OBJECTIVES: In breast cancer, adjuvant chemotherapy is often prescribed as a standard whole breast irradiation (WBI) in favourable early breast cancer and, if there is no evidence on other benefits in addition to those derived from reductions in the risk of loco-regional failure and death, the incremental cost-effectiveness ratio (ICER) with benefits expressed as quality-adjusted life years (QALYs). Costs were determined through literature review, expert opinion, and data provided by the various providers. The primary outcome measure was the incremental cost-effectiveness ratio (ICER) with benefits expressed as quality-adjusted life years (QALYs). Costs were expressed in 2011 CAD$. Both costs and benefits were discounted at 5%. RESULTS: The test was associated with savings of $570 ($1650 with productivity loss cost) per patient from societal perspective in the context of recent studies of SMBG that have employed active education programs. METHODS: A discrete event simulation model was developed to simulate the economic and health outcomes based on A1c changes related to using SMBG + STG alone, SMBG alone, or no SMBG. The simulated model included persons with type 2 diabetes (T2DM) with severe aortic stenosis who are ineligible for conventional aortic valve replacement (AVR) from the perspective of the Ontario health care payer. The health benefits over and above lower radiation would need to increase considerably for EOS to be considered cost-effective. CONCLUSIONS: The health benefits estimated from EOS as a result of radiation dose reductions were insufficient to justify the cost of the system. EOS can only be shown to be cost-effective when compared to EBRT if the utilisation of EOS is assumed to be halved from the utilisation of EBRT. EOS highlights some of the difficulties of establishing the relevant care pathway, potential indications, patient benefit from the imaging features, and patient throughput. The evaluation of EOS is an example of how methodological challenges presented by diagnostics can be overcome.

PM53

MODELING THE HEALTH AND ECONOMIC CONSEQUENCES OF SELF-MONITORING OF BLOOD GLUCOSE (SMBG) IN NON-INSULIN TREATED PATIENTS WITH TYPE 2 DIABETES MELLITUS (T2DM) IN SPAIN

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Diabetic complications (cardiovascular disease, stroke, amputations, end stage renal disease), hyperglycemia, life years (LYs) and quality adjusted life years (QALYs). Costs associated with events were estimated. Benefits and costs were discounted at 5%. Uncertainty in model estimates, such as changes in price per strip, treatment groups, program component, and A1c differences, was explored with sensitivity analyses. RESULTS: SMBG + STG was predicted to reduce complications and associated costs. Lower A1c and consequent complications prevention with SMBG + STG translated into a dominant incremental cost-effectiveness ratio. Comparisons with a group not utilizing SMBG yielded similar results. CONCLUSIONS: In the long term, SMBG + STG is a cost-effective option compared to SMBG alone. An A1c reduction of ≥ 1% in a cost-effective outcome, decision makers should consider designing programs to educate patients about SMBG + STG.

PM54

TRANS-CATHETER AORTIC VALVE IMPLANTATION FOR THE NON-OPEVATIVE MANAGEMENT OF AORTIC STENOSIS: A COST-EFFECTIVENESS ANALYSIS

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Evidence from recent clinical studies has shown the benefits of SMBG plus a structured testing program (SMBG + STG) in non-insulin treated patients with type 2 diabetes (T2DM). Using a Markov decision analysis, the impact of SMBG and Structured Testing Protocol (STG) was examined from the perspective of the Ontario health care payer. METHODS: A discrete event simulation model was developed to simulate the economic and health outcomes based on A1c changes related to using SMBG + STG versus SMBG alone, and SMBG alone vs SMBG alone. Baseline A1c (8.4%) changes over 1 year (-1.2% and -0.9% for SMBG alone, SMBG + STG and SMBG alone) were derived from the 5-year STG study. Population and cost inputs were derived from published Spanish sources. Over a lifetime horizon (~30 years), the model predicts diabetes related complications (cardiovascular disease, stroke, amputations, end stage renal disease), hyperglycemia, life years (LYs) and quality adjusted life years (QALYs). Costs ass
THE COSTS-EFFECTIVENESS OF COBAN 2 FOR THE TREATMENT OF VENOUS LEG ULCERS.

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OBJECTIVES: To assess the cost-effectiveness of 3M™ Coban™2 Layer Compression System (Coban 2) for the treatment of venous leg ulcers in the Dutch health care setting. The economic evaluation consists of a cost-effectiveness analysis. A Markov model was developed in order to determine the cost-effectiveness of Coban 2, which was based on different health states and allowed transitions between these states. Upon initiation of the compression system Coban 2, the patient is supposed to have an ulcer. Over time, the ulcer may heal, but it may also recur. The model compared Coban 2 with traditional treatment (Short Stretch Bandages (SSB)). The primary perspective of the study is that of the Dutch insurer in 2012. The actual costs, which are included in the study, are product costs and treatment costs. Clinical probabilities on healing and recurrence are derived from clinical published literature.

RESULTS: The use of Coban 2 leads to a total cost of €600 compared to €2,663 for traditional care, which leads to a cost saving of €2,063 per patient over a period of 1 year. The effectiveness for Coban 2 is 84.5% time without symptoms; the effectiveness for traditional care is 65.0% time without symptoms. This leads to a gain of 2.3 months without symptoms over a period of 1 year.

CONCLUSIONS: The use of Coban 2 versus traditional treatment is cost-effective, because it is cost saving in combination with a higher effectiveness. As a consequence the cost savings by Coban 2 also translates into a positive impact on total health care budget.

PMD58
COST-EFFECTIVENESS ANALYSIS OF LEPROSY CASE DETECTION METHODS IN NORTHERN NIGERIA

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OBJECTIVES: Functional imaging with positron emission tomography (PET) is a promising non-invasive modality in the clinical management of squamous cell carcinoma of the head and neck (SCCHN). Currently, there is limited evidence that PET in clinical practice brings additional value over and above conventional imaging. The objective of this study was to assess the methodological quality of cost-effectiveness analyses (CEAs) of PET in SCCHN. METHODS: A systematic literature review was performed focusing on CEAs of PET in SCCHN using MEDLINE, EMBASE, NHS EED and the CEA Gateway. Studies were included using a pre-specified protocol. The methodological quality of the primary clinical studies was examined by QUality Assessment of Diagnostic Accuracy Studies checklist. CEAs were critically appraised using the Cost-Effectiveness Analysis (CEA) Standards checklist. RESULTS: A total of seven studies met the inclusion criteria. PET or computed tomography (CT) integrated with PET was assessed in two indications: detection of recurrent disease and screening for metastasis. In each indication, PET strategy ranged from likely to be cost-effective (in four studies) to dominant (three studies). Further research is needed to address comparability of PET and CT cost-effectiveness analyses (CEAs) for head and neck cancer.

CONCLUSIONS: PET in SCCHN has the potential to be cost-effective, but further research is needed to address comparability of PET and CT CEAs in head and neck cancer.