Costs and cost effectiveness of a health care provider-directed intervention to promote colorectal cancer screening

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
This study examined the cost-effectiveness of a comprehensive, multi-component, academic detailing (education) intervention to increase colorectal cancer screening, in small practices, compared with usual care. The authors concluded that the academic detailing intervention increased colorectal cancer screening rates, but was not cost-effective. The study was generally well conducted and the authors’ conclusions appear to be robust, but limited to the study setting.

Type of economic evaluation
Cost-effectiveness analysis

Study objective
This study examined the cost-effectiveness of a comprehensive, multi-component, academic detailing intervention to increase screening for colorectal cancer, in small practices, compared with usual care.

Interventions
The academic detailing intervention was face-to-face visits from a trained educator and self-administered training reinforcing colorectal cancer screening guidelines, for primary care physicians working in small group practices. The screening protocol included a faecal occult blood test (FOBT), sigmoidoscopy, and colonoscopy.

Location/setting
USA/primary care.

Methods
Analytical approach:
The analysis was based on a single study with a one-year time horizon. The authors stated that their study took the perspective of the health care organisation.

Effectiveness data:
The clinical data came from a randomised controlled trial (RCT) carried out in 264 physician offices in two areas of New York, with a total of 1,290 patients. There were 65 intervention offices and 58 control offices in one area and 71 intervention offices and 70 control offices in the other area. The trial lasted for one year and the screening rate was the key endpoint and was assessed at baseline and at one year.

Monetary benefit and utility valuations:
Not considered.

Measure of benefit:
The screening rate was the summary benefit measure and the three diagnostic strategies (FOBT, sigmoidoscopy, and colonoscopy) were considered.

Cost data:
There were two main cost categories: initial development costs and intervention delivery costs. The development costs were fixed one-off costs including advertising, compact disc design, and multilingual translation of materials in the self-
taught packages. The delivery costs included printed materials, compact disc production, travel, office supplies, and the
time of the teacher. Costs of the trial, such as chart review, honoraria, and data abstraction, were not included. The
resource use data and unit costs were from the clinical trial. Annual salaries were based on the mean health educator
salary. All costs were in US dollars ($) and the price year was not clearly reported.

Analysis of uncertainty:
A deterministic sensitivity analysis was carried out, in which the cost items were varied by ±10% their baseline value.
The number of physicians in a practice was also varied (four in the base case).

Results
After one year of intervention, there were no statistically significant differences in the rate of uptake of FOBT and
sigmoidoscopy, but that of colonoscopy increased by 7% in the intervention group, compared with the control group.
The total intervention cost was $147,865 and the incremental cost per percentage point increase in colorectal cancer
screening was $21,124.

In the sensitivity analysis, the incremental cost-effectiveness ratio ranged from $13,631 (eight practitioners per
practice) to $36,109 (two practitioners per practice).

Authors' conclusions
The authors concluded that the academic detailing intervention increased colorectal cancer screening rates, but was not
cost-effective. They suggested that future RCTs should focus on low-intensity interventions that might be affordable.

CRD commentary
Interventions:
The selection of the comparators was appropriate. The proposed intervention was partly described and was compared
with usual care in the authors' setting. A description of the usual care was not provided and this might reduce the
external validity of the analysis.

Effectiveness/benefits:
The clinical evidence came from a RCT and its design should ensure the validity of the clinical data. This trial was
published elsewhere and only few details of its methods and results were reported, which prevents a complete
judgement of the validity of the data. The time horizon appears to have been appropriate. The benefit measures were
specific to the screening interventions and might not allow comparisons with the benefits of other health care
interventions.

Costs:
The categories of costs appear to have been consistent with the economic viewpoint. Total categories of costs were
reported and a list of cost items was not given. The unit costs and the price year were also not reported. The cost
estimates are likely to have reflected the setting of this study and care should be taken when applying these findings to
other settings. Some costs were varied in the sensitivity analysis, but only small variations were allowed.

Analysis and results:
The costs and benefits of the interventions were synthesised using an appropriate approach, but only some of the
clinical results were reported. The issue of uncertainty was investigated, using a limited methodology, with arbitrary
ranges of values for the economic inputs, which were varied individually. The authors compared their results with those
of other publications and their findings were less favourable than those of other similar interventions to increase
screening uptake.

Concluding remarks:
The study was generally well conducted and the authors' conclusions appear to be robust, but limited to the study
setting.
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