

Background: Radiostereometric analysis (RSA) is a proven specialised radiological imaging method, assessing implant stability and predicting longer-term implant survival. RSA is particularly useful to evaluate new implant technologies before large numbers of patients receive the new technology, protecting patients from undue risk. RSA is a new imaging technique at this hospital site and this is where the first UK patient was imaged for the research study 'ReCerf'. This study aims to assess a subgroup of patients with RSA as part of a larger clinical investigation of the ReCerf hip resurfacing device (MatOrtho Ltd., UK).

Purpose: Radiographers worked in collaboration with an imaging training and analysis company (Downing Imaging Ltd.,UK) to devise a robust and repeatable imaging guide for RSA imaging. This required precise scientific testing involving several hours of cadaver and Sawbone (phantom) imaging to establish repeatability and assess guide limits for x-ray exposure for sufficient image quality. The first research patient was successfully imaged in December 2022. This RSA study design, set up alongside routine practice, allows a wider range of hospitals to safely engage with new technologies for the benefit of patients. This reduces barriers to innovation and collects clinical data to demonstrate the safety of a device during early years of use.

Summary of content The aim of this presentation is to provide an educational written and pictorial/photographic review on how the radiographic team have set up RSA imaging, utilising standard x-ray room and mobile imaging equipment at this hospital site.

1. Pijls, B.G., Nieuwenhuijse, M.J., Fiocco, M., Plevier, J.W., Middeldorp, S., Nelissen, R.G. and Valstar, E.R., 2012. Early proximal migration of cups is associated with late revision in THA: a systematic review and meta-analysis of 26 RSA studies and 49 survival studies. *Acta orthopaedica*, 83(6), pp.583-591. 2. Valstar, E.R., Gill, R., Ryd, L., Flivik, G., Börlin, N. and Kärrholm, J., 2005. Guidelines for standardization of radiostereometry (RSA) of implants. *Acta orthopaedica*, 76(4), pp.563-572. 3. ISO 16087:2013 Implants for surgery — Roentgen stereophotogrammetric analysis for the assessment of migration of orthopaedic implant



EDUCATION AND WORKFORCE POSTER PRESENTATIONS

P132 Advanced practice reporting radiographers and radiology trainees -- together everyone achieves more?

Freya Johnson

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Advanced practice reporting radiographers are a key part of reporting services and have long established input for radiographic staff for education on first line interpretation and improvement of imaging quality. Less well published however are the wider training benefits of reporting radiographers into the future reporting workforce, regarding radiologist trainees. This poster/presentation explores the impact reporting radiographers can make regarding trainee radiologist reporting training. In collaboration with consultant radiologist education leads a pilot to explore outcomes within a single health board area based in a pilot of reporting radiographers verifying and providing reporting feedback on reporting for first year radiology trainees. Learning outcomes to be discussed for the UKIO congress based on survey feedback from reporting radiographers, trainee radiologists and educational consultant radiologists. Summary of governance in place to support implement change. How did participants feel the pilot has affected training and were there any wider culture changes experienced. Wider benefits and how we measure these will also be discussed as well as looking critically at what input to training in the context of current staffing levels means to not only capacity but also training of radiographic staff. Future consideration of how we manage capacity and education/training input to ensure sustainable solutions. Feedback to build education to support the teams to develop for the future, are there any consideration we learned from reflection of our own team through educating medical rather than radiographic staff. Wider benefits and key areas of improvement which became apparent during the pilot.

P133 Using advanced practice to develop a radiographer and nurse led, on treatment review (OTR) service

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Introduction: The ACP in radiotherapy OTR contributed to service development and redesign with involvement in the recruitment and training of a review team, consisting of radiographers and a nurse. The review team has significantly increased the number of non-medical reviews offered and is contributing to modernising our radiotherapy service (Cancer Research, 2017). With a newly established team and changes to traditional working practices an evaluation was implemented to assess patient satisfaction with communication and interactions during OTR consultations with the review team.

Aims and Objectives: * Evaluate patient satisfaction with communication * Improve communication between patients and health care professionals * Encouraging patient participation to shape radiotherapy services * Ensure patients feel involved in their care, listened to and well informed * Improve the patient experience Method Patients having OTR with the review team outside of the clinicians' sessions were the chosen cohort. The EORTC QOL communication questionnaire (EORTC QLQ-COMU26) was used for data collection. * Questionnaires given to all patients during the specified time * Questionnaire responses were anonymous * Data collection and analysis was undertaken by the ACP

Results: The EORTC questionnaire uses six multi-item scales to assess responses based on behaviours and relationships: Scores are calculated from 0- 100, a high score indicates good communication. Results showed all sections scored over 90 reflecting high levels of patient satisfaction across all multi-item scales.

Conclusion: A theme was identified from the lowest scoring results relating to checking the patients understanding, prior to and after delivering information. These results were shared and used to formulate an action plan for further training and development

1. Cancer Research. (2017). Full Team Ahead: Understanding the Non-Surgical Cancer Treatments Workforce. Retrieved from: cancerresearchuk.org 2. European Organisation for Research and Treatment of Cancer (2021). QOL Questionnaires and tools. Retrieved from: qol.eortc.org/questionnaire/qlq-comu26/

P134 Expanding diagnostic radiography student capacity by utilising accident and emergency, theatre, fracture clinic and advanced practitioners

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Background: A Student's clinical education, experience and support are the joint and equal responsibility of the clinical placement site and the University. The quality of this service needs to be maintained through collaborative relationships and regular dialogue (Coleman, 2012). With, approximately 50% of each radiography programme being practice-based, Coleman, (2012) states that quality practice placement experiences which are situated within a positive learning environment, are essential to support the development of learners to deliver safe and effective person-centred care. However, Plain Film clinical placements are limited due to finite equipment, staffing, and space. To reduce the burden on these providers, innovative ways are needed to create new opportunities for students through simulation, care placements and the independent sector (Partner, Shiner et al, 2022).

