

# P118 Interprofessional working during the covid-19 pandemic - the reflections of an advanced practice radiographer

HARNESSING DISRUPTION

### Sarah Booth<sup>1</sup>; Sarah Naylor<sup>2</sup>; Will Verrier<sup>3</sup>

<sup>1</sup>University of Salford; <sup>2</sup>University of Derby; <sup>3</sup>East Suffolk and North Essex NHS Foundation Trust

**Background:** Interprofessional collaboration in healthcare is fundamental to the delivery of a safe, efficient, and patient -- centred health service. The impact of the Covid-19 pandemic on the health service workforce, has influenced the nature of interprofessional practice as we know it, with many staff being redeployed into clinical areas outside of their normal scope of practice. The experiences of staff who were redeployed into frontline clinical roles during the pandemic, are well-documented (Forrester et al 2020; Lim et al, 2020; Veerapen and McKeown, 2021). However, there are limited documented accounts of the experiences of Diagnostic Radiographers working outside of their normal scope of practice.

**Method:** An overarching phenomenological methodology was used in data collection and analysis. An interview was conducted via Microsoft Teams with the advanced practitioner by two researchers. The interview was transcribed verbatim and thematically analysed.

Results: The emerging themes included: interprofessional working, patient care, and moving forward.

**Conclusion:** Diagnostic Radiographers are no stranger to the Intensive Treatment Unit (ITU) environment, frequently undertaking imaging for critically ill patients (Tavere et al, 2020). This study critically reflects on the experience of one Advanced Practice Radiographer who volunteered to work as part of the multi-disciplinary team in the ITU at the height of the pandemic. The study found the experience of non-hierarchical interprofessional practice and delivery of patient care and how this experience has impacted their current practice as an Advanced Practice Radiographer. This experience can inform the education and continuing professional development (CPD) of all Diagnostic Radiographers.

1.Forrester, S., Fisher, G., Chieng, C., Rogers, S. (2020). Oral and maxillofacial dental care professionals in critical care during the COVID-19 pandemic. British Journal of Oral and Maxillofacial Surgery. 59 (1), 117-120. https://doi.org/10.1016/j.bjoms.2020.08.100 2.Lim, C., De Silva, I., Moussa, G., Islam, T., Osman, L., Malick, H., Deol, S., Youssef, M., Farrag, A., Ashraf, R., Burgula, S., Thompson, J. (2020). Redployment of opthamologists in the United Kingdon during the coronavirus disease pandemic. European Journal of Opthamology. 31(5), 2268-2274. https://doi.org/10.1177/1120672120953339

3. Tavare, A., Braddy, A., Brill, S., Jarvis, H., Sivaramakrishnan, A., Barnett, J., Creer, D., Hare, S. (2020). Managing high clinical suspicion COVID-19 inpatients with negative RT-PCR: a pragmatic and limited role for thoracic CT. Thorax, 75(7), pp.537-538. http://dx.doi.org/10.1136/thoraxjnl-2020-214916

4. Veerapen, J.D, Mckeown, E. (2021). Exploration of the views and experiences of research healthcare professionals during their redeployment to clinical roles during the COVID-19 pandemic. Journal of Advanced Nursing. 00,1-14. https://doi.org/10.1111/jan.14998.



# SERVICE DELIVERY AND INNVOATION POSTER PRESENTATIONS

#### P120 Implementation of a workflow management tool in a radiology setting: Implications for turn around times

### Amy Davis; Sam Dumonteil; Tim Baker; Louise Goodwright; Sue McKiernan; Jaymin Patel

#### Hexarad

**Introduction:** The UK is facing unprecedented levels of diagnostic demand. Supply/demand mismatch of radiology examinations to reporting capacity is getting worse. Workforce planning and matching supply/demand are becoming ever more complex owing to subspecialist reporting, flexible job-plans, working across sites and myriad other complexities. This mismatch leads to two undesirable outcomes: first, the examination report is delayed or second, the examination is sent to a reporter who may not be a specialist in that area. Workflow management tools in the radiology setting are still in their infancy. No existing tools in the market (to the knowledge of the authors) are able to provide a full compliment of functions to enable rota management, an allocations engine and supply/demand forecasting. We aim to compare turnaround time (TAT) before and after implementation of our workflow management tool.

