P-214 Implementation of a radiographer led fluoroscopic proctography service: Challenges and opportunities

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Objectives: To address the dual challenge of a rise in the referral rates for fluoroscopic proctography, and increasing demand on consultant time, by delivering a new radiographer led service.

Content: We describe the process, challenges and outcomes of creating a new radiographer role extension for fluoroscopic proctography:
Identifying growing workload with limitation on consultant time
Radiographer selection process
Designing and implementing a training curriculum
Defining competencies to be achieved within agreed timescale
Importance of ongoing mentorship and supervision during training process
Enhanced learning opportunities - attendance at regional pelvic floor MDT meetings and clinics, and specialist Conferences - capturing the whole patient journey
Achievement of 1o goal: independent image acquisition and dual reporting of studies with consultant
How to reach the 2o goal: request justification and independent reporting

Discussion: The challenges of this process include:

No SCoR recommended curriculum - we created one from scratch
Making the transition from dual to independent reporting - how we would make this a robustly safeguarded process
Currently no loss of radiographer activity - how we would address this if workload increased
There are multiple benefits for both the individuals and the department:
Increased radiographer and department assistant job satisfaction
Improved staff morale due to visible commitment of department to role extension
Raised profile of the service, with subsequent increase in tertiary referrals and Trust income
Greater flexibility in when the tests can be performed
Future-proofing the service by developing capacity
Enabled radiologist to assist in tackling cross-sectional workload

P-215 Outcomes following the implementation of the BAD list: A quality improvement project at a tertiary referral centre

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In 2015, a biopsies, aspirations and drains (BAD) list was introduced in a large tertiary referral centre in the South West. The aim of setting up this service was to increase the accessibility and availability of interventional radiology for clinicians with the benefit of increasing the number of patients that could be treated and reducing the time to treat. Guidance form the RCR percutaneous biopsy procedures audit also states that an adequate specimen from the biopsy site should be provided for histological/cytological assessment in 95% of cases. We have looked at 53 cases following the implementation of a specific BAD list over a 3 month period, and how it has altered practice over the same time period in the previous year. We have been able to assess if we are achieving the recommended target for adequate histology in order to provide an accurate histological diagnosis as well as see an improvement in the number of cases that we are able to perform. In addition, we have created a more streamlined approach to the service in general, which is not only beneficial for the clinical team, but most importantly provides a better experience for the patient. We share our experiences of setting up this service, that could be implemented by other trusts nationwide.

P-216 Primary care radiology services: A general practitioner satisfaction survey

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Objectives: As radiologists strive to increase their visibility and emphasise the value they bring to patient care, many are focusing on how they can best meet the needs of referring physicians. But achieving that goal first requires an understanding of how referring physicians use and view radiology services. The overall aim of this project is to assess what factors affected satisfaction with radiology services amongst primary care clinicians.

Content: The presentation includes the results of an online survey distributed to 51 local primary care practices along with conclusions, discussion points and recommendations for quality improvement.

Impact: In a dynamic and evolving field such as radiology, end user satisfaction measures must be evaluated in order to achieve an efficient and satisfactory service while preparing to meet future requirements.

Outcomes: Responders had an overall positive opinion. However, areas of improvement identified included ultrasound waiting times, lack of a standard report structure, inconsistency in providing conclusions/recommendations in reports, difficulty in obtaining advice from a radiologist and minor IT issues.

Discussion: Similar surveys can act as an effective means of identifying areas to target quality improvement efforts by highlighting the areas that are most important or needing improvement in the eyes of the requesting clinician. Providers of radiology services have a responsibility to monitor their performance on a regular basis and to address any deficiencies that are identified as a result.

P-217 Audit and re-audit of compliance with College of Radiographers guidelines regarding preliminary commenting on "red dotted" radiographs

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Norfolk & Norwich University Hospital

Background: The College of Radiographers recommends that a preliminary assessment should be provided when adding a red dot to an image1. It has been noted by several radiology trainees that when there is a subtle abnormality and no comment is provided, time can be lost attempting to contact the radiographer who added the red dot to ascertain the perceived abnormality.

Standard: All red dotted radiographs should have an associated note on RIS describing the abnormality.

Method: Retrospective study of 100 consecutive adult appendicular radiographs from A&E x-ray.

