PWE-063

EFFICACY OF TEGASEROD FOR THE TREATMENT OF CHRONIC IDIOPATHIC CONSTIPATION: SYSTEMATIC REVIEW AND META-ANALYSIS

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Introduction Chronic idiopathic constipation (CIC) is a functional disorder of the lower gastrointestinal tract, with only limited evidence for efficacious treatments. A previous Cochrane Collaboration systematic review reported the efficacy of the 5-HT₄ receptor antagonist tegaserod in CIC, but this identified only two studies, and is now out of date. We therefore performed a systematic review and meta-analysis to further examine this issue.

Methods MEDLINE, EMBASE and conference proceedings were searched (up to July 2010) to identify randomised controlled trials (RCTs) comparing tegaserod with placebo in the treatment of adults with CIC. Studies were required to use at least 1 week of therapy. A diagnosis of CIC was based on a physician's opinion, clinical symptoms, or the Rome criteria. Studies had to report a dichotomous assessment of response or non-response to therapy. Data were extracted independently by two investigators, as intention-to-treat analyses, with drop-outs assumed to be treatment failures. Adverse events data were also extracted, where reported. Symptom data were pooled using a random effects model, and the efficacy of tegaserod was reported using a relative risk (RR) of failure to respond to therapy, with a 95% CI. The number needed to treat (NNT), with a 95% CI, was calculated from the reciprocal of the risk difference from the meta-analysis.

Results The search strategy identified 8720 citations. Eight studies were identified that reported efficacy of tegaserod in CIC. Five RCTs were eligible for inclusion, containing a total of 3791 patients, with a duration of therapy from 4 to 12 weeks. Agreement between investigators for assessment of eligibility was excellent ($\kappa = 1.0$). Tegaserod was superior to placebo for the treatment of CIC. Overall, 1597 (68.4%) of 2336 patients randomised to tegaserod failed to respond to therapy, compared with 1164 (80.0%) of 1455 allocated to placebo (RR of failure to respond = 0.86; 95% CI 0.80 to 0.92). The NNT with tegaserod was 9 (95% CI 7 to 14). All five RCTs used tegaserod 6 mg twice daily, with a RR of failure to respond of 0.84 (95% CI 0.79 to 0.89) and a NNT of 8 (95% CI 6 to 10). Two trials also used a dose of tegaserod of 2 mg twice daily, with a RR of failure to respond of 0.89 (95% CI 0.75 to 1.07). All five RCTs reported adverse events. These occurred in 1091 (46.7%) tegaserod patients, compared with 610 (41.9%) placebo patients (RR of any adverse event = 0.96; 95% CI 0.90 to 1.03).

Conclusion Tegaserod is more effective than placebo for the treatment of CIC, but its efficacy is only modest, with a NNT of 9. A dose of 6 mg twice daily is optimal. Adverse events were no commoner with tegaserod.

Competing interests None.

Keywords Chronic idiopathic constipation, Meta-analysis, Tegaserod.