A few recent

Incidents and accidents

Incidents and accidents

- Sometimes we can see how something went wrong and how to prevent it from happening again…
- Sometimes not…

- Departments should try and identify underlying and root causes…
- Open discussion, avoiding blame!

- Consult specialist advisers as needed
- Note that OH review sometimes needed (please check with me!)

Contaminated monitor

- Monitor removed from lab for test
- Contamination found by our staff while checking prior to test
- All equipment must be checked for contamination before it is taken out of a radiation area for the following reasons…
  - Safety requirements
  - Environmental requirements
  - Test centre sources MUST not become contaminated!
- Was checked…? Thoroughly enough…?
- *Not “expecting” contamination – monitor hadn’t been used for a while*
- No significant dose, but a worried individual (not a radiation user)

A contamination accident in a higher risk work area

- Contamination found on glove and wrist/arm following a procedure
- Quick actions in monitoring and removing PPE/clothing, and contingency plans were followed
- Good consideration of others in the area and good management of the contaminated items
- BUT the accident was not reported for some time…
- The worst case initial estimate was a high dose and concern over welfare of individual - formal investigation
- *IRR17 Reg 26.(1) Where an employer suspects or has been informed that any person is likely to have received an overexposure as a result of work with ionising radiation carried out by that employer, that employer must make an **immediate investigation** to determine whether there are circumstances which show beyond **reasonable doubt** that no overexposure could have occurred*
- The delay in reporting made it more difficult to estimate the dose – a worst case estimate was made which was well below the dose limit
- Any contamination on or near the skin must be reported to me IMMEDIATELY
- And also IMMEDIATELY report other incidents where the dose could be high and difficult to quantify

Another contamination accident

- Confident student, simple procedure… what could possibly go wrong…

- Department with a good history of radiation work and very experienced RPSs, but no experience in this particular work
- Planning – needed both RPA and RPS input
- Plans changed, planned activity doubled (procedure issue) and then quadrupled (supply issue), so further equipment/shielding was brought in
- Individual thought it best to do the procedure on his own “to reduce risk to others”
- Insufficient practical training, supervision, assistance, contamination control, contingency plan rehearsal

=> Contaminated lab and person

- Engagement between all involved – user, supervisor, RPS, RPA
- Focus on practicalities (including monitoring) with practice runs
- Understanding of how contamination may arise and spread (I didn’t realise I had done that”) and rehearse contingency plans
- Unexpected disposal to sink – this didn’t exceed the sub-permit limit but drain disposal agreement wasn’t understood
- Ensure basic lab skills are checked and taught if needed
- Taking care not to appoint blame allows for open, reflective discussion
- Recognise the stress that this kind of accident causes to all involved

A few words about changes in unsealed source work

- Less standard work but more “unusual” work (and sometimes limited run of work)
- Loss of practical experience in departments
- Setting up new work requires time and work by both RPS and RPA/RWA and should be a joint effort
- More use of shared areas and sometimes need to set up a new area especially for the work meeting ALL necessary requirements (IRR and EPR)
- Where possible use existing areas and expertise (in other departments?)

Other accidents

- Dosimeter left near source
  - Potentially very high dose recorded – CPRMS duty to report to HSE
  - HoD referred this to DSO – ensure your HoD understands your role and that radiation issues are always referred directly to RPS/RPA!
- Imaging X ray scanner equipment failure (IRMER)
- Several veterinary diagnostic X ray accidents
- Minor contamination incidents – well controlled
- If unsure whether to report, please ask (email or phone)
- Problems with Assessnet? Please feedback to the accident team!