**Method:** All examinations reported in the months of May, July, September and December before implementation (2019) and the same months in the year after implementation (2021) were retrospectively included. Statistical

comparison made with an unpaired student t-test. Initial data analysis was performed using Microsoft Excel and statistical analysis performed using GraphPad.

HARNESSING DISRUPTION

**Results:** Total number of examinations: 2637, 3230, 2975, 3545 for the respective months of May, July, September and December pre-implementation, and 9672, 7977, 8017, 10193 post-implementation. TAT hours (mean and SD) before and after implementation: Pre-May (69,102) Post-May (24,13). Pre-July (112,125) Post-July (23,13). Pre-Sept (132,172) Post-Sept (23,14). Pre-Dec (117,63) Post-Dec (23,17). p<0.0001 for each month comparison.

**Conclusion:** The implementation of a workflow management tool yields significant and reliable improvements in TAT.

## P121 Developing inclusive patient support resources for diagnostic imaging

## Helen Francis

#### Practice Plus Group Diagnostics, Buckinghamshire

**Background:** A patient with profound hearing impairment attended for MRI imaging but no sign language interpreter had been arranged. The patient was amenable to communicating via pen and paper so the examination went ahead. This experience prompted a search for suitable existing resources and in their absence, the creation of a set of cue cards to assist in checking patient safety and patient preparation prior to MRI. This model is currently being extrapolated to other modalities and other health conditions such as dementia.

**Purpose:** Improving patient experience by enabling staff to communicate more effectively with profoundly hearingimpaired patients and other groups who may benefit from more targeted patient information material. Improving image quality through better patient compliance. Facilitating smooth workflow by reducing delays caused when sign language translators are unavailable.

**Summary:** The poster will show how a resource was created to assist MRI staff in completing the patient safety questionnaire with patients with profound hearing loss (and other conditions such as dementia) to prepare such patients for their MRI scan. To illustrate how decisions were made regarding resource design, content and usage. eg The open question style of an MRI safety questionnaire was swapped for closed questions to facilitate use where pts are non-verbal, simple explanations were included of equipment, noise and vibrations. Font choice, colour scheme. Opportunity to write questions. This resource has been successfully used with patients who gave positive feedback. To outline plans to use this model to create similar resources for other modalities and patient groups.

1. Royal National Institute for the Deaf. (2021) Communicating with People Who are Deaf or Have Hearing Loss. RNID\_communication-tips2021.pdf

## P122 Experiences of diagnostic radiographers through the Covid 19 pandemic

#### Sarah Naylor<sup>1</sup>; Sarah Booth<sup>2</sup>; Ruth Strudwick<sup>3</sup>; Jane Harvey-Lloyd<sup>3</sup>

#### <sup>1</sup>University of Derby; <sup>2</sup>University of Salford; <sup>3</sup>University of Suffolk

**Introduction:** Diagnostic Radiography plays a major role in the diagnosis and management of patients with Covid-19. This has seen an increase in the demand for imaging services, putting pressure on the workforce. Diagnostic radiographers, as with many other healthcare professions, have been on the frontline, dealing with an unprecedented situation. This research aimed to explore the experience of diagnostic radiographers working clinically during the Covid-19 pandemic.

**Method:** Influenced by interpretative phenomenology, this study explored the experiences of diagnostic radiographers using virtual focus group interviews as a method of data collection.

**Results:** Data were analysed independently by four researchers and five themes emerged from the data. Adapting to new ways of working, feelings and emotions, support mechanisms, self-protection and resilience, and professional recognition.

**Conclusion:** The adaptability of radiographers came across strongly in this study. Anxieties attributed to the provision of personal protective equipment (PPE), fear of contracting the virus and spreading it to family members were evident. The resilience of radiographers working throughout this pandemic came across strongly throughout this study. A significant factor for coping has been peer support from colleagues within the workplace. The study



highlighted the lack of understanding of the role of the radiographer and how the profession is perceived by other health care professionals.

