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Grant ID: **051**

THE COLLEGE OF RADIOGRAPHERS
INDUSTRY PARTNERSHIP SCHEME
SUPPORTING RADIOGRAPHY RESEARCH

College of Radiographers Industrial Partnership Research Awards

Final Report

1. Principal Investigator	Robert Meertens
2. Project Title	Diagnostic accuracy of radiographer reporting of computed tomography colonography examinations: A systematic review.
3. Amount of Award	£500
4. Did you spend the money as indicated in your proposal (if not why)?	
Yes, the money helped disseminate the findings of our research via presentation at UKRC 2012 and publication in *Clinical Radiology.*	
5. Did you reach your intended project outcomes (if not why)?	
Yes, although after reviewing the available literature it was decided to restrict our area of research to CT colonography rather than all gastrointestinal radiology examinations.	
6. What are your significant findings?	
The current evidence does not support radiographers in a role involving the single formal written reporting of CTC examinations. Radiographers' performance, however, did appear to improve significantly with the number read. Therefore, when provided with adequate training and experience, there may be a potential role for radiographers in the double reporting of CTC examinations.	
7. Have you submitted the work for publication (if so where)?	
The research findings were presented by the Principal Investigator at UKRC 2012. The findings were also recently published in *Clinical Radiology* (Reference: Meertens R, et al., Diagnostic accuracy of radiographer reporting of computed tomography colonography examinations: A systematic review, Clinical Radiology (2012), http://dx.doi.org/10.1016/j.crad.2012.11.005).	
8. Please provide an executive summary of your work	
Computed tomography colonography (CTC) is the primary radiological test for the detection of colorectal tumours and precancerous polyps. Radiographer reporting of CTC examinations could help to improve the provision of this expanding service. We undertook a systematic review to assess the accuracy with which radiographers can provide formal written reports on intraluminal disease entities of CTC examinations compared to a reference standard. Data sources searched included online databases, peer-reviewed journals, grey literature, and reference and citation tracking. Eligible studies were assessed for bias, and data were extracted on study characteristics. Pooled estimates of sensitivities and specificities and chi-square tests of heterogeneity were calculated. Eight studies were eligible for inclusion with some risk to bias. Pooled estimates from three studies showed per patient sensitivity and specificity of reporting radiographers was 76% (95% CI: 70-80%) and 74% (95% CI: (67-80%), respectively. From seven studies, per lesion sensitivity for the detection of lesions >5 and >10 mm was 68% (95% CI: 65-71%) and 75% (95% CI: 72-79%) respectively. Pooled sensitivity for detection of lesions >5 mm in studies for which radiographers reported 50 or less training cases was 57% (95% CI: 52-61%) and more than 50 cases was 78% (95% CI: 74-81%). The current evidence does not support radiographers in a role involving the single formal written reporting of CTC examinations. Radiographers' performance, however, did appear to improve significantly with the number read. Therefore, when provided with adequate training and experience, there may be a potential role for radiographers in the reporting of CTC examinations. A PDF copy of the full published article is attached.	