conventional MRI under sedation. Upright scanning was not routinely funded in 7 policies. 6 would allow referral if the patient was unable to lie flat, and 5 stated the patient must experience pain when lying flat. Only 4 would consider open upright referral if a weight-bearing scan was needed. Justification for non-referral for upright scanning was evidenced using literature but references were largely out-of-date.
Conclusions: Regional policy variations mean referral is inconsistent. Policies could be better constructed to take account of patient size rather than obesity alone. Policies need to acknowledge that many claustrophobics are unable to tolerate conventional MRI even with sedation. Upright referrals should not rely solely on pain criteria. Policies need up-to-date literature to justify decisions.

P170 **Post-mortem computed tomography in clinical application**

Nawaraj Subedi; Simon Beardmore; Thomas Rogers
Lancashire Teaching Hospitals NHS Trust

The introduction of multi-detectors row CT in post-mortem examinations has been recent innovative method of identifying the cause of death. Relatively low costs, quick turnover time and ease of operation make this more attractive to the conventional autopsy examination. Several studies in the literature have confirmed both post-mortem CT and conventional autopsy provide comparable findings with higher sensitivity of CT for skeletal and vascular lesions. With shortage of forensic pathologist in the NHS, the clinical utility of post-mortem CT is going to expand further. The purpose of our pictorial review is to familiarise audience with this innovative but expanding approach to identify cause of death. A brief discussion on imaging techniques will be outlined along with examples of interesting cases in our clinical practice at first NHS hospital to provide such a service to the local coroners.

1. Jeffery AJ. The role of computed tomography in adult post-mortem examinations: an overview. Diagnostic histopathology. 2010;16(12):546–551.
2. Roberts IS, Traill ZC. Minimally invasive autopsy employing post-mortem CT and targeted coronary angiography: evaluation of its application to a routine Coronial service. Histopathology. 2014;64(2):211–217.

OTHER

P171 **Are you sitting comfortably? Tips for designing an ergonomic radiology reporting workspace**

Natasha Hougham; Madeline Strugnell; Hannah Lewis
Royal Cornwall Hospital

Background: With the ubiquitous use of digitized reporting, radiologists are amongst the most sedentary of doctors, spending up to 8 hours daily sat at reporting stations[1]. In addition to the inherent increased cardiovascular risks of IT based working, poorly designed workspaces can lead to musculoskeletal pain, headaches, eyestrain and fatigue[2]. Conversely, well designed, ergonomically considered workspaces have multifaceted benefits. By serving to improve staff wellbeing and health by preventing workplace injuries (e.g RSI) and improving comfort, staff absences are reduced and productivity increased leading to better workflow efficiency and preventing reporting backlogs. By reducing fatigue and providing efficient soundproofing and lightening, diagnostic accuracy is improved and clinical errors reduced[3].
Purpose: As many hospital radiology departments plan to expand or redesign their reporting workspaces in response to increasing work volume, this poster offers a guide based on our recent experience at the Royal Cornwall Hospital, drawing on Health and Safety Executive workspace and Display Screen Equipment regulations and Royal College of Radiologists Ergonomics guidance. This poster details design features specific to the radiology reporting workspace with regards to soundproofing, lightening, temperature control and ventilation. Monitor and mouse placement, desk and chair ergonomics with particular reference to sit/stand desks are discussed including some features unique to our department which we feel improves our working environment and team cohesion.
Summary: After the successful redesign of our reporting environment at Royal Cornwall Hospital we would like to share this pictorial guide to designing ergonomic reporting spaces, summarises the relevant HSE/DSE regulations and RCR guidance.

1. Lamar et al. 2015. Sedentary Behaviour in the Workplace: A Potential Occupational Hazard for Radiologists. Curr Probl Diagn Radiol. 2016 Jul-Aug;45(4):253-7.
2. Carter JB, Banister EW. Musculoskeletal problems in VDT work: a review. Ergonomics 1994; 37:1623-1648.
3. Harisinghani et al. 2004. Importance and Effects of Altered Workplace Ergonomics in Modern Radiology Suites. RadioGraphics Vol. 24, No. 2.

P172 **JREQUEST – Appropriate clinical information pending**

Andrew Lynch; Tze Siah; Jane Belfield
Royal Liverpool Hospital

Background: The request information for each radiological study is the only formal communication between the referrer and the reporter. Accurate and relevant clinical information greatly aids the reporter in interpreting the study and leads to better and safer patient care[1].
Methods: A 'JREQUEST' audit code was added to each report in all modalities where the reporter deemed the clinical information inadequate. A CRIS search between 13/08/19 - 31/10/19 produced 202 results. The data collected included study

type, date, referrer name, department and grade. Each study was then evaluated to determine the cause and appropriateness of the audit code and the impact on image interpretation.