### P123 Audit of appropriateness of ovarian/adnexal cyst/mass referral for MRI characterisation

#### Sonam Vadera; Louise Lee; Yvette Griffin

#### University Hospitals of Leicester

**Background:** Many referrals are made for MRI characterisation of ovarian/adnexal cysts and masses. Ultrasound is a cost-effective, readily available, non-ionising technique, and is the preferred primary investigation 1,2. Our aim was to assess whether patients referred for MRI characterisation of ovarian/adnexal masses had prior ultrasound (ideally transvaginal); whether masses were classified according to IOTA/RMI score; whether MRI provided additional information; and whether MRI scans were correctly protocolled.

**Method:** Retrospective audit of 150 consecutive patients aged 13-91 (mean 45) referred for MRI characterisation of ovarian/adnexal lesions between 2018 and 2021.

**Results:** In the three months preceding MRI, 20% (n=30) had no relevant imaging; 41% (n=62) had previous ultrasound only; 17% (n=26) underwent ultrasound and CT; 19% (n=28) had CT only; and 3% (n=4) had MRI +/- ultrasound/CT. Average interval to MRI was 20 (range 0-83) days. Of 91 patients who underwent ultrasound, 76% had a transvaginal scan. Where ultrasound (transabdominal or transvaginal) identified an ovarian lesion (n=75), 23% had IOTA/RMI score reported. 83% MRI scans added value in lesion characterisation, including confirmation (n=52) or refutal (n=18) of previous imaging findings, and identification of previously undiagnosed torsion (n=5). 46% showed additional findings, including fibroids (n=16), ascites (n=5), cervical lesions (n=4) and hydronephrosis (n=2). Correct gynaecological MRI sequence was performed in all studies.

**Conclusion:** Ultrasound is frequently not performed prior to MRI in cases of suspected adnexal lesions, despite being the recommended first-line imaging modality. Where ultrasound is performed, IOTA/RMI score is infrequently reported. Whilst MRI adds value in lesion evaluation, ultrasound should remain the first-line imaging option.

1. RCOG Green-top guideline No.62. Management of Suspected Ovarian Masses in Premenopausal Women. Published date November 2011. Available from URL: https://www.rcog.org.uk/globalassets/documents/guidelines/gtg\_62.pdf

2. RCOG Green-top guideline No.34. The Management of Ovarian Cysts in Postmenopausal Women. Published date July 2016. Available from URL: https://www.rcog.org.uk/globalassets/documents/guidelines/green-top-guidelines/gtg\_34.pdf

#### P124 MR conditions and conditional devices - what does it all mean?

#### Hitesh Patel

University Hospitals of Birmingham NHS Foundation Trust

**Background:** Whilst MRI is considered a safe imaging modality due to the absence of ionising radiation, the electromagnetic fields (EMFs) generated can cause significant harm (1)). Medical devices are particularly vulnerable to these EMFs and may malfunction or cause the patient harm if mismanaged (2). Difficulties in screening medical devices were highlighted by a recent UK review of MR safety incidents (3). These could be attributed to MR operators misunderstanding the MR safety information, due to a lack of standardisation in the terminology used for MR conditions (2). A current international standard by the American Society for Testing Materials (ASTM) categorises medical equipment and devices as either: (1) MR safe, (2) MR conditional or (3) MR unsafe (4). As medical devices are more frequently gaining MR conditional status due to technological developments, MR operators' will need to develop their knowledge of MR safety information and conditions to improve clinical decision making (1, 5).

**Purpose:** To introduce MR conditions and how this relates to the safe scanning of MR conditional devices for MR operators.

**Summary:** MR conditions will be defined to demonstrate whether the operator can control them and the associated effects when mismanaged. Recommendations will include evaluating MR conditions against an MR system; obtaining accurate device information; dealing with contraindicated and 'MR unlabelled' devices; and technological developments.



1. Mittendorff, L., Young, A., & Sim, J. (2021). A narrative review of current and emerging MRI safety issues: What every MRI technologist (radiographer) needs to know. Journal of Medical Radiation Sciences, 1-11.

2. Kanal, E., Froelich, J., Barkovich, A. J., Borgstede, J., Bradley, W., Gimbel, J. R., Gosbee, J., Greenberg, T., Jackson, E., Larson, P., Lester, J., Sebek, E., Shellock, F. G., Weinreb, J., Wilkoff, B. L., & Hernandez, D. (2015). Standardized MR Terminology and Reporting of Implants and Devices as Recommended by the American College of Radiology Subcommittee on MR Safety. Radiology, 274(3), 866–870.

