



SP05.4 Barium swallow - Are we using it safely in ENT patients?

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Background: Many patients with high dysphagia are referred to the Ear Nose and Throat (ENT) team on a suspected cancer pathway. If no cause is found at direct/nasoendoscopic inspection, some are then referred for barium swallow, to seek other causes. Dysphagia can be difficult to localise clinically and oesophageal cancer can present with high dysphagia. As endoscopy (rather than barium swallow) is accepted as the optimal investigation for diagnosing oesophageal cancer (1), the purpose of this study was to assess if using barium swallow in this way is leading to missed/delayed diagnoses of oesophageal cancers in these patients.

Method: 5 year retrospective data collection between 2014 and 2018. Radiology Information System and the Cancer Registry were cross-referenced to identify all patients diagnosed with oesophageal or oesophagogastric junctional cancer within 1 year after a barium swallow referred by ENT.

Results: Within the 5 year period, 10 oesophageal cancers were diagnosed in ENT patients within 1 year of having a barium swallow. Of these, 9 were reported on the barium swallow and 1 was missed. This gives a "miss rate" of 10%, which is slightly higher than published "miss rates" for endoscopy (2). Incidence of oesophageal cancers in this patient group was however low, with 2 cases diagnosed per year out of a total of approximately 380 examinations per year (0.5%), making meaningful statistical comparison difficult.

Conclusion: Our current use of barium swallow is safe and does not appear to lead to a significant number of missed oesophageal cancers in ENT patients.

1. NICE guideline 12. Suspected cancer: recognition and referral. Published date: June 2015. Last updated: July 2017. Available from URL: <https://www.nice.org.uk/guidance/ng12/chapter/1-Recommendations-organised-by-site-of-cancer#upper-gastrointestinal-tract-cancers> 2. Menon S, Trudgill N. (2014) How commonly is upper gastrointestinal cancer missed at endoscopy? A meta-analysis *Endosc Int Open. Jun; 2(2): E46-E50.*



Proffered papers: Education

SP06.1 E-learning for sonographers: Saving Babies Lives

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Background: Saving Babies Lives care bundle version two (SBLv2) has been introduced into maternity units in England, with the aim of reducing perinatal mortality. As part of the package there is a requirement to undertake additional components within third trimester growth scans. Sonographers need to understand the SBLv2 documentation and how to undertake and interpret both uterine artery Doppler and cervical length assessment.

Purpose: We aim to introduce new Health Education England/College of Radiographers e-learning modules on SBLv2 written by and for sonographers. This content is free for NHS, Higher Education and those working with NHS patients. Learning outcomes: * Introduce the new SBLv2 e-learning modules * Explore the basic content of the 4 sessions * Reflect on how the learning materials can be used in clinical practice

Summary of content: An overview of the four sessions will be provided. These include: 1. An Introduction section, which comprises of terminology, a review of growth assessment by ultrasound, safety, consent and communication. 2. Uterine artery Doppler. Within this session there is information about undertaking and interpreting the examination and optimising equipment settings. 3. Middle cerebral artery Doppler. This will have a similar format to the uterine artery Doppler session. 4. Cervical Length Assessment. The session covers technique, equipment settings, normal and abnormal measurements of the cervix.

SP06.2 Embarking on a virtual radiology events and learning meeting: tips to optimise education

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Background: Radiological errors are not uncommon, reported to occur in 3-5% of cases on average (*Lee C.S. et al., 2013*). The historical 'Discrepancy Meeting', with its somewhat negative connotations, has been renamed the 'Radiology Events and Learning Meeting' (REALM) in recent years by the Royal College of Radiologists (RCR) to shift the emphasis away from a culture of blame and instead encourage learning as a team and also recognise excellence. In the recent worldwide pandemic, meetings have almost universally shifted to the virtual sphere, and REALM is no exception.

Purpose of poster: To provide an overview of the updated standards for radiology events and learning meetings, highlighting changes from previous standards. To describe potential pitfalls when running a virtual REALM and ways to



obviate these. To outline a suggested approach for the delivery of a virtual REALM. To highlight common clinical themes which have arisen in our own REALM, illustrated using anonymised case examples.

Summary of content: The nine key standards identified by the RCR (*The Royal College of Radiologists*, 2020) will be reviewed, with ways to achieve these underscored. With almost a year of experience of running a virtual radiology events and learning meetings, we will discuss our own considerations when planning these including anticipation of technical issues, ensuring anonymity, maintaining interest and encouraging participation. Types of error will also be presented with case examples.

1. Lee C.S., Nagy P.G., Weaver S.J. and Newman-Toker D.E. (2013) Cognitive and System Factors Contributing to Diagnostic Errors in Radiology. *American Journal of Roentgenology*. 201; 611-617. 2. The Royal College of Radiologists. (2020) Standards for radiology events and learning meetings. [online] Available at: https://www.rcr.ac.uk/system/files/publication/field_publication_files/bfcr201-standards-for-radiology-events-and-learning-meetings.pdf [Accessed 14 December 2020].

SP06.3 Humanising healthcare: positive collaboration between universities and healthcare charities

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Background: Healthcare education can effectively address the needs of the NHS by ensuring that programme delivery is informed by the contemporary experiences of patients. It is well documented that involving patients in the design, delivery and evaluation of curricula can ensure the curriculum is relevant and accountable to patients as well as affording students opportunities to benefit from their unique experience and expertise. However, often challenges arise due to difficulties in identifying patients to engage with. Collaborations between universities and healthcare charities offer one solution and serve to enhance the patient voice in education and contribute to humanising healthcare.

