

# Guidance for the initial management of self-presenters from incidents involving hazardous materials – HazMat / CBRNe

Version: 2

<b>Summary:</b>	This document is to assist staff in the Trust's healthcare facilities and NHS branded buildings, where patients may present, to plan for and respond to self-presenters from a hazardous materials (HazMat) or chemical, biological, radiological, nuclear or explosive (CBRNe) incidents.	
<b>Keywords:</b>	Self-presenters, hazardous materials, chemical, biological, radiological, nuclear, explosive, HazMat, CBRNe, incident, emergency planning.	
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**If a contaminated patient presents at your facility please go to the Action Card contained in the Short guide for the initial management of self-presenters from incidents involving hazardous materials.**

## Version Control

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# Guidance for the Initial Management of Self-Presenters from Incidents Involving Hazardous Materials – HazMat/CBRNe

## 1. Introduction

Experience from hazardous or potentially hazardous incidents demonstrates large numbers of people may leave the scene without first coming into contact with the responding emergency services. Later, as a result of developing symptoms, or as a result of widespread media coverage, they may self-present at any health facility displaying an NHS logo in search of treatment, advice and reassurance.

All healthcare facilities are therefore required to have arrangements in place to manage self-presenting patients.

A proportion of these people will not have been contaminated, but are concerned about their possible exposure to toxic substances. However, some will have been exposed and may need treatment, and may retain a degree of contamination on their bodies or clothing, posing a risk to healthcare staff and any members of the public that they come in to contact with.

Caustic material (acid) attacks, the Eastbourne gas cloud in 2017 and the Salisbury nerve agent incident in 2018 have demonstrated the importance of early intervention. The ‘Remove, Remove, Remove’ campaign details the importance of removal of clothes and prompt removal of the substance. These practical steps are aimed at public bystander first aid – but have equal importance at any healthcare facility.

## 2. Definitions

Contamination	A person is contaminated when they have a hazardous substance in or on them.
Exposure	A patient who has been exposed to a hazardous substance may be suffering from the effects of that exposure but only need to be decontaminated if they are contaminated, e.g. a patient exposed to radiation from a remote source, or to a gas such as carbon monoxide does not need to be decontaminated.
Decontamination	Decontamination is defined as the removal or reduction of hazardous materials to lower the risk of further harm to casualties and/or cross contamination. Decontamination can range from self-help to full clinical decontamination.
HazMat	<p>A non-criminal accidental release of a substance, agent or material, which results in illness or injury to the public, the denial of access to an area or the interruption to the food chain.</p> <p>The commercial, industrial, medical, or military substances involved in a HazMat incident could be from any of the CBRN categories outlined below. Strict guidelines exist for the storage, handling and transport of these materials and the number of incidents involving their accidental release or spillage is low, although likely to be the most common type of incident involving contamination.</p>
CBRNe	A deliberate and malicious act, the intention of which is to cause harm or fear amongst a population by using or threatening to use CBRNe materials. The incident is crime focussed and may range from cases of relatively minor harassment and alarm through to terrorist acts of mass murder or genocide. CBRNe stands for chemical, biological, radiological, nuclear and explosive.

### **3. Planning**

#### **3.1 Risk assessment**

As part of the planning process, a detailed risk assessment should be carried out to identify local hazards, such as industrial premises and agricultural services. This assessment should be informed by the national and local risk registers. This will influence the development of local risk mitigation strategies related to the building environment, staff training and equipment needs.

The risk assessment should also take account of the need to protect healthcare facilities, staff members and uncontaminated patients and the provision of timely and appropriate care to people self-presenting from a HazMat/CBRNe incident.

#### **3.2 Premises**

Premises should be assessed to determine how the plan will be implemented. Local plans will need to consider how to isolate potentially contaminated patients from others and link to local lockdown arrangements.

These plans should be developed in consultation with landlords, facilities management and other tenants, where applicable.

It is prudent to identify areas of premises where Initial Operational Response (IOR) activities can take place. This would include access to clean running water and be considerate to patient modesty.

Such areas could be marked with zones for patients to disrobe and then move to, making communication easier.

An incident of this nature has the potential to be disruptive and may result in the affected premises being compromised for a period of time. The plan should therefore link to business continuity arrangements to mitigate this.

#### **3.3 Equipment and Supplies**

These arrangements and the Remove, Remove, Remove model do not require staff members to wear specialist protective equipment nor does it require specialist decontamination equipment for the patient to use.

Instead the model utilises any absorbent material such as blue roll or paper towels which can be retrieved from most building's toilets or kitchen facilities.