HARNESSING DISRUPTION

3. Hudson, D., & Jones, A. P. (2019). A 3-year review of MRI safety incidents within a UK independent sector provider of diagnostic services. British Journal of Radiology Open, 1(1).

4. MHRA. (2021). Safety Guidelines for Magnetic Resonance Imaging Equipment in Clinical Use.

5. Lowe, M. D., Plummer, C. J., Manisty, C. H., & Linker, N. J. (2015). Safe use of MRI in people with cardiac implantable electronic devices. Heart, (101), 1950–1953.

#### P125 An audit on the adequacy of information provided on ultrasound requests for deep vein thrombosis

#### Zhiyuan Lin<sup>1</sup>; Ruhaid Khurram<sup>1</sup>; Mohamed Khalifa<sup>2</sup>

<sup>1</sup>Barnet Hospital, Royal Free London NHS Foundation Trust; <sup>2</sup>Royal Free Hospital, Royal Free London NHS Foundation Trust

**Background:** Deep vein thrombosis (DVT) presents with symptoms in approximately 1-2 people per 1,000 with an increasing annual incidence due to an ageing population and higher prevalence of cancer and obesity (1,2). Diagnosis of DVT based on clinical signs/symptoms alone is unreliable due to their poor specificity (3). NICE guidelines (NG158) recommend a cost-effective algorithm, utilising a 2-level Wells score and D-dimer to assess pre-test probability of DVT to direct which patients should have a venous ultrasound (US) scan (4). Adequacy of information in the referral is key for prioritisation of resources.

**Methods:** SCoR and SVT-GBI guidelines recommend 100% of US requests for suspected DVT to have a specific clinical question, sufficient supporting information and a Wells score D-dimer status (5,6). We audited a 1-month period at our hospital to evaluate local compliance with national guidelines.

**Results:** In this 1-month period, 169 US scans were performed for suspected DVT of which 161 were non-obstetric. 65% of scans were negative for any pathology. Overall, 50% of referrals had suboptimal information provided at referral. Only 10% of referrals explicitly recorded the Wells score, all of which were high risk (2 or more). Whilst 75% of scans had a D-dimer level done prior to the scan, 47% of these did not record the result in the referral. **Conclusion:** Implementing standardised information on clinical requests for suspected DVTs will help with prioritisation of resources and patient management. We aim to address these improvements and re-audit in 6 months.

1. Heit JA, Spencer FA, White RH. The epidemiology of venous thromboembolism. J Thromb Thrombolysis 2016 411 [Internet]. 2016 Jan 16 [cited 2021 Nov 27];41(1):3-14. Available from: https://link.springer.com/article/10.1007/s11239-015-1311-6

2. Huang W, Goldberg RJ, Anderson FA, Kiefe CI, Spencer FA. Secular Trends in Occurrence of Acute Venous Thromboembolism: The Worcester VTE Study (1985-2009). Am J Med [Internet]. 2014 Sep 1 [cited 2021 Nov 27];127(9):829-839.e5. Available from: http://www.amjmed.com/article/S0002934314003647/fulltext

3. Goodacre S, Sampson F, Stevenson M, Wailoo A, Sutton A, Thomas S, et al. Measurement of the clinical and cost-effectiveness of non-invasive diagnostic testing strategies for deep vein thrombosis. Health Technol Assess (Rockv) [Internet]. 2006 May 22 [cited 2021 Nov 27];10(15). Available from: http://www.hta.ac.uk

4. Overview | Venous thromboembolic diseases: diagnosis, management and thrombophilia testing | Guidance | NICE [Internet]. [cited 2021 Nov 27]. Available from: https://www.nice.org.uk/guidance/ng158

5. SCoR and BMUS Guidelines for Professional Ultrasound Practice update | SoR [Internet]. [cited 2021 Nov 27]. Available from:

https://www.sor.org/learning-advice/professional-body-guidance-and-publications/documents-and-publications/policy-guidance-document-library/scor-and-bmus-guidelines-for-professional-ultraso

6. SVT Professional Issues | The Society for Vascular Technology [Internet]. [cited 2021 Nov 27]. Available from: https://www.svtgbi.org.uk/professional-issues/

