

P-093 Advanced practitioners in CT colonography, does having a different skill set within advanced practitioners improve diagnostic findings?

[Denise Twist](#); [Gillian Holroyd](#)

St Helens & Knowsley Teaching Hospitals NHS Trust

Purpose: We describe a process in CT Colonography whereby an experienced cross sectional radiographer and an experienced GI radiographer complement the diagnostic valuation of CT Colonography

Method: We will be retrospectively auditing the findings of CT colonography examinations performed by a GI advanced practitioner with an advanced CT radiographer and comparing with findings from examinations performed by the same GI advanced practitioner and a general CT radiographer

Results: We will be using the results obtained from this audit to discuss the advantages for the total patient journey

Conclusion: We will demonstrate the advantages of advanced radiographic skill mix in CT Colonography

Clinical: Multisystem disorders**P-094 Pictorial review of unusual foreign bodies identified on various imaging modalities and their differentiation from an in situ medical device**

[Tahira Aslam](#); [Sumita Chawla](#); [Ashok Katti](#)

University Hospital Aintree, Liverpool

Purpose: We present a retrospective cohort of interesting and unusual cases of foreign bodies detected on various imaging modalities. To enhance awareness to radiology trainees and consultants alike by reinforcing their knowledge on the imaging appearances of a range of common and rare foreign bodies encountered in clinical practice.

Methods: Foreign bodies can be ingested, inserted into the body cavities and even soft tissues by trauma, iatrogenic injury or by self-harm. Foreign bodies have different imaging appearance depending upon the imaging method obtained and composition of the material itself. It is vital for the radiologist to familiarize themselves with different medical devices so that their differentiation from an unwanted foreign body should not become challenging.

Results: We present in pictorial fashion a comprehensive spectrum of cases of unusual foreign bodies highlighting their key characteristic and differentiating features from medical devices, which can be a source of confusion for radiologist.

Conclusion: This educational poster hopes to have availed the observer enabling radiological identification of foreign bodies and its differentiation of the common medical devices that we come across in everyday practice.

P-095 Lymphoma: The great mimic

[Cindy Leung](#); [Victoria Trainer](#); [Angharad Eynon](#)

Cardiff and Vale University Health Board

Purpose/Aim: Lymphoma is a common diagnosis that is clinically and radiologically straight-forward if the textbook symptoms, signs and supportive imaging are present. However, in our institution we have experienced several cases where patients with lymphoma have presented with classical symptoms and signs for alternative diagnoses and lymphoma has been much lower down our list of differentials. Through a series of interesting clinical cases and selected radiological images we demonstrate how lymphoma is the great mimic and can present in a multitude of different ways.

Content Organization: Pictorial radiological images include cases of lymphoma mimicking Pancoast tumours, pancreatitis, caecal inflammatory masses, peritoneal carcinomatosis and multiple intussusceptions.

Summary: Although lymphoma appears somewhere on most lists of differential diagnoses, here we prove why it earns its place there and why the diagnosis should always remain at the forefront of the wary radiologist's mind.

P-096 The incidence of contrast-induced nephropathy (CIN) following contrast-enhanced computed tomography (CECT): a contemporary review

[Victoria Bonello](#); [Edward Fitzgerald](#); [Frank Gollub](#)

Epsom and St. Helier's University Hospital NHS Trust

Aim: To provide an overview of the data available on the incidence of CIN following CECT.

Content: A systemic review was performed in line with the PRISMA statement. EMBASE and MEDLINE databases were utilised and the search terms used were 'contrast-induced nephropathy' and 'computed tomography'. Search limits were applied to include all articles published in English, with an available abstract, over the last ten years.

Relevance: There is a paucity of data related to the risk of development of CIN following intravenous contrast administration. In this context, the lack of clear guidance available creates difficulty in decision-taking and results in a wide heterogeneity of practice.