Purpose: This poster aims to share the experience of one UK university in partnership with a large major trauma centre in setting up new and innovative ways to expand Diagnostic Radiography student placement capacity.

Summary of content: Two new placement opportunities were created. A 'trauma pathway' week for 3rd years, with time spent in ED triage, hot reporting sessions and with doctors in fracture clinic. The aim of this week is for students to understand the hospital trauma pathway the patient goes through, and possibly put themselves in the patient's "shoes", which will in turn improve patient-centred care (Hyde, E & Hardy, M, 2021). The placement week for 1st years was an operating department practitioner exchange. ODP students experienced CT and Radiography students experienced emergency theatres/anaesthetics.

Timetable

Day	Department	Student 1	Student 2
Monday	ENP (Head to Minor Injuries for this day)	ENP 8-6	Fracture Clinic
Tuesday	Reporting Radiography/ED	ED 8-9 Hot Reporting 9-11 ED 11-1 ED 1.30 – 3 Image review 3-6	ED 8-12.30 Hot Reporting 1-3 Image review 3-6
Wednesday	TC Fracture Clinic	Fracture Clinic 8-6	ENP 8-6

1. Coleman, L., (2012). Quality Standards for Practice Placements. [ebook] The College of Radiographers. Available at: [Accessed 2 August 2022].
2. Hyde, E. And Hardy, M. (2021). Patient centred care in diagnostic radiography (Part 3): Perceptions of student radiographers and radiography academics. *radiography*. 27(3), pp.803-810. [Online]. Available at: <https://doi.org/10.1016/j.radi.2020.12.013> [Accessed 1 September 2022].
3. Partner, A., Shiner, N., Hyde, E. and Errett, S., 2022. First-year student radiographers perceptions of a one-week simulation-based education package designed to increase clinical placement capacity. *Radiography*, 28(3), pp.577-585.

P135 Collaborative approach to learning from discrepancy within the emergency department team and advanced practice teams

Jeanette Carter

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Background: Discussion with the ED consultants to assist with the learning of x-ray "misses" by ED to whole team as a collaborative approach to include the advanced practitioner reporters to help with the education of image assessment to reduce the number of misses within ED.

Purpose: To demonstrate a different approach of working outside imaging team to reduce the risk of "misses" of pathologies within the emergency department.

Methodology: Learning from discrepancy meeting set up by emergency department (ED) consultants to feedback missed pathologies to all levels of the ED teams. The ED registrars will review the cases and go through individual cases. These cases have been provided by the imaging department, the full patient pathway reviewed by ED registrar, presented. Advanced practitioners/consultant radiographers present on the meeting to offer advice and feedback on the cases for future reference.

Results: Early stages -- some short feedback statements from attendees from both parties as feedback to meetings.

O'Carroll, V et al (2015) Health and social care professionals' attitudes to interprofessional working and interprofessional education: A literature review *Journal of Interprofessional care* Volume 30 Issue 1 RCR (2014) Standard for learning from discrepancy meetings Available at: [https://www.rcr.ac.uk/sites/default/files/publication/BFCR\(14\)11_LDMs.pdf](https://www.rcr.ac.uk/sites/default/files/publication/BFCR(14)11_LDMs.pdf)

P136 Cross boundary interprofessional sustainable educational resources for the future workforce

Freyja Johnson

NHS Greater Glasgow & Clyde

To build a sustainable workforce through provision of high-quality training and education is a current challenge for radiology services with pressures in both acquisition and reporting, it is vital we work together to build resources to grow our workforce. We developed a six-month education schedule so how can we develop resource to counter these pressures, we piloted a system of interprofessional teamworking across a large multi board geographical area to

provide education which focused on trauma reporting for radiology trainees and trainee reporting radiographers as well as this education then being disseminated to all health boards for radiographic staff. We propose that by working together to bring new pathways and interprofessional working you can achieve sustainable education to support. This presentation/poster will feedback on the pilot to bring reporting radiographers together across traditional health board boundaries, sharing the workload to create and present education for the mutual benefit of trainee radiologists, trainee reporting radiographers and radiographic staff as a CPD resource. Learning outcome to be discussed for the UKIO congress based on a survey of participants involved. Can we overcome geographical and professional boundaries provide educational resources that support and build our future teams in radiology. Did this provide a valued education resource relevant to participants. Learning points from organisation of structure and content of education. Issues we encountered and had to provide solutions for will be summarised. Effect on reporting radiographers to fulfil the four pillars of advanced practice. Future wider benefits based on feedback.

P137 Supporting international radiographers transitioning to working in the UK healthcare system: A collaboration between a university and local NHS trusts

Dorothy Cox; Rebecca Howell

University of Gloucestershire

A national shortage of healthcare workers has led to an increase in international recruitment; in the South West, over 10% of the NHS workforce are trained outside of the UK (Baker, 2021). Within local NHS Trusts, Band 5 radiographers have been recruited predominantly from overseas in order to fill long term outstanding vacancies, but receive no formal support in adapting to working within the UK healthcare system. This can affect job satisfaction and personal wellbeing, as evidenced in literature investigating experiences of international healthcare staff (Bond et al., 2020; Kehoe et al., 2016). 'Welcome to the UK' is a workshop provided by the GMC for international doctors adapting to UK practice, however to our knowledge no such programme exists to support international radiographers. At our institution we are trialling a study day targeted at aiding international radiographers from local NHS trusts in their development within UK healthcare practice, with the hope that it will grow into an accredited programme in the future.