#### P126 VACTERL association for the General Radiologist and Allied Healthcare Professionals

#### Rebecca Spruce; Riddhika Chakravartty

Great Ormond Street Hospital for Children NHS Foundation Trust

**Background:** VACTERL is an acronym for the constellation of non-random co-occurrences of congenital malformations. These include (V) vertebral anomalies, (A) anal atresia, (C) cardiac defects, (TE) trachea-oesophageal fistula, (R) radial/renal dysplasia, and (L) limb defects. At least 3 defects are required for diagnosis 1,2. Children have multiple problems at birth and a range of imaging modalities are used to diagnose and exclude the wide range of



malformations 2. The identification of all co-existing malformations (antenatally and complete neonatal evaluation) allows for appropriate surgical and medical management in specialist centres 3. Early radiological diagnosis and planning is essential to establish a good clinical outcome for the patient.

**Purpose:** \* As per the RCR curriculum all radiology trainees should be able to recognise a range of paediatric congenital conditions 4. VACTERL association has an incidence of one in 10,000 to one in 40, 000 live born infants 2. Although uncommon it is a condition healthcare professionals will come across during their clinical practice. \* This presentation aims to provide an overview of common and atypical imaging findings of VACTERL association for the general radiologist and allied health professionals.

**Summary:** This presentation will review the different congenital malformations of VACTERL association across a range of imaging modalities using a case-based series. For each case a brief clinical history, imaging findings and management will be discussed. Typical and atypical imaging appearances will be reviewed alongside more complex cases for paediatric sub-specialists.

1. Barnes JC, Smith WL. (1978). The VATER association. Diagnostic Radiology Pediatric Radiology. 123(2). doi.org/10.1148/126.2.445 2. Solomon BD. (2011) VACTERL/VATER Association. Orphanet J Rare Dis. 6:56. doi:10.1186/1750-1172-6-56 3. Baker LA, Bear KA, Cunningham BK, Giampietro PF, Hadigan C, Hadley DW, Harrison S, Levitt MA, Niforatos N, Paul SM, Raggio C, Soloman BD, Reutter H, Warren-Mora N. (2014). An approach to the identification of anomalies and etiologies in neonates with identified or suspected VACTERL (vertebral defects, anal atresia, tracheo-esophageal fistula with esophageal atresia, cardiac anomalies, renal anomalies, and limb anomalies) association. J Pediatr.164(3):451-7.e1. doi: 10.1016/j.jpeds.2013.10.086. 4. Royal College of Radiologists. (2021). Clinical Radiology: Speciality Training Curriculum. https://www.rcr.ac.uk/sites/default/files/clinical\_radiology\_curriculum\_2020.pdf 01/08/2021.

# P127 Efficacy and safety of gadopiclenol for central nervous system (CNS) magnetic resonance imaging (MRI): The PICTURE trial

# Jochen Fiebach<sup>1</sup>; Anna Pichiecchio<sup>2</sup>; Gábor Hutóczki<sup>3</sup>; Katarzyna Dziadziusz<sup>4</sup>

<sup>1</sup>Center for Stroke Research Berlin; <sup>2</sup>IRCCS Mondino Foundation Pavia; <sup>3</sup>Department of Neurosurgery, University of Debrecen; <sup>4</sup>Department of Radiology, Medical University of Gdansk

**Background:** Gadopiclenol (Guerbet) is a high relaxivity GBCA, currently under review by regulatory authorities. This study was designed to demonstrate the non-inferiority of gadopiclenol at 0.05 mmol/kg to gadobutrol at 0.1 mmol/kg for contrast-enhanced CNS MRI.

**Method:** This international, randomized, double-blind, controlled, cross-over study included 256 patients with CNS lesions who were randomized to undergo two MRIs with gadopiclenol then gadobutrol or vice versa (interval of 2 to 14 days). The primary criterion was lesion visualization, based on 3 parameters (border delineation, internal morphology and contrast enhancement), assessed by 3 independent off-site blinded readers. Overall diagnostic preference was assessed in a global matched-pairs fashion by 3 additional blinded readers. Adverse events (AEs) were collected up to one day post-second MRI.

