

PROCEDURE: ASSESSMENT OF POTENTIALLY CONTAMINATED PATIENT

This procedure is to be used in conjunction with the DH guidance 'Planning for major incidents: the NHS guidance' (chapter 9 'Incidents involving radioactivity').

Note: the Department of Health guidance on the management of casualties potentially contaminated with radioactive materials differs from the advice where chemical or biological contaminants may be involved.

With incidents at nuclear facility or nuclear military sites, on no account must the treatment of serious injury or necessary evacuation to hospital be delayed. Upon arrival from such sites, the casualty shall be screened with the monitor. In addition as a precaution, the ambulance crew shall be screened and given expert advice if necessary.

Where a radioactive contaminant is unknown with incidents in a public area, such as with a CBRN incident, patients should be dealt with at the incident site but upon arrival, the casualty shall be screened with the monitor. In addition as a precaution, the ambulance crew shall be screened and given expert advice if necessary.

To be performed:

1. where information received from ambulance / medical / police / fire & rescue incident officer indicates that radioactive materials have been detected at the scene of the incident, or may have been present when the patient received their injury;
and;
2. serious injuries are present whose treatment should not be delayed.

Requires:

1. Two appropriately trained persons familiar with the use of the detector instrument to perform the radiation contamination survey in addition to clinical care team;
2. Clinical care team wearing standard precautions (identical to standard precautions for biological agents except that double gloves should be worn);
 - 2.1. surgical cap;
 - 2.2. eye protection;
 - 2.3. surgical mask;
 - 2.4. gown;
 - 2.5. water proof apron;
 - 2.6. double gloves;
 - 2.7. boots;
3. Detection instrument;
4. Standard recording sheet.

Procedure:

1. Before patient is admitted to designated assessment / resuscitation facility:
 - 1.1. Ensure that clinical staff are appropriately dressed;
 - 1.2. Ensure that ambulance & portering staff know which is the designated facility that the patient is to be brought to;
 - 1.3. Remove instrument from storage box and ensure that it is operating satisfactorily;

- 1.4. Ensure the instrument is in the dose-rate setting and record the background dose-rate. If background dose-rate is $> 1\mu\text{Sv/h}$ contact medical physics team for advice, but continue to admit patient and give treatment for life threatening injuries;
- 1.5 Switch instrument to contamination setting and record the average background count-rate (cps). If the average background contamination reading is >2 cps, contact medical physics team for advice, but continue to admit patient and give treatment for life threatening injuries;
2. When patient is admitted to designated assessment / resuscitation facility:
 - 2.1. Ensure the instrument is in the dose rate mode **CAP ON**
 - 2.2. Perform a careful scan (in about 30 seconds) of the patient's body with the detector held at a distance of about 30 cm from the body surface;



- 2.3. If the dose-rate rises above $1\mu\text{Sv/h}$ then the patient is provisionally graded as contaminated;
- 2.4. Direct the clinical staff to remove all the patient's clothing, which is to be double bagged and sealed;
- 2.5. Ensure the instrument is in the contamination mode **CAP OFF**



- 2.6. Perform a detailed scan for external contamination; Scan the body slowly at a distance of about 1 cm. The full scan should take at least three minutes. Where the count-rate rises above 300 cps then the presence of contamination is confirmed; Identify these contaminated areas on the Monitoring/Contamination Report Form and record the measured count-rates;



- 2.7. If no contamination identified by the detailed scan declare that no contamination has been found and discontinue any precautions necessary only for the management of radioactive contamination;
- 2.8. If contamination is detected direct the clinical team to remove contamination from the patient in the following order of priority:
- Wounds;
 - Airways;
 - Remaining body surface;
- 2.9. Any identifiable fragments of materials are to be handled with 6" forceps and placed in clear plastic specimen container and be retained for analysis;
- 2.10. Repeat the detailed scan for external contamination; Scan the body slowly at a distance of about 1 cm. The full scan should take at least three minutes. In areas where the count-rate remains above 300 cps repeat local decontamination measures; Record changes in the measured count-rates following decontamination process.
- 2.11. When external contamination is below 300 cps, and the patient is stable and ready for transfer to the next clinical care area, the patient should be transferred to a clean stretcher / trolley and passed on to a new clinical team.

3. After patient is discharged to designated assessment / resuscitation facility:

- 3.1. Staff remove standard precautions (surgical cap, eye protection, surgical mask, gown, waterproof apron, double gloves, and boots); bag removed equipment, seal and leave in room;
- 3.2. Staff given detailed scan for external contamination at exit from room;
- 3.3. Scan each member of staff slowly at a distance of about 1 cm. The full scan should take at least three minutes. Where the count-rate is above 300 cps then the presence of contamination is confirmed; identify these contaminated areas on the Monitoring/Contamination Report Form and record the measured count-rates. Staff member with such contamination after removal of their standard precaution clothing should shower and change into clean clothing and be re-scanned before release from treatment area;
- 3.4. The room should be sealed with all used clinical materials, patient and staff clothing left in room until medical physics team arrive to sort, clear, and supervise any cleaning required and authorise as fit to be returned to use.

Notes:

Local medical physics staff should be contacted as soon as possible to assist and direct the survey and decontamination process.

When medical physics staff arrive at the scene they are responsible for decisions concerning:

- the safety of all staff;
- the direction for decontamination of the patient;
- agreeing that the patient can be safely released into the wider hospital environment.

If you require additional monitors the NHS Purchasing and Supply Agency have established a framework agreement this includes pricing for monitors, maintenance, which you can use to purchase. Details of the agreement are available on their electronic catalogue, NHS Ecat, which can be accessed by your supplies department.

The agreement reference is CM/DMI/04/2596/01, the period of the agreement is 1st January 2005 to 31st December 2007 with an option to extend up to 24 months. The telephone number for the NHS Purchasing and Supply Agency's helpdesk is 0118 980 8600.