Results: 1% compliance.
Plan: inform radiographers of the results and ask that they add a comment in future specifying the abnormal site. Re-audit in several weeks.

Re-audit results: 25% of radiographs were accompanied by a comment describing the site of abnormality. 12 of these were relatively subtle fractures. A further 7 radiographs were subjectively assessed as showing subtle fractures which were not commented upon. The majority of the remaining fractures were immediately obvious and a comment is probably not required in these cases.

Plan: Inform radiographers of the results which show a significant improvement, particularly with regard to commenting on subtle fractures which are more likely to be missed. To avoid subjectivity regarding assessment of fractures as subtle or not, we plan to change our local guidelines to include comments on all red-dotted radiographs.

1The College of Radiographers. Medical Image Interpretation and Clinical Reporting by Non-Radiologists: The Role of the Radiographer. London: The College of Radiographers; 2006.

P-218 Delivery of imaging studies within acute medical and surgical admission populations during peak and non-peak admission periods; review of modalities employed and the timeliness of imaging and reporting

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The issue of increased mortality amongst weekend admissions has been linked to calls for more 7-day patterns of working. We reviewed how long acute admissions waited for their imaging and reports: the types of imaging patients underwent and the total number of imaging tests during the admission. These parameters were obtained for both the Wednesday and Sunday of the busiest and quietest emergency admission weeks of 2014/15.

Patient data was obtained from hospital health informatics. Information regarding examination and report times was found in the Radiology Information System and PACS.

Results: A wide variety of data was obtained for presentation. Some of the findings are summarised below.

-Surgical patients waited longer for their first imaging test, in part due to weekend waits for ultrasound; medical patients being more likely to have plain radiographs as their first imaging test (71% vs 45%).

-Shorter average wait for imaging and reports in the busier week for surgical patients - possibly due to micro-management when the hospital is stressed, suggesting a system that can increase patient throughput at busy times, but not necessarily always working at peak efficiency.

-A smaller proportion of patients were imaged on the busiest week compared to the quietest - medical 81.2% vs 85.3%; surgical 61.9% vs 66.2%. Possible reasons for this are discussed.

-Overall there was a similar number of imaging tests for surgical and medical patients (1.65 vs 1.62), but of those patients who were imaged, surgical patients had more studies (2.59 vs 1.94).

P-219 The impact of outsourcing out-of-hours CT reporting in a UK district general hospital

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Basildon Hospital

A service change at Basildon Hospital extended routine in-hours CT reporting by 3 hours and outsourced out-of-hours reporting to a teleradiology service.

Aim: Assess the impact of this change on reporting times.

Method: This retrospective closed-loop audit used data retrieved from the radiology information systems. The first 100 scans to pass the inclusion and exclusion criteria, in the period shortly before and after the service transition (from 01/12/2014 and 01/03/2015, respectively), were included. Subgroups included in-hours routine scans and out-of-hours urgent and emergency scans. Criteria and standards were based upon local and national guidelines:
1) Routine in-hour scans to be reported within 24 hours.
2) Emergency and urgent out-of-hour scans to be reported within 1 and 4 hours, respectively.

Results: After the service change standards were met for routine scans with average reporting times improving from 30 hours 45 minutes to 21 hours 12 minutes. Average reporting times for emergency scans also improved, from 2 hours 32 minutes to 1 hour 39 minutes. There was a slight decline in performance for urgent scans (1 hour 42 minutes to 2 hours 5 minutes) however standards were met both before and after the service change.

Conclusion: Outsourcing out-of-hours reporting is a management strategy that can improve reporting times for routine and urgent CT scans however there are issues to be addressed to ensure high priority scans are reported in a timely fashion out-of-hours.

P-220 National UK survey assessing renal function prior to contrast enhanced MRI

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Mid Yorkshire Hospitals NHS Trust

Aims/objectives: To identify current practices in the UK for the identification and minimisation of risk in out-patients referred for contrast-enhanced magnetic resonance imaging (MRI) with gadolinium-based contrast agents (GBCA).

Content: Radiology departments were invited to complete an online survey about local policies and guidance followed; practice for checking renal function and patient management pre and post-GBCA administration.

Relevance/impact: Nephrogenic systemic fibrosis (NSF) is an iatrogenic scleroderma-like systemic disorder occurring in patients with severe or end-stage renal disease, Gadolinium chelates are a causal agent. To minimise risk the Royal College of Radiologists (RCR) have suggested a blood test for renal function (eGFR or SCr) should be available for non-emergency patients prior to GBCA administration.