#### **3.4 Lockdown**

Lockdown is the process of preventing entry into and movement around buildings or areas, in response to an identified risk, threat or hazard that might impact upon the security of patients, staff and assets.

Lockdown should be planned for and considered as part of a response to a HazMat/CBRNe incident to minimise the risk of contamination of the healthcare facility, staff, patients or members of the public.

It should be noted, however, that the Trust cannot physically prevent people from leaving its premises (even if the hazard or threat is outside the building which is locked down)

Lockdown is achieved through a combination of physical security measures and the appropriate deployment of security personnel (where available). The speed at which the assessment of need

and the decision to activate a lockdown is taken is critical. This will determine the success of the lockdown in preventing the situation from worsening.

Please refer to SH NCP 64: Lockdown Policy for further information.

### 3.5 Psychosocial considerations

The likely emotional impacts during and after an incident and the psychological care of patients and staff members must be considered.

This includes providing psychological first aid and support to those directly affected by the incident and reflective sessions for staff involved.

There are five planning elements relating to the psychosocial management of patients during the decontamination process –

Likely public behaviour during decontamination	Available evidence suggests public behaviour will be orderly and there will be no panic
Response management style	The public's behaviour will be determined by how the incident is managed. Ineffective decontamination management (for example, withholding information, or refusing to respect public needs for privacy) may result in reduced compliance.
Effective communication	Effective communication is essential to promote compliance and cooperation during decontamination. Research suggests the emphasis should be on showing respect, treating people as individuals and respecting the public's needs.
Respect for concerns about privacy and modesty	Evidence from decontamination incidents and live exercises demonstrate that failing to respect the public's needs for privacy can result in reduced trust in responders and reduced compliance with decontamination. Every effort should be made to protect self-presenters privacy, modesty and beliefs whilst ensuring rapid removal of any contaminant.
Understanding the needs of vulnerable groups	Responders should be aware that some casualties may have difficulty in undergoing decontamination. Responders should, where practicable and whilst maintaining the principles of no physical contact, make provisions for assisting these individuals.

## 4. Response

A hard copy of Short guide for the initial management of self-presenters from incidents involving hazardous materials – HazMat/CBRNe (including its action card) should be kept in all areas where patients may self-present. The guidance can be followed by all staff with little or no training and could make a significant impact upon a patient's outcome.

### 4.1 STEPS 1-2-3 plus

The response may be initiated by the identification of a single patient or potentially by the use of the STEP 1-2-3 plus protocol.

The Emergency Services use the STEPS 1-2-3 plus process as a recognition and risk assessment tool.

One incapacitated patient	If one incapacitated patient is encountered with unexplained symptoms then they are treated using NHS universal precautions.
Two incapacitated patients	If two incapacitated patients are encountered together with unexplained symptoms they are treated with caution and a high index of suspicion of contamination using NHS universal precautions.
Three or more incapacitated patients	When three or more incapacitated patients are encountered together with unexplained symptoms the staff withdraw to a safe distance and call for specialist resources and advice.

At the same time the plus element indicates the instigation of IOR as per section 4.2.

This document focuses on facilities where the public may present and as such they are unlikely to be incapacitated. However, staff should be aware of the need to be alert to multiple patients presenting with unexplained symptoms i.e. not from a medical condition.

## 4.2 Initial Operational Response (IOR)

The IOR model - Remove, Remove, Remove describes a set of actions to be taken by a staff member in the event of encountering potentially contaminated patients.

A key aspect of the model is guided self-care which means that the staff member is not required to touch the individual or their clothes.

Tell those affected to:

**1. Remove themselves...** from the immediate area to avoid exposing others. Fresh air is important. If skin is itchy or painful find a water source.

**2. Remove outer clothing...** if affected by the substance advise the person to:

- Avoid pulling clothing over the head, if possible
- Not eat, drink or smoke
- Not pull off clothing stuck to skin

**3. Remove the substance...** from the skin using a dry absorbent material to either soak it up or brush it off – for example blue roll or kitchen towel. Only rinse with water if the skin is itchy or painful.

### Alerting and escalation

Given the nature of a HazMat/CBRNe incident and its possible impacts, urgent and clear escalation is important.

Southern Health NHS Foundation Trust does not have dedicated decontamination facilities.

The NHS Ambulance service must be alerted via 999 immediately.

Senior managers (including the Divisional Manager on call) should be made aware of the incident and the organisations incident response plans should be enacted.

The Divisional Manager on call should notify the Trust's Director on call, who should in turn notify the appropriate Clinical Commissioning Group (CCG) through there on call arrangements.

### **Remove themselves**

Potentially contaminated patients that self-present should be isolated from other patients and staff members. A safe area, preferably outside, should be identified as ventilation is important.

