

Plan:

Chemical, Biological, Radiological or Nuclear (CBRNe) Emergencies on SHSC sites

Executive Director lead	Executive Director of Nursing, Professions and Operations and Accountable Emergency Officer
Policy owner	Emergency Planning Manager
Policy Author	Emergency Planning Manager

Target audience	All SHSC staff
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Plan Version and advice on document history, availability and storage

This is version 4 of the CBRNe Plan. It builds upon the Emergency Preparedness, Resilience and Response Policy and reflects guidance from NHS England and NHS Improvement.

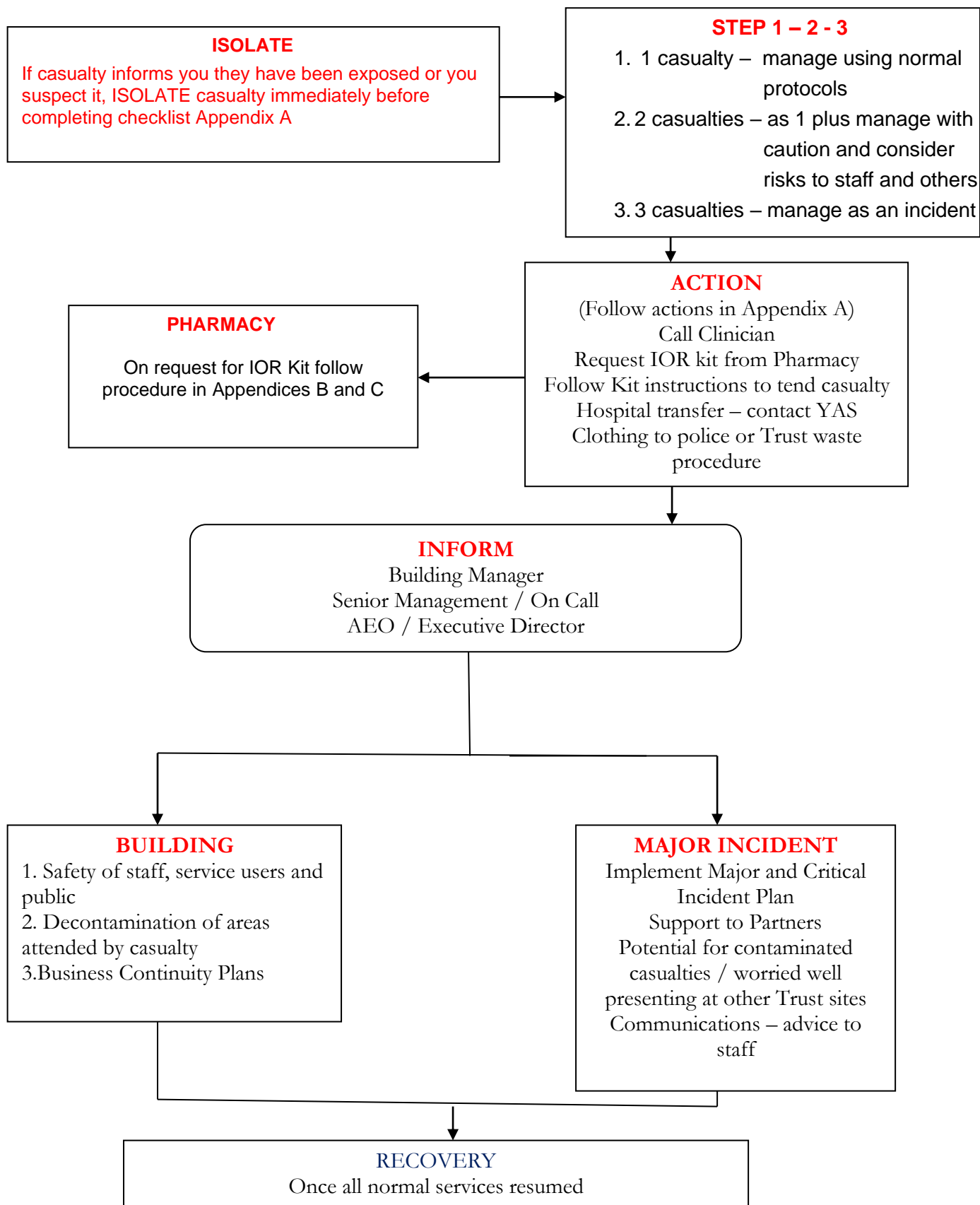
This plan will be available to all staff via the Sheffield Health & Social Care NHS Foundation Trust Extranet platform JARVIS. The previous version will be removed and archived.