Outcomes: A response rate of 39.1% (68/174) was achieved, 82.3% of sites confirmed a policy was in place for the administration of GBCA. The majority indicated alignment with at least one national and/or international guideline (n=49/56; 87.5%) although there was variation between responses. 28 sites (41.2%) check blood test results for all

contrast patients, whereas 31 sites (45.6%) only check those with known renal dysfunction or identified as high risk. Several prophylactic and investigation strategies were described, including a small number of sites who utilise point of care technology.

Discussion: The survey highlighted the range of guidance which informs UK practice; however there is diversity in their implementation with a variety of processes for the Identification and management of high risk patients. A consistent approach is required to minimise risk and assure safe practice.

P-221 MRI Safety has the human factor

Darren Hudson
InHealth Group

Objectives: Despite a consistent level of reported MRI Safety Incidents, with trends analysis showing the number to be relatively low per 1000 patients and correlating between patient activity, a review of reported MRI Safety Incidents was carried out. The root cause analysis of 4 main incidents were reviewed, specifically to see if there were any human factors contributing to the incidents that may need to be addressed to help further reduce risks associated with MRI Safety.

Content: Review of the 4 main events showed all staff members to have been suitably trained and competent in MRI Safety, the correct policy and procedure guidance was in place and staff were fully aware of these. Other factors played a part in the event occurrence; tiredness, distraction, workload pressures, stress, lack of attention, patient condition, sickness and lack of appropriate supervision.

Relevance/impact: MRI Safety is paramount when working within the MR Environment due to the potential hazards it presents to both staff and patients. As a result it is important safety is managed by MR Authorised persons and that an open culture of reporting exists so lessons can be learned in order that near miss events do not turn into serious safety incidents. Consideration should be given to Human Factors Theory when investigating safety events.

Outcomes: There needs to be better communication and shared learning around MRI Safety events within our teams and within the MRI community. Human factors training could help make staff more aware of their limitations.

P-222 Improving the patient experience in dementia patients attending for MRI

Darren Hudson
InHealth Group

Aim: With the number of people suffering from dementia on the increase, it is inevitable that at some point they will become patients and require MRI scans, either as part of their diagnostic workup or related to some other co-morbidity. Following the introduction of specific patient referral pathways from local mental health trusts in two of our community based scanning centres in London, and the publication of professional guidance on imaging dementia patients from the Society of Radiographers, the organisation evaluated ways to improve management and experience of patients referred for assessment of dementia.

Content: Key points of interest were taken from the society guidance to formulate a standard operating procedure; outlining guidance around referrals and ensuring patient safety in those with more severe forms of the condition, considerations around the booking process and scan appointment, as well as requirements for staff training. As well as this, the two departments were assessed as a sample to evaluate how dementia friendly they were. This was done using the environmental assessment tool from the Kings Fund which looks at 7 key areas.

Outcomes: Four keys areas were highlighted and addressed in the work to help improve the experience received by this patient group, and their relatives/carers. 1. Specific guidance document, 2. Importance of appropriate communication skills, 3. Adjustments to the department environments, and 4. Need for training at all levels of staff interacting with this patient group.

P-223 Pictorial review: Open MRI in clinical practice

Carina Wells; Apollo Exconde
InHealth Group

Claustrophobia is commonplace and frequently encountered within the MRI department and poses problems for both radiographers and patients alike. Claustrophobia can vary in severity and manifests itself in many ways from

the milder feelings of panic, anxiety and increased heart rate to an irrational perception of threat, an inability to escape and sometimes fear of death or burial.

In our scanning centre at the Croydon University Hospital, claustrophobic patients are regularly scanned on the Hitachi Oasis 1.2T open scanner, currently the only one of its kind in the UK. This scanner has been designed to be more patient friendly with open sides to give the perception of more space, and the receiver coils are designed to be more spacious so that for a brain scan patients can be scanned either supine or decubitus (if body habitus allows). This all helps to make the patient experience a more positive one and still achieve a diagnostic outcome for their further management and care.

