OBJECTIVES: To evaluate the cost-effectiveness of fentanyl ITS (iontophoretic transdermal system—IONSYSTM) versus epidural analgesia (EA) or intravenous patient-controlled analgesia (IV-PCA) for acute post-operative pain management (POPM) from a Finnish hospital perspective. METHODS: The cost-effectiveness of IONSYSTM was assessed using a decision analytic model estimating costs (2008€) and POPM patient outcomes (pain relief, minor and major POPM-related complications) from surgery to discharge. Groups receiving 1, 2 or 3 day(s) of IV-PCA or EA were compared to groups receiving respectively 1, 2 or 3 day(s) of IONSYSTM. Pain relief data were derived from clinical trials and published literature. Complication rates were predicted from a longitudinal hospital database. Resource use included drugs, consumables, equipment, POPM-related complications and staff time, the latter derived from expert panels and a literature review. Costs were based on official tariffs and price lists. RESULTS: The costs of IONSYSTM for 1, 2 or 3 day(s) were €1,825, €2,164, €1,67, €174. For 1 day of IV-PCA and 1, 2, 3 day(s) of EA respectively, savings were €170, and €164, €167, €174. For 2 or 3 days of IV-PCA respectively additional costs were €1,9 and €105. The percentage of complication-free patients was consistently higher with IONSYSTM as regards minor and major complications with increment ranges of [1.44%, 3.95%] and [0.04%, 2.29%], respectively. The percentage of patients reporting no or mild pain with IONSYSTM was the same as with IV-PCA and lower than with epidural with respective increments for 1, 2 and 3-day groups of [4.02%, 4.33%] and [5.26%, 5.26%]. CONCLUSIONS: Compared to EA, IONSYSTM offers lower costs and fewer complications. EA however offers improved pain relief. Compared to IV-PCA, IONSYSTM dominates the 1-day group and for the 2 and 3-day groups offers fewer complications at a higher cost.
selection of particular groups of patients. However, the present results can be seen as a basis for discussion about the very restrictive practice regarding decisions on reimbursability of bariatric procedures. Further more, comprehensive quality assurance is needed, including the implementation of competence centres and the fixing of minimum amounts for procedures. In this context the long term assessment and evaluation of all patients and their course of disease is necessary, aiming at the highest possible effectiveness of medical treatment and still allowing for economic limits.

THE COST EFFECTIVENESS OF DULOXETINE IN THE TREATMENT OF FIBROMYALGIA IN THE NHS IN SCOTLAND

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OBJECTIVES: The aim of this research was to evaluate the cost-effectiveness of duloxetine as an additional treatment option in the management of fibromyalgia (FM), assessed from an NHS Scotland health care system perspective. METHODS: We used a 3-year health state transition model to represent the sequential drug management of patients with FM. Guidelines, evidence reviews and clinical opinion were used to define a standard treatment for Scotland based on tricyclic antidepressants (TCAs) with switching to second-generation antidepressants (SSRIs or SNRIs). The model considered two levels of pain response based on an 11-point severity scale (0 = ‘no pain’ to 10 = ‘worst pain possible’): ≥30% (response) and ≥50% (full response) change from baseline score. Clinical efficacy and discontinuation data were taken from a systematic literature review and an adjusted indirect meta-analysis based on placebo-controlled trials of FM treatments. Utility data were linked to pain severity using trial-based EQ-5D data collected from patients in the duloxetine studies. Costing was based on 2006. Annual discounting was applied equally at 3.5%. RESULTS: The first-line use of duloxetine resulted in approximately 67 additional quality-adjusted life years (QALYs) per 1000 patients, achieved at an additional cost of £397,360. This corresponded to a cost per QALY of £5950 compared to current standard treatment without duloxetine. These results were robust to both deterministic and probabilistic sensitivity analyses, demonstrating a 70% probability of the ICER falling below £15,000 per QALY. A step-wise analysis reported a cost per QALY of £4847 for first-line duloxetine versus second-line treatment and £7360 versus third-line treatment. CONCLUSIONS: There is currently a significant unmet need for patients with poorly controlled FM where pain is a predominant symptom. These analyses show that the introduction of duloxetine into the standard treatment sequence for FM could provide additional patient benefits which should be considered cost-effective when compared to commonly adopted thresholds.

THE COST MINIMIZATION ANALYSIS OF ORAL VS. INTRAVENOUS FLUDARABINE (BENEFLUR®) IN SPAIN

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OBJECTIVES: Beneflur®, whose active principle is fludarabine, has an oral and an intravenous (i.v.) formulation. The objective of the present study was to compare the efficiency of both formulations by means of a cost-minimization analysis in the treatment of B-cell chronic lymphocytic leukaemia (CLL) in Spain. METHODS: Existence of previous clinical evidence on the therapeutic equivalence between both fludarabine formulations justified a cost-minimization analysis to compare efficiency. The National Health System (NHS) perspective was taken including only direct costs. Also indirect costs were considered allowing a societal viewpoint. Data on resources use were obtained from published literature and through an expert panel. Unit costs were obtained from Spanish costs databases. Generic i.v. fludarabine cost was used. The model was built in Microsoft Excel and a sensitivity analysis by means of two different techniques (scenario analysis and Monte-Carlo Simulation) was performed to ensure robustness of results. RESULTS: Although acquisition costs for oral fludarabine are higher than for i.v. fludarabine, higher administration costs for the i.v. formulation due to hospital administration and adverse event costs compensate them, resulting in net savings for the NHS of €2152 and €1322 using the oral formulation (baseline scenario), in monotherapy and in combined therapy respectively. The range of savings obtained through the scenario analysis was: ≥€1024 ≤€3280 for monotherapy and ≥€617 ≤€2027 for combined therapy. Indirect costs, i.e. lost productivity, charge only i.v. fludarabine, adding extra savings to the oral formulation. Monte-Carlo results confirmed model robustness. CONCLUSIONS: Oral fludarabine has equivalent efficacy and an improved safety profile than intravenous fludarabine showing total lower costs both in monotherapy and in combination with cyclophosphamide, from the perspective of the National Health System in Spain. Hence, oral fludarabine should be administered instead of intravenous fludarabine unless contra-indicated.