

up? The incessant overload of AI image reading algorithms (over 70 now), when the biggest need is for AI to do its magic on workflow! Boris scanners moving waiting for a scan, to waiting for a report. And if Covid highlighted anything it was the complete inadequacy of BI in current form, absent from any live or predictive modeling. This presentation will continue the conference disruptive adoption theme by leveraging on a recent very large UK PACS procurement across Greater Manchester to discuss current trends and direction.



Proffered papers: Advanced practice & workforce development

G7.1 An evaluation of a training tool and study day in chest image interpretation

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Background: With the use of expert consensus a digital tool was developed by the research team which proved useful when teaching radiographers how to interpret chest images. The training tool included A) a search strategy training tool and B) an educational tool to communicate the search strategies using eye tracking technology. This training tool has the potential to improve interpretation skills for other healthcare professionals.

Methods: To investigate this, 31 healthcare professionals i.e. nurses and physiotherapists, were recruited and participants were randomised to receive access to the training tool (intervention group) or not to have access to the training tool (control group) for a period of 4-6 weeks. Participants were asked to interpret different sets of 20 chest images before and after the intervention period. A study day was then provided to all participants following which participants were again asked to interpret a different set of 20 chest images (n=1860). Each participant was asked to complete a questionnaire on their perceptions of the training provided.

Results: Data analysis is in progress. 50% of participants did not have experience in image interpretation prior to the study. The study day and training tool were useful in improving image interpretation skills. Participants perception of the usefulness of the tool to aid image interpretation skills varied among respondents.

Conclusion: This training tool has the potential to improve patient diagnosis and reduce healthcare costs.

1. McLaughlin, L., McConnell, J., McFadden, S., Bond, R. and Hughes, C., (2017). Methods employed for chest radiograph interpretation education for radiographers: A systematic review of the literature. *Radiography*, 23(4), pp.350-357. 2. McLaughlin, L., Woznitza, N., Cairns, A., McFadden, S.L., Bond, R., Hughes, C.M., Elsayed, A., Finlay, D. and McConnell, J., (2018). Digital training platform for interpreting radiographic images of the chest. *Radiography*, 24(2), pp.159-164. 3. McLaughlin, L., Hughes, C.M., Bond, R., McConnell, J., Cairns, A. and McFadden, S.L., (2021). The effect of a digital training tool to aid chest image interpretation: Hybridising eye tracking technology and a decision support tool. *Radiography*, 27(2), pp.505-511.

G7.2 Experience of a diagnostic radiographer establishing a vague symptoms cancer pathway

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Background: Vague symptoms pathways were developed in England by Cancer Research UK and Macmillan Cancer Support as part of the Accelerate, Coordinate and Evaluate Program. Funding was awarded to successful Hospital Trusts and Commissioners to develop their own vague symptoms pathway. The ambition of the program was to contribute to efforts to improve the numbers of early-stage cancer diagnosed and consequently improve survival. Our pathway was coordinated by the diagnostic radiology department working with primary care and general medicine within secondary care. The pathway is led by a diagnostic radiographer in a 'Navigator' role based in the diagnostic radiology department. GPs refer patients with vague symptoms potentially due to cancer but with no other 2 week wait referral symptoms. Patients have an assessment by the Navigator, a CT Chest Abdomen and Pelvis and routine screening bloods as initial investigations.

Learning outcomes:

- Rigorous referral and vetting procedures
- Creating a specific and explicit reporting proforma

- Development of the 'Navigator' role, creating the job description to fit the needs of the pathway
- Establishing relationships of follow up care within secondary care to reduce the 'bounce' of patients between hospital specialties
- Training needed for radiographers who wish to pursue this evolving area of advanced practice

This presentation will explore some challenges and successes of setting up a vague symptoms pathway based within diagnostic radiology. We will also examine the importance of the Navigator role, and how this has become an emerging area of advanced practice for diagnostic radiographers.

G7.3 Exploring local expectations of the reporting radiographer (advanced practice) role

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Background: Literature and personal experience have highlighted variability in plain film reporting radiographer roles, specifically whether these posts operate at an enhanced or advanced level of practice, and their implementation in practice (Milner and Snaith 2017; Snaith and Beardmore 2021; Woznitza et al. 2021).

Method: A multi-method approach was utilised to scope the plain film reporting radiographer role across a single Integrated Care System (ICS); with the aim being to establish how such roles sit within local workforce structures and ascertain if they fulfil an enhanced or advanced level of practice. Additionally, role expectation from the perspective of organisations, trainee and qualified reporting radiographers and their managers/mentors were evaluated.

Results: Across the appraised ICS setting, there was inconsistency in role titles, job descriptions and notable differences in reporting scope of practice. Additionally, there was variation in how plain film reporting radiographer roles operate, seemingly due to the opportunities and time available for staff to develop experience and capability across the four pillars of advanced practice.

