

Dear all,

Following a recent spot check by Richard Bovill (chief medical physicist), I would like to make sure that all relevant staff are aware of our skin dose protocol, see attached.

Also attached is a copy of the letter that the radiographer & pacing HCAs should give to at-risk patients.

As part of their training, the pacing HCAs should be aware of the protocol and either hand out this letter directly to the patient or seek advice from the radiographers. I will email them directly today to ensure they are happy with the protocol.

A copy of the protocol & letter will be put in the red pacing file which is kept in the pacing room – first eye level cupboard on right as you enter room.

Regards,

Fiona Parselle
Radiographer

PATIENT INFORMATION POST CARDIAC INTERVENTION

You have undergone a cardiac procedure, and you will know from previous information, that this was carried out using x-ray control.

The x-ray machine is specially designed to provide very high quality images at the lowest possible radiation levels to you, the patient.

Very occasionally, patients receive a higher radiation dose than usual, generally because their procedure has been technically difficult. Every precaution is taken to avoid this and it is important to remember that the benefit of having your heart problems successfully treated far outweigh the risk associated with exposure to x-rays.

During your procedure you received a higher than average exposure to x-ray. This is not in itself a problem, but to provide you with the best possible aftercare, we would like you to follow these instructions:

1. Ask a relative, carer or friend to inspect your back once a day for 7 days after the procedure. This is to check if any skin reddening appears. If you do have a skin reaction, it will appear as a pink or red rectangle, on your back or side, above your waist.
2. If after 7 days you have had no visible skin reaction then you do not need to do anything else. This is the likeliest course of events.
3. If you do have any reddening of the type described, make a note of its position and the appearance and report this at your next cardiology outpatient appointment. If the skin is itchy or sore then visit your GP.

It is extremely unusual to have a skin reaction and it would not normally require medical attention. Such reactions are rare and not a cause for alarm.

Dr D Beacock, Consultant Cardiologist
Mr R Bovill, Chief Physicist
Mrs G Stapleton-Smith, Lead Cardiac Radiographer

Skin dose protocol for coronary angiography, PCI & pacing procedures

When a dose of **10,000 cGycm²** (100,000 mGycm²) is reached in **one** tube position, there is a possibility of a skin reaction occurring in the corresponding area of flesh closest to the x-ray tube.

Such skin burns are rare. Those that do occur will usually be mild and feel like sun-burn, but they occasionally become severe and can require grafting. If a reaction does occur, it will usually appear as rectangular, reddening of the skin on the back or sides. Most reactions occur within 48 hours of the procedure, but they can take up to a week to appear.

If it is judged that more than 10,000 cGycm² has been given in one tube position then the radiographer or pacing HCA should:

- give the attached letter to the patient or carer, briefly describing the key points where appropriate
- inform the nurse who will be looking after the patient in recovery that the patient has been given the letter
- ask the recovery nurse to include the risk of skin burns in the hand over to ward staff for in-patients
- request that the risk of a skin burn is recorded in the patient's notes

Pacing HCAs should seek advice from the radiographers if there is any doubt as to whether the patient is at risk.

Radiographers should reduce the risk of these skin burns occurring by:

- alerting the cardiologist to the risk during long / high dose cases
- altering the tube position as frequently as possible
- good practice (collimation etc)