The economic burden of chronic idiopathic constipation in the US: a systematic literature review

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BACKGROUND AND OBJECTIVES

Chronic idiopathic constipation (CIC) is a functional gastrointestinal disorder characterized by symptoms of difficult, infrequent or incomplete defecation.¹

METHODS

Electronic databases (PubMed, Embase, the Cochrane Library, EconLit, and the Cumulative Index to Nursing and Allied Health Literature) were searched for English language articles reporting the economic burden of CIC, utilities associated with CIC, or the cost-effectiveness of prescription drugs for CIC in the US. A total of 345 papers met the inclusion criteria (Table 1). Five papers included the same dataset used to identify primary articles. Systematic reviews were then excluded.

RESULTS

A total of 345 papers and 1 record from a review of reference lists were identified for screening (Figure 1). Of these, four papers met the inclusion criteria (Table 1). Studies included were cross-sectional; retrospective or cross-sectional studies. Reference lists from systematic reviews were used to identify primary articles. Systematic reviews were then excluded.

The second study reported that patients with CIC and abdominal symptoms experienced a significantly higher number of days per month of disrupted productivity over 12 months than those with CIC without abdominal symptoms (3.2 ± 1.2, respectively; p < 0.001).²

Abdominal symptoms included abdominal pain, abdominal discomfort, stomach cramping, and/or bloating.³

In addition, patients with CIC and abdominal symptoms missed a higher number of days of work and school per month than those with CIC without abdominal symptoms (0.8 ± 0.4, respectively; p < 0.001).³

The third study reported that 32.1% of patients with CIC (n = 51/150) incurred costs from the use of complementary and alternative medicine (CAMs), which ranged from $40 to $400 per year (Figure 4).⁶

The most expensive CAM identified was acupuncture, with a median annual cost of $400 (Figure 4).⁶

CONCLUSIONS

Available data suggest that US patients with CIC have higher HCRU and direct costs than individuals without CIC.

In addition, patients with CIC often incur costs from CAMs. Lower productivity and higher work/school absenteeism have been reported in patients with CIC and abdominal symptoms than in those with CIC without abdominal symptoms.⁴

When treatment response was based on the frequency of spontaneous bowel movements, a lower direct cost per patient was reported for linaclotide ($744) than for placebo ($935).⁷

Quality adjusted life years (QALYs) were the same for both treatments (0.47) irrespective of response basis.²

Table 1: Overview of articles included

<table>
<thead>
<tr>
<th>Study</th>
<th>Study type</th>
<th>Parameters investigated</th>
<th>Study objective</th>
<th>Data source(s)</th>
<th>Study duration</th>
<th>Number of patients with CIC/CFA/functional constipation</th>
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5. Shire Inc. Travel 2014;23:45–6.

CONCLUSIONS

Only a small number of studies met the inclusion criteria, making it difficult to draw firm conclusions on the economic impact of CIC in the US and the cost-effectiveness of prescription drugs for CIC in the US based on this review.⁶

Available data from the included studies could not be pooled owing to variability in the analyses performed and the data presented.

LIMITATIONS

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