Straight to colonoscopy: the ideal patient pathway for the 2-week suspected cancer referrals?

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Record Status
This is a critical abstract of an economic evaluation that meets the criteria for inclusion on NHS EED. Each abstract contains a brief summary of the methods, the results and conclusions followed by a detailed critical assessment on the reliability of the study and the conclusions drawn.

CRD summary
The study assessed the safety, impact on waiting lists, and cost effectiveness of a 'straight-to-colonoscopy' pathway for suspected colorectal cancer patients. The authors concluded that a 'straight-to-colonoscopy' pathway for urgent suspected cancer referrals was a cost-effective method. Given that costs were assessed using hypothetical scenarios set by the authors and were estimated on a different patient sample as that used to evaluate outcomes, the results from this study should be treated with caution.

Type of economic evaluation
Cost-effectiveness analysis

Study objective
The study assessed the safety, impact on waiting lists, and cost-effectiveness of a 'straight-to-colonoscopy' pathway for suspected colorectal cancer patients.

Interventions
A 'straight-to-colonoscopy' pathway involved patients with lower gastrointestinal symptoms who had consulted their general practitioner; their symptoms were assessed by the general practitioner on qualifying criteria (five symptoms) and a referral faxed to the central cancer office. Following this, patients were contacted and offered a colonoscopy within two weeks at an endoscopy unit. This pathway was compared with a no 'straight-to-test' pathway, in which suspected cancer patients were first offered an outpatient visit, where the need for a colonoscopy was assessed.

Location/setting
UK/out-patient tertiary care.

Methods
Analytical approach:
The analysis was based on a single clinical study. A short time horizon was used. The authors did not explicitly report the perspective adopted.

Effectiveness data:
Effectiveness data came from a review of data of patients with suspected lower gastrointestinal cancers who had been referred to a tertiary hospital. To assess the impact of the 'straight-to-colonoscopy' pathway, the authors compared the time between the referral date and the routine colonoscopy date for the two years before and after 2003 (when straight-to-colonoscopy was introduced). For the period before the 'straight-to-colonoscopy' pathway, 4,305 patients were assessed; 3,896 patients were assessed in the period after the introduction of 'straight-to-colonoscopy' pathway.

Monetary benefit and utility valuations:
None.

Measure of benefit:
The measure of benefit was the number of days between the referral date and the routine colonoscopy date.

Cost data:
Costs were based on a retrospective study of 317 patients referred under the two-week rule with suspected lower gastrointestinal cancer. Based on this data, two pathways were generated, a 'straight-to-colonoscopy' pathway (general
practitioner assessed colonoscopy appointment), and an 'intention-to-treat' pathway (outpatient appointment, followed by an assessment of the need for colonoscopy using the referral criteria). The direct costs included in the analysis were for outpatient consultation in colorectal surgery and the costs of colonoscopy. Unit costs came from UK NHS tariffs. All costs were reported in UK £.

**Analysis of uncertainty:**
Differences in mean days, and referral and colonoscopy, between the two pathways were assessed using an independent t-test.

**Results**
The mean interval between referral and colonoscopy was 311.3 days for the 'intention-to-treat' pathway (for the years 2001 to 2002) and 144.7 days once the 'straight-to-colonoscopy' pathway was implemented (for the years 2003 to 2004).

For 317 patients, the total cost of the 'straight-to-colonoscopy' pathway was £159,958 compared with £186,134 for the 'intention-to-treat' pathway.

**Authors’ conclusions**
The authors concluded that a straight-to-colonoscopy pathway for urgent suspected cancer referral was a cost-effective method.

**CRD commentary**

**Interventions:**
The interventions were reported appropriately. Conventional practice was an appropriate comparator.

**Effectiveness/benefits:**
Effectiveness data came from a before-and-after study that evaluated the interval between referral and colonoscopy data. Very few details of this study were reported. There was no mention of whether patients in the two groups were comparable at analysis, such as their age, gender or severity of disease. As the study design was before-and-after, the results could have been biased by external factors not measured in the study, such as changes in hospital administration or improvements in healthcare over time.

**Costs:**
A limited costing study was undertaken. For the cost study, the authors did not compare the costs incurred by patients before and after the introduction of the 'straight-to-colonoscopy' pathway, but created a scenario in which patients referred on the 'straight-to-colonoscopy' pathway were hypothesised to first attend an outpatient clinic, and then assessed for referral to colonoscopy. As a result, this situation might not have mirrored real life. The only costs included in the study were those due to outpatient consultation visit and colonoscopy. The authors did not assess the potential additional costs of a 'straight-to-colonoscopy' pathway. The price year was not reported.

**Analysis and results:**
Clinical and cost data were obtained from patient-level data. The authors did not report whether the differences in costs between the two interventions were statistically significant. As limitations to their study, the authors reported that there were a small number of patients in their study and the use of NHS tariffs may not have been a good marker for overall costs.

**Concluding remarks:**
Given that costs were assessed using hypothetical scenarios set by the authors and were estimated on a different patient sample as that used to evaluate outcomes, the results from this study should be treated with caution.

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