1. Baker, C. (2021) *NHS staff from overseas: statistics*. House of Commons Publishing, London.

2. Bond, S., Merriman, C. and Walthall, H. (2020) *The Experiences of International Nurses and Midwives Transitioning to Work in the UK: A Qualitative Synthesis of the Literature from 2010 to 2019*, *International Journal of Nursing Studies*, 110. doi: 10.1016/j.ijnurstu.2020.103693.

3. Kehoe, A. et al. (2016) *Supporting International Medical Graduates' Transition to Their Host-country: Realist Synthesis*, *Medical Education*, 50(10), pp. 1015-1032. doi: 10.1111/medu.13071.

P138 Clinical competency: What is it, how is it defined and why does this matter?

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Background: The aim of pre-registration radiography programmes, and some post-graduate provision such as Ultrasound or Advanced Clinical Practice, is to ensure graduates are equipped for practice. This, by definition, includes assurance that required levels of clinical competence have been achieved.

Purpose: The purpose of this poster is to consider the implications of there not being a single universally agreed definition of clinical competence and how this impacts upon assessment strategies, particularly for pre-registration diagnostic radiography programmes.

Summary of content: This poster will provide example definitions of clinical competence and outline why such definitions are important. It will consider that, whilst there is no single universally agreed definition, there does seem to be consensus that competence requires knowledge to underpin skills and behaviours.

Miller's Pyramid of Professional Competence [1] will be utilised to indicate how different assessment tools can assess different elements of competence. Consideration will also be given to the limitations of Miller's model.

The poster will then discuss how, in the absence of a universally agreed definition of clinical competence for diagnostic radiography, education providers utilise a heterogeneous approach. The advantages of having variety is laid out but consideration is also given to the workload of clinical staff who are increasingly supporting students from

more than one education provider. The poster concludes by highlighting the research gap in relation to assessment of clinical competency in diagnostic radiography.

GE Miller, (1990), The Assessment of Clinical Skills Competence / Performance, Acad Med, 65 (9), 63-67

P139 Early findings of a scoping survey exploring UK sonographers views on professional supervision

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Background: Professional supervision is a formal process whereby two or more professionals meet, share clinical information, reflect on practice and on the emotional aspects of the clinical role²⁻⁴. Within the UK, professional supervision is incorporated into practice across many health professions however, it does not currently appear to be part of UK Radiography or Sonography practice¹. The Society of Radiographers and Health and Care Professions Council provide guidance on the use of professional supervision, but it is not a mandatory requirement. This two-stage research project was designed to explore the use of professional supervision for the sonography profession within the UK.

Methods: An online survey was conducted to establish the current use of professional supervision within the sonographer population. The survey explored the current use of professional supervision and views on the process of support and professional supervision for four subgroups of sonographers; clinical specialist/consultant sonographers, ultrasound managers and professional officers/members of professional organisations such as Consortium for the Accreditation of Sonographic Education, Society of Radiographers or British Medical Ultrasound Society.

Results: Data collected from this survey is currently being analysed. Early findings will be presented at UKIO.

Conclusion: The survey's findings will identify the current level of professional supervision in the UK and explore the current levels of support in place for sonographer wellbeing. The findings from the survey will inform the questions for the stage 2 focus groups. It is hoped that the findings will lead to recommendations for the implementation of professional supervision for all sonographers practice.

1. Coleman, G., Hyde, E. (2022) Is there a role for professional supervision in supporting the professional and personal wellbeing of the sonographic workforce? A literature review. Radiography. 28, 991-998. 2. Lynch, L., Hancox, K., Happell, B., Parker, J. (2009) Clinical supervision for nurses. Wiley Blackwell, UK. 3. Lyth, G.M. (2000) Clinical Supervision: A concept analysis. J Adv Nurs. 31: 3: 722-729 4. Wallbank, S., Hatton, S. (2011) Reducing burnout and stress: the effectiveness of clinical supervision. Community Pract. 84: 7: 31-35.

P140 Assessment of clinical competence -- current tools and future directions

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Background: A radiographer graduating from a pre-registration radiography programme, and practitioners from various post-graduate programmes (including Ultrasound and Advanced Clinical Practice) are expected to be competent within their sphere of practice.

Purpose: The purpose of this poster is to review the wide range of clinical assessment tools currently reported upon within the literature and to determine how they assess the various elements of clinical competence. It will conclude by making a case for further exploration of the role Virtual Reality could play in simulation based assessment.

Summary of content: This poster will describe a range of clinical assessment tools in terms of their benefits and limitations. Consideration will be given to the particular area of focus of the assessment type, namely whether it assesses knowledge, skills and / or behaviours. The discussion will then move onto how this results in a range of tools being needed in order to ensure all elements of competence are fully assessed.

The poster will conclude by making a case for further exploration of use of Virtual Reality as an assessment tool. There is a need to continue to increase the numbers of newly qualified radiographers entering the workforce but this is limited by placement capacity including workforce pressures. Hence the potential of Virtual Reality based assessment to even slightly reduce the assessment burden, thereby relieving the pressure on clinical colleagues, means there is a real benefit for research to explore its potential.

