## GASTROINTESTINAL DISORDERS—Cost Studies

**PGI4**

### BUDGET IMPACT OF METHYLNALTREXONE SC ON A PUBLIC DRUG PROGRAM FORMULARY

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**OBJECTIVES:** To estimate the financial impact to the Ontario Public Drug Programs (OPDP) for providing coverage for methylnaltrexone subcutaneous injection (RELISTOR™) for the treatment of Opioid Induced Constipation (OIC) in patients with advanced illness, receiving palliative care when response to laxatives has been insufficient. **METHODS:** A population-based model was developed to estimate the annual financial impact of adding methylnaltrexone to the OPDP drug formulary. Attrition factors were applied in a stepwise approach starting with the population of Ontario in order to forecast the number of palliative patients expected to use methylnaltrexone following its addition to the drug formulary. Targeted treatment population in the analysis is limited to patients meeting the product monograph indication/criteria. Only drug costs incurred by the OPDP are included. No discounting or inflation were applied. Data sources included literature sources, publicly available population statistics, and market research. **RESULTS:** This analysis estimates that funding methylnaltrexone, per product monograph indication, in the province of Ontario would lead to an incremental drug reimbursement cost of $1,754,265, $3,942,857, and $5,563,842 in Year 1, 2, and 3 respectively post listing. The total cumulative impact, post listing over the three-year period is expected to be $11.26 million. Pessimistic and optimistic scenarios were evaluated in the sensitivity analysis to provide a range of costs to the drug plan budget. The estimated impact over a three-year period will be an incremental cost of $6.65 million and $17.46 million for pessimistic and optimistic scenario respectively. **CONCLUSIONS:** Addition of methylnaltrexone will provide patients and care providers with a therapeutic option to rapidly and reliably improve patient well-being at the end-of-life while having a modest impact on the OPDP drug budget.

**PGI5**

### A BUDGET IMPACT ANALYSIS FOR DETERMINING THE COSTS OF INCREASED PANTOPRAZOL IV PRESCRIPTION FOR THE MANAGEMENT OF PEPTIC ULCER IN SPAIN

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**OBJECTIVES:** A budget impact model was developed in order to estimate the economic impact of increased pantoprazole intravenous prescription in the management of Peptic Ulcer (PU) in Spain. **METHODS:** The analytic model is based on data from disease prevalence, population growth, drug consumption, ex-factory prices and market shares forecasts for the Spanish market. It takes the perspective of the Spanish National Health Care System and time horizon considered is 5 years (annual discount rate at 5%). Drugs considered in the study were intravenous proton-pump inhibitors (PPIs): omeprazole, esomeprazole and pantoprazole. The model estimates the annual cost to treat patients with PU before and after of increased pantoprazol IV prescription. Annual costs includes pharmacologic treatment, laboratory and diagnostic tests, specialist consultation, hospitalization and other resources like transfusions, endoscopic treatments and surgery interventions. Health care resource consumption and unit costs have been obtained from a retrospective observational study that evaluated the re-bleeding prevalence by PU in patients treated with intravenous PPIs. All costs are referred to year 2007. **RESULTS:** Target population with peptic ulcer in Spain would be around 362,193 in year 2007, arriving at 378,048 in 2012 due to increase in Spanish population. Of these population it has been estimated that 5092 patients in year 2007 would be treated with intravenous PIPs (5315 patients in year 2012). Direct medical costs for the next 5 years for PU was estimated at €78.5 million before the increased pantoprazole prescription and at €77 million after its increase. Mean cost per patient was estimated at 2,513€ before the increase the pantoprazole participation and at 2464 after its increase. **CONCLUSIONS:** This budget impact model estimates that an increased intravenous pantoprazole prescription for the treatment of PU in Spain is going to represent a net savings of €1.5 million in the Spanish Health Care System in the next five years.

**PGI6**

### THE MANAGEMENT OF GASTRO OESOPHAGEAL REFLUX DISEASE IN SPAIN: A BUDGET IMPACT ANALYSIS TO ESTIMATE COSTS DUE TO A GREATER PANTOPRAZOL IV PENETRATION

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**OBJECTIVES:** To estimate the economic impact for the health care system due to the substitution of intravenous omeprazole and intravenous esomeprazole by intravenous pantoprazole in the treatment of gastro oesophageal reflux disease in Spain. **METHODS:** A budget impact model was developed. The analytic model was based on data from disease prevalence, population growth, drug consumption, ex-factory prices and market shares forecasts for Spain. It takes the perspective of the Spanish National Health Care System and time horizon considered is five years. Annual discount rate was set at 5%. Proton-pump inhibitors (PPIs) are the drugs of choice for the treatment of gastro oesophageal reflux disease (GERD) and drugs considered in the study were omeprazole, esomeprazole and pantoprazole. The model estimates the annual cost to treat patients with GERD before and after the replacement by pantoprazol IV in the management of the disease in the Spanish setting. Annual costs consist of pharmacologic treatments, laboratory and diagnostic tests, specialist consultations, hospitalizations, transfusions, endoscopic treatments and surgical interventions. All costs are referred to 2007. **RESULTS:** It has been estimated that target population with PPIs treatments for GERD in Spain would be around 79,372 inhabitants in year 2007, arriving at 82,849 in 2012 due to Spanish population growth. Total cost for the next 5 years for the treatment of GERD with intravenous PIPs was estimated at €1224 million before the substitution and at €1200 million after the substitution. Mean cost per patient was estimated at €2513 before the replacement by intravenous pantoprazole and at €2464 after its substitution. **CONCLUSIONS:** This budget impact analysis estimates that increased pantoprazole intravenous prescription for the treatment of GERD in Spain is likely to represent a net savings of €24 millions in the Spanish National Health Care System in the next 5 years.

**PGI7**

### AN ECONOMIC EVALUATION OF THE TWO LEADING ALGINTE THERAPIES IN THE UK: RESULTS FROM A LARGE LONGITUDINAL DATABASE

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**OBJECTIVES:** Alginates are often first line therapy for patients experiencing symptoms of gastro-oesophageal reflux (GORD).