Any printed copies of the previous version (V3 2019) should be destroyed and if a hard copy is required, it should be replaced with this version.

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Initial Operational Response Flowchart:



1. Introduction.

This plan is part of a suite of emergency documents. These plans, developed in consultation with partners, constitute part of the Trust Emergency Preparedness, Resilience and Response (EPRR) Policy which provides an established framework by which the Trust will respond to incidents.

Events in the UK and elsewhere have demonstrated that a Chemical, Biological, Radiological or Nuclear (hereinafter referred to as CBRNe) incident can occur anywhere and at any time. These events have also demonstrated that, though the likelihood is that casualties either suffering from the effects of such events or worried that they may have been exposed will go to hospital Emergency Departments, Walk in Centres or GP Surgeries, this isn't necessarily the case and that any premises displaying the NHS logo could be seen as a natural destination to seek help.

There is an expectation from NHS England and NHS Improvement, set within the Emergency Preparedness, Resilience and Response core standards, that all NHS Trusts will have in place the ability to provide an Initial Operational Response to a CBRNe incident.

In respect of our Trust, the expectation focuses on the potential for affected or potentially affected casualties to self-present at any of our buildings or services. The purpose of this plan is to provide guidance in this event.

The objectives of this plan are to define:

- The actions that staff should take in response to a CBRNe incident.
- Warning and alert pathways for staff.
- Response and co-ordination arrangements between our Trust and partner agencies for the management of CBRNe incidents.
- The actions to be considered to enable post-incident recovery.

2. Steps 1 - 2 – 3

There are two types of incident to which these steps apply:

HAZMAT – Accidental release of hazardous material, non-intentional which has limited scope and generally, few casualties.

CBRNe – Deliberate release of Chemical, Biological, Radiological or Nuclear substance, primarily as a criminal act; often designed to be widespread and create massive disruptive impact. The 'e' in the term is for explosive but in the context only of enabling the release.

Step 1 – One casualty. Treat as genuine until assessed. Isolate from other people by asking them to go back outside or moving them to a nearby room that can be sealed off from use if necessary, then manage using normal protocols for anyone self-presenting at the facility e.g provide reassurance, complete checklist, call clinician to assess (news/media research/police/ambulance for supporting evidence of an incident will assist).

Step 2 – Two casualties with similar symptoms and no apparent cause. As Step 1 plus manage with caution and consider risk to staff and others.

Step 3 – Three or more casualties with similar symptoms and no apparent cause. As Step 1 and 2 plus manage as an incident involving hazardous materials; risk assess before intervening; seek specialist help immediately.

Should the assessment and symptoms presenting suggest casualty has been exposed:

1. Contact Transport services to attend Pharmacy to collect Initial Operational Response (IOR) Kit(s)
2. Contact Pharmacy requesting IOR Kit(s) and expected time of arrival given by Transport
3. Inform Pharmacy of your name, role, location, name of casualty
4. Upon receipt of IOR Kit, sign receipt form to send back to Pharmacy.
5. Follow instructions in kit to tend to casualty.
6. Should the casualty require transfer to a hospital ED, contact Ambulance detailing action taken and what is required. If emergency, call 999.
7. Retain clothing bag for Police. If they don't want it, dispose using Trust/Site waste procedure (Yellow bag).
8. In the absence of a kit, sheets / blankets can be used to provide for patient dignity. Paper towel/roll for casualty to wipe/pat off contaminate. Orange bag for clothing, to transfer into yellow clinical waste bag.
9. Specialist advice can be sought from UKHSA (United Kingdom Health Security Agency or Toxbase (Appendix E).

Our Trust Pharmacy hold a small stock of IOR Kits and have a short procedure and receipt system to follow when requests for the kits are made (see Appendix B and C).

