PIH15

ECONOMIC EVALUATION OF ANALGESIC MANAGEMENT AFTER TOTAL ABDOMINAL HYSTECTOMY AT THE SOCIAL SECURITY MEXICAN INSTITUTE

Objective: The use of multimodal analgesic management has been implemented for minimizing adverse events and to improve the patient recovery process which will have a significant impact on clinical and economic outcomes. The aim of this study was to develop an economic assessment of pain management and morphine free treatment of postoperative pain (POP) for patients after total abdominal hystectomy at the Social Security Mexican Institute (IMSS) from an institutional perspective.

Methods: A Bayesian decision-tree model was developed to simulate costs and health outcomes over a 1 month time period in patients treated with multimodal analgesic: Comparators assessed were: morphine (61.5 mg/day) plus parecoxib (40 mg/day), parecoxib (61.5 mg/day) plus ketorolac (90 mg/day) and morphine (61.5 mg/day) alone. The effectiveness measure was: percentage of successful response without adverse events (AE). The incremental cost-effectiveness ratio (ICER) was expressed as the additional cost to bring about one additional year of life. To account for potential variations in costs of implementing ABLE in different settings, two models were developed: cost of implementing ABLE and cost + 10%. Probabilistic sensitivity analysis was conducted to account for variation in model parameters. Confidence intervals for the ICERs were calculated using the Fieller theorem method. Results: Total cost of ABLE per participant after discounting was $908. In the secondary cost-effectiveness analyses total cost after discounting equaled ($10%) $999. By 2 years, there were 2 deaths (9 in ABLE and 21 in Control). Life year saved for ABLE was $944 compared to $868 for the intervention. Under assumptions of models 1 and 2 the additional costs for 1 additional year of life were $12,985 (95% CI: $4,637 - $87,905), and $14,271 (95% CI: $5,668 - $107,539), respectively. Conclusions: This economic evaluation suggests that investment in this paper is not worth the effort, while dependent on the cost-effectiveness ratio (ICER) to pay. However, confidence intervals varied widely due to small effect in reducing mortality.

PIH18

THE IMPACT OF LONG-TERM DISABILITY COSTS ARISING FROM IN-VITRO FERTILIZATION (IVF) TREATMENT: THE COST-EFFECTIVENESS ANALYSIS OF REDUCING MULTIPLE BIRTHS

OBJECTIVE: We have examined the impact of long term disability costs arising from increased use of IVF treatments in relation to multiple births reductions in Canada. Methods: Using the Canadian Fertility Cost Model we estimated the potential cost savings of reducing the number of multiple pregnancies in Canada. A series of probabilistic analyses were performed to account for the effect of uncertainty in disability costs on the cost effectiveness of reducing multiple births. Results: Values for disability rates were sampled from a beta distribution and costs were sampled from a log-normal distribution. Simulation results were generated by simultaneously varying long-term disability rates and costs. The outcome included total costs, lifetime disability costs and incremental costs per live birth. Results: Assuming reductions in multiple birth rates equal to those reached by selected European countries, we estimated that, over the next five years in Canada, the multiple birth rates could be reduced from 28.4% to 13% (in Monte-Carlo simulations, the potential cost savings range from $150 million to $558 million, and the reduction in over-all incremental cost per live birth range from $8,560 to $31,897. The proportions of children with lifetime disabilities range from 6% to 24% for current practice, and 4% to 17% assuming reductions in multiple births. For women under 35, aged 35-39, and over 40, reductions in over-all incremental cost range from ($9,555 - $35,616), ($7,814 - $29,977) and ($6,031 - $22,543), respectively. The bulk of cost reductions (ranging from 50% to 87%) would be attributable to reductions in disability costs. Conclusions: Our analysis shows that a reduction in multiple births would result in potential cost savings. The amount of variation in the long term outcomes and disability costs make the projections, nevertheless, highly unstable.