**Results:** For all readers, and all visualization co-criteria, the difference in mean of scores showed the non-inferiority of gadopiclenol to gadobutrol (lower limit of 95% CI -0.06, above the non-inferiority margin [0.35], p<0.0001). Readers preferred images with gadopiclenol in 44.8% to 57.3% of evaluations, reported no preference for 21.6% to 40.7% of evaluations, and preferred images with gadobutrol in 14.5% to 24.1% of evaluations (p<0.001). AEs were reported similarly after MRI with gadopiclenol (14.6%) and gadobutrol (17.6%). AEs considered related to gadopiclenol (4.9%) and to gadobutrol (6.9%), were mainly injection site reactions, and none serious.

**Conclusion:** MRI with gadopiclenol at 0.05 mmol/kg is non-inferior to gadobutrol at 0.1 mmol/kg for CNS lesion visualization. Gadopiclenol showed a good safety profile.

# P128 A survey of ultrasound QA implementation in the UK

Nicholas Dudley; Darren Woolley; Maryla Stevenson; Daniel Wyatt

#### Multi-Medix Ltd

**Background:** In England QA is a requirement of The Health and Social Care Act 2008 (Regulated Activities) Regulations 2014, which states that "Equipment must be suitable for purpose and properly maintained" [1]. Regular inspection



and testing of equipment is therefore essential. There is limited evidence implying that ultrasound QA is not widely performed in the UK. The aim of this study was to gather more information on QA practices in the UK.

Method: A questionnaire was developed and sent to 170 NHS Chief Executives to establish the level of QA in place.

**Results:** The survey response rate was 35%, with 4 respondents (7%) indicating that no QA was performed in their organisation. A sample of 60 respondents provides a margin of error of approximately ±10% at a confidence level of 95%. It is unlikely that the missing data from non-respondents was random, so that non-response bias is present in our results. In the context of the limited responses, it seems likely that there is a lower implementation of QA amongst non-respondents. In the worst case, if no non-respondents had a QA programme, only 33% of NHS Trusts in the UK have a QA programme.

**Conclusions:** Whilst there is a legal requirement for ultrasound QA to be performed. This survey has shown that user QA is not widely implemented, partially due to time pressures and lack of knowledge. User QA can be straightforward and accessible for users and guidance is available to overcome a perceived lack of knowledge.

1. National Health Service, England, Social Care, England, Public Health, England. The Health and Social Care Act 2008 (Regulated Activities) Regulations 2014. UK Statutory Instruments 2014 No. 2936.

#### P129 Student experiences and opinions on blended learning across programmes and academic levels

#### Sue McAnulla; Sara Venner; Chaima Mennai; Karen Knapp

#### University of Exeter

**Background:** Facilitating effective learning for a range of learners in higher education is challenging. Mature students with caring or other commitments have frequently been impacted by timetables which result in challenges managing their time. Higher education needs to be inclusive and available to students who have followed a different path in life to traditional school leavers. The purpose of this study was to explore student experiences of blended learning across undergraduate diagnostic radiography and postgraduate education students; both of which have recognised high attrition rates.

**Method:** Ethical approval was granted internally. 11 mature students were recruited from diagnostic radiography and education programmes. Data were gathered in two phases: preliminary semi-structured interviews with screen recording of online engagement following a face-to-face lecture and focus groups to evaluate a blended learning activity covering the same learning outcomes which was developed to incorporate feedback from preliminary interviews. The data were analysed using thematic analysis in NVivo.

**Results:** The following themes emerged: flexibility, clear expectations, interactive learning, variety, good communication with staff, self-directed learning, use of e-learning platform, group / peer work and logistical challenges. Students found the blended version to be more manageable and enabled learning at their own pace.

**Conclusion:** Blended learning was well received by students in this study. Interactive activities were valued. As higher education moves into new ways of working post Covid-19, it is important to consider accessible learning for students from all backgrounds in future plans to provide the best chance of retention and success for all.

## P130 The development of a leadership placement for undergraduate radiography students

#### Ellie Monaghan; Emma Edwards; Rebecca Scott

#### University of Keele

**Background:** A national shortage of radiographers has increased pressures on radiography education providers to provide places for students and increased the difficulty for NHS trusts to provide these essential placements. There is also a change in work pressures for future graduates. Due to this there is a need for creatively designed placements that maximise placement capacity, introduce core transferable skills and begin to meet the national need for more graduate radiographers and strengthening the future workforce. This placement would build essential leadership skills and resilience in third year student radiographers, thus aiding in future-proofing the workforce to meet the changing demands and priorities of the current workforce following the Covid-19 pandemic.



