A Registrar delivered teaching session - An Introduction to Undergraduate Radiology: feedback from the first year

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The small group teaching session, designed for the third year university of Leeds medical students, is centred on a 78 year old female patient who has been admitted to A&E following a fall. The patient undergoes a series of radiological investigations including pelvic and chest radiographs, a CT pulmonary angiogram, lower limbs doppler ultrasond and a CT head.

The tutorial is designed to link the clinical presentation, examination findings and radiology observations to come to a unifying diagnosis. This is a vital concept that the students will require during clinical practice, and a key skill adopted by clinical radiologists.

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The aims for the session were designed to cover aspects of the undergraduate curriculum, which is detailed below. The curriculum is based on the national RCR guidance.

The aims and objectives of the tutorial are as follows;

- Appreciate the role of radiology in the management of patients.
- Apply clinical knowledge to image interpretation.
- Become familiar with common radiology modalities including plain film, ultrasound and CT.
- Learn some of the underlying principles of such modalities, their clinical uses and limitations.
- Local NG tube placement guidelines.
- Introduction to the NICE head injury guidelines.

The students are shown the above radiograph, with detail teaching about the anatomy of the pelvis and proximal femur. After suggesting a method of interpretation, the students are encouraged to spend time with the radiographers and watch at least one patient having a CT angiogram.

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Finally, the students are taught about the role of duplex Doppler ultrasound in the diagnosis of deep vein thrombosis. The students are not expected to interpret the images but should develop an appreciation of how the clinical condition presents, what the clinical examination findings are and how it should be managed.

After a summary of the cases and time to address any questions the students are requested to complete a feedback questionnaire about the sessions.

Conclusion:
Radiology registrars can deliver a high quality and enjoyable introductory teaching that establishes both the fundamental skills of radiology and an important appreciation for radiology in future doctors. This will hopefully inspire future high-quality radiology applicants.

Overall

| The content was at an appropriate level | Strongly Agree |
| The presentation was of a reasonable length | Strongly Agree |
| Audience participation & interaction was encouraged | Strongly Agree |
| The presenter appeared well informed about the subject | Strongly Agree |
| The presentation was given at the right pace | Strongly Agree |
| The material was well organised | Strongly Agree |

With reference to the local trust guidelines relating to nasogastric tube insertion, the students are taught a systematic approach to identifying the position of an NG on a chest radiograph.

One student is given the opportunity to present a chest radiograph and comment on the NG position. The complications of inappropriate NG position are highlighted to the students, with emphasis on the potential catastrophic outcomes as a consequence of an incorrect tube position.

During the teaching session and the students' time in the radiology department we want them to develop and understanding of the job of the clinical radiologist and their role in diagnosis and management of patients.

The aims & objectives were clearly stated.
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The material was well organised.
Hand-outs.
Not: “nothing really it was great.”
Previous access to slides before session so notes could be made as relevant slides.
More examples to compare with.

Presentation

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The session might be improved by: here are some representative examples:

- Local NG tube placement guidelines.
- Introduction to the NICE head injury guidelines.
- “Introducing systematic approaches of interpreting x-ray/CT.
- Refreshing anatomy.”
- “Just the right amount of information for beginners like us. Radiology was introduced very well. Presenter was very keen to teach.”
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- “Not: “nothing really it was great.”
- “More examples to compare with.”

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The session was delivered by a radiology registrar who has been provided a set of Powerpoint slides and a number of anonymised cases on PACS to deliver the session. Student participation is vital to the running of the tutorial as there is a number of tables that require student interaction in addition to lecture style teaching. The entire session runs for approximately two hours including a break.

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