P141 Overview of the clinical skills suite

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Background: The Clinical Skills Suite (CSS) is a new teaching concept to the BSc (Hons) Diagnostic Radiography course. It is situated within a Radiology department and has facilities to support blended learning - combining guided professional practice, evidence-based theory and simulation. Students attend the CSS throughout their clinical placement blocks.

Purpose Theory: When in the suite, theory is based upon a range of evidence-based elements from within Radiography. This link provides imaging technique knowledge to Students before, during and after attending the CSS. Through hospital affiliation, the CSS follows imaging protocols used during scenario work and live patient lists. Students can use resources throughout the weeks such as books and articles. Radiograph labelling, tutorials, medical abbreviations worksheets and clinical skills related quiz papers are also provided to link theory and practice.

Professional Practice: As real-time patients attend the CSS., students can instantly transfer theory into practice. This is achieved through guided supervision from a qualified Radiographer. Patient lists can be adapted, offering Students increased opportunities. The equipment used is the Agfa Healthcare DR 600 System. Practice sessions are held prior to clinical blocks. On return to the suite during placements blocks, positioning simulation is carried out prior to patient lists. Live-streaming of patient lists into the adjacent office is planned to allow further observation Simulation The suite offers a range of low to high-fidelity simulation through the use of various factors from mannequins to live patients.

Summary: A blended-learning experience allowing multiple learning tools to create a unique clinical experience for placements.

1. Cronin, K., et al. (2018). Mapping University Skills labs in Radiography: Students' Perspectives. OPTIMAX 2018, p.99. 2. Hazell, L., et al. (2020). Simulation based learning to facilitate clinical readiness in diagnostic radiography. A meta-synthesis. *Radiography*, 26(4), pp.e238-e245. 3. Holmström, A.. (2019). Radiography Students' Learning of Plain X-Ray Examinations in Simulation Laboratory Exercises: An Ethnographic Research. *Journal of Medical Imaging and Radiation Sciences*, 50(4), pp.557-564. 4. Kong, A., et al. (2015) 'The role of simulation in developing clinical knowledge and increasing clinical confidence in first-year radiography students.', *Focus on Health Professional Education. ANZAHPE: Australian & New Zealand Association for Health Professional Educators*, 16(3), pp. 29-44. 5. Zorn, C., et al. (2019). Motivation of student radiographers in learning situations based on role-play simulation: A multicentric approach involving trainers and students. *Radiography*, 25(1), pp.e18-e25.

P142 Development of a clinical skills x-ray room

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University of Leeds

Background: Clinical education and experience within radiography education is fundamental, with most pre-registration courses typically comprising around 50% clinical time. With workforce shortages there is a demand to increase the number of graduates but one of the major limiting factors on increasing the number of trainees is clinical capacity and a lack of supervising staff to allow this increase (1). Simulation has been demonstrated to provide an alternative to traditional clinical experience, though has limitations in its own right. This project developed a clinical skills X-ray facility which acted to offer simulation, traditional clinical experience, and additional clinical placement capacity.

Purpose: The purpose of this paper is to outline the development of the clinical skills X-ray facility as a collaboration between a University, NHS Trust, and manufacturer to act as a potential blueprint for similar future projects. It aims to outline the development of the project from start to finish which resulted in the facility being heavily incorporated into the pre-registration programme.

Summary of content: This paper will outline the history, rationale, aims and vision of the clinical skills facility and offer perspectives from a range of stakeholders. It will consider aspects of the project such as room design, equipment selection, staffing and the roles of each stakeholder involved. It will also outline some of the barriers and problems encountered as well as the proposed ways in which the facility can be utilised to support and enhance radiographer education, as well as increase cohort sizes.

1. Shiner, N. (2018) Is there a role for simulation based education within conventional diagnostic radiography? A literature review. *Radiography*. 28, 262-271

P143 Using a microsoft teams for regular and accessible continuous professional development (CPD) and support development of the modern radiology workforce

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To support staff CPD the use of microsoft teams introduced a platform which facilitates provision of accessible relevant education to staff and sharing of knowledge on a larger scale than traditional hospital clinical environments can provide. Workforce staffing pressures and requirements to balance education needs with service provision can be challenging, a coordinated approach has built a resource which staff can work over multiple hospital sites to share knowledge and improve support in place for staff to develop. Learning outcomes to be displayed in a poster presentation for the UKIO congress based on our experiences in setting up and scaling up an online CPD platform survey for a large health board and also using staff feedback surveys. To provide reflection on experiences and work required to establish and maintain this resource. Reflection on resources required to set up and maintain this resource with indication of how we want to develop in the future. Discussion on staff feedback regarding job satisfaction and communication. Future considerations and how we can adapt to link to provide a hybrid of in person and virtual events and to encourage input from service development for sustainable education development.

P144 Radiographic clinical reporting monthly continuing professional development series

Holly Mee; Sophie McWhirter; Marie Gibson; Paul O'Riordan; Team Reporting Radiographer

University Hospitals of Leicester NHS Trust

Background: Continuing professional development is a standard set by the HCPC where by all practicing radiographers must comply. This includes maintaining an accurate, current record of a variety of CPD activities, all of which contribute to learning and therefore benefit patients through service improvement¹.

