COST-EFFECTIVENESS OF LAPAROSCOPIC ADJUSTABLE GASTRIC BANDING AND LAPAROSCOPIC ROUX-EN-Y GASTRIC BYPASS IN THE TREATMENT OF MORBID OBESITY

OBJECTIVE: To assess the cost-effectiveness of laparoscopic adjustable gastric banding (LAGB) as treatment for morbid obesity compared with laparoscopic Roux-en-Y gastric bypass (LRGBY) and no treatment. METHODS: A Markov model was developed to simulate weight loss, health consequences, and costs for surgical treatment of morbid obesity. The model was used to estimate lifetime medical-care costs, quality-adjusted life years (QALYs) and incremental cost-effectiveness ratios (ICERs) in terms of cost per QALY gained. Estimates of effectiveness were derived from published results of a head-to-head randomized controlled trial comparing LAGB and LRGBY. Patients receiving no treatment were assumed to maintain their original weight. Other model parameters, including complication rates, costs of treatment and adverse events, direct medical costs attributable to obesity, mortality rates, and utilities, were estimated from published literature and publicly available databases. Base-case analyses were stratified by gender and initial body mass index (BMI). We discounted costs (2006 US dollars) and QALYs by 3% per annum. RESULTS: Under conservative assumptions, for a woman aged 40 years with initial BMI of 35–40, LAGB has lower average costs than LRGBY for the initial procedure ($15,470 versus $23,160) and complications ($3680 versus $11,930), but results in less weight loss. ICERs are $13,990 and $14,690 for LAGB and LRGBY versus no treatment; and $16,540 for LRGBY versus LAGB. Corresponding ICERs for women with BMIs of 40–50 are $4860, $5150, and $5780. ICERs for men are generally higher than those of women due to shorter life expectancies. Sensitivity analyses show results to be robust to reasonable variation in model parameters and overall parameter uncertainty. CONCLUSION: Both LAGB and LRGBY provide significant weight loss and are cost-effective versus no treatment at conventionally-accepted thresholds for medical interventions. Accordingly, choice between the two procedures can be based on other factors such as patient or provider preference.

THE ECONOMIC CONSEQUENCES OF POST OPERATIVE PAIN MANAGEMENT WITH TRANSDERMAL FENTANYL (IONSYS) VERSUS INTRAVENOUS PATIENT-CONTROLLED ANALGESIA

OBJECTIVE: To analyze the economic consequences on staff time in post-operative wards in Sweden and Denmark of two modalities for treatment of post-operative pain, the fentanyl HCL iontophoretic transdermal system (fentanyl ITS) versus patient-controlled intravenous analgesia (IV-PCA). METHODS: Current postoperative pain management is labor intensive. Fentanyl ITS is a new modality for moderate-to-severe postoperative pain. Clinical efficacy and side effects incidence have been reported as mainly the same for fentanyl ITS and IV-PCA in several randomized clinical trials. A cost analysis was therefore performed. Staff resources in post-operative wards were calculated based on findings from a Nordic Delphi panel where the participants (nurses and anesthesiologists) from Sweden and Denmark working with post-operative patients should determine the total time required to complete all tasks involved in fentanyl ITS and IV-PCA use and assess differences in staff time between the alternatives. The panelists identified the following tasks: set up, routine patient care, dosing, routine replacement, trouble-shooting, and discontinuation of post-operative pain management. Staff costs were calculated based on official wages statistics for specialists and nurses in postoperative care. Costs were calculated in 2007 prices. RESULTS: Based on the panel information, the total post-operative staff time requirements per patient was 70 minutes for fentanyl ITS versus 146 minutes for IV-PCA. Most staff resources were spent on set up and routine patient care for both treatment alternatives. The post-operative staff cost per patient was calculated at £27 and €31 and €66 in Denmark, respectively. CONCLUSION: The staff costs of post-operative management in post-operative wards with fentanyl ITS is 53% (£30) lower per patient in Sweden and 53% (£35) lower in Denmark compared with IV-PCA. Additional health-economic analyses of total resources used for post-operative pain management, including material costs, based on clinical observations would be valuable.

ECONOMIC IMPACT AND CONSERVATION OF INTRAVENOUS IMMUNOGLOBULIN (IVIG) THROUGH THERAPEUTIC SUBSTITUTION WITH ANTI-D IN PATIENTS WITH IDIOPATHIC THROMBOCYTOPENIA PURPURA (ITP) AT AN URBAN TEACHING HOSPITAL IN STATEN ISLAND, NY

OBJECTIVE: Corticosteroids, IVIG and Anti-D can be used as first-line therapy for the treatment of ITP. After review of the