Abstract PWE-174 Table 1

Symptoms (7 patients)	Mean pre-treatment score (range)	Mean score in final two weeks (range)	Percent change
Composite	34.7 (18.3–62.4)	27.49 (14.7–59.3)	-21%
Nausea	2.8 (0.6–4.7)	2.2 (0.5–4.3)	-21%
Vomiting	1.2 (0–5)	1.2 (0.1–5)	0%
Early satiety	3.3 (2.1–5)	2.6 (1.7–5)	-21%
Bloating	2.4 (1.1–3.5)	1.7 (0.4–3.2)	-29%

Introduction Vagal dysfunction has been implicated in gastroparesis. Gut vagal afferents convey symptoms of nausea, bloating and early satiety but the nerve also has an antinociceptive function. GammaCore (electroCore, LLC: New Jersey) is a CE marked hand-held vagus nerve stimulator designed to selectively stimulate afferent vagal A-fibres. It is possible that in gastroparesis, stimulation of the vagus nerve as it traverses the neck might influence symptoms.

Methods Fifteen patients with severe gastroparesis awaiting Enterra (Medtronic, Minnesota) implantation agreed to a short proof of concept assessment of nVNS. Each patient was supplied with a GammaCore device programmed to deliver 150 doses, each dose lasting 90 seconds. The electrodes on the GammaCore device were positioned in line with the right cervical vagus nerve and stimulation applied three times daily. The gastroparesis multi-symptom questionnaire, that includes the symptoms of nausea, vomiting, early satiety and bloating, was completed daily for the week prior to starting treatment and daily throughout the treatment period. Symptoms were scored on a Likert scale (1 = none and 5 = severe). Composite and individual symptom scores were summated for the week preceding treatment and the final two weeks of the treatment period.

Results Only seven of the 15 patients complied with the treatment regimen. In six patients, the diary score cards were incomplete and two patients did not use the GammaCore.

Conclusion In this group of severely ill patients awaiting Enterra implantation, half complied with the treatment regimen. Compliant patients scored improvement in nausea, early satiety and bloating, as well as the composite gastroparesis score. This short term proof of concept assessment suggests that nVNS influences symptoms conveyed by vagal afferents. It is possible that stimulation of both left and right vagus nerves, increased stimulation amplitude, and a longer period of treatment might improve responsiveness. Future clinical trials are warranted to elucidate safety, efficacy, dose response and compliance.

Disclosure of Interest None Declared.

PWE-175 COST-EFFECTIVENESS OF LINACLOTIDE (LIN) COMPARED TO ANTIDEPRESSANTS (ATDS) IN THE TREATMENT OF IRRITABLE BOWEL SYNDROME WITH CONSTIPATION (IBS-C) IN SCOTLAND

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Introduction IBS-C is a chronic functional gastrointestinal disorder that has been shown to decrease quality of life (QoL) and work productivity, and increase activity impairment. LIN is indicated by the European Medicines Agency as the only treatment for IBS-C (covering all key symptoms) in adults and has received a positive recommendation from the Scottish Medicines

Consortium. This study sought to determine the cost-effectiveness of LIN compared with ATDs for the treatment of adults with moderate to severe IBS-C who have previously received antispasmodics and/or laxatives.

Methods A Markov model was created to estimate costs and quality-adjusted life years (QALYs) on 4-week cycles over a 5-year time horizon from the perspective of NHS Scotland. The comparator used was ATDs, reflecting Scottish current practice. Health states were based on treatment satisfaction (satisfied, moderately satisfied, not satisfied) and death. Transitions between states were based on satisfaction data from the LIN pivotal studies and the Scottish general all-cause mortality statistics. Treatment costs were calculated from the British National Formulary using the least-expensive ATD cost (amitriptyline hydrochloride 20 mg). NHS resource use for each state was collected from Scottish clinician interviews and combined with NHS Reference costs to obtain disease-related costs. QoL was based on the EQ-5D collected from the pivotal studies. Uncertainty was explored through extensive sensitivity analyses.

Results The base case comparing LIN with ATDs over 5 years provided an incremental cost-effectiveness ratio (ICER) value (cost per QALY) of £7,370. Scenario analyses conducted to address structural uncertainty resulted in ICERs ranging from £1,204 to £10,899. Probabilistic sensitivity analysis was also conducted using 10,000 iterations to examine parameter uncertainty over the entire model. This analysis showed that there was an 83% probability that LIN was cost-effective at a willingness to pay an ICER of £20,000 when compared with ATDs. The mean probabilistic ICER was £4,606 (mean incremental costs £394 and mean incremental QALYs 0.085).

Conclusion LIN is a cost-effective treatment for adults with moderate to severe IBS-C who have previously received antispasmodics and/or laxatives. The ICER in Scotland was calculated as £7,370 when compared with ATDs and was based on conservative assumptions. Results were robust to extensive sensitivity analyses.

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Disclosure of Interest M. Fisher Conflict with: former employee of WG Consulting, A. Walker Consultant for: WG Consulting, Conflict with: WG Consulting (Advisory Board meeting), M. Falqués Employee of: Almirall S. A., M. Rance Employee of: Almirall UK, D. Taylor Employee of: Ironwood Pharmaceuticals, L. Lindner Employee of: Almirall S. A.

PWE-176 PREVALENCE, MANAGEMENT, AND HEALTHCARE BURDEN OF IRRITABLE BOWEL SYNDROME (IBS) IN SCOTLAND

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Introduction Using real-world healthcare, routinely collected information we investigated the prevalence of irritable bowel