Purpose: Our presentation captures a process of reflective practice developed by our radiographic clinical reporting teams. The process encourages the cycle of reflective learning on challenging cases, and in doing so, develops the knowledge base of the learner. The two stage process of presentation involves the practitioner radiographer team in an interactive learning process and maintains an appreciation of the relationship between image quality and image diagnosis. Each case study presents a teaching opportunity whilst encouraging radiographers to actively engage in CPD and explore their potential in image interpretation. The cases can be used as a tool to highlight specific technique considerations such as: how poor positioning or artefact can obscure pathology. We want to share our poster with UKIO participants to inspire other clinical reporting radiographers to deliver engaging CPD activities for all imaging staff.

Summary of content: This poster demonstrates the process of case creation and distribution with examples of feedback. An example question and answer sheet is included to showcase our CPD activity.

¹ HCPC. Standards of continuing professional development [Internet]. Health & Care Professions Council. 2018 [cited 2022Nov21]. Available from: <https://www.hcpc-uk.org/standards/standards-of-continuing-professional-development/>

P145 Documenting radiology opinions within multi-disciplinary meetings: Quantitative and qualitative assessment of pathway implementation and barriers to success

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Background: The Royal College of Radiologists¹ and the General Medical Council² emphasise the importance of clear documentation within Multidisciplinary Team Meetings (MDTMs). Radiologists are responsible for authorising accurate, contemporaneous and accessible supplementary reports after imaging review. Prior to 2022, no formal system existed for documenting radiology input at cancer MDTMs at the Norfolk and Norwich University Hospital. An electronic pathway has since been implemented.

Method: A radiology MDTM review request was created within the Trusts' electronic healthcare record (EHR), which generates a radiology information system (RIS) request. MDTM reviews are authorised on RIS by the MDT radiologist and are accessible on EHR. A retrospective search was performed for all MDTM review entries authorised over a 6-

month period. Structured feedback surveys were sent to consultant radiologists and clinicians attending cancer MDTMs after the initial 6-month period.

Results: Over a 6-month period, 3972 electronic MDTM radiology reviews were generated by 40 radiology doctors. MDTM review report numbers grew incrementally over the initial 2-month period. 24 consultant radiologists provided feedback, of whom 96% found referencing previous reviews helpful. 63% of consultant radiologists felt the process increased preparation time and 54% felt there was insufficient administrative support. 15 consultant MDTM clinicians provided feedback of whom 86% found the process helpful.

Conclusion: A pathway for electronic documentation of MDTM radiology input has been developed and implemented at our Trust. Qualitative feedback from consultant radiologists and clinicians suggests communication and safety has improved. Barriers to implementation include time and administrative support.

1 <https://www.rcr.ac.uk/publication/cancer-multidisciplinary-team-meetings-%E2%80%93-standards-clinical-radiologists>. Accessed 10/02/2023. 2 <https://www.gmc-uk.org/ethical-guidance/ethical-guidance-for-doctors/good-medical-practice>. Accessed 10/02/2023.

P147 Introduction of a radiographer led ultrasound cannulation service

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University Hospitals Plymouth NHS Trust

Background: Difficulty in obtaining venous access is an increasing problem in health care with significant numbers of patients having difficult venous access (as judged by multiple cannulation attempts). Given that large numbers of patients attending for imaging require a peripheral venous cannula for administration of contrast media as part of their imaging procedure, difficulty in accessing patient vasculature can result in significant delays to service delivery. Multiple cannulations can also cause pain and anxiety for patients attending for scans and can delay diagnosis when suitable access cannot be obtained. In 2020 an audit was performed to measure time delays caused by the wait for specialist support to arrive for patients with difficult venous access. This demonstrated a delay to patient scanning totalling 6 hours for just 11 difficult to cannulate patients. As a result of the findings, a radiographer led ultrasound guided cannulation service was introduced within the department to reduce the delays and improve patient experience and safety.

Purpose: Audit of the improvement to service delivery from the introduction of a radiographer led ultrasound cannulation service How implementation of an ultrasound guided cannulation service within the imaging department has improved patient experience and scan success whilst reducing extravasation incidents How the implementation of this service can lead to increased staff retention and upskilling through internal training. Evidence of best practice with governance, clinical audit and management of risk.

Summary of content: A0 poster detailing project detail, methodology and pre/post implementation audit results, governance considerations, training plan and next steps.

P148 Computer vision syndrome (cvs) amongst sonologists and sonographers

Oqechukwu Patience Anike

Association of Radiographer Registration Board of Nigeria

Background: Ultrasound machine over the years had implored the use of screen which has now been modified to flat screen to provide high resolution and high definitions to make well informed and accurate diagnosis hence Sonologists and Sonographers alike are exposed to the risk of long and extended use of digital screen thereby increasing the susceptibility to Computer Vision Syndrome. Computer Vision Syndrome, also referred to as Digital Eye Strain, describes a group of eye and vision-related problems that result from prolonged computer, tablet, e-reader and cell phone use. Many individuals experience eye discomfort and vision problems when viewing digital screens for extended periods. The level of discomfort tends to increase with the amount of digital screen use. There are a number of factors that determine the amount of strain your body feels as you work on a computer or other digital devices, including lighting in the room, distance from the screen, and glare on the screen, seating posture, and the angle of your head -- not to mention any existing vision problems you may have. One or all of these may combine to cause an uncomfortable amount of strain on your eyes.

Objectives: I. Create awareness II. The effects of Computer Vision Syndrome III. Precaution and steps to prevent the effect of CVS.

