Advanced Practice in Interventional Radiology
An Overview of the Current Practice of Radiographers and Nurses
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BACKGROUND AND RATIONALE
- Advanced practice (AP) within radiography is well established, with a solid evidence base available in the literature1-5.
- Despite anecdotal evidence of advanced practice within Interventional Radiology (IR), there is little or nothing in the literature to support this.
- The Society & College of Radiographers (SCoR) Scope of Practice6 found that 26% of departments have radiographers performing ‘image guided interventions’. However, the response rate was low and the detail lacking.
- It was therefore decided to conduct a scoping exercise, particularly focused on advanced practice within IR, with the intention of providing a baseline for future work.

METHODS
- A survey was constructed using the Survey Monkey website7. This was a cross-sectional cohort study8, targeting those working in Interventional Radiology.
- The distribution was over two months (Aug-Sept 2013) through the British Society of Interventional Radiology (BSIR), Society of Interventional Radiology Nurses and Radiographers (SIRNR) and SCoR memberships, supplemented with targeted use of social media9.
- An initial pilot cohort revealed the need to modify the survey; this was done before the general distribution.

RESULTS
- 107 respondents, representing 85 centres:
  - 50.6% (n=43) had non-meds performing interventional procedures (Radiographers 30.2%, n=13; Nurses 41.9%, n=18; both 27.9%, n=12).
Scope of Practice (Figure 1).
- Of those centres which had non-meds performing procedures, over half included vascular access (PICC, tunneled lines, portacaths).
- Second to vascular access was diagnostic imaging (diagnostic angiograms, fistulagrams, venograms and HSGs).
- At two centres Radiographers perform facot joint injections and there are isolated incidences of radiographers performing peripheral angioplasty/stenting, fistulaplasty, nephrostomies, CT guided injections and various tube exchanges (gastrostomy, nephrostomy and biliary).
- Beyond vascular access and diagnostic imaging, Nurses had one case each of: tube exchange (gastrostomy, nephrostomy and biliary); IVC filter insertion and US guided drainage.
Training and Assessment
- Training was described as being “in house, by clinicians” (90.7%, n=99) or “in house, by existing Advanced Practitioners” (37.2%, n=16).
- Only 20.9% (n=9) required post graduate qualification.
- Assessment was predominantly by continuous audit (86%, n=37).

DISCUSSION
- The response rate for this survey was better (>50%) than that received by the SCoR (11%) and the findings more specific to IR.
- The distribution strategy introduced selection bias; not all IR Radiologists are members of BSIR, not all IR Radiographers or IR Nurses are members of SIRNR.
- This data provides a baseline for future research (as part of a longitudinal study) or for benchmarking (between Trusts, or internationally).
- The data demonstrates that Advanced Practice within IR is prevalent within the UK. This is at odds with the amount of literature available.
- Advanced Practitioners working within IR need to be more vociferous; promote themselves and publish more.
- With Advanced Practice occurring so widely, forums (such as SIRNR) need to become more pro-active.
- Reasons given by centres who do not have non-meds performing IR procedures vary, but common themes emerged, see Fig.3.

THE MANCHESTER ROYAL INFIRMITARY EXPERIENCE
- 2000-2001 a multi-disciplinary team of Senior Nurses and Senior Radiographers undertake in-house training in peripheral angiography and tunneled central lines.
- Waiting times for these procedures reduce dramatically.
- Now all AP is undertaken by Senior Radiographers due to staff attrition in the nursing team.
- On-going audit shows complication and radiation dose rates at a low level, comparable to Consultant Radiologists.
- Increased job satisfaction for staff and positive feedback from service users.

CONCLUSION
Advanced Practice is, and has for some time, been a feature of IR. However, there is scant literature to support or promote it. The findings of this survey demonstrate the depth and breadth of practice within IR in the UK. Advanced Practitioners working in IR - with the support of bodies like SIRNR, BSIR and the SCoR - need to produce and publish the evidence base to support their practice and shape its future development.

REFERENCES
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10. Twitter, Inc. San Francisco, California, USA. www.twitter.com

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