**Purpose:** We aim to design a pilot placement that can successfully aid third year radiography students with skills that are both essential to their clinical development, enlisting personal strengths and desirable characteristics to make them future leaders in radiography. This educational leadership placement included training following the NHS leadership model, shadowing of academic staff, student mentorship and an individually designed leadership project. We then surveyed the students involved with a questionnaire, to further the development and improvement of the leadership placement experience.

HARNESSING DISRUPTION

**Summary:** This poster outlines the background to the development of an educational leadership placement, the experience of the students involved, and proposed future changes to this placement experience.

# P131 The development of hybrid placements for undergraduate 1<sup>st</sup> year Radiography students to support their health and well-being

#### Ellie Monaghan; Emma Edwards; Rebecca Scott

#### University of Keele

**Background:** Enriched education and clinical assessment are the foundation for evolving health professionals capable of delivering high quality care. Allied Health Professional (AHP) degree programmes blend academic knowledge and clinical assessment to ensure an informed vocational education; bridging theory into practice cannot occur without this amalgamation (SCoR, 2007) Blended teaching is essential due to the diversity of learners in the average cohort, an inclusive environment will offer all learners a chance to succeed and reinforces the need for the clinical placement training to be conducted in a supportive environment (Rowe et al 2012). This highlights the need for creatively designed placements that maximise health and wellbeing support, placement capacity and build a more collaborative learning environment.

**Purpose:** The aim of the project is to evaluate a hybrid placement using a questionnaire and assess the requirement for this innovation moving forwards, this purpose of this is to make a collaborative learning experience to support students' health and well-being as clinical placements can be a time of heightened anxieties (Astirbadi and Lockwood; 2021).

**Summary:** This poster focuses on the development of a hybrid placement, student experiences and proposed changes for successful collaboration between academics, Practice Educators and students with hybrid placements resulting in inclusive 3-D learning experience thus benefitting the learner's mental health and wellbeing.

Astirbadi, D. and Lockwood, P. (2021) COVID-19: A literature review of the impact on diagnostic radiography students, Radiography (London, England 1995). Rowe, M., Frantz, J. & Bozalek, V. (2012). The role of blended learning in the clinical education of healthcare students A systematic review. Medical teacher. 34 (4): e216-e221. The Society and College of Radiographers (SCoR) (2007). CLINICAL IMAGING AND ONCOLOGY Learning and Development Framework for Clinical Imaging and Oncology. London: The College of Radiographers. p5-10.

#### P132 Research as a practical skill for undergraduate radiography students

#### K Louise McKnight

#### Birmingham City University

**Background:** A recent staff research project led to changes in the way undergraduate students approach their final year research module. Students can now choose to undertake research projects, rather than just writing proposals. The original research found that both staff and students felt this would add to students' learning experience as they take a practical approach to research, reflecting the practical learning experienced on placement. Students who followed the module during the year 2020-21 were asked for their feedback.

**Method:** To comply with General Data Protection Regulation guidelines, students used anonymous on-line surveys to collect data. This staff led research replicated their method to further test the tool, and to enable demonstrations of how it works and its ease of use to future cohorts. A range of quantitative questions were asked, with some openended questions to gather quantitative data.

**Results:** Of 119 students on the module, 14 (12%) did a project and 105 (88%) chose to do a proposal. Of these a total of 28 (24%) responded to the questionnaire, of whom 9 (32%) did a project and 19 (68%) a proposal. Many students reported enjoying the chance to do some real independent research, appreciating the freedom to choose a topic and gather 'real' data for analysis.



**Conclusion:** More work needs to be done to normalise research for students, by encouraging them to do research projects. Other providers may benefit from this assessment of a new and exciting way of including students in the radiography research family.