Source and Reference American Optometric Association <https://www.aoa.org/patients-and-public/caring-for-your-vision/protecting-your-vision/computer-vision-syndrome>

P149 Investigating the ability and willingness of stage 3 radiography students to justify emergency CT head requests

Hoi Ching Au; Siu Yau Lo; Geri Ng; Yui Tsz Tang; Robert Meertens

University of Exeter

Background: CT is a commonly used frontline imaging modality in emergency departments. According to IR(ME)R 2017, all CT requests must be justified by a radiologist or trained operator, typically a senior CT radiographer. With the escalating 24/7 demand for emergency CT head scans, role extension of junior radiographers to vet CT head scan requests may improve efficiency without compromising patient safety. This study aims to assess the ability and willingness of stage three radiography students in vetting emergency CT head requests.

Method: An online questionnaire with open and closed questions was given to stage three radiography students at the University of Exeter. Respondents were asked to vet ten common emergency CT head requests as justified, unjustified, or requiring further discussion using NICE guidelines and provide their confidence in decision-making. Data analysis was based on percentage agreement and Cohen's Kappa agreement with NICE guidelines and thematic analysis.

Results: Strong agreements can be observed when justifying most of the CT requests (7/10) with the mean percentage agreement of 91%. The Kappa coefficient (0.805) has also indicated strong agreement. Respondents have a higher mean confidence level in identifying justified CT head requests than unjustified ones. Two-thirds of respondents were willing to vet CT requests upon graduation, yet further training and experience were desired.

Conclusion: This study reflects stage three students possess encouraging potential for emergency CT head scan vetting upon graduating. It also implies more training and real-life experience may help boost junior radiographers' confidence and competency, particularly when refusing unjustified requests.

1. National Institute for Health and Care Excellence. (2019) *Head injury: assessment and early management (NICE guideline CG176)* [online]. Available at: <https://www.nice.org.uk/guidance/cg176> [Accessed 14 Oct 2022].

2. National Institute for Health and Care Excellence. (2019) *Stroke and transient ischaemic attack in over 16s: diagnosis and initial management (NICE guideline NG128)* [online]. Available at: <https://www.nice.org.uk/guidance/ng128> [Accessed 14 Oct 2022].

3. Society of Radiographers. (2013) *Education and Career Framework for Radiography Workforce* [online]. Available at: <https://www.sor.org/learning-advice/professional-body-guidance-and-publications/documents-and-publications/policy-guidance-document-library/education-and-career-framework-for-the-radiography> [Assessed 14 October 2022].

4. The Royal College of Radiologists. (2021) *Vetting (triaging) and cancellation of inappropriate radiology requests* [online]. Available at: https://www.rcr.ac.uk/system/files/publication/field_publication_files/bfcr214-vetting-triaging-cancellation-inappropriate-radiology-requests.pdf [Assessed 14 October 2022].

5. UK gov. (2018) *The Ionising Radiation (Medical Exposure) Regulations 2017* [online]. Available at: <https://www.legislation.gov.uk/uksi/2017/1322/contents/made> [Accessed 14 Oct 2022].

P150 Utilising video conferencing from pandemic and beyond - supporting the education and quality of a radiographer reporting service

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Background: Provide a description of a large geographically challenging cross-site radiographer reporting service including delivery of peer review and learning and its compliance with guidance set by the RCR 2020.

Purpose: The aim of this poster is to describe the challenges faced, delivering an established cross-site peer review and learning meeting, during the pandemic and how this has impacted on current and future delivery.

Summary: The poster will consider the practice of peer review and learning. Describe a local cross-site radiographer reporting service and their experiences of changing the Peer and Learning Meeting (PLM) from face to face to remote

video conferencing. The limitation and benefits, pertinent to remote meetings, will be summarised. This will conclude with a brief synopsis of how these changes were adopted and continue to support standards and facilitate learning, even after the peak of the pandemic is over.

1. The Royal College of Radiologists (2020) Standards for radiology events and learning meetings. Available https://www.rcr.ac.uk/system/files/publication/field_publication_files/bfcr201-standards-for-radiology-events-and-learning-meetings.pdf

P152 Degree apprenticeships in diagnostic radiography - experiences and perspectives three years in

Christine Heales; Demelza Green

University of Exeter

Background: The first degree apprenticeship programme in diagnostic radiography launched in 2020. The first cohort are graduating in March 2023.

Purpose: The purpose of this poster is to share experiences of delivering a diagnostic radiographer degree apprenticeship through to fruition by considering the perspectives of each of the following: education provider, workplace (employer) and degree apprentice.

Summary of content: The poster will outline experiences from each of the three parties, including highlights and challenges that the apprenticeship brought with it.

The educational perspective will consider challenges such as the need for careful balancing of curriculum content such that the volume of taught material fits within the 20% off the job time.

The workplace perspective will consider a number of issues such as the need to balance workforce needs versus the elements needed to provide a continual, consistent quality learning experience for the degree apprentice, and the potential benefits that employing degree apprentices can bring.

The apprentice perspective will include personal experiences of undertaking a degree level programme delivered in this format, including the opportunities presented by this route and implications for work-life balance.

The poster will conclude by emphasising that, whilst the route to qualification is different, degree apprentices achieve to the same educational level as learners on other types of programme, thus opening up access to a profession that may otherwise not be available to some.

P153 An evaluation of our radiography apprenticeship journey

Elizabeth Kirkpatrick

Frimley Health NHS Foundation Trust

Background: Apprenticeships in Radiography are slowly starting to become more integrated amongst Radiology departments across the country. Awareness is being raised to highlight apprenticeships as an alternative route into the career which is required with our growing workforce demand. This route encourages departments to 'grow your own' workforce and has been used as an internal development opportunity to our radiology support workers.