PIH16

COST-EFFECTIVENESS OF DESVENLAFAXINE FOR THE TREATMENT OF VASOMOTOR SYMPTOMS IN BREAST CANCER PATIENTS IN MEXICO

Objective: Treatment of vasomotor symptoms (VMS) in women with breast cancer (BC) represents a challenge while the use of a hormone replacement therapy (HRT) in this patient, could not be considered. The purpose of this study was to estimate the cost-effectiveness of pharmacological treatments for VMS in BC patients from an institutional perspective. Methods: A Markov model was performed to estimate health and economic consequences in a time horizon of five years (quarterly cycles). Effectiveness measures were: reduction of hot flashes events (55% of QALY’s). Comparators assessed were: conjugated estrogens (CE; 0.625mg/day, only used in hysterectomized women), CE+medroxyprogesterone (2.5mg/0.625mg/day, only used in non-hysterectomized women),ibuprofen (2mg) and placebo. Analyses were performed using a Monte Carlo Simulation second-order approach. Results: Percentage of successful response without AEs resulted for parecoxib in 35%, followed by ibuprofen (24%) and morphine with 28%. In hysterectomized women treated were lower for ketorolac (US$ 5,309.20) followed by morphine (US$534.96) and parecoxib (US$375.78). No meaningful statistical differences were found in costs among competing alternatives (p>0.05). ICER for additional successful response was US$ 134.79 for parecoxib against ketorolac. Acceptability curves showed that parecoxib is the most cost-effective therapy with 90% at a willingness to pay of US$4,500. Conclusions: Parecoxib represents a cost-effective alternative for POP management in patients who underwent abdominal hystereceomy at the IMSS.

PIH17

COST-EFFECTIVENESS OF ABLE A FUNCTIONAL PROGRAM TO DECREASE MORTALITY IN COMMUNITY-DWELLING OLDER ADULTS

Objective: To evaluate the cost-effectiveness of an intervention, Advancing Better Living for Elders (ABLE), which was shown to reduce mortality in community-dwelling elders in a randomized trial. Method: 319 community-living older adults randomized to ABLE or no-treatment control group, were included in the economic analysis. ABLE involved occupational and physical therapy home and telephone sessions and home modifications (e.g., grab bars) to address functional difficulties over 12 months. Using a home-care agency perspective, the incremental cost-effectiveness ratio (ICER) was expressed as the additional cost to bring about one additional year of life. To account for potential variations in costs of implementing ABLE in different settings, two models were developed: cost of implementing ABLE and cost + 10%. Probabilistic sensitivity analysis was conducted to account for variations in model parameters. Confidence intervals for the ICERs were calculated using the Fieller theorem method. Results: Total cost of ABLE per participant after discounting was $908. In the secondary cost-effectiveness analyses total cost after discounting equaled ($10%) $999. By 2 years, there were 30 deaths (9 in ABLE and 21 in Control). Life year saved for ABLE was $944 compared to $868 for the intervention. Under assumptions of models 1 and 2 the additional costs for 1 additional year of life were $12,985 (95% CI: $4,637 - $87,905), and $14,271 (95% CI: $5,668 - $107,539), respectively. Conclusions: This economic evaluation suggests that investment in this program is not worth the effort, while dependent on the cost-effectiveness ratio (ICER) to pay. However, confidence intervals varied widely due to small effect in reducing mortality.

PIH20

ECONOMIC EVALUATION OF THE USE OF EXOCENOUS PULMONARY SURFACENTS IN WESTERN NEONATES WITH RESPIRATORY DISTRESS SYNDROME IN MEXICAN POPULATION COVERED BY THE NEW GENERATION MEDICAL INSURANCE

Objective: To evaluate the cost-effectiveness of an intervention, Advancing Better Living for Elders (ABLE), which was shown to reduce mortality in community-dwelling elders in a randomized trial. Method: 319 community-living older adults randomized to ABLE or no-treatment control group, were included in the economic analysis. ABLE involved occupational and physical therapy home and telephone sessions and home modifications (e.g., grab bars) to address functional difficulties over 12 months. Using a home-care agency perspective, the incremental cost-effectiveness ratio (ICER) was expressed as the additional cost to bring about one additional year of life. To account for potential variations in costs of implementing ABLE in different settings, two models were developed: cost of implementing ABLE and cost + 10%. Probabilistic sensitivity analysis was conducted to account for variations in model parameters. Confidence intervals for the ICERs were calculated using the Fieller theorem method. Results: Total cost of ABLE per participant after discounting was $908. In the secondary cost-effectiveness analyses total cost after discounting equaled ($10%) $999. By 2 years, there were 30 deaths (9 in ABLE and 21 in Control). Life year saved for ABLE was $944 compared to $868 for the intervention. Under assumptions of models 1 and 2 the additional costs for 1 additional year of life were $12,985 (95% CI: $4,637 - $87,905), and $14,271 (95% CI: $5,668 - $107,539), respectively. Conclusions: This economic evaluation suggests that investment in this program is not worth the effort, while dependent on the cost-effectiveness ratio (ICER) to pay. However, confidence intervals varied widely due to small effect in reducing mortality.

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