Outcome: 14 studies including a total of 4953 patients were identified. 3 of these studies were randomised-control trials. In 9 of the studies, CIN was diagnosed following an increase in serum Creatinine by 0.5mg/dL (>25% from baseline) within 48-72 hours of contrast administration. The incidence of CIN varied between 0-25%, however a heterogeneous population was sampled with specific patient characteristics: pre-existing renal insufficiency (8 studies); cirrhosis (2 studies); Emergency Department admissions (3 studies, 1 involving trauma patients); ICU patients (1 study).

Discussion: The incidence of CIN varies greatly across the patient spectrum. Although some guidance is available, it does not always provide clear direction in the risk-stratification of patients who are at most risk for developing CIN. More concrete guidance is necessary to aid radiologists in their decision making process.

P-097 Intra-osseous lines: All you need to know as a radiologist

[Behnam Shaygi](#); [Anand Sastry](#); [M P Williams](#)

Derriford Hospital

Aims/ Objectives: The use of the intra-osseous lines as an alternative vascular access has been recommended by a number of important medical associations involved in the Emergency Departments (ED) such as ATLS (Advanced Trauma Life Support) faculty.

Their use has also substantially increased with the timely approach to acute management of the critically ill patients in scenarios such as traumatic or septic shocks. Subsequently, the radiologists encounter these lines more frequently mostly whilst reporting ED images.

The objective of this presentation is to familiarise radiologist trainees with the appearances, common sites and appropriate placement criteria of the intra-osseous lines.

Content: We are presenting a pictorial review of different intra-osseous lines with description of the common sites, indications and appropriate placement criteria in different imaging modalities.

Relevance/ Impact: With improvement of the acute management of the patients at the EDs the radiologists come across the intra-osseous lines more frequently.

Awareness of the appearance of these lines and ability to comment on the appropriate placement of them will improve interpretation and reporting quality of the related images.

Outcomes: To familiarise radiologist trainees with the appearances, indications, common sites and appropriate placement criteria of the intra-osseous lines

Discussion: Intra-osseous infusion provides a non-collapsible entry point to the systemic venous system. This viable primary method of vascular access is increasingly used in emergency departments (ED) and radiologists must be aware and familiar with this alternative route for fluid and medication administration.

P-098 Top ten tips for duty radiologist

[Zeid Al-Ani](#); [Alison Bradley](#); [Velauthan Rudralingam](#)

University Hospital of South Manchester NHS Foundation Trust

Aim: To provide concise, up to date and evidence-based answer to the top ten questions encountered by duty radiologist.

Content: We asked the radiology consultants and speciality registrars on the duty radiologist rota in a large teaching hospital about their experience, difficulties and common enquires. The recent clinical evidence and guidelines were searched to find an appropriate answer to these questions. We will present these as real-life questions covering a variety of issues including:

- Intravenous (IV) contrast administration to patients with renal failure in computerized tomography and magnetic resonance imaging.
- Management of IV contrast adverse reactions.
- IV contrast administration to patients with hyperthyroidism.
- Imaging of suspected pulmonary embolism in pregnant and young females.
- Percutaneous nephrostomy requests in patients with urinary tract obstruction.
- Common issues in imaging patients post abdominal surgery and Intensive therapy unit patients
- The role of interventional radiologist in the acute management of poly-trauma patients.

Relevance/impact: This will provide important, accessible and reliable advice to the duty radiologist ensuring appropriate and time efficient patient management.

Discussion: Duty radiologist is a hectic and demanding role. In addition to interpreting various imaging modalities, it involves a wide range of enquires from hospital clinicians, general practitioners and radiographers. Sometimes this role is played by a relatively less experienced speciality registrar. We believe that these tips will tremendously help the duty radiologist to provide appropriate advice and maximise the integrated role radiology plays in patients' care.

P-099 Radiology in the undergraduate medical curriculum: Who, how, what, when, and where?