Purpose of poster: To share best practice experiences of a collaboration between Breast Cancer Now charity and City, University of London to embed service user participation throughout the curriculum. To highlight the stakeholder benefits of effective collaborations between charities and universities to enhance student education and patient care.

Summary of content: The poster will convey the following messages for key stakeholder groups via case study examples generated from those currently involved with the delivery of the undergraduate curriculum at City, University of London. How to effectively; 1. Improve patient experience of treatment and care by using patient involvement to better prepare students for clinical practice 2. Enhance education by using patients with lived experience to help prepare students for what to expect in clinical practice 3. Recruit the right students to deliver the excellent care of the future by involving patients in the selection process 4. Prepare patients to lead seminars and develop curricula.

SP06.4 The impact of tradition and national requirements on radiotherapy education

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Background: Radiotherapy education varies considerably across the EU, leading to differences in the competency level Therapeutic Radiographers (TRs). Many factors influence the characteristics of education programmes. However, this study aimed to understand the influence of traditions and national requirements in the design of RT education programmes.

Methods: A thematic analysis of interviews with stakeholders in radiotherapy education (clinical managers, educators, professional association representatives, local and migrant professionals and students) was performed using Nvivo (v.12). Stakeholders were included from Finland, Poland, Portugal and United Kingdom (based on different education characteristics).

Results: The participants (n=30) indicated that the design of the pre-registration degree depends on i) the roles carried out by TRs when they graduate, ii) the potential to take advanced clinical roles in that country and iii) the existence of postgraduate training in the country/region. Political and financial factors also play a significant role. Professional identity varies between countries because of differences in how the radiography specialisms are studied and practised. Education tends to align with this professional identity. European stakeholders perceive the profession as "small" and lacking visibility, resulting in a lack of self-empowerment to improve education. The perception of radiography as a "technical occupation" by other professionals and inter-professional role disputes can hinder the inclusion of topics in the educational programme.

Conclusion: Local workforce requirements is still the primary factor driving programme design. Therefore, the national requirements take priority over a (possible) European-wide standardisation. Tradition influences education, but changes in education can lead to a shift in traditional beliefs.



SP06.5 Competency and Professional Advancement in Computed Tomography (ComPACT): A modified e-Delphi survey to identify CT competencies at different diagnostic radiographer expertise levels

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Background: Competency frameworks for diagnostic radiographers are central to assessing performance and defining role accountability. However, there is little research of the knowledge and skills required of individuals entering CT practice (NHS career level 4 or 5), or the developmental opportunities there are in advanced clinical practice and leadership (level 6, 7, 8 or beyond). This paper presents a modified e-Delphi study to gain agreement on CT practice competencies (embracing higher-level capabilities).

Method: The Delphi survey was administered through completion of two structured online questionnaires. Expert panel members were recruited via established CT professional groups, and through social media. For each competency item, experts were asked to indicate whether it was "essential", "desirable" or "not necessary" for practice levels 4-8, with agreement equated with $\geq 70\%$.

Results: Survey rounds yielded response rates greater than that required to establish percentage agreement (n=30) using Lawshe's CVR_{critical} values (Ayre and Scally, 2014). Experts provided opinion on 214 diverse CT competency items and added a single competence around communication. Analysis of agreement is on-going. Early results indicate few contradictions amongst the identified competencies and expertise levels. Respondents found it problematic providing opinion at practice level 4.

Conclusions: Although this study is limited by individuals practice reflections, it has accomplished agreed contemporary CT competencies and capabilities that align to the four-tier model underpinning skills mix within this area of practice. The outcome is a robust framework that can be operationalised to define diagnostic CT roles, identify gaps in own practice, and support career progression.

1. Ayre, C. and Scally, A.J. (2014) Critical values for Lawshe's Content Validity Ratio: Revisiting the original methods of calculation. *Measurement and Evaluation in Counseling and Development*. 47 (1), 79-86.

SP06.6 Challenging the clinical education of diagnostic radiographers to make way for student placement expansions: a reflective exercise

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Background: Staff shortfalls in diagnostic radiography is everyone's responsibility. With 1 in 9 jobs vacant in England, it is paramount novel methods for increasing student numbers in a safe and efficient way are sought. Although every effort with the higher education institutes, the Council of Deans and Health Education England are made, the obvious bottleneck comes from clinical provision to allow a student to fulfil their clinical competencies for course completion. It is the responsibility of practice-based educators to work with said institutes to develop a fresh way of delivering education.

Purpose of poster: At a large teaching hospital, mechanisms have been found to nearly double student numbers from 10 to 19 students in the last few years while still producing a comprehensive student environment that is both effective and well received by the students. This poster sets out to reflect on the process, outlining positives and negatives of the process and showcase the method in which this was achieved.

Summary of content: Through student testimonials, reflective processes and extensive feedback, this poster has the intention of setting a platform for other hospitals who accept student learning to review their process.

1. The society and college of radiographers (2009) Approval and accreditation board handbook. Available: https://www.sor.org/system/files/section/201110/2009.05.01_AAB_Handbook_SJ_V_1.0.pdf. Last accessed:16 December 2020.



Proffered papers: Service

SP07.1 The collaborative development of a diagnostic radiography programme between a hospital trust and a local university to improve student experience, maximise placement capacity and develop radiographers fit for the future

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Background: The training of diagnostic radiographers has always been a collaborative approach between academic institutions and placement providers. Traditionally the university has provided the academic theory and the placement has provided the practical experience. This has led to students experiencing a theory/practice gap and