary analysis, comparing TF and SM resulted in an incremental cost-effectiveness ratio (ICER) of $126,874/LY and $222,378/QALY. Comparing TA and SM resulted in an ICER of $262,674/LY and $1,454,241/QALY. In the secondary analysis, TF and SAVR were compared, resulting in an ICER of $39,676/LY and $81,758/QALY. Comparing TA and SAVR resulted in an ICER of $183,454/LY. TA was dominated by SAVR when comparing QALYs. The total expected value of perfect information (EVPI) was at a maximum with a value of $6,928 at a WTP threshold of $60,000/QALY. The expected value of partial perfect information (EVPPI) was highest for the 30-day clinical event rates when compared to the EVPI values for the 1-year, 2-year and >3-year clinical event rates. CONCLUSIONS: This economic evaluation suggested that TAVI might not be a cost-effective option for inoperable patients in comparison to SM. The secondary analysis suggested that TAVI might be the cost-effective option for operable patients compared to SAVR. To reduce the uncertainty in our estimate it might be worthwhile to obtain empirical evidence related to clinical event rates occurring 30-days post operation.

PMD26
ECONOMIC EVALUATIONS FOR SCREENING AND TREATMENTS OF DIABETIC RETINOPATHY AND DIABETIC MACULAR EDEMA: A SYSTEMATIC REVIEW
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OBJECTIVES: New technologies in screening and treatment of diabetic retinopathy (DR) and diabetic macular edema (DME) have emerged recently. The goal of this systematic literature review is to identify and compare critical gaps in the published economic evaluation literatures for screenings and treatments strategies of DR/DME. METHODS: A systematic literature search was conducted to identify liter-
ature in English from 1980-2010, using PubMed, Embase, NHS NICE EED, and Tuft ECA databases. Key terms included “diabetic retinopathy”, “diabetic macular edema”, “critical review”, and relevant terms for economic evaluations. All studies related to eco-

conomic analysis and decision modeling were included. Studies that focused only on cost or utility were excluded. RESULTS: 52 articles were identified and 33 were excluded based on the pre-specified exclusion criteria. Of the remaining 19 studies, nine (47%) focused on screening methods, six (32%) on diabetic care, and four (21%) on DR/DME treatment. Among the included studies, 12 studies (63%) were cost-effective analyses, and eight-years saved was the most frequently used endpoint. Seven studies (37%) were cost-effectiveness analyses. Most of the 19 economic analytic frameworks, health state descriptions were observed. Some only assigned utility to blindness, not to diabetic patients who may have impaired quality of life due to vision loss. Although, both DR/DME is a bilateral condition, most studies did not clearly explain how cost, utility, and disease progression were modeled for the second eye. CONCLUSIONS: Additional economic analytic frameworks, health state definitions, and utility sources employed in economic evaluations of screening and treatment of DR/DME. Future studies assess-
ing cost-effectiveness of new technologies should transparently address these areas.