[Pervinder Bhogal](#); [Thomas Booth](#); [George Collins](#); [Andrea Phillips](#); [Stephen Golding](#)

St. Georges Hospital; University of Cambridge; University College London Medical School; Royal United Hospital; University of Oxford

Radiology is rapidly evolving and plays a vital role in modern medicine. This is paralleled by increasing numbers of investigations, clinical radiology training and consultancy posts and cross-discipline utilisation of diagnostic and interventional radiology. A good grasp of radiology is therefore a pre-requisite for most clinicians, however this is not reflected in the undergraduate curricula of most medical schools, where radiological training is inadequate and clear sets of objectives for undergraduate radiology training are lacking. We aim to demonstrate why radiology should be taught to undergraduates and propose a template to redress the curricula imbalance. Potential areas for undergraduate radiology training include anatomy, physiology, and pathology teaching, radiological interpretation techniques, radiation protection and legislation and radiology guidelines. However, difficulties arise because most medical school curricula are full and the scope of potential teachers is wide. Consultant and trainee radiologists, ultrasonographers, anatomists, medical physicists, radiographers and nuclear medics all play a role. Therefore radiology is best taught in a vertically integrated manner by a multi-disciplinary educational team lead by consultants and specialist registrars to bridge basic and clinical science. Teaching formats include one-on-one "hot seat" learning, small groups, lectures, computer-assisted and e-learning, clerkships, special study modules and elective placements. Only once this deficit in education is rectified can our speciality be utilised to its full potential to assist both undergraduates' understanding of pre-clinical and clinical medicine and doctors in their clinical practice.

P-100 Radiology teaching experience and knowledge: a survey of UK medical students

[Bhupinder Hoonjan](#); [Darren Boone](#)

Colchester Hospital University Foundation Trust

Aim: Demand for plain radiological investigations is increasing and prompt reporting by radiologists remains a challenge. Consequently, initial interpretation of plain radiographs by junior doctors guides patient management. However little is known about junior doctors' level of radiology training and experience. The aim was to survey final year medical students' attitudes to prior radiology teaching and interpretation. We also tested their knowledge of interventional radiology.

Methods: An online survey was designed following discussion with junior doctors and radiologists, and sent to students from different medical schools via email. Anonymous results were collated, raw frequencies analysed and descriptive statistics presented.

Results: 106 responses were received with a response rate of 60%. Sixty-nine (65.1%) participants felt their radiology learning needs had not been well addressed at medical school. Furthermore, only 5 (4.7%) of responders had received regular formal radiology teaching whilst on hospital attachments and twenty-two (21%) participants had reviewed less than 10 radiographs during medical school training. Only 10 (9.6%) and 3 (2.9%) participants respectively said they would feel confident in being able to interpret a chest x-ray or abdominal x-ray. Fifteen (14.3%) students had never had formal radiology examinations at medical school. Knowledge of interventional procedures was also poor. Eighty-five (82.5%) and eighty-six (83.5%) participants respectively were not aware interventional radiologists can treat post-partum haemorrhages or perform intramuscular injections.

Conclusion: Final year medical students on average feel unprepared and incompetent in interpreting basic films and feel they lack adequate teaching. Furthermore, vital services offered by interventional radiologists are largely unrecognised.

P-101 A pilot study: Can a multifaceted approach to teaching and the timely addition of prompt notes help to improve retention of information in final year medical students

[G DeLay](#)

Queens Medical Centre, Nottingham

Introduction: Fracture interpretation skills are essential transferrable skills for medical students in preparation for their foundation years. Fracture teaching was delivered through a multifaceted approach encompassing face to face, small group tutorials, patient workshops and self assessment. We collected data to evaluate the retention and application of information taught.

Method: A cohort of 29 (n=29) final year medical students were taught over a period of 8 weeks on the interpretation of fractures. They were then divided into two subgroups of 14 (group 1) and 15 (group 2). Both groups were taught on the same week covering identical sessional material. Group 2 students were posted additional prompt notes of information between teaching sessions as memory aids. Data was collected through an online pre and post module test.

Results: 16 students completed the pre and post module test. There was an increase in the post test scores with 6 students obtaining distinctions. The mean score increased from 48.0% pre module to 65.6% post module for group 1 and 52.27% to 64.8% for group 2. Group 1 marginally out performed group 2 despite additional notes being posted to group 2 in order to help retain information taught. Pre-test comparison between group 1 and 2, t-test ($p=0.01$) and post test comparison, t-test ($p=0.004$).

Conclusion: Pre and post testing is necessary to evaluate teaching and monitor student progress. Prompt notes between sessions may help in the retention of information and improve student learning. A larger study is necessary to fully evaluate this further.

P-102 Are radiology request forms adequately completed?

[Mubeen Chaudhry](#); [Amy Arthur](#); [Nadya Jabbar](#)

Mid-Cheshire Hospitals Trust

Aims/Objectives: The usefulness of a radiological examination may be reduced if the clinical background and specific problem to be answered is not addressed. Inadequate information can also lead to mistakes in patient identification and delay in returning reports to the correct destination. The aim of this study was to determine whether adequate completion of plain film extremity request forms was being performed in the accident and emergency department.

Content: All radiology request forms should contain adequate clinical and demographic information which identifies the patient and the destination for the report. The name of the requesting practitioner and the name of the consultant or GP looking after the patient must also be specified.

Outcomes: A total of 93 request forms were analysed. 100% of forms demonstrated the appropriate region had been requested. Clinical information (history/examination) was given in 68% of cases. Radiological question was accurately defined in 47% cases.

Discussion: Clinical information and the radiological question that needs answering are two vital pieces of information for radiographic and radiological staff. The basic principles of adequate form completion should be included in the induction of new staff. In specific cases, the radiographic staff may send back individual forms which are incomplete. This study can be used to provide quantitative data in areas which have been identified anecdotally as a problem. Involving one of the relevant department staff to do this study in conjunction with radiology can give them more ownership of the data and willingness to tackle the problems revealed.

Clinical: Nuclear medicine**P-103 11C-Methionine PET/CT – A pictorial review**

[Fiona Caswell](#); [Alan Denison](#)

NHS Grampian; University of Aberdeen

Objectives: To illustrate the indications and imaging findings in 11C Methionine PET/CT by way of a pictorial review.

Background: Methionine is a naturally occurring essential amino acid, which can be labelled with carbon-11. Since 11C has a very short half life, its use is mostly limited to centres with an on-site cyclotron.

Uptake of 11C Methionine has been shown to reflect amino acid transport and metabolism and has been shown to be increased in malignant cells. Unlike other PET tracers, uptake in normal brain is low, providing good sensitivity and contrast in malignant lesions. Additionally, non-malignant lesions such as fibrosis have low uptake and so PET/CT imaging is particularly useful in distinguishing between tumour recurrence and post-operative changes.

Methods: We present a pictorial review of selected 11C methionine PET/CT studies performed at our centre, to highlight the typical indications and salient imaging findings. Examples include glioblastoma recurrence, chordoma and leptomeningeal recurrence of lymphoma.

Conclusion: 11C Methionine is valuable in increasing diagnostic confidence in and characterising brain and spinal cord abnormalities in specific circumstances, particularly in distinguishing between disease recurrence and benign processes which can be difficult on other imaging modalities.

P-104 Audit of use of PIOPED classification in lung scintigraphy

[Mei Chin](#); [Brian Mucci](#)

South Glasgow University Hospitals

Purpose: Audit modified Prospective Investigation of Pulmonary Embolism Diagnosis (PIOPED) classifications use in lung scintigraphy reports.

Background: Modified PIOPED criteria in the reporting of lung scintigraphy have been shown to be accurate and are recommended by the Society of Nuclear Medicine. Ideally 100% of VQ scan reports should be classified in this way.