3. Command and Control.

Notification of a CBRNe incident should immediately be made to our Trust Accountable Emergency Officer (Executive Director of Nursing, Professions and Quality). If unavailable, a member of our Trust's Executive team or Director on Call, as appropriate through Switchboard (0114 271 6310).

The Accountable Emergency Officer or Director will determine whether this is a Major Incident and if so, implement the Trust Major and Critical Incident Plan. (Contact with partners - police, ambulance and neighbouring Trusts will assist decision).

It is likely that multi-agency command, control and co-ordination arrangements would be in place, forming a Strategic Co-ordination Group. Yorkshire Ambulance Service (YAS) and South Yorkshire Police would take the initial lead.

4. Managing Suspected Contaminated Casualties.

4.1. Immediate Actions at site of Initial Contact:

- The priority is to contain the potentially contaminated casualties to prevent spread to other patients, staff and facilities. If possible, they should not be allowed to enter the building, but isolated in a secure area away from others.
- Implement Lockdown and place notices on all exits and entrances to explain why lock down is in operation
- Potentially contaminated casualties who have entered the building should be reassured and asked to remain calm and go outside to be directed to wait in an isolated, secure area away from other people.

- Call Yorkshire Ambulance Service (YAS) 999 and Police to inform them of the situation. Follow any advice given by YAS, and then escalate details through line management to director level, (out of hours the SHSC Director on-call) and advise them of the situation. The Director will inform our Trusts Accountable Emergency Officer and Chief Executive, who will in turn contact NHS England (Local Area Team) and UKHSA to inform them of the situation

4.2 Other Actions to be taken:

The Accountable Emergency Officer or Chief Executive, who may be managing the incident remotely, is to ensure that the following actions have been taken:

- Lock down the facility/site where casualties are identified as contaminated.
- Secure any contaminated area to prevent unauthorised access.
- Air-conditioning system and fans are turned off, to isolate contamination area.

Anyone encountering the casualties must be considered as contaminated and should not be allowed to leave the secured area. Explain the situation and inform them it is in their and their family's interest, to stay and await advice and treatment. If people do leave, record their personal details.

- Ensure the casualties are regularly reassured.
Ensure any staff encountering the casualties must follow basic infection control protocols, i.e., wearing gloves, mask, and aprons.
- Consider implementing the Major and Critical Incident Plan and maintain liaison with YAS.
- Maintain situation reporting updates.
- Record all patient details
- Ask each patient the questions shown in APPENDIX A

4.3 Decontamination. It is likely that much of any contamination will be on the exposed skin and outer clothing. Therefore, removing the casualty's outer clothing (placing it in an air-tight bag if possible) and pad/blot exposed areas of skin from the head and working down the body will reduce/remove contaminants and should be a priority. Advise casualties to blow their nose and wipe their eyes. Any clothing that has adhered to the skin should not be forcibly removed.

4.4. External Roles and Responsibilities. It is outside the scope of SHSC to manage suspected CBRNe incidents themselves, and specialist assistance from external agencies will be necessary, i.e., Yorkshire Ambulance Service (YAS) and the Police.

4.5. The care of suspected contaminated casualties is to be handed to specialist staff (i.e., YAS Hazardous Area Response Team) as soon as practicable.

5. Stand down

5.1. The decision to either Stand Down or commence Recovery will be made externally by the Strategic Co-ordinating Group, in consultation with other organisations. The transition is not a distinct handover of complete responsibility from one organisation to another but will be phased.

5.2. The timing of handover may vary between organisations, but will consider the following:

- There is no known further risk to life in relation to this emergency.
- Hazardous material (HAZMAT) decontamination of the incident site has been completed in accordance with specialist advice from UKHSA and the Scientific and Technical Advice Cell (STAC).
- There are no serious public order or crime prevention issues which impact on the overall strategic co-ordination of the recovery phase.
- The responding emergency services are operating at a level which does not necessitate a Strategic Co-ordinating Group to manage and facilitate their activity.
- There are no known scenarios which may require the reinstatement of the emergency phase in the foreseeable future.
- The Local Authority are satisfied that it has in place the infrastructure and processes to take co-ordination from the Police.
- NHS England and UKHSA to provide on-going professional advice, medical assessment, and reassurance for those involved in the incident.
- NHS England to enable the provision of long-term support to casualties.
- STAC to support subsequent clean-up operations, including arrangements for the management of hazardous waste.