# P133 Clinical placement provision in pre-registration radiography training - the role of ultrasound simulation

# Donna Holdcroft

#### Canon Medical Research Europe Ltd

**Introduction:** A radical reform of diagnostic services has been recognised in both the NHS Long Term Plan (2019) and the Richards report (2020). Subsequently, a recommendation was made to train an additional 4,000 radiographers above those training posts already facilitated. Radiography training requires minimum Clinical Placement hours (1300) to meet the criteria for Health Care Professions Council registration to facilitate employment the NHS. With a limited number of Clinical Placements available and demand for Radiographers increasing, educational establishments need innovative practical training to meet these requirements. Simulation can assist with this challenge. The advent of reasonably priced handheld transducers makes ultrasound a suitable area for simulation, freeing up placement time in the hospital environment and potentially increasing student capacity. This study examines student perceptions of ultrasound simulation.

**Methods:** This was a quantitative and qualitative study using Likert scales and open-ended questions to demonstrate the impressions of second and third year radiography students at Keele University, examining the role of ultrasound simulation to compliment or potentially replace ultrasound training in the hospital environment.

**Results:** Following simulation training, 100% of students considered simulation training met expectations, increased knowledge and would recommend to their peers. 80% of students responded with training complimenting placements with 50% of students considering University ultrasound training could replace this provision in hospital environments.

**Conclusion:** Ultrasound simulation training within the University has the potential to partially replace current Clinical training in the hospital environment. With increased demand for Clinical Placements this could be an option to increase capacity.

Schuelka, M. J. (2018). Implementing inclusive education. Retrieved 4.1.2022 from

https://opendocs.ids.ac.uk/opendocs/handle/20.500.12413/14230 Chicca. J, Shellenbarger. (2018) Connecting with Generation Z: Approaches in Nursing Education. Teaching and learning in Nursing Hayes, J. (2022) Virtual Medical Simulation Games and Their Benefits | LinkedIn Accessed 8.1.2022 Health & Care Professions Council Standards of Proficiency: Radiographers London: Health Care Professions Council (2016) King, D., Tee, T., Falconer, L., Angell, C., Holley, A. and Mills A. (2018) Virtual health education: Scaling practice to transform student learning Using virtual reality learning environments in healthcare education to bridge the theory/practice gap and improve patient safety Nurse Education Today 71 (2018) 7–9 NHS Long Term Plan » Online version of the NHS Long Term Plan (2019) accessed 8.2.2022 Rodrigo, A., Vicente, L., Castelo, B., Alessandra, D., Werner, S., ,Fabrício, S. and Collares, M. (2016) The influence of a learning object with virtual simulation for dentistry: A randomized controlled trial. International Journal of Medical Informatics 85, 68 - 74 Richards Professor Sir Mike (2020) Diagnostics: Recovery and Renewal – Report of the Independent Review of Diagnostic Services for NHS England

# P134 Graduate radiographers' experience of learning MRI practice: A pilot study using constructivist grounded theory methodology

#### Sophie Gallagher

#### University of Derby

**Background:** Traditionally radiographers, specialising in MRI practice, would have first worked in a general imaging department, however due to the shortage of MRI radiographers within the UK, opportunities have now arisen for graduate radiographers to enter MRI practice directly. There are no requirements to undertake formal MRI qualifications or competency frameworks for UK MRI practitioners. Consequently, training is often conducted in house by other MRI practitioners and is not regulated or audited. The aim of this pilot study was to explore the learning experience of graduate radiographers' commencing MRI practice.

**Method:** A constructivist grounded theory methodology was implemented. Data were collected through semistructured interviews. Participants (n3) had all entered MRI practice directly from graduation within the last 5 years and were currently working in the UK.



# POSTER PRESENTATIONS

**Results:** All of the participants had a positive experience of learning MRI practice. Their undergraduate placements in an MRI department were highly influential in their choice of attaining a graduate job in MRI. Upon entering a graduate job in MRI all of the participants were provided with a structure to their learning which consisted largely of practical 'on the job' training. Demonstration of their competence was required in the form of assessments. All participants felt that they were able to practice competently and safely as a result of their training. All participants did however identify the need for further learning.

HARNESSING DISRUPTION

**Conclusion:** The research to date indicates for a national standardised competency framework is required to ensure consistency of training.

Conference organisers **Profile Productions Ltd** Boston House, 69-75 Boston Manor Road, Brentford, TW8 9JJ Tel: +44(0) 20 3725 5840, fops@profileproductions <u>www.profileproductions.co.uk</u>