With particular emphasis on diagnostic quality of axial T2 and FLAIR sequences, comparison between the Hitachi Oasis and its conventional counterparts, Siemens 1.5T Avanto and GE Signa 1.5T is made and demonstrates that clinically, images obtained on the lower strength Hitachi magnet are comparable, diagnostic and acceptable for reporting and ultimate diagnosis in the claustrophobic patient. Consequently, the Hitachi open scanner provides a useful alternative for imaging claustrophobic patients, helping to avoid the need for sedative medications to achieve diagnosis.

P-224 Evaluation and impact of a dedicated radiographer chest reporting team

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A large percentage of plain film radiographs in any imaging department are chest examinations. Recognising this fact and realising the ever increasing radiologist workload, a team of radiographers were selected and trained to report chest examinations. The team has been successfully autonomously working for 24 months now with regular audit of performance and consultant radiographer and radiologist support, achieving a high level of diagnostic accuracy, sensitivity and specificity. We describe the impact this has had on the plain film reporting service, including turnaround times and evaluation of referrers opinions of the service and financial implications. Limitations of the service are identified together with reporting radiographers evaluation of their service provision.

P-225 Ultrasound guided transrectal prostate biopsies. How can we improve service delivery to our patients?

Senan Alsanjari; Ashish Mandavia; Arsalan Wafi; Shirish Prabhudesai; Alexander Chapman
St Peter's Hospital

Introduction: The aim of this audit is to establish the cancellation rate for ultrasound guided transrectal prostate biopsy (TRUBP) procedures within the interventional radiology department at Ashford and St Peter's NHS Trust. As a department, it is important for us to ensure an efficient service is being provided to patients and put measures in place to minimise cancellation rates.

Results: 151 TRUBP procedures were carried out between 9/10/14 to 10/10/15. 31 TRUBP biopsies were cancelled (21% cancellation rate). Of these, 12 biopsies (37.5%) were cancelled because the biopsies were booked before the MRI scan. The remaining cancellations were due to patients not attending (28%), patient's blood markers out of range (18.5), patients not taking their antiibotics (9%) and no blood tests available for the patient (6%).

Conclusion and recommendations: The current recommendations by BAUS is that MRI scans should be performed prior to the TRUBP to allow targetted biopsies of a suspicious area. The results from this audit indicate that there is a significant cancellation rate within the department due to a miscommunication within the MRI department and biopsy clinic.

The recommendation that was implemented was the introduction of a TRUBP checklist and proforma which allows for a nurse-led telephone pre-operative assessment with patients to ensure they are fully informed about the procedure, confirms dates for both MRI and Biopsy clinics, and ensures they are fully informed about the importance of the prophylactic antibiotics. We propose this will significantly reduce cancellation rates and will improve patient information.

P-226 The patients' perspective of CT colonography in a district general hospital

Harriet Barber; Rheanne Derby; Mark Puckett
Torbay and South Devon NHS Foundation Trust

Aims: The aim was to assess patient satisfaction with the current CT colonography service and to identify areas in which to improve the quality of the care provided.

Content: CT colonography (CTC) examinations provide a key role in the detection of colorectal cancer with a large number of CT colonography studies performed in our institution each week. The literature reports that CTC is a well-tolerated investigation and in some patients is the preferred choice of investigation for bowel symptoms compared to traditional colonoscopy, but the perspective of our patient population was unknown.

A patient survey evaluated all aspects of the CTC patient experience from bowel preparation and its effects on the individual, to discomfort during the study and if they had a preference of CTC versus traditional colonoscopy.

Relevance/impact: Increasing numbers of patients are undergoing CTC studies, which can to some patients be an apprehensive experience. Providing a good quality service and ensuring patient satisfaction is therefore paramount. Good patient experience also aids patient co-operation and preparation, which in CTC is key to good quality diagnostic images.

Outcome: The majority of patients tolerated the procedure well, had little to no discomfort and would be willing to have the test again or recommend it to family/friends. Of the patients who had experienced traditional colonoscopy, the majority preferred CTC.

P-227 Radiographer led urethrograms: Experience from a specialist tertiary referral centre

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Central Manchester University Hospitals Foundation Trust

Objectives: To describe the radiographer led urethrogram service, including how it was set up, and to provide a pictorial review of the normal and pathological findings that we have encountered.