Conclusion: Determining the status of the current plain film reporting radiographer workforce across a single ICS has provided opportunity to assess and reflect upon current role implementation and utilisation and has offered an insight into expectations of the reporting radiographer role. Results of the project may aid future workforce planning, by ensuring reporting radiographer roles are being utilised to their maximum potential, and to contribute towards creating standardisation and consistency in reporting radiographer roles.

1. Milner, R. C. and Snaith, B. (2017) Are reporting radiographers fulfilling the role of advanced practitioner? *Radiography*. 21(1), 48-54.

2. Snaith, B. and Beardmore, C. (2021) Enhanced practice: A strategy to resolve the inconsistencies in advanced practice implementation. *Radiography*. 27(supp 1), S3-S4.

3. Woznitza, N., Pittock, L., Elliott, J. and Snaith, B. (2021) Diagnostic radiographer advanced clinical practice in the United Kingdom - A national cross-sectional survey. *BJR Open*. 3(1).

G7.4 Into the matrix - the novel use of the Q-Pulse people module for IR(ME)R entitlement

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Background: Standard 17(4) of the Ionising Radiation (Medical Exposure) Regulations 2017 requires employers to "keep and have available for inspection an up-to-date record of all relevant training [1]." Despite successful local implementation of a paperless clinical workflow, staff training records have remained on paper [2]. This makes monitoring compliance with 17(4) challenging.

Method: An audit was undertaken to assess compliance with 17(4). This involved assessment of 691 paper records for 33 therapeutic radiographers. Excel was used to plot training records against entitlements to highlight gaps in evidence. Entitlements and corresponding records were then embedded into the Q-Pulse people module and the audit was repeated. The timeliness of results and percentage of staff missing relevant evidence were compared.

Results: The initial audit of paper records took approximately three months. 11/33 radiographers (33%) were missing evidence of training that was relevant to entitlements. Furthermore, during the audit there were continuous updates to staffing and scopes of practice, making it difficult to classify results as up to date. After embedding records into Q-Pulse, the follow-up audit completed using the matrix function took 60 seconds. Gaps in evidence could be appreciated in real-time and responded to immediately. Consequently, 0/35 current radiographers (0%) are missing evidence of training relevant to entitlements.

Conclusion: Embedding training records in the Q-Pulse people module has greatly improved the ease of evidencing and therefore ensuring compliance with IR(ME)R 17(4) during the continuous process of training. Data can now be easily digested and harnessed for service, role and professional development.

1. Ionising Radiation (Medical Exposure) Regulations, c.17. Available at: <https://www.legislation.gov.uk/uksi/2017/1322/contents/made> (accessed 10 December 2021). 2. Muir, K and Parr, D. 2019. *Maximised efficiency, minimised waste*. [poster]. Annual Radiotherapy Conference, 25-27 January, Hilton Newcastle Gateshead.

G7.5 Sonographer led discharge in a deep vein thrombosis clinic - a feasibility study

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Background: Radiographer led discharge is not a new concept, but there is a lack of evidence exploring the role of sonographers in improving patient flow through hospitals. NHS Improvement and NHS England (2018) promote utilising Allied Health Professionals (AHPs) in care pathways to increase efficiency. We establish if sonographer-led discharge could be employed in a deep vein thrombosis clinic to improve efficiency without detrimental effect on patient satisfaction and safety.

Method: A prospective mixed methods service evaluation was completed. Length of appointment times between the control group who see an Advanced Clinical Practitioner and a sonographer, and the intervention group who see a sonographer only were compared. Patient views were collected in a survey. Discharge summaries were assessed blindly for quality by acute medical consultants.

Results: Patients in the sonographer group had a statistically significant shorter appointment time than those in the control group. Patients did not have a preference about which professional group cared for them, provided the staff were competent to do so. There was no impact on patient satisfaction or safety when seen by a sonographer alone.

Conclusion: This study has confirmed that sonographer-led discharge is feasible, efficient and has no detrimental effect on patient safety or satisfaction. It also has the possibility to enhance professional practice of sonographers. Work such as this is in line with national initiatives to improve patient flow through hospitals by incorporating the skill mix of AHPs into new patient pathways. Role extension such as sonographer-led discharge could provide supporting evidence for advanced practice portfolios for sonographers.

NHS Improvement and NHS England (2018) Allied health professions supporting patient flow: a quick guide. Available at: https://nhsicorporatesite.blob.core.windows.net/green/uploads/documents/AHPs_supporting_patient_flow_FINAL_.pdf (Accessed 22 September 2021).

G7.6 The experiences of an advanced practitioner | consultant therapeutic radiographer in providing personalised patient care

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There is research to evidence the challenges of advanced practitioners in cancer care. The skill set of advanced practitioners varies between centres in the UK and is very much driven by the service needs of each particular department. A framework was developed in 2017 by Health Education England, that all advanced practitioners work by so that their is consistency in these roles. These include the four pillars - clinical practice, leadership/management, education and research. The author will use various case studies to highlight the impact that this role has on personalised care throughout the patients radiotherapy pathway. Focusing on the changes to practice in the last year due to COVID. To encourage other health professionals into these roles and the positivity it has on not only job satisfaction of the individual but also the service user. As a non-medical prescriber the ability to compliment the oncologists and others in the MDT in manging patients effectively and developing their current role as a consultant therapeutic radiographer.

