**College of Radiographers Industrial Partnership Research Grants Final Report**

1. **Principal Investigator**
   
   Ian Henderson
   
2. **Project Title**
   
   Implementation of Advanced and Extended Scope Practice in Diagnostic Radiography : The Scottish Perspective
   
3. **Amount of Grant**
   
   £9204.00
   
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?**
   
   - There is a wide range of advanced/extended scope roles undertaken by radiographers across Scotland, however implementation is inconsistent geographically and lies some way behind that in England
   - Agenda for Change banding of radiographers in advanced practice roles are inconsistent, in some cases extremely so.
   - Funding for training, backfill of posts and AfC pay protection is a recognised difficulty for managers wishing to pursue service redesign.
   - Professional opposition from a number of sources, though primarily from radiologists is a significant barrier to service redesign.
   - Where radiographers are undertaking advanced/extended scope roles they are making a notable contribution to enhanced patient outcomes.
   
7. **Have you submitted the work for publication (if so where)?**
   
   First of two papers submitted to Radiography (currently under review).
   
8. **Have you presented the work at a national/international event (if so where)?**
   
   Poster at UKRC 2014 (attached)
   
9. **Please provide an executive summary of your work (two sides of A4 maximum) N.B. If you already have a draft or final version of the proposed publication can you please attach.**

**Background**

The development of radiographic practice and roles has been a consistent feature of the discipline throughout the history of the profession, with examples and documented commentary appearing at least 50 years ago\(^1\,^2\). The primary drivers for this are technological development and changing patterns of health care delivery.

Despite the clear evidence of potential service enhancement\(^3\,^4\,^5\,^6\), such change, considered contentious in some areas, has led to a patchy and often incoherent process of implementation across the UK, based as often on professional preference or opposition, than service need or an evidence base\(^7\,^8\,^9\,^10\,^11\,^12\).
In light of devolved health policy and more traditional structures of health care delivery in Scotland there is evidence that the evolution of radiographer roles and service design generally, has not kept pace with those in England. Fourteen years ago, McKenzie et al, exploring radiographer performed barium enemas, reported low rates of participation in Scotland\textsuperscript{13}, whilst in 2002, Price et al\textsuperscript{14} again identified comparatively low participation rates in an examination of ‘the extent and scope of changes to radiography practice’. More recently Price et al\textsuperscript{8} and Snaith and Hardy\textsuperscript{15} again identified lower participation rates in Scotland, indeed Snaith and Hardy identified seven (out of twelve) Health Boards in Scotland in which radiographers undertook reporting of diagnostic images, compared with ten (out of ten) English regions.

An initial scoping exercise was undertaken to develop a relevant Scottish evidence base, inform service development and provide a useful comparator with other health systems.

**Aims**
- To profile advanced or extended scope practice in diagnostic radiography across Scotland whilst identifying the views and perspectives of stakeholders.
- To identify strategic and demographic features that do, or will influence the development of radiographer roles in the delivery of imaging services.
- Establish the features or barriers that impact on the development of radiographer roles in terms of professional or employment elements.

**Method**
Following ethical approval, an exploratory study was carried out in order to quantify the extent and nature of radiography practice. To explore this from two perspectives, job related questionnaires were developed and distributed to lead radiographers in imaging departments and strategic imaging managers within every Scottish Health Board. There were two main phases; a quantitative questionnaire survey and qualitative semi-structured telephone interviews.

**Phase 1:**
A questionnaire was administered to lead radiographers throughout Scotland. The sample, included NHS acute and community hospitals (approx $n=100$) and private hospitals (approx $n=10$).

**Phase 2:**
Stage 1 participants were invited, to take part in a semi-structured telephone interview to explore in more detail, responses to the questionnaire. An interview schedule was developed based on the general topics that were highlighted in the questionnaire and time was included to enable development of the respondents own views.

**Results**
A disappointing though usable response rate of 36 % ($n=40/111$) was achieved. Twelve of the fourteen Health Board areas were represented in the responses.

Key points from the results:
- A broad range of advanced/extended scope practice roles are undertaken, though this is seen to be inconsistently implemented.
- The primary advanced practice role is skeletal image reporting in A&E, notwithstanding the already well acknowledged commitment to ultrasonography.
- There are some highly specialist roles undertaken, such as CT head reporting and chest reporting however these occur in single figure numbers.
- There is evidence of professional opposition to radiographer role extensions and this comes predominantly from radiologists, although nursing and some other medical professionals and even radiology managers are also cited.
- There is evidence of significant waiting times for examinations and reports in areas of practice where radiographer role extension could have an impact. The evidence indicates that there are significant numbers of examinations that do not receive a report in a clinically useful timescale.
- There is a significant commitment to contracting with 3rd party providers for reporting including skeletal.
- There is reporting of a clear beneficial impact of radiographer role extensions in enabling effective delivery of service.
- Funding for training and backfill, and AfC pay protection is seen as a major obstacle to enabling training for radiographers in extended roles (pay protection in Scotland is not time limited).
The deployment of assistant practitioners is widespread, however numbers are relatively small with many managers stating that there was not a clear rationale for a more widespread use of the role.

Summary
The results present a diverse and sometimes contradictory picture of practice across the sample. The situation is one of variable activity and variable recognition for that activity. The general sense is one of inconsistent implementation geographically and a notable difference was demonstrated in the introduction of advanced practice between urban and remote and rural imaging sites. It is clear that there are a variety of factors influencing or obstructing service development and importantly, these are as much related to the views of professionals as they are to technical aspects.

Looking ahead in context, there is evident optimism amongst many practitioners who experience incremental change in both practice and attitudes, though this is tempered by recognition of the ongoing pressures of increased demand and limited funding.

References