Content: A radiographer led urethrogram service was set up in our centre one year ago. Our centre is a specialist referral centre for the treatment of urethral strictures. Urethrograms were traditionally performed by a uro-radiologist. It was decided that training would be provided for the three advanced radiographers in the department whom already carry out various fluoroscopy studies independently.

Relevance: Several fluoroscopy studies have now been replaced by other imaging modalities. Urethrograms still have a valuable role in the investigation of lower urinary tract pathology. It is not commonly performed and Radiologists may be unfamiliar with the technique, normal findings and pathology encountered. Utilising experienced radiographer skills for a further fluoroscopy study contributes to the many benefits of the skills mix that already exists in many Radiology departments.

Outcome/discussion: The Advanced Radiographers have performed a total of 60 urethrograms in one year with more than half demonstrating pathology. The main indications were for suspected stricture, assessment of urethral injury following trauma and to delineate urethral fistulas. With more radiological procedures being performed by Radiographers, we found that urethrograms could also be one of them. Radiographers are maintaining the service at a high standard as confirmed by our Urology colleagues. Their role will be extending to reporting urethrograms independently.

P-228 Obesity, heuristic reasoning and the organisation of communicative embarrassment in patient-facing diagnostic radiography

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The reported research qualitatively elucidates difficulties emerging around radiographer-patient communication regarding obesity in radiographic encounters, and the situated strategies found by radiographers for handling such situations. There has, to date, been no empirical investigation of obesity-related communication in everyday radiographic contexts. The discussed findings, thus, develop a number of themes for further investigation.

Semi-structured interviews with eight expert diagnosticians working in plain radiography (mean experience = 21.56 years) were explored using Interpretative Phenomenological Analysis (IPA), so as to highlight the practical, nuanced and real-world experiences of these individuals regarding obesity communication.

Participants generally viewed communicating with obese patients as a potential 'minefield', in which both parties were likely to be embarrassed. Most reported having had negative experiences in which patients had acted with denial or outright aggression during examinations but, conversely, all reported cases in which patients had been frank and open about their obesity, and even been happy to joke about it. Equally, all participants were able to document a range of communicative strategies for effectively handling potentially difficult situations.

Results further indicate that communicative problems and embarrassment for the patient only generally arise within material contexts; i.e. when equipment is inadequate or multiple exposures are necessary. Participants largely expected any interaction about obesity with a patient to be embarrassing for both parties, but their actual experience was much more varied. This indicates a more complex communicative environment than may be expected, and also a potential availability heuristic in play that requires quantitative clarification.

P-229 Preliminary clinical evaluation (PCE): Perceptions and barriers to implementation

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The College of Radiographers (CoR) 2013 policy and practice guidance identifies the ability to write Preliminary Clinical Evaluations (PCE) should be a core competency for radiographers. This research used a mixed methods approach to investigate the perceptions and potential barriers to the implementation of abnormality signalling systems (ASS) and in particular PCE in clinical practice.

A purposive sample of qualified radiographers from two NHS Trusts was identified (n = 62). Response rate was 90% (n=56).

20% (n=11) had been qualified <2years, 53% (n=30) 2-4 years, 27% (n=15) >5years. Only 30% (n=17) felt that their university training prepared them well for PCE upon graduation however responses differed by group. 72% of those qualified <2 years felt prepared versus only 20% of the remainder.80% (n=45) in total participated in CPD to develop their image interpretation skills which has a positive impact on confidence. The >5 years qualified group are more likely to engage with CPD than the other groups. Only 23% (n=13) felt that PCE would improve service delivery stating lack of skill, guidance, 'too busy imaging', too much responsibility, and 'no pay increase', as common reasons. 70% (n=39) felt that PCE should not be implemented in practice.

The evidence suggests that the CoR 2013 policy is having an impact on undergraduate training in that the <2years qualified group are more responsive to delivering PCE but less likely to participate in CPD. Further work is required to measure graduate image interpretation competence and subsequent development.

P-230 Orthopaedic auto reporting in radiology – the delegation dilemma

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Objectives: To highlight IR(ME)R 2000 compliance of orthopaedic referrers (medical and non medical) with regards to delegation of image review and documentation.
To assess report content and quality of orthopaedic referrers in line with RCR guidelines and highlight the risk of missed/misinterpreted findings in the absence of systematic review.
Highlight the potential utilisation of reporting radiographers to remove risks associated of non compliance with IR(ME)R 2000.
Highlight the disparity of radiology teaching hours in undergraduate medical training and why this should be considered in relation to IR(ME)R 2000 entitlement - in which all GMC registered doctors are entitled to review plain film images within their speciality.

