OBJECTIVES: To compare the clinical and cost consequences of Gadodiacetic acid-enhanced magnetic resonance imaging (PV-MRI) to extracorporeal contrast media-enhanced magnetic resonance imaging (CCE-MRI) and Multidetector Computed Tomography (MD-CT) in patients with suspected hepatocellular carcinoma (HCC) in South Korea and Thailand.

METHODS: The clinical pathway of patients with suspected HCC from the initial imaging procedure (PV-MRI, ECCM-MRI or MD-CT) to the confirmed treatment decision was presented in an economic decision-tree model. The model compared payers relevant costs of the three diagnostic procedures as first imaging in patients with suspected HCC evokes total cost of US$ 3,098/patient. The higher acquisition cost of PV-MRI ($930/patient) and MDCT ($872/patient) and leads to cost savings of US$ 228 and US$ 170, respectively. The higher acquisition cost of PV-MRI are more than compensated by the cost saving achieved through the reduced need for confirmatory imaging procedures and the reduced need for changes in the surgical protocol during resection.

CONCLUSIONS: Using PV-MRI compared to ECCM-MRI and MD-CT for the first imaging in patients with suspected HCC leads to relevant cost changes for statutory health insurance in both countries. The impact on health outcomes (e.g., mortality, quality of life) and total cost needs to be shown in an extended study approach.

PMD31 IMPACT OF USING A VESSEL SEALER SYSTEM AND THE HARMONIC SCALPEL TECHNIQUE COMPARED TO THE VESSEL SEALER SYSTEM OR HARmonic SCALPEL TECHNIQUE TO PERFORM A THYROIDECTOMY PROCEDURE

A retrospective study. Thyroidectomies performed between 2007 and 2010 (n=460) segmented by conventional or minimally invasive technique, used to vessel sealer system or harmonic scalpel. Were analyzed: age, sex, principal diagnosis, type of procedure (total thyroidectomy with or without lymphadenectomy), outcome analyzed were duration of surgery, hospital stay, need for blood transfusions and pain score. The conclusions were based on significance level of 5% and statistical analyzes were performed using the software R. The results showed that the use of vessel sealer system resulted in reduced duration of surgery about 47 minutes when compared to using the conventional technique (p= <0.001) and the use of harmonic scalpel led to a reduction of the length mean surgery in approximately 32 minutes compared to the conventional technique (p=0.001). Patients who used vessel sealer system or harmonic scalpel had cost more than in patients with the conventional technique. In relation to the outcome scores of pain and blood transfusion there was no difference between the techniques. CONCLUSIONS: The use of harmonic scalpel was favorable in terms of reducing the duration of surgery, but was' only observed impact on length of hospital stay and cost of the procedure was significantly higher (28%). Using the vessel sealing system was no result in favorable outcomes assessed and the cost increase was significant compared to the conventional technique.

PMD32 OUTCOMES AND COSTS OF ISOLATED AORTIC VALVE REPLACEMENTS ASSOCIATED WITH THE INTRA-IMPLANTATION OF A NEW SUTURELESS AND COLLAPSED VALVE IN ITALY, FRANCE, GERMANY, AND UK

In Italy, the cost of the procedure was approximately 6,700 £ (UK), mainly related to a reduction in surgery costs and hospital bed days. Extensive sensitivity analyses confirm the robustness of such findings. CONCLUSIONS: Reduced costs for the surgical procedure, shorter hospital stay and complications magement with Percival 5 offset its increased cost in all analyzed countries.

PMD33 THE IMPACT OF THREE DIFFERENT IMAGING STRATEGIES ON SURGERY PLANNING FOR PATIENTS WITH COLORECTAL CANCER LIVER METASTASES

An economic model was used. The probabilities and resource consumptions were estimated and validated by radiologists and surgeons in Germany, Italy and Sweden using a Delphi panel process. Cost was derived from published sources and the mean costs

Similarly, switching patients with frequent SHE on MDI [average HbA1c 7%, 1.0 SHE (FPV)] to CSR in the following calculated impact reduction 80% SHE potential 6% expenditure reduction (EER), insulin dose reduction of 7,597 IU (41% EER), and a relative HbA1c reduction of 1% (90 EER). The total calculated short-term improvement in this subgroup is associated with potential savings in CIR cost of €605 FPY.

CONCLUSIONS: In addition to long-term benefits; depending on baseline values, switching patients from MDI therapy to CSR results in improved clinical outcomes with significant reductions in short-term CIR costs.

PMD30 SHORTTERM HEALTH-ECONOMIC OUTCOMES OF CONTINUOUS SUBCUTANEOUS INSULIN INFUSION (CSI) IN TYPE 1 DIABETES: A COST-COMPARISON ANALYSIS

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OBJECTIVES: Typical cost-effectiveness studies of CSI therapy focus on long-term health-economic outcomes, with little emphasis on immediate clinical and economic benefits which underpin long-term complication-related savings. The objective was therefore to evaluate the short-term health-economic outcomes of CSI versus multiple daily injections (MDI), using best practice modelling methodology with a focus on changes in glycosylated haemoglobin (HbA1c), severe hypoglycemic events (SHE), insulin consumption and complication and insulin related (CIR) costs.

METHODS: The modelling was performed based on regression equations for changes in HbA1c and SHE. Model inputs were derived from best available evidence. Analysis was performed by a health care payer’s perspective for the Netherlands. Model outputs included clinical benefits and potential reductions in CIR costs and hemoglobin A1c. Sensitivity analysis determined the robustness of the results. RESULTS: A cohort representative of Netherlands, switching patients with poorly controlled HbA1c on MDI [average HbA1c 9%, 0.2 SHE per patient year (FPP)] to CSI results in the following calculated impact reductions PPY: 50% SHE potentially avoided €65 expenditure reduction (EER), insulin dose reduction of 7,597 IU [41% EER], and a relative HbA1c reduction of 12% [460 EER]. The total calculated short-term improvement in this subgroup is associated with potential savings in CIR cost of €612 FPY.

CONCLUSIONS: The use of harmonic scalpel was favorable in terms of reducing the duration of surgery, but was only observed impact on length of hospital stay and cost of the procedure was significantly higher (28%). Using the vessel sealing system was no result in favorable outcomes assessed and the cost increase was significant compared to the conventional technique.