Purpose: The learning outcomes encourage UKIO participants to consider utilising the radiography apprenticeship pathway and highlights the actions we have put in place based on the feedback from our apprentices. This learning can be used for other departments considering developing a radiography apprenticeship pathway and encouraging them to use apprenticeships to help meet workforce challenge.

Summary of content: Background - Explains how we started utilising the apprenticeship route and our status along the journey. Barriers - A summary of the barriers to implementing the apprenticeship including, entry requirements, raising awareness, organising placements and placement capacity. Apprentice Feedback - Direct quotes from our end of year evaluation with our apprentice radiographers Actions - A summary of the solutions and actions we have implemented including clinical educators, annex 21 training contract, awareness, and structure.

Conclusion: Summarises the learning outcomes and recommendations to UKIO participants considering using a radiography apprenticeship pathway within their departments.

P154 The role of the practice educator in the implementation of a successful apprenticeship programme

Emily McElwaine

Somerset Foundation Trust

Background: In March 2020 Degree apprentices in diagnostic imaging were introduced into a busy radiology department that already supported 2 HEI's with their undergraduate programmes . To facilitate this a Clinical Practice Educator role was established. The aim was to support, coordinate and advise the apprentices throughout their training.

Purpose: The aim of the poster is to outline the specific challenges faced by the practice educator during the training of the apprentices. Challenges that include rota planning the apprentices whilst maintaining a safe level of clinical supervision, increasing clinical capacity to facilitate the apprentices without impacting the current undergraduates and the grasp of a new programme and the work that brings.

Summary: This poster will discuss how these challenges were overcome and the benefits now being seen following the implementation of the apprentices from the point of view of the practice educator.

1. The institute for apprenticeships & Technical Education (2023) {Online} Available at: Diagnostic radiographer (integrated degree) / Institute for Apprenticeships and Technical Education (Accessed: 10/2/2023) 2. NHS Health Education England (2023) Practice Educators {Online} Available at: Practice Educators | Health Education England (hee.nhs.uk) (Accessed: 10/2/2023)

P155 The age of degree apprenticeships in health and social care

David Smith; Nicole Watkin; Tejal Patel; Anthony Walker

Sheffield Hallam University

The need for more NHS staff has become a focus of recent government policy with a strategic objective of delivering 50,000 more nurses and tackling Allied Health Professional workforce shortages to support the NHS long term plan 1. Current demand for NHS staff outstrips the supply available through traditional training routes 2. This has created a need for innovative and effective training methods which includes the development of apprenticeships for healthcare professions.

Within the last 7 years, healthcare apprenticeships have been developed across a wide range of professional groups. In the early advent of the apprenticeships there was limited courses available and a small number of higher education institutions (HEI's) 3. More recently this offer has grown in include pre-registration undergraduate and postgraduate apprenticeship provision across a plethora of professional areas.

Apprenticeships form an important aspect of the NHS and social care workforce strategy. By working towards addressing the challenges presented by the implementation and delivery of degree level apprenticeships, it is likely that these will form part of a long term, high impact tool for delivering new professionals into roles across health and social care.

As the diagnostic radiography apprenticeship at Sheffield Hallam University enters its third year, this poster explores the benefits, challenges, impact and future of the apprenticeship route.

1. Health Education England HEE strategic goals and 2021/22 objectives <https://www.hee.nhs.uk/about/work-us/recovery-delivery-hee-business-plan-202122/hee-strategic-goals-202122-objectives> [Accessed 04 November 2022]

2. The Kings Fund NHS workforce: our position <https://www.kingsfund.org.uk/projects/positions/nhs-workforce> [Accessed 04 November 2022]

3. Hubble S. Bolton P. Degree Apprenticeships House of Commons Library Number 8741 2019

P156 Celebrating the invaluable role of radiographic assistants: A showcase of how supporting staff to maximise their potential has improved patient experience and strengthened the workforce

Alison Kilburn; Rebecca John; Margaret Johnson

The Christie NHS Foundation Trust

Background: Radiographic assistants (RAs) account for a significant proportion of clinical staff, enabling imaging departments to function effectively and meet ever increasing demands. Their value is often overlooked because little has been documented about the evolution of their role, with the perception that some clinical duties can only be

performed by a radiographer. With structured support and training RAs can be enabled to work at the top of their scope of practice (1). Clinical duties can include cannulation, accessing and maintaining PICC/Hickman lines, TIVAD/port needle insertions, taking bloods, NEWS observations, giving oral prep and assisting with biopsies. In an oncology setting this provides invaluable support to vulnerable patients, releasing radiographers to fulfil their technical duties. Individuals can be enabled to progress their careers and aspirations further by accessing the increasing number of funded apprenticeship programmes available in diagnostic imaging (2).

Purpose: Showcasing how the role of RAs has evolved to support changing service needs in an oncology setting. Leading to increased workforce capacity, enhanced career development for individuals and a solution to the ever increasing demands on imaging services.

Summary of content: An overview of the processes, clinical governance, support and training required to utilise the skills of RAs and the positive impact it can make to Trusts. Case studies highlighting the successes of RAs who have gone on to achieve professional qualifications in radiography, medicine and physics. How embedding a culture of development and encouraging staff retention through offering opportunities can make individuals feel valued and respected.

