

ALPS CASE STUDIES; Patient Safety map discussion

1. Patient incident

90 year old female referred by her GP to the imaging department for radiographic imaging of the left hip & knee. Local trust protocol cited pelvis radiographs for the hip. Clinical details cited 'Increasing pain & stiffness left hip and knee. ? OA'.

On assessment of the patient, she was of large body habitus. The pelvis examination was performed first using the table bucky and automatic exposure device (AED) using 80kV.

The knee examination was then performed using table-top radiographic technique. The pre-set exposure factors (60kV; 2.5 mAs) for the knee examination were selected. Unfortunately the AED remained selected as per previous pelvis examination. When the exposure button was pressed, the AED was activated. As the x-ray tube was not centered over the AED, the exposure continued far longer than necessary, resulting in the over-exposure of the patient. The resultant DAP reading for the knee examination was approx. 1050cGycm² (average DAP reading for a knee examination is approx. 3.4 cGycm²). Following consultation with the RPA, it was estimated that this resulted 87-310 times the intended dose.

A student was present during this procedure.

Safe Practice Environment

The main link to situational awareness is the age and weight of the lady. Both of the examinations are done on the same table top, once the patient is positioned. The difference between the techniques is the settings on the control panel. It concerns the student checking that the settings are correct for the examinations being undertaken.

Element; the student systematically gathers and synthesises information on the service user's status which may impact on their safety

Criteria; the student draws on a recognised framework which informs the gathering, analysis and synthesis of information (for eg SBARR)

The student verifies information gathered from variety of sources.

As there are 2 different radiographic examinations, the student needs to be aware of the different doses of radiation required.

Element; the student anticipates the potential impact of the information and the surrounding environment on their immediate action

Criteria; the student appraises the information received to assess impact

Element; the student recognises the significance of the environment around the service user and the passage of time.

Criteria; the student identifies and responds to any threat to the service user from equipment or the use of equipment

The student identifies and responds to any risk or hazard to the service user in the physical environment

The student identifies and responds to any risk or hazard presented by the service user's position.

Comment; Was there a pre-briefing so everyone knew what they would be doing and the potential risks prior to performing these diagnostic X-rays? The student would have discussed the examination request with the radiographer.

Responsibilities and limitations of own practice

The main link to scope of practice for the student, is what should their level of knowledge be at this time of their course. There are no specific comments about the student involvement in this procedure, but perhaps to note these specific areas;

Element; *the student has a clear understanding of their delegated responsibilities with regard to service user safety.*

Criteria; *the student asks for training if they are unsure of their skills*

The student understands the environment with respect to service user safety

Element; *the student recognises when there is a need to consult or refer to other colleagues and professionals;*

Criteria; *the student is able to recognise their own limitations and ask for guidance*

The student recognises when to refer to other professionals

Element; *the student reports and, if necessary, escalates any concerns about a service user's safety*

Criteria; *the student understands if an incident needs escalating*

Comment; the student was in their 2nd year of study, and therefore should have been expected to know and understand the situation and how to use the equipment and set the control panel. There may be an issue with the age and size of the patient and it is possible that this presented difficulties that may have required help.

Documentation and service user records

There is not a strong link to this section of the Patient Safety map, as there is no indication of what was recorded afterwards. However, it is important to note the criteria statement with respect to recording of information.

Element; *the student records service user details according to legal, course and placement provider requirements.*

Criteria; *the student keeps accurate up to date legible records*

The student understands the accepted terminology and abbreviations

The student ensures that a mentor/supervisor is aware of any patient details they have recorded

Comments; due to the radiation dose involved, this would be escalated up to senior staff, and an adverse incident form would be completed for the Trust. Paperwork for the University would also require completion. Normal information would be completed as for any examination.

Effective communication and teamwork

Communication and teamwork is recognised to be effective in reducing patient safety risks. When 2 are working together eg Radiographer and student there can be a dialogue about the patient and potential risks. This links strongly with comments made for “**Safe Practice Environment**”. Of particular interest in this scenario is;

Element; *the student communicates service user information timely, and with sufficient detail to allow understanding and confirmation.*

Criteria; *the student checks and confirms understanding of information.*

The student knows when to consult or refer

Element; the *student collaborates with team colleagues regardless of position, being mindful of their expertise and the service user need.*

Criteria; *the student listens to others to understand the context of service user’s needs and wishes*

The student is assertive when required

The student informs a supervisor if they, or the service user, has been placed at unnecessary risk

The student reflects on performance and is open, honest and transparent.