6. Training and Specialist Advice

6.1. The Initial Operational Response (IOR) programme was introduced by the Home Office in 2015 to improve patient outcomes following contamination with hazardous materials (HAZMAT) or a CBRNe incident.

6.2. A 15-minute training video outlining the principles of the IOR as applicable to NHS settings that may expect to receive self-presenting patients following an incident is available at: <http://naru.org.uk/videos/ior-nhs/>.

6.3. Specialist advice on CBRNe incidents can be obtained from UKHSA or Toxbase.

6.4 A programme of mandatory training for all staff is conducted internally by the Trust's Education and Training Centre, that includes Initial Operational Response to a CBRNe incident.

7. Psychological Aspects of CBRNe emergencies

7.1 During and in the aftermath of a CBRNe emergency our Trust may be contacted by service users and others requesting access to our services. These will include:

- Those who were at the scene who have been contaminated;
- Those who were at the scene who have not been contaminated
- Those who were at the scene and have not been contaminated but are still worried
- Relatives

7.2 What are people's reactions likely to be?

It is likely that many will be experiencing emotional and physical reactions to distress. The emotions could be fear, anxiety, sadness or even anger. Physical sensations could include rapid pulse, palpitations, sweating, increased muscle tension, shortness of breath, chest pain and gastrointestinal sensations. Casualties could appear disorientated and in a 'daze'.

In some individuals there may also be partial or complete memory loss for the incident. A proportion of casualties may hyperventilate due to the anxiety of potentially being involved in a hazardous materials incident. These are all normal short term reactions to trauma and do not mean a person will develop a long term mental disorder.

7.3 How can I help somebody experiencing distress in a post CBRNe situation?

- Keep your voice calm and speak in a low and empathic tone
- Model calming body language- e.g., slow controlled breathing
- Provide them with information about stress reactions and how to cope with stress
- If it is possible to be sure that they are not contaminated, then explicitly rule this out- provide them with another explanation for their symptoms, e.g., stress related
- Clarify how a person becomes contaminated, and if they have been contaminated then provide clear information about how they will be treated.
- Speak slowly and repeat information if necessary. Anxiety can reduce the ability of people to comprehend and remember information.
- Help connect people with loved ones /sources of support.

7.4 Those with pre-existing mental health /cognitive impairments

The stress surrounding a CBRNe emergency has the potential to worsen the symptoms of individuals who have pre-existing mental health disorders or cognitive impairments.

Note: these symptoms may be difficult to differentiate from the symptoms of exposure

7.5 How might individuals with pre-existing mental health disorders/ cognitive impairments react to a CBRNe emergency?

- People with cognitive impairments or learning disabilities may struggle more than usual with comprehension and memory.
- People with communication problems may find it harder than usual to communicate with you
- Autistic individuals may resort to self- stimulatory behaviour such as hand flapping or body rocking, or they may simply 'shut down'. They may also wander or bolt from the area and may not respond appropriately to authority figures
- Individuals with Dementia may have more difficulties than usual with comprehension and memory. They may also become agitated and potentially wander off.
- Those with pre-existing anxiety disorders may experience heightened anxiety symptoms and/or panic attacks.
- Those with specific health anxiety may experience physical symptoms that they believe are due to contamination but are actually the result of anxiety. They may repeatedly request investigations or reassurance.
- A CBRNe emergency has the potential to increase some of the common mental health conditions including Anxiety, Depression, Substance Misuse, Somatisation and PTSD.

7.6 What can I do to help people with pre-existing mental health disorders /cognitive impairments?

- Take time to check their mental health history and medication requirements
- Aim to reduce their distress by acting in a calm way and speaking in a low tone
- Provide information in a simple and clear way, speak slowly, and repeat information
- Connect with significant others to find the best way to interact with the person. However always interact with the person in the first instance
- If the individual becomes agitated take them to a quiet space to calm down
- Make sure that the person is appropriately supported and cannot wander off.

7.7 Managing casualties suspected of being contaminated with a hazardous material, i.e. Chemical, Biological, Radiological, Nuclear (CBRNe).