Relevance: To ensure all imaging is comprehensively assessed and documented to ensure high quality patient care in efficient time scales.

Outcomes: Results found that orthopaedic referrers were only 87% compliant with IR(ME)R 2000. Reporting standards advised by the RCR and RTT's set by the diagnostic imaging board were not met.

Discussion: Measuring the performance of a reporting radiographer to enable future production of timely and comprehensive reports.

Exploring the way orthopaedics formulate and store image reports by following systematic review and recommend utilising PACS sticky notes to store reports alongside the image.

P-231 An audit on total hip replacement at King George Hospital

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The purpose of the audit was to identify the standard of quality of total hip replacement surgery delivered to patients and service users in the trust. Therefore, areas for improvement are identified in order to give our patients and service users the highest standard of care.

The audit of post total hip replacement surgery was conducted based on all the cases had been completed in the past three months at the King George Hospital under the Barking, Havering and Redbridge University Hospitals NHS Trust.

All images of post total hip replacement were reviewed. The results are classified as successful when the prosthetic hip is well in tact in situ and satisfactorily in position. Otherwise, it is considered as a failure. Data are presented into a chart and histogram, both in percentage and number of cases, for better visualisation of the quality of the total hip replacement surgery.

There is a PRIDE brand in our trust which is based on our values of Passion, Responsibility, Innovation, Drive and Empowerment. In order to fulfil PRIDE features in our working lives, we are committed to continuing development ensuring that our services delivered to patients and service users are the possible best of care.The outcome of the audit well represented the level of quality of care we stand and giving us the opportunity always looking for improvement.

P-232 The lung cancer escalation pathway: A radiology department-led protocol for streamlining patients to early diagnosis

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City Hospitals Sunderland Foundation Trust

Lung cancer is the second most common cancer in the UK. Given the national background incidence, the local Sunderland area has almost twice this. Performance data from the original two-week-wait referral pathway (TWWRP) showed that the time taken from abnormal CXR to booking of a CT was approximately 28 days (before April 2014). By introducing a lung cancer escalation pathway (LCEP), we aimed to: reduce timelines to diagnosis; reduce cancer breach targets; and to create a seamless pathway between primary and secondary care.

Methods: For GP-referred patients at SRH, every abnormal CXR suspicious of malignancy as assessed by a consultant radiologist was cycled into the LCEP where the radiology department through a dedicated cancer services facilitator arranges an urgent CT scan and subsequent chest clinic appointment, resulting in a reported scan prior to consultation.

Results: From April 2014-June 2015, 419 lung cancers were diagnosed at SRH: 28% (n=117) from the LCEP; 17% (n=72) from the TWWRP; and 55% (n=230) from routine referrals (Emergency Department (ED) and chest clinic). The average time from abnormal CXR to CT was reduced to 8 days (LCEP patients), with a cost-saving of a chest clinic appointment.

Discussion: Using LEAN tools and techniques we have incorporated a MDT approach to streamlining the diagnosis of lung cancer. Furthermore, by extending this referral pathway to other patient groups (e.g. those with unexplained symptoms of concern) and streamline direct referral and CT investigation, we can aim to reduce the high numbers of incidental cancer diagnoses at ED admission.

P-233 "Follow up" alerts generated following abnormal CXR: Are they acted on by the referring clinicians?

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Background: CXR "follow up" alert is generated by the radiologist if there is any abnormality found which requires further imaging to be performed after an appropriate time interval. These alerts would prompt the referring clinicians to do so and suggest the modality for the follow up image.

Radiology alerts are developed after several incidents of abnormal images not been acted on by clinicians in the past.
Consequently the NPSA and RCR have issued safety notice and documents outlining the importance of communication of these abnormal results to the referring clinicians.

Method: CXRs done between October 2014 and March 2015 with "follow up" alerts are selected using CRIS. 50 CXR are selected from each source of referral i.e. GP, AED, Outpatients and Inpatients. PACS system is used to see if alerts are acted on.

Results: The results showed 90% of this alert was acted on by GP, 80% by AED, 92% by Outpatients and 54% by Inpatients.
Average time of these alerts being acted on is 5.7 weeks by GP, 5.3 weeks by AED, 7.1 weeks by Outpatients and 4.6 weeks by Inpatients.

