

For office use only

Grant ID: 022



College of Radiographers Industry Partnership Research Awards Final Report

1. Principal Investigator	Michael Fell
2. Project Title	Cervical spine trauma radiographs: Swimmers and supine obliques; an exploration of current practice
3. Amount of Award	£400
4. Did you spend the money as indicated in your proposal (if not why)?	Yes
5. Did you reach your intended project outcomes (if not why)?	Yes
6. What are your significant findings?	
7. Publications:	<p>i) Radiography: Volume 17, Issue 1, February 2011, Pages 33-38</p> <p>ii) "Proceedings of the UK Radiological Congress 2011" (pp18-19) where I presented the findings.</p> <p>iii) <i>University of Hertfordshire School of Health and Emergency Professions Annual Research Forum</i>. University of Hertfordshire, Hatfield, 16 September 2010.</p> <p>I have also presented this to undergraduate and postgraduate students in lectures at the University of Hertfordshire.</p>
8. Executive summary of your work	
Please see attached copies of publications.	
ABSTRACT	<p>The study objectives were: to investigate current cervical spine radiographic imaging practices in conscious adult patients with suspected neck injury; reasons behind variation and consideration of dose estimates were explored. Comparison with a previous survey¹⁹ has been made. Questionnaires were sent to superintendent radiographers responsible for accident and emergency X-ray departments in English trusts with over 8500 emergency admissions per year, with a response rate of 97% (n = 181/186).</p> <p>Departmental cervical spine imaging protocols were reported by 82% of respondents. None use fewer than the three standard projections; if the cervicothoracic junction (C7/T1), is not adequately demonstrated 87% use swimmers projections, 9% supine obliques, 3% CT alone. Following projectional radiography, 97% perform CT. A significant (p = 0.018) increase was found since 1999¹⁹ in CT use once the swimmers projection fails; fewer now use obliques at this point, continuing with CT instead. No significant difference (p = 0.644) was found in choice of first supplementary radiographs; despite British Trauma Society's recommendation to undertake supine obliques, swimmers remain the most widespread technique.</p> <p>An 85% response rate (n = 103/121) completed a second questionnaire, exploring reasons behind the various practices. Several reported a perceived difficulty in interpreting oblique radiographs, some a concern over high dose of the swimmers.</p> <p>Numerous issues affect the acquisition of cervical spine radiographs. Patient radiation dose should be a major consideration in selection of technique. A potential need for training in interpretation of obliques is highlighted. Specific guidelines for optimum projections should be researched, and protocols issued to ensure best practice.</p>