



Title	Colon Examination with CT Colonography – A Health Technology Assessment
Agency	DACEHTA, Danish Centre for Evaluation and Health Technology Assessment National Board of Health, DK-2300 Copenhagen S, Denmark; Tel: +45 72 22 74 48, Fax: +45 72 22 74 07; www.dacehta.dk
Reference	DACEHTA Report 2005; 5(3). Danish, English summary. ISBN 87-7676-083-2 (online): www.sst.dk/publ/publ2005/CEMTV/CT_kolo_rapport/CTkolo_rapport.pdf

Aim

To evaluate how to perform CT colonography (diagnostic performance including interobserver variation and learning curve), to assess the marginal costs of CT colonography compared to conventional colonoscopy, and to assess patient discomfort and preferences compared to colonoscopy.

Conclusions and results

CT colonography is a minimally invasive colon examination to detect space-occupying lesions in the colon. This report focuses on Danish conditions and represents a prospective health technology assessment (HTA) performed at a university hospital and a regional hospital. The sensitivity of CT colonography for lesions $\geq 6/5$ mm was 81%/66% compared to 87%/93% for colonoscopy. The quality of the examination differed considerably depending on the observer, which underlines the need to train and test radiologists who perform CT colonography. The patients found CT colonography significantly less painful, less uncomfortable, less humiliating, and less stressful than colonoscopy.

CT colonography proved to be cheaper than colonoscopy. The additional cost that is presently paid for the greater effectiveness of colonoscopy compared with CT colonography is between 1399 and 8872 Danish kroner (DKK) per additional lesion detected. It was not possible to identify major improvements in the sensitivity and specificity during the course of evaluation of the first 100 investigations by 2 independent observers.

Recommendations

CT colonography has a place in the Danish healthcare service, but should not generally replace colonoscopy. CT colonography should replace double-contrast barium enema in case of incomplete colonoscopy and should be considered as the primary diagnostic tool in patients in whom the risk of incomplete colonoscopy is considered to be high or in patients in whom colonoscopy with anesthesia is indicated. Only radiologists familiar with CT colonoscopy should perform the examination.

Methods

The results are based on prospectively collected data from observer-blinded studies at a university hospital and a regional hospital. The data were collected from January 1999 to May 2002 in an outpatient population with a high incidence of colorectal pathology. The results are compared to the international literature.

Further research/reviews required

Results obtained in routine clinical practice rather in a research setting are needed.