If possible, the area should have a source of clean water however water should not be routinely used unless the contaminant is caustic and causing pain to the individual or if the agent is known to be biological or radioactive in nature. If water is used then it should be used from the head down, with contaminated skin areas being doused first.

It is important that staff members clearly communicate what is being done to help the individual and how they can help themselves. This will help foster the individual's confidence in the staff member and help promote compliance with the process.

### **Remove outer clothing**

Scientific research has shown that the majority of skin surface contaminants are removed if disrobing, followed by appropriate decontamination, is done effectively.

Undressing should be systematic to avoid transferring any contamination from clothing to the skin.

Any clothing that has adhered to the skin should not be forcibly removed.

Where possible clothing should be removed from the top down and nothing should be pulled over the head.

Scissors (if available) should be passed to patients to cut clothing from the body.

Staff members should consider the potential for hypothermia, modesty concerns and respect individual's cultural or religious beliefs.

If available, alternative clothing or blankets should be provided.

Staff members should communicate:

- Why and how casualties need to be disrobe and decontaminate themselves
- That those who are capable should assist others who are injured or less able to carry out tasks - if they can and risk of cross contamination is low
- That more help is coming and not to leave the area
- Not to eat, drink or smoke and avoid touching their face due to the risk of ingesting or transferring hazardous materials
- Consider all options to communicate the message including providing demonstration of how to disrobe and undertake dry decontamination.

It is essential for crime scene investigation purposes that contaminated waste materials and clothing are contained in bags and left for a potential police investigation team. This however should be a secondary concern to the rapid disrobing, decontamination and treatment of casualties.

### **Remove the substance**

Decontamination must be performed on all disrobed individuals unless medical advice is received to the contrary. Dry decontamination should be undertaken unless the casualties are demonstrating signs or symptoms of exposure to caustic or irritant substances (for example, redness, itching and burning of the eyes or skin). Dry decontamination requires exposed skin surfaces to be blotted and lightly rubbed with any available dry absorbent material such as paper tissue, clean cloth, etc.

All waste material arising from decontamination should be left on the ground/floor or if possible bagged for disposal at a later stage. This should only be done by the casualties.

Depending on the nature and extent of contamination wet decontamination may be needed to decontaminate hair. However, the critical steps of rapid isolation, disrobe and dry decontamination should NOT be substituted or delayed whilst interim wet decontamination is established. Whether wet decontamination follows dry decontamination should be the subject of a dynamic risk assessment by the staff member as the nature and extent of contamination will be context-specific.

Water should only be used for decontamination where the casualty's signs and symptoms are consistent with exposure to caustic substances (itching or burning) such as acids or alkalis or the contamination has been identified as biological or radiological in nature. Wet decontamination may be performed using any available source of water such as taps, showers, fixed installation hose reels, sprinklers, etc.

When using water, it is important, to use a washing aid such as a cloth or sponge. Improvised decontamination should not involve overly aggressive methods to remove contamination as this could drive the contamination further into the skin and be delivered for a minimum of 90 seconds.

Additional note:

- Following improvised decontamination, remain cautious and watch for signs and symptoms in the decontaminated person
- If water is used to decontaminate casualties this may become contaminated, and therefore hazardous, and a potential source of further contamination spread;
- All materials (paper, tissues, etc.) used in this process may also be contaminated and should not be used on other casualties;
- The risk from hypothermia should be considered when disrobe and any form of wet decontamination is carried out;
- People who have been contaminated should not eat, drink or smoke before, during, or after the IOR decontamination process and should avoid touching their faces.

## **5. Specialist Advice**

In incidents involving contaminated patients it may be necessary to seek specialist advice.

In the first instance the ambulance service will be able to provide operational guidance and advice.

Specialist advice for health will be provided by Public Health Heath England (PHE) with the Local PHE Health Protection Team being the first contact for advice.

Healthcare professionals can access advice and guidance on treatment from the National Poisons Information Service's TOXBASE.

## **6. Self-protection and personnel/client safety**

Due to the nature of HazMat/CBRNE incidents the first priority must be the safety of staff and the public. Where available, personal protective equipment (PPE) should be worn but it is noted that standard PPE on site will vary depending on the environment, with sites such as community hospitals having ready access to items such as aprons, face masks and gloves in a way that non-patient facing sites with the NHS logo will not.

The principle to be followed by staff is that direct physical contact with the patient(s) should be avoided with the focus on isolating patients, escalating for urgent assistance and following the principles of Remove, Remove, Remove.