1. Caulfield, L., 2021, A literature review exploring the perceived impact, challenges and barriers of advanced and consultant practice in therapeutic radiography. *Radiography*, viewed October 2021; . 2. Henwood, S., et al, 2015, Reflections on the role of consultant radiographers in the UK: The perceived impact on practice and factors that support and hinder the role, *Radiography*, Volume 22(1), 44 - 49. 3. NHS Employers 2021, *Advanced and Enhanced clinical practice*, viewed 10 December 2021; . 4. The Society of Radiographers; .

G7.7 Assessing the implementation of interventions to recruit and retain the Therapeutic Radiography workforce

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Society and College of Radiographers

Background: The impact of Health Education England's Reducing Pre-registration Attrition and Improving Retention (RePAIR) initiative was measured within Radiotherapy by a HEE funded, SoR led project. Mapping and identifying areas of good practice, opportunities and challenges of the RePAIR recommendations including the impact of Covid-19.

Method: Multi-method survey of Radiotherapy approved Higher Education Institutions (HEIs) (n=10), Radiotherapy Healthcare providers (HCPs) (n=51) and Therapeutic Radiography students (n=20) on a placement expansion programme. Followed by semi-structured interviews and Dual Moderator focus groups with key stakeholders.

Key findings: 100% HEI and 88% HCP survey response rate. 80% of HEIs and 98% of HCPs were in favour of standardising clinical assessment documentation. On average, stakeholders felt simulation could replace up to 20% of clinical practice. Physical and mental health and wrong career choice were the most common reasons for attrition. Recruitment initiatives were evident in all HEI's and in 82% of HCP's, however, only 27% of HCP's were involved in retention initiatives. Formal use of 'culture of care' tools was not standard practice. 80% of HCP's had a preceptorship programme with 20% collaborating with local HEI. Awareness of RePAIR was low (20%).

Conclusion: Priority areas were identified and developed into 6 workstreams forming an online toolkit -- AHP Support.

Programme for Implementing Recruitment, Retention and Engagement (ASPIRRE) Further projects were identified: 1.National project exploring requirements of implementing standardised clinical assessment. 2.Professional body guidance document on simulation within pre-registration Therapeutic Radiography education and training programmes

1. Health Education England. (2018). Reducing Pre-registration Attrition and Improving Retention. Available at <https://www.hee.nhs.uk/our-work/reducing-pre-registration-attrition-improving-retention>.

G7.8 The opportunities and challenges of radiographer reporting within plain radiography in a specialist paediatric tertiary hospital - legal, ethical and clinical dilemmas

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Background: Whilst the reporting of plain radiographs by radiographers is now commonplace in the UK, with up to 80% of musculoskeletal (MSK) and visceral (chest and abdomen) images being reported by radiographers in some trusts (Culpan et al., 2019), studies have shown inconsistencies in working practices (Milner et al 2016).

It has been demonstrated that radiographer reporting within paediatrics is often restricted and a reporter's scope of practice is often narrowed by the age of the patient (Stevens, 2019). There is very little research published that evaluates the types and causes of error in paediatric radiology (Taylor et al., 2010) nor the scope for advanced practice and radiographer role extension within this specialty of radiology.

Purpose: The opportunities and challenges related to reporting within plain radiography in a specialist paediatric tertiary hospital will be explored with specific reference to legal, ethical and clinical dilemmas.

Summary: The content of the poster will critically evaluate each issue individually, drawing on examples from the literature and clinical practice. The evidence presented will provide a strong justification in favour of this advanced practice role, on the proviso that there is the correct training and support system in place.

1. Culpan, G., Culpan, A.-M., Docherty, P., Denton, E., (2019) Radiographer reporting: A literature review to support cancer workforce planning in England. *Radiography* 25 p155-163. Available from: https://www.researchgate.net/publication/331738012_Radiographer_reporting_A_literature_review_to_support_cancer_workforce_planning_in_England.
2. Milner RC, Culpan G, Snaith B. (2016) Radiographer reporting in the UK: is the current scope of practice limiting plain-film reporting capacity? *British Journal of Radiology* [online] 89: 20160228. Available from: <https://pubmed.ncbi.nlm.nih.gov/27376784/>
3. Stevens, B.J. (2019). A survey assessment of reporting radiographers' scope of practice in the West Midlands region of the United Kingdom. *Radiography*, [online] 25(3). Available at: <https://www.sciencedirect.com/science/article/pii/S1078817418302244>.
4. Taylor, G.A., Voss, S.D., Melvin, P.R. and Graham, D.A. (2010). Diagnostic errors in pediatric radiology. *Pediatric Radiology*, [online] 41(3), pp.327-334. Available at: <https://pubmed.ncbi.nlm.nih.gov/20827471/>