Casualties that may present at a Trust site in the event of a CBRNe emergency may either be known to the service or in a state of confusion –see the NHS logo and seek assistance.

8. Symptoms

Do they have symptoms?

- Signs of powder, liquid or other contaminant on skin or clothing.
- Coughing
- Skin blistering/burns
- Visual disturbance indicating they have been at an incident and may be contaminated.
- Sore, bloodshot, or watery eyes

These symptoms can be present in a range of other conditions and as such, staff may need to use intuition and conduct basic research through media reports, police, ambulance etc. to recognise whether an incident has taken place.

Did the accident/ incident involve chemicals and were they exposed to them? (Splashed on/ inhaled/ ingested)

Where did the accident/incident take place?

How close was the casualty to the accident/incident? (Is the casualty likely to have been exposed or just worried well?)

For further guidance refer to CBRNe/ HAZMAT Guidance for NHS Trusts and GP Practices

or phone UKHSA or Toxbase (see Appendix E)

9. Recovery

The focus in this stage is:

- Normalisation of services, perhaps to a new definition of what constitutes normal service.
- Restoration of business-as-usual services, including an element of catching-up with activities that may have been scaled-down or suspended as part of the response.
- Post-incident review of response, and sharing information on what went well, what could be improved, and lessons learnt.

- Taking steps to address staff concerns/issues.
- Reviewing Plan, making any amendments.

Health and Social Care services may experience persistent secondary effects for some time, with increased demand for continuing care from:

- Service users whose existing illnesses have been exacerbated by the experience.
- Those who may continue to suffer potential medium or long-term health complications.

10. Situation Reporting

There will be a requirement for situation reports (sitreps). To minimise the burden of reporting, the sitrep reporting within Trust should be co-ordinated with requests for information from external sources.

Unless otherwise advised, in the event of a Major Incident being declared, use the sitrep template provided in the Critical and Major Incident Plan to ascertain the pressures on each team in the Trust. See Appendix D

The sitrep template includes generic questions about how a team is performing but may be amended to request other information such as:

- The situation of the specific area of business.
- Possible changes in practice or duties in response to the situation/staffing levels.
- The projected likelihood of continuation of business.
- The projected demand on the specific areas of business affected.

Once compiled the sitrep should inform communications made to staff.

11. Associated Policies and Plans

Emergency Preparedness Resilience Response (EPRR) Policy
Major and Critical Incident Plan
Security Policy

12. Related Documents and References

NHS England (2013) EPRR Framework
NHS England EPRR Guidance for the initial management of self-presenters from incidents involving hazardous materials (February 2019)

13. Monitoring and review

This plan will be audited by review as part of the governance and reporting procedures included in it. Any failure to complete or update the plan within the timescales will be addressed as it occurs.

Furthermore, monitoring of training and exercising of this plan will be conducted by the Emergency Planning Manager to ensure the plan remains up to date, irrespective of its normal review dates.

14. Equality Impact Assessment

SHSC are committed to providing equality of opportunity, not only in its employment practices but also in the services for this plan for which it is responsible. The Equality Impact Assessment of the plan is neutral.

SHSC also value and respect the diversity of their respective employees and the communities they service. In applying this plan they will have due regard for the need to:

- Eliminate unlawful discrimination
- Promote equality of opportunity

Provide for good relations between people of diverse groups

15. Version Control

Version No.	Type of Change	Date	Description of change(s)
1.0	New Plan – requirement of NHS England’s EPRR Core Standards	June 2014	New Plan
2.0	Plan temporarily revised to reflect NHS England core standards 2018, to include CBRNe/HAZMAT guidance telephone number.	August 2018	Aligned with NHS England EPRR core standards
3.0	Plan re-written to reflect Trust response training, equipment and new format of trust plans.	May 2019	Complete re-write in line with Trust format for plans and policies and to meet new EPRR CBRNe guidance.
4.0	Review of plan.	March 2022	Update terminology. Replace references to PHE with their new title UKHSA

Appendix A – IOR Kit deployment procedure

Chemical, Biological, Radioactive, Nuclear Incident

CASUALTY CHECKLIST

If casualty informs you they have been exposed or you suspect it follow this checklist

DO NOT TOUCH THE CASUALTY

Tell those affected to:

REMOVE THEMSELVES

...from the immediate area to avoid further exposure to the substance or exposing others. Fresh air is important. If the skin is itchy or painful, find a water source.

