whether this significant relation is still present after receiving treatment. If this relation is absent potential mechanisms (e.g. coping style) that could explain discrepancies will be investigated.

GI DISEASE

COST-UTILITY ANALYSIS OF “ON DEMAND” RABEPRAZOLE AND ESOMEPRAZOLE FOR SYMPTOMATIC GASTRO OESOPHAGEAL REFLUX DISEASE
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OBJECTIVES: To model the 1-year cost-utility of rabeprazole and esomeprazole “on demand” (prn) treatment for symptomatic gastro oesophageal reflux disease from the perspective of the UK National Health Service.

METHODS: Data relating to treatment discontinuation due to inadequate heartburn control were extracted from two clinical trials; one comparing rabeprazole 10mg with placebo prn and the other comparing esomeprazole 20mg, 40mg and placebo prn. Survival data (proportion of patients continuing therapy) were fitted to Weibull functions, and adjusted for comparability according to placebo data. Data from the trials on drug intake, use of antacids as rescue medication and severity of heartburn symptoms were also used for the analysis. Health care resource utilization included annual frequency of general practitioner and gastroenterologist consultation and of upper GI endoscopy, annual number of drug prescriptions and pharmacy dispensing fees. These were priced according to the latest NHS costs. Health state utilities were derived from a study that assessed EQ-5D utilities in 1003 patients with GERD, and related utility scores to duration and severity of symptoms. A probabilistic model was employed that sampled from Weibull distributions for survival time, assigned Poisson distributions to annual frequency of events, Beta distributions to utilities and Dirichlet distribution to severity of heartburn. RESULTS: The mean total costs of therapy with rabeprazole 10mg, esomeprazole 20mg and 40mg were £93, £103, and £121, respectively. The associated utility scores were, respectively, 0.866, 0.861 and 0.860. CONCLUSIONS: For non-erosive reflux oesophagitis, treatment with rabeprazole 10mg prn is less expensive than with either 20mg or 40mg esomeprazole prn. All three alternatives are comparable in terms of their effectiveness.

A COST CONSEQUENCE ANALYSIS OF A NEW ENDOSCOPIC, INJECTABLE TREATMENT AND EXISTING INTERVENTIONS IN GASTRO-OESOPHAGEAL REFLUX DISEASE
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OBJECTIVES: To compare the costs and consequences of Enteryx with Laparoscopic Nissen Fundoplication (LNF) and pharmacological therapy (PPIs) in patients with Gastro-Oesophageal Reflux Disease (GORD). The Enteryx Procedure is a new endoscopically injected polymer-based treatment for GORD. METHODS: A decision analytical approach was taken to model the ability of the three interventions to successfully treat patients with GORD. The model time horizon was one year with an additional 5-year long-term perspective. The clinical outcomes and the resource consumption data for PPIs were derived from the literature. A multicentre clinical study of Enteryx provided the clinical outcomes for Enteryx. Treatment outcomes following LNF were sourced from the literature. Experienced UK experts provided resource consumption data for the Enteryx procedure and LNF. Patients on pharmacological treatment (PPIs) with relapse followed the recommended route of moving to higher dose therapy for eight weeks and if still not responding received a further eight weeks followed by an endoscopy. RESULTS: At 1-year average costs per patient were lower with Enteryx (£2683) than with LNF (£4718). The cost of PPI treatment at 1 year amounted to £394 for all patients and to £691 for patients needing a higher dose of treatment. At 5 years, Enteryx patients had a lower cost of £3004 per patient compared to LNF (£4769) and high dose PPI users (£3457). The average cost for all PPI users at 5 years was £1970. CONCLUSIONS: For those patients suitable for surgery, Enteryx provides a less expensive option than LNF largely due to the reduced hospitalisation and procedure costs. Due to the recurrent nature of PPI treatment and cost, Enteryx is a cost saving therapy in the long-term compared to pharmacological therapy, especially for patients on high maintenance dose.

COSTS OF GASTROENTERITIS IN THE NETHERLANDS
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OBJECTIVES: To estimate the cost of illness and the disease burden, in terms of disability adjusted life years (DALYs), for gastroenteritis in the Netherlands in 1999. METHODS: The study population consisted of a community-based prospective cohort study on gastroenteritis, with a nested case-control study, in cooperation with the Dutch sentinel general practice network. Cases with gastroenteritis identified in the cohorts were requested to submit stool samples, complete a questionnaire on risk factors and complete a medical diary for four weeks. In this diary, cases reported daily about symptoms, absence from work or school, use of medication and use of health services, such as GP and hospital services. Health services use and productivity losses were valued according to
Dutch guidelines for pharmacoeconomic research. DALYs were calculated using data on number of deaths due to gastroenteritis and age at death from Statistics Netherlands. Disability weights for both mild and severe cases of gastroenteritis were taken from a Dutch national study on the burden of diseases. RESULTS: Of the 4860 participants in the cohort, 1052 case episodes were observed. Of these cases, 774 (74%) participated in the case-control component. Of these, 646 (83%) completed data collection. The overall standardised incidence of gastroenteritis was 283 per 1000 person-years, with an estimated total of 4.5 million cases per year. Total costs per case were €68.80, with productivity losses (€55.50) being the major cost driver. Total cost to society were estimated at €308 million in 1999 (95% CI €221–393 million). Gastroenteritis was associated with a loss of 67,000 DALYs. CONCLUSIONS: Although costs and disease burden are low for individual cases, gastroenteritis is associated with a high disease burden and considerable costs to society due to a high incidence in the population.

**Abstracts**

**CARDIOVASCULAR DISEASES I**

**GDI**

**A COST-BENEFIT MODEL FOR PERINDOPRIL IN SECONDARY STROKE PREVENTION**

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The PROGRESS trial demonstrated the effectiveness of perindopril/indapamide in secondary stroke prevention (SSP). No existing economic study has incorporated these findings in a cost-benefit analysis. OBJECTIVES: The objective of this analysis was to evaluate the cost/benefit of perindopril/indapamide in SSP. METHODS: The model used a decision tree approach to estimate direct cost savings associated with SSP for a hypothetical cohort of 10,000 first stroke survivors from an HMO's perspective (1 Mio covered lives) over a 3-year time period. Incidence estimates for 2nd stroke and Health care utilization as well as pharmacoeconomic estimates are presented for each year and separated for the two major stroke types (ischaemic and hemorrhagic stroke). First, stroke incidence and transition probabilities for Health care utilization were ed from the published epidemiologic literature, incidence of second strokes from the PROGRESS trial. Cost for stroke-related hospitalization and re-hospitalization, rehabilitation, nursing home, and ambulatory care derived from national data and published literature. Historical cost data was inflation-adjusted to 2001 values, savings in the 2nd and 3rd year were discounted at 3%, and health care CPI inflation-adjusted at 4.7%. Treatment and control group (no SSP medication) were replenished after the 1st and 2nd year in equal numbers with newly SSP eligible patients (new first stroke survivors of the HMO population). Drug prices were defined as WAC-20% plus $5 co-pay. Sensitivity analysis on stroke incidences, selected transition probabilities and costs will be presented. RESULTS: SSP with perindopril/indapamide saved 28 lives and 110 strokes in the first year (after 3 years 169 and 325 respectively). Treatment achieved a net benefit of $803,000 in the first, $3,267,253 in the second and $6,207,814 by the third year. The cost per stroke prevented was $24,648 and $47,412 per death averted over the 3 year period.