

accurate staging of lung adenocarcinoma. This staging is very critical portion of the disease management because patient outcome depends upon stage adapted therapeutic strategy. Even a small change in the staging (e.g. IIIA to IIIB) can significantly alter the treatment selection. Therefore, the choice of imaging modalities and other methods of patient assessment for diagnosis and staging require careful consideration and evaluation before employment. Further developments in the assessment technology are very promising and will further improve the accuracy of diagnosis and staging which in turn will facilitate better patient management.

Imaging Informatics

P-068 **Audit on GP requests for USS abdomen in which an abnormality is found**

Girish Rangaswamy, Andrew Edwards;

County Durham and Darlington NHS Trust; Eastbourne District General Hospital; Royal Cornwall Hospital NHS Trust;

Introduction: 1) % of GP requests in which a clinically relevant abnormality is found on USS abdomen scan should be no less than that from outpatient requests.

2) Open access to GP's should be provided if requests from GP's yield as many abnormal results as those from hospital doctors from outpatient clinic. If not it may be necessary to agree new guidelines.

Methods: A retrospective study of a randomly selected sample of 100 GP and 100 OP requests over a period of 6 months. Data collection with the help of PACS system. All inpatient/follow up/ surveillance scan requests were not included.

Results: 45% of GP referrals had relevant abnormal findings, 38% of OP requests had relevant abnormal findings on USS abdominal scan. 95% of USS requests were done by ultrasonographers.

Conclusion: To continue with current protocol of providing open access for USS requests to GP's. Feedback forwarded to GP's and OP's doctors with copy of audit results. Plan to re-audit in 12 months. Importance of Ultrasonographers in cutting down workload of consultant radiologists.

P-069 **Communication of urgent and significant radiological findings**

Ramya Thiagarajah, Peninsula Radiology Academy

Aims/ Objectives: To assess the standard of communication of urgent and significant radiological findings in our department against the expectations of our referring hospital clinical colleagues.

Content of Presentation: Introduction, Method, Survey Questions & Results, Conclusion

Relevance/Impact: Communication of urgent and significant radiological findings is an important issue which continues to be an area of concern, as evidenced by several recent published articles. One of the continuing hot buttons is results of urgent and significant clinical findings slipping through the cracks with a failure of the Radiologist to communicate the results to the Referring Clinician (Yee 2010, Berlin 2011).

Outcomes/ Discussion: The 100% Target recommended by the RCR was not achieved.

The survey does however reflect positively on the current service provided and the results are in line with a previous referrer satisfaction audit that was completed in our department in 2011.

It also highlighted areas of concern and possible room for improvement, which can be discussed further at the next departmental managerial meeting.

P-070 **IRMER regulations: compliance rate of radiograph reporting by non-radiology clinicians**

Rachel Dixon; Usman Mahay; James O'Connor; Tom Newton;

Royal Blackburn Hospital; University of Manchester;

Aims/objectives: To determine the compliance with the IRMER 2000 regulation 7(8) - that all radiographic exposures require clinical evaluation to be recorded - for radiographs reported by non-radiology clinicians.

Content: Many NHS Hospital Trusts have poor compliance with the IRMER 2000 regulations. This study presents a re-audit carried out in a large district general hospital to determine the percentage of radiographs with a report documented in the notes by non-radiology clinicians. It compares results with a previous audit published in 2010. **Relevance/impact:** In July 2011, the Care Quality Commission issued a directive requiring all NHS Hospital Trusts requiring them to audit compliance with IRMER 2000 legislation, with agreed initiatives and timescales for improving conformity.

Outcomes: Following clinician education using “message of the day” and induction lectures, the re-audit showed that there had been an improvement in the documentation of radiographs by clinicians from 53% to 77%.

Discussion: Increased workloads in radiology departments have led many NHS Trusts to assign responsibility for evaluating and documenting requested radiographs from the Radiology Department to requesting clinicians. This audit shows that while documentation rates have increased substantially, there is still need for improvement. We will use these results to further educate the referring clinical teams and plan to pilot a results sticker system, which will require clinicians to document the result of the radiograph. Further re-audit will be carried out in 18 months.

P-071 CT reporting audit- answering the clinical question and assessing the quality of reports

Vishal Bhalla, Biju Thomas

University Hospital North Staffordshire, Stoke-on-Trent

Aims: To evaluate the quality of body radiology reports.