COMPLETE BELOW TO ASSIST ASSESSMENT

Name:.....

Date of birth:.....

Time/Date of arrival.....

1	Did the accident/incident involve chemicals and were they exposed to them? (<i>Splashed on, inhaled, ingested, etc</i>)	
2	Do they know what the contaminating agent is?	
3	Where and when did the accident/incident take place?	
4	How many people were involved?	
5	How close was the casualty to the accident/incident? (<i>Is the casualty likely to have been exposed, or just worried well</i>)	
6	Does the casualty have any of the following symptoms: <ul style="list-style-type: none">• Signs of powder, liquid or other contaminant on skin or clothing.• Coughing• Skin blistering/burns• Visual disturbance indicating they have been at an incident and may be contaminated.• Sore, bloodshot or watery eyes	

1. Call a Clinician/Manager to assess whether the casualty has been exposed (a check of local news/media for reported incidents is a good source to assist, together with contacting Police and Ambulance 999 to inform them).

2. Should de-contamination be considered necessary, contact Transport to obtain Initial Operational Response (IOR) kit from Pharmacy and Pharmacy to request a kit, providing expected time of arrival (ETA) of transport.

3. Inform Pharmacy of your name, role, location, name of casualty.

4. Tell those affected to:

REMOVE OUTER CLOTHING

...if affected by the substance. Try to avoid pulling clothing over the head. Do not smoke, eat, or drink. Do not pull off clothing stuck to skin.

REMOVE THE SUBSTANCE

...from skin using a dry absorbent material (paper towel) to either soak it up or brush it off. Rinse continually with water only if the skin is itchy or painful.

5. Upon receipt of IOR Kit, sign receipt form to be sent back to Pharmacy.

6. Follow instructions in kit to tend to casualty.

7. Retain clothing bag for Police. If they don't want it, dispose using Trust/Site Clinical waste disposal procedure.

8. In the absence of a kit, sheets / blankets can be used to provide for patient dignity. Paper roll for casualty to wipe /pat off contaminate. Clothing in clinical waste bag.

9. Specialist advice can be obtained from UKHSA (United Kingdom Health Security Agency) or Toxbase.

10. If casualty needs transferring to hospital, inform ambulance together with action taken. Seek advice on discharge of casualty.

Appendix B – Pharmacy IOR Kit deployment procedure

Chemical, Biological, Radioactive, Nuclear Incident

PHARMACY PROCEDURE

Upon receiving a request from a member of Trust staff for deployment of an Initial Operational Response (IOR) Kit for Decontamination:

1. Obtain name, role, location of the person requesting, together with the name of the casualty.
2. Obtain the ETA given to the requester from Transport Services for collecting the kit from Pharmacy and arriving at person requesting's location.
3. Record details on receipt form and send with kit to person requesting, retaining a copy.
4. Inform Emergency Planning Manager as soon as practicable that a kit has been deployed.
5. Keep signed receipt.

Note: In a large scale CBRNe incident, where ambulance resources are stretched, there may be several requests for kits to be deployed.

Chemical, Biological, Radioactive, Nuclear Incident
Initial Operational Response Kit Deployment

Person requesting:	
Role:	
Time/Date:	
Location:	
Casualty name(s)	
IOR Kit issued (please circle)	YES NO
Number of kits issued:	
Reason for non-issue (if applicable)	
Issued by name:	
Signature:	
Time/Date:	
Received by name:	
Signature:	
Time/Date:	

Emergency Planning Manager informed by email (attach copy):
Terry.Geraghty@shsc.nhs.uk

Date filed:.....

Appendix C – IOR Kit receipt form

Chemical, Biological, Radioactive, Nuclear Incident Initial Operational Response (IOR) Kit Allocation Receipt

Number of IOR Kits allocated	
Recipient	
Delivered by:	
Role:	
Received by (name / role)	
Signature:	
Date received:	

Appendix D - Emergency Planning Situation Report (Sit Rep)

This Situation Report is to be completed by the Service Director or Senior Manager deputising for them in each Directorate. Please return this to the Emergency Planning Manager on