## **7. Quarantine (inside v outside)**

The most effective response to contamination as a result of HazMat/CBRNE is to direct people outside and follow the steps outlined in this guidance and on the action card contained in the Short guide for the initial management of self-presenters from incidents involving hazardous materials.

However, it is noted that it is not always feasible to do so and in some cases a more effective response can be coordinated in an appropriate indoor area. The most obvious example is presentation to a site in built up areas, where high footfall, busy roads etc. will prevent effective quarantine outside the building and may increase the risk of cross contamination.

Whether quarantine is inside or outside consideration must be given to contaminated water run-off.

Quarantine of patients can be a difficult undertaking, particularly for staff who are not used to dealing with such situations.

Consideration must be given to the dignity and privacy of patients, and while the first priority must be responding to the incident, cultural and religious sensitivities should be noted as a potential issue, as well as patients who may have learning disability or mental health issues.

Consideration should also be given to the issue of language barriers and the consequences of unclear communication, which could result in contaminated patients leaving the site rather than awaiting instruction.

The most appropriate method of quarantine should be based on risk assessment – if the site does not allow for effective quarantine outside the building a designated area should be pre-identified to isolate affected patients.

Where quarantine inside the building is considered most appropriate then local guidance relating to partial or total lockdown must be followed. Advice from the emergency services and PHE Health Protection Teams should be followed.

## **8. Recovery**

Recovery from a HazMat/CBRNE incident, as with any major incident, aims to minimise the consequences of an incident and resume normal operations as soon as is reasonably achievable.

It is vital that recovery is considered early during the response phase of the incident as recovery can be a complex and long-running process which may involve more resources than during the response phase of the incident and is likely to include the involvement of multiple agencies.

The main objectives of the recovery phase are to:

- save and preserve human life
- contain and limit the spread of contamination
- implement adequate remediation
- protect the health and safety of casualties, patients and personnel involved in managing the incident
- protect the public

- protect (as far as is reasonably practicable) assets
- safeguard the environment
- provide clear communication with casualties, patients, staff, public and partner agencies

To manage and coordinate the recovery process, a recovery coordinating group (RCG) should be established. The RCG may be either an internal Trust group or part of a wider external group involving partners.

To ensure an effective recovery process, the RCG should consider the following:

- perform a dynamic risk assessment to determine the impact and set out actions in order of priority
- decide on remediation options, e.g. through cleaning, decontamination, destruction
- have procedures in place to ensure the health and safety of staff and patients
- restore and/or maintain critical services
- facilitate a return to 'business as usual'
- assess, prioritise and arrange for adequate resources
- decontamination of equipment and premises
- establish re-occupancy/re-use criteria
- communication with the public, media and staff
- return of personal effects after decontamination
- assess financial implications (including cross agency tasking)
- assess reputational damage
- adequate logging/record keeping of actions
- evaluate the recovery effort
- debrief (Trust and multi-agency)

Some recovery measures require advice and/or involvement of other agencies, e.g. seeking Public Health England's advice on acceptable levels of residual contamination; liaising with partner agencies to ensure clear, accurate and unambiguous information is disseminated to the public and media; setting up a 'helpline' or dedicated phone line with support from NHS 111 for enquiries and advice or the cleaning up of contaminated buildings and equipment by specialist contractors taking account of the source and nature of the contamination.

Consideration should be given to the fact that the police may consider an area to be a crime scene and personal belongings, equipment and waste may need to be collected as evidence.

If the incident causes contaminated fatalities, disaster victim identification will be required as well as procedures for handling contaminated remains and/or decontamination of the deceased or body bag(s).

In light of this, the RCG should make sure that, as well as addressing internal business continuity priorities, timely liaison with other agencies takes place to seek professional advice and work collaboratively to ensure the best possible outcome of the recovery will be realised.

After the incident and debrief, all relevant documents (incident response plans, business continuity plans, multi-agency plans, training and exercise content, etc.) should be reviewed and updated accordingly with any lessons identified.

## **9. Training and awareness**

Face to face training will be delivered to frontline staff such as receptionists, security and administrative staff in areas where patients may self-present such as community hospitals and GP practices. This will occur every three years.

All other staff will be informed of the content of this guidance and the supporting Short guide for the initial management of self-presenters from incidents involving hazardous materials – HazMat/CBRNe and encouraged to watch the IOR video - <https://naru.org.uk/videos/ior-nhs/>

## 10. References

NHS England Emergency Preparedness, Resilience and Response (EPRR): Guidance for the initial management of self-presenters from incidents involving hazardous materials – 6 March 2019

National Ambulance Resilience Unit (NARU) – Initial Operational Response (IOR) for the wider NHS video - <https://naru.org.uk/videos/ior-nhs/>