Discussion: These alerts are important and need to be acted on by referring clinicians. Ways to improve this include setting up a read/acknowledge system on PACS, radiology secretaries to notify the clinician's team directly of these alerts, and disseminating the information of the importance of acting on these alerts in grand rounds.

P-234 A pilot single-centre single-blinded randomised controlled trial study to compare the use of video demonstration or telephone interview verses routine intervention to alleviate anxiety in patients prior to MRI

Jenna Tugwell-Allsup
Betsi Cadwaladr University Health Board

Aim: The aim of this study is to determine whether a video demonstration (visual) or a telephone conversation with a radiographer (verbal) in comparison to routine preparation/information can be used to alleviate patient's anxiety prior to MRI examinations.

Method: A three-group controlled experimental design was used. 90 patients were randomly assigned to one of three groups, 30 received routinely given basic written information (control group), another 30 received a DVD (intervention group 1) while the remaining 30 received a phone call from an MRI radiographer explaining the procedure and answering any questions the patient may have regarding the scan (intervention group 2). To measure patient anxiety before and after the interventions, the self-report psychometric test State-Trait Anxiety Inventory (STAI) was used. After the MRI scan patients completed a questionnaire on satisfaction regarding their MRI preparation and entire experience. The images were also assessed with regard to motion artifacts. A small percentage of patients (2%) was interviewed to gain an in depth understanding of their MRI scan experience.

Potential practice implications: Both interventions can easily be implemented in clinical practice to improve patient experience, patient throughput, reduce waiting times, improve image quality and also have positive financial implication.

Results: Mid way through patient recruitment and already some interesting results have been witnessed. Patient recruitment should be completed by March/April.

Funding: CoRIPS small grant scheme

P-235 Paediatric radiographer led service for administration of Entonox in micturating cystourethrograms

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Aim: To reduce distress that may be caused to paediatric patients and carers during Micturating Cysotourethrograms (MCUG's), whilst improving cost efficiency. This service also extends the role of the radiographer.

Content: The renal nurses had made significant improvements to patients experience during urodynamics by delivering Entonox, to aid catheterisation.
To improve the service further for other patients undergoing examinations, we decided as radiographers to take relevant training to administer Entonox ourselves.
The training was given by the pain nurses within the trust who signed us off as competent. Training also included PEWS and medical devices training.

Impact: The efficiency of the process from receiving the request for the examination to the patient attending for the appointment has improved. This includes the flexibility such as timing of LMP's following the ten day rule, Radiologists time and room utilisation. Theatre time is no longer required for suprapubic catheterisations.

Outcome: Our extended role has meant the patient pathway for MCUG's has improved, as well as the experience for patients and carers on the day. Due to fewer theatre cases and failed examinations the cost for the trust has been greatly reduced.

Discussion: The success of our training has meant we have been able to increase our patient numbers, and our failure rate is negligible. We have also been able to extend this service for other procedures. More importantly, positive feedback received from our patients and their families demonstrates the improvement we have made to our service.

P-236 Enhancing PACS by integrating external applications

Barnaby Waters; Stuart Green; Kal Natarajan
University Hospitals Birmingham NHS Foundation Trust

Aims/objectives: To highlight some generic interfaces that can allow PACS users to launch external applications to provide extra clinical functionality that is not available in the core PACS product.

Content: This poster will present the ways in which we have linked with various external applications from within our Agfa IMPAX PACS.

Relevance/impact: PACS teams and clinicians need to know what is possible to get more from their current or next PACS system.

Outcomes: Radiologists need a robust system for quickly raising urgent alerts to referrers, auditing acknowledgement and escalating if necessary. Rivendale RadAlert uses an HL7 reports interface to raise email alerts when key phrases are detected in validated reports. The web application can also be manually launched in a study context via button within PACS.
Neuroradiologists need to be able to quantify changes in whole brain volume to monitor the effectiveness of treatments for multiple-sclerosis. CorTechs Labs NeuroQuant uses a bidirectional DICOM interface with PACS to process volumetric MR data and produce reports on brain atrophy which are stored back in the clinically safe PACS environment. Radiologists can transmit MR series for analysis from within the PACS viewer.
An ED clinician's communication efficiency is increased with templated Outlook emails containing the patient and study details. A keyboard shortcut or button calls a VB script that opens a new prepopulated Outlook email.