1. Society of Radiographers (2022) Developing career pathways for diagnostic imaging support worker roles: guidance on roles and responsibilities
 2. Health Education England (2021) Allied Health Professions' Support Worker Competency, Education and Career Development Framework
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P157 A student evaluation of learning through a holistic blended delivery format: The undergraduate diagnostic radiography degree at the University of Exeter

Blessing Mayiza; [Dise Ockri](#); Sue McAnulla

University of Exeter

Background: The University of Exeter's Diagnostic Radiography Programme introduced its holistic blended learning approach due to the COVID-19 pandemic. Limited research surrounding blended learning in radiography excludes niche modern-day learning techniques such as virtual reality simulations. This prompted exploration into students' perspectives on each of the different learning methods that the degree is comprised of.

Method: A survey was formulated and focussed on obtaining students' opinions on learning methods that contributed to exam preparation (pre-recorded lectures (PL), in-person lectures/seminars (IL), online-quizzes/self-assessment sheets (OQ), online reading) and placement preparation (Virtual Reality sessions (VR), positioning labs, Exeter YouTube videos). The survey was distributed to 3rd year radiography undergraduates. The data was analysed using descriptive and content analysis.

Results: With a response rate of 41%, the majority of students found PL(94%), IL(97%) and OQ(87%) helpful with 58% stating that none of the learning methods contributing to exam preparation should be removed. 62% found positioning labs very helpful for placement preparation with 43% opting for VR to be removed. Content analysis showed that the most prominent themes were time-management, applying theory to practice, interactivity, inclusivity, workload and that usefulness was module-dependent.

Conclusion: The holistic blended approach to learning radiography at Exeter generally appears well-received as each learning method was significant in contributing to their learning experience. Specific learning methods were found to be more useful for particular modules with varied preferences for different learning methods. Overall, students stated they would appreciate more opportunities to apply theory to practice.

Limitations: Limited sample size.

P159 Accuracy of diagnostic radiography students' measurement of Bohler's angle: An experimental study

Katie Ferrie; [Anthony Manning-Stanley](#); [Mudasser Panchbhaya](#); Victoria Kinsley

University of Liverpool

Background: Bohler's angle (BA) can be used to diagnose calcaneum fractures and is used in Radiographer Abnormality Detection Schemes (RADS) such as red-dotting and Preliminary Clinical Evaluations (PCEs), which allow radiographers to make immediate comments regarding pathologies on radiographs, prior to a report. Newly qualified radiographers being able to accurately measure radiographic angles is an essential skill within RADS. The aim of this study was to determine the accuracy of students' measurements of BA.

Method: Following University ethical approval, 3rd year BSc and 1st year MSc Diagnostic Radiography students were recruited and randomly assigned to intervention or non-intervention groups, split equally amongst 30 participants. The students completed a questionnaire on their knowledge of BA and were shown a video about using RadiAnt DICOM viewer software. The intervention group were shown an additional video on how to measure BA. All participants measured BA on 14 lateral ankle radiographs, 6 containing calcaneal fractures, 4 were 'normal', 4 images were repeated. Two qualified radiographer's measurements were considered the 'gold standard'.

Results: There was a statistically significant difference ($p < 0.001$) between the intervention group's average angle (23.3) compared to the non-intervention group (42.6). Similarly, there was a statistically significant difference ($p < 0.001$) of the mean difference to the gold-standard for the intervention group (3.1) compared to non-intervention (20.9).

Conclusion: The significant inaccuracies within the non-intervention group indicate that students require more training on measuring BA. The Diagnostic Radiography curriculum should include dedicated teaching sessions on measuring radiographic angles to prepare students for creating PCEs once qualified.



SERVICE DELIVERY AND INNOVATION POSTER PRESENTATIONS

P160 The HCPC standards of proficiency are changing -- what does this mean in practice?

Christine Heales; Lucy Banfield; Demelza Green; Jenny Shepherd

University of Exeter

Background: In order to be eligible to apply for registration with the Health and Care Professions Council (HCPC) upon graduation, programmes that are undertaken by radiography students and degree apprentices must be approved by the HCPC. To gain approval education providers need to demonstrate how they fulfil the HCPC's Standards of Education and Training [1]. This includes demonstrating that successful graduates applying for entry onto the HCPC register have met the Standards of Proficiency for their chosen profession.

Purpose: The Standards of Proficiency (SoPs) for diagnostic radiography will change for all new learners commencing programmes on or after the 1st September 2023 [2]. The change in emphasis within the SoPs will require a broader range of clinical skills to be developed [3]. The purpose of this poster is to outline the changes and discuss the opportunities presented for meeting current and future workforce needs. It will also seek to raise understanding of how and why education providers design the clinical elements of their programmes in the way they do i.e. to align with the SoPs.

Summary of content: The poster will summarise key differences between the current and incoming SoPs for diagnostic radiography, with an increased emphasis on cross-sectional imaging being of note. It will highlight how changes in key terminology can create flexibility in how the SoPs are interpreted by education providers and clinical departments leading to a more readily adaptable workforce. Challenges and potential tensions arising from the changes will also be outlined.

1. <https://www.hcpc-uk.org/resources/standards/standards-of-education-and-training/> (Accessed 7th December 2022)

2. <https://www.hcpc-uk.org/news-and-events/news/2022/sop-revisions-aug-2022/> (Accessed 7th December 2022)

3. <https://www.hcpc-uk.org/globalassets/standards/standards-of-proficiency/reviewing/radiographers---new-standards.pdf> (Accessed 7th December 2022)

P161 Quality standard for imaging in the independent healthcare sector

James Mico

Practice Plus Group

The Quality Standard for Imaging (QSI) is a framework to "help diagnostic imaging services ensure their patients consistently receive high quality services, delivered by competent staff working in safe environments" UKAS (2023). As an independent healthcare provider this e-poster highlights the differences in approach and the growing support