To determine if and when clinical questions were posed, whether or not they were answered.

Content: Based on the Royal College Guidelines, local standards were set. Using a constructed proforma, 102 CT reports were retrospectively studied over a 2-month period to assess local practice. All reports/referrers were kept anonymous. The results were graphically distributed and analysed to determine the cause of any discrepancies or failures to reach the standards.

Relevance: In 2006 the RCR released a report summarising reporting standards, highlighting the importance of clear concise reports; displaying a close relationship between the structure of reports and their accuracy.

Outcomes: A high quality of reporting standards were demonstrated. 20% of requests failed to pose a clinical question, which hindered the effectiveness of the radiological report and its assistance to the patient and team. A smaller percentage of reports failed to have a conclusion, affecting its overall structure, however these were directly related to a lack of clinical history and question.

Discussion: Radiological reports carry the importance of medico-legal implications and rely heavily on the clinical information given in the request. It is a vital form of communication and often incorporates advice for further management or investigations in order to pinpoint a diagnosis.

Our trust has now developed a computer-assisted request service which highlights the importance of clinical questions for reports to answer. In addition referring to a uniformly adopted reporting template could provide more structure and hence accuracy to the reports.

P-072 The impact of implementing digital imaging in a breast screening service

Nicola Gosling, Julie Bower

Royal Bolton Hospital NHS Foundation Trust

Aims/ Objectives: The aim is to identify the processes involved in the implementation of digital imaging within a breast screening service at static and satellite sites. The advantages and limitations of digital imaging within the breast screening environment will also be considered. The poster aims to discuss the duties of a PACS administrator.

Content: The poster will critically evaluate direct digital mammography equipment and its integration with the PACS, CRIS and NBSS systems and how this impacts upon working processes. A demonstration of how the network effectively interlinks with all these systems will be provided. The

newly established role of PACS administrator within the breast screening service and how they maintain the systems efficiently will be outlined.

Relevance Impact: Breast screening services have been advised by The Department of Health that when replacing equipment, direct digital mammography units should be purchased. It is paramount for breast screening units to share their experience of direct digital equipment and radiology systems integration so that practitioners, managers and units as a whole can learn the best way to implement and avoid disruption when bringing these systems live.

Outcomes and Discussion: The limitations of digital imaging such as downtime and the importance of patient demographics will be examined. The importance of good staff training to ensure efficient workflow at all stages of the screening process shall be highlighted. The implementation of digital imaging in the breast screening unit has identified the essential requirement for a PACS administrator role.

P-073 **How to create a cost effective, sustainable and future proof PACS ecosystem**

Jamie Clifton, BridgeHead Software

Over the coming years, the future direction of PACS is going to be defined more by finance than by clinical objectives. Given this, and with 2013 approaching (2015 in London), how can PACS leaders structure their systems today, so as to keep the 'accountants' appeased whilst creating an environment that is sustainable and future proof?

Aim:

- 1) what the next generation PACS ecosystem might look like - particularly as it pertains to storing, protecting and sharing medical images;
- 2) how hospitals can transition from their current environment to this new solution.

This presentation focuses on the underlying PACS ecosystem and will cover:

Understanding your data profile: critical in creating systems to better store, protect and share content

Opening up your storage environment: escaping vendor lock-in, reducing cost and increasing effectiveness for the retention and management of PACS data

Implementing disaster recovery (DR) capabilities for your PACS environment

Learning how a PACS aware content storage system can facilitate more effective data management

Devising a realistic and practical approach to data migration.

P-074 **DICOM part 10: good news or bad news?**

Jamie Clifton, BridgeHead Software

Many feel that implementing DICOM Part 10: "Media Storage and File Format for Media Interchange Storage" is a fantastic opportunity to reclaim and manage PACS data, in a standard format, so that it can be accessed by all stakeholders, as and when required, now and in the future.

This session will explore whether this is the case and whether the full adherence to Part 10 has any knock on effects to other aspects of the PACS ecosystem?

In this presentation, we will examine:

- the benefits of DICOM Part 10
 - the potential impact of implementing Part 10 on:
 - o the efficiency of the storage system
 - o the speed of access and retrieval
 - o the management of demographic updates
 - o the creation and maintenance of DICOMDIR
- a different approach to implementation - where hospitals 'cherry pick' the elements of Part 10 that provide the most value to their PACS ecosystem.