Discussion: PACS Teams and clinicians need to be aware of the options for launching external application to enhance the functionality of their current or future PACS.

P-237 Fit for practice. Fit for purpose. A literature review of diagnostic radiographer first post experiences

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Aim: To critically evaluate the literature pertaining to the first post experiences of graduate diagnostic (DI) radiographers.

The objectives are to identify and appraise the literature using a structured search strategy and an appropriate appraisal framework thus identifying gaps in the research so as to inform a Professional Doctorate thesis proposal pertaining to DI radiography learner preparedness for their first post.

Content: The poster includes a pictorial overview of the search strategy. A detailed outline of how the CASP qualitive critical appraisal tool has been applied to reach the conclusions drawn.

Relevance/impact: The curriculum in undergraduate DI radiography continually evolves, driven by technological advancements, developing professional roles and a changing healthcare landscape. Areas of practice once seen as a specialism are now considered first post-competencies. Accordingly there is a responsibility on Higher Education Institutes to ensure appropriately focused clinical and academic training of the future workforce whilst meeting professional body requirements. Investigating the preparedness of new graduates for their first post is essential in aiding this activity.

Outcomes: This review highlights a gap in research which explores the technical competencies required by newly qualified diagnostic radiographers working in the modern imaging department.

Discussion: This finding is important given the increase use of imaging modalities. [CT (10%), MRI (12%), Ultrasound (5%)] in the last decade. It is 15 years since research has published on first-post competency requirements in diagnostic imaging. Subsequently this work provides a foundation to which to further develop an appropriate methodology for research of future radiography education.

P-238 MSK ultrasound training - our organisation's approach

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Objectives: Early 2013, AQP signalled a nationwide change in clinical services commissioning within the community. The fastest growing demand was centred on the lack of provision for MSK ultrasound. Our team recognised a clear gap in staff ability to deliver the full range of ultrasound skills, especially MSK which was mandatory for AQP. Also an ever increasing demand from NHS partners to supply dedicated MSK ultrasound could not be met by the existing team. In order to maintain our competitive edge in service delivery for Ultrasound, we took steps to address a highly specialised clinical need which was lacking within our staff workforce.

Content: A mid/long term vision was developed, with training to meet our requirements. This necessitated a well-planned, structured programme, with emphasis equally focussed on academic capability and practical skills of the individual.
A planned regime of tutorials was employed for the 3 months leading up to the start of the CASE accredited MSK module at the University of Cumbria. These sessions continued after the University course and the students also began attending MSK scanning sessions. After 6 months the tutorial sessions were reduced to one per month and concentrated solely on scanning clinically with experienced MSK sonographers.

Outcomes: An incredible journey over a 12 month period has produced MSK qualified sonographers who will go on to benefit our organisation. The key to our training success stems from a well-supported approach between two organisations, working together in partnership towards achieving a common goal.

P-239 Are we ready for the future? A reflection on the Shape of Caring review and its implications for radiography

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The current review of nursing (Shape of Caring Review) scopes several aspects of training as well as the current fields of nursing. This presentation will give an overview of this review and explore how and if this is applicable to diagnostic imaging.

Aim: To explore pre-registration training of diagnostic radiographers and consider whether the current route to registration is fit for the future.

Objectives: To review the non-registered workforce route to registration, to consider the role of the mentor, to explore preceptorship and professional 'fields' in diagnostic imaging.
The areas listed are key in the nursing review, and are all applicable to diagnostic imaging. Whilst mentorship and preceptorship are key to pre-registration training of radiographers, they are not currently monitored in the same way as in nursing. Conversely, nursing has much to learn from the career structure and progression opportunities in radiography. However, sometimes barriers exist as assistant practitioners specialise in one imaging modality and the current undergraduate curriculum focuses largely on general imaging. This makes it difficult to recognise prior learning and achievement if APs have been working in cross-sectional imaging or mammography for example. The evidence to support the topics identified in the objectives will be briefly explored.

Impact: Current shortages of registered staff influence skill mix and working practices. Is this an opportunity to recognise pre- registration specialisation?

Outcomes: To stimulate a professional debate about the current shape and future requirements of the profession.