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eye disease). Transition probabilities and HbA1c-dependent adjustments came from UKPDS and other major studies. Costs of complications came from published sources. Direct costs of diabetes complications and SMBG were projected over patients' lifetimes from a UK National Health Service perspective. Outcomes were discounted at 3.5% annually. Sensitivity analysis was performed. **RESULTS:** Depending on the type of diabetes treatment (diet and exercise/oral medications/insulin), improvements in glycemic control with SMBG improved discounted QALYs by 0.12 ± 0.14 to 0.21 ± 0.14, with increased total costs of £603 ± 909 to £2240 ± 1124/patient, giving incremental cost-effectiveness ratios of £4853 to £10,670/QALY gained, well within current UK willingness-to-pay limits. At a threshold of £30,000/QALY gained, there was a 78–85% probability that SMBG would be considered cost-effective. SMBG was most cost-effective in the subgroup of patients treated with diet and exercise. **CONCLUSIONS:** Improvements in glycemic control with interventions including SMBG improves patient outcomes with an acceptable cost-effectiveness ratio in the UK setting.

DN3

COST-EFFECTIVENESS OF NON-INVASIVE IMAGING IN THE DIAGNOSIS OF PARKINSONISM

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OBJECTIVES: Economic evaluations of diagnostic technologies are less well established than for therapeutic technologies. The objective of this study was to undertake a cost-effectiveness analysis in German office-based centres of diagnostic strategies with and without DaTSCAN (123I-FP-CIT) SPECT imaging for patients with clinically uncertain Parkinsonian syndromes (PS) to distinguish between PS and essential tremor (ET), one of the conditions most commonly misdiagnosed as Parkinson's Disease. We report initial analytic results based on office-based expert opinion. **METHODS:** A Markov model was developed to simulate the progression of a cohort of patients with clinically uncertain PS who are managed in an office-based centre based on clinical judgment alone or receiving DaTSCAN. Health states were defined in terms of therapy (PS, ET, none) and underlying conditions (PS, ET). The model estimated time on potentially beneficial therapy (PBT: e.g. PS therapy for underlying PS) and patient management costs over 5 years. Model probability inputs were from published studies and treatment patterns/resource use from a panel of German neurologists. Unit costs were from official sources. The cost of a DaTSCAN test (agent plus administration) was €929. A total of 40–60% cohort members were assumed to have underlying PS. DaTSCAN sensitivity and specificity were 95%/100% (institutional read) and 93%/97% (blinded read). **RESULTS:** At 50% underlying prevalence and in the absence of DaTSCAN, 25% of cohort members had PBT at the outset, rising to 60% at 6 months and 62% at 5 years. Using DaTSCAN, 99% of patients had PBT at the outset reducing to 79% at 5 years. DaTSCAN use generated an incremental 1.4 PB years per patient, and 5-year costs were €795 lower for the DaTSCAN group. **CONCLUSION:** Adding non-invasive imaging to the management of patients with clinically uncertain PS may be considered to be a cost-saving strategy with an increase in time on potentially beneficial therapy.

DN4

PHARMACOECONONOMIC EVALUATION OF SEDATION WITH REMIFENTANIL/PROPOFOL VERSUS MIDAZOLAM/FENTANYL IN THE INTENSIVE CARE UNIT

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OBJECTIVES: Cost-consequence analysis of a RP (remifentanil + propofol) regimen versus a conventional, commonly used MF (midazolam + fentanyl) regimen for sedation of mechanically ventilated postoperative cardiac surgery patients. **METHODS:** We conducted a prospective, single-blinded, randomised cost-consequence study with 80 patients in one German intensive care unit (ICU). The RP group received remifentanil (6- max. 60 µg $kg^{-1}h^{-1}$) and—if sedation at maximal remifentanil dose was insufficient—propofol (0.5–4.0 mg $kg^{-1}h^{-1}$). The MF group received midazolam (0.02–0.2 mg $kg^{-1}h^{-1}$) and fentanyl (1.0–7.0 µg $kg^{-1}h^{-1}$). Direct costs for drugs, material (variable costs only), and staff were considered (hospital's perspective, 2003 prices). Sensitivity and scenario analyses were performed with a decision-analytic model. As the remifentanil dose in the study RP regimen (baseline) was higher than in routine practice we simulated a "routine practice" scenario: We lowered the mean remifentanil infusion rate from 41.2 µg $kg^{-1}h^{-1}$ to 9 µg $kg^{-1}h^{-1}$, increased the propofol infusion rate from 2.2 mg $kg^{-1}h^{-1}$ to 4 mg $kg^{-1}h^{-1}$ and assumed that this scenario would have rendered the same reduction (24%) in staff costs compared to MF regimen and identical material and drug utilisation (except RP) as at baseline. **RESULTS:** Compared to MF regimen, RP regimen (baseline) led to a significantly shorter mechanical ventilation time (3.5 h) and earlier discharge from ICU (18.3 h) and equal average net costs of €1700 for the ICU stay per patient. The routine practice scenario rendered 53% lower RP medication costs than baseline thus yielding net savings of €200 per patient. These results are sensitive to staff and drug cost variations. **CONCLUSIONS:** Analysis indicates that RP regimen dominates MF regimen in the investigated setting as it reduces the mechanical ventilation time and hence the risk of ventilator-associated morbidity at equal costs (baseline) or even savings (scenario).

Clinical Outcomes Studies

CO1

VALIDATION OF DIAGNOSTIC PROCEDURES IN SYMPTOMATIC BENIGN PROSTATIC HYPERPLASIA. CONCORDANCE BETWEEN INITIAL AND FINAL DIAGNOSIS IN DAILY CLINICAL PRACTICE

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OBJECTIVE: To assess the usefulness of daily practice diagnostic methods (medical history, I-PSS questionnaire, digital rectal examination (DRE) and prostate-specific antigen (PSA)) for the diagnosis of Benign Prostatic Hyperplasia (BPH). **METHODS:** A total of 363 consecutive patients with suspected BPH seen at urological outpatient clinics, between April and November 2003, participated in the study. The following steps were sequentially followed to define the Initial Diagnosis: 1) medical history; 2) I-PSS questionnaire; 3) DRE; and 4) PSA. It was then compared to the Final Diagnosis (gold-standard) after step 5) urinary sediment, residual volume and prostate size by ultrasonography, and