Results: The audit code was used appropriately in 191 of the 202 studies. Of these, a lack of clinical information in the following categories were identified: previous cancer history (51%), previous relevant surgical intervention (24%), lack of presenting complaint (9%), relevant medical history (8%) and location of symptoms (6%). Inadequate clinical information affected image interpretation in 66% of the studies, of these, the primary diagnosis was affected in 77%. The most common referring departments were A&E (38%), Medicine (30%), Surgery (16%) and GP (14%). The most common imaging modality affected was CXR (93%).

Conclusion: A lack of relevant oncology and surgical history led to unnecessary ambiguity in image interpretation (predominantly CXR's) and identification of the pertinent findings. It is important to demonstrate the value of accurate clinical information to the referring clinician as this will aid the work of the reporter and ultimately improves patient care.

1. The Royal College of Radiologists. Standards for interpretation and reporting of imaging investigations, second edition. London: The Royal College of Radiologists, 2018. Ref No. BFCR (18).

P173 Accuracy of patient positioning in abdominal CT examinations

Kristian Fairclough[1]; Beverley Foster[2]; Ruth Clarke[1]
[1]Mid Yorkshire Hospital NHS Trust; [2]University of Bradford

Background: Previous research has confirmed that when utilising dose modulation patient positioning in the isocentre of a CT scanner is required to optimise radiation dose and image quality. All CT radiographers therefore should be aware of the need to ensure correct positioning of patients, however recent literature has suggested this is not the case.

Method: A random sample of 100 abdomen & pelvis CT examinations were reviewed covering an 8-month period across 3 hospital sites. Table-height data for each event was recalled. The AP diameter, and the midpoint, of each patient was calculated from the CT images, enabling direct comparison with the isocentre. Acceptable positioning was considered to be +/-3cm of the isocentre. Patient referral route and arm position was also recorded for each event. Radiographer anonymity was maintained.

Results: Only 29% of patients were positioned in the isocentre. On average patients were positioned 4cm below the isocentre (range -10 to +2cm), with no notable differences between hospital sites. The patient referral type or arm position (arm-up or arm-down) did not appear to influence the outcome.

Conclusion: CT staff may be unintentionally positioning patients in a position that they feel is correct, but is in fact too low. It is feasible that the scanner parameters could be reduced while maintaining image quality and thereby optimising radiation dose.

1. Gudjonsdottir J, Svensson JR, Campling S, Brennan PC, Jonsdottir B. Efficient use of automatic exposure control systems in computed tomography requires correct patient positioning. Acta radiologica. 2009 Jan 1;50(9):1035-41.
2. Habibzadeh, M.A., Ay, M.R., Asl, A.K., Ghadiri, H. and Zaidi, H., 2012. Impact of miscentering on patient dose and image noise in x-ray CT imaging: phantom and clinical studies. Physica Medica, 28(3), pp.191-199.
3. Kaasalainen, T., Palmu, K., Reijonen, V. and Kortesniemi, M., 2014. Effect of patient centering on patient dose and image noise in chest CT. American journal of roentgenology, 203(1), pp.123-130.
4. Kataria, B., Sandborg, M. and Althén, J.N., 2016. Implications of patient centring on organ dose in computed tomography. Radiation protection dosimetry, 169(1-4), pp.130-135.
5. Olden, K.L., Kavanagh, R.G., James, K., Twomey, M., Moloney, F., Moore, N., Carey, K., Murphy, K.P., Grey, T.M., Nicholson, P. and Chopra, R., 2018. Assessment of isocenter alignment during CT colonography: Implications for clinical practice. Radiography.
6. Sukupova, L., Vedlich, D. and Jiru, F., 2016. Consequences of the Patient's Mis-centering on the Radiation Dose and Image Quality in CT Imaging Phantom and Clinical Study. Universal Journal of Medical Science, 4(3), pp.102-107.
7. Toth T, Ge Z, Daly MP. The influence of patient centering on CT dose and image noise; Med physcis assessment
8. Zhang, Jie & Raslau, Flavius & Hill, Nathan & J Escott, Edward. (2016). Patient positioning when using a bowtie filter in computed tomography imaging. Radiologic technology. 87. 680-685.

View Short papers on demand

View Posters here

Congress organisers

Profile Productions

Profile Productions Ltd
+44(0) 20 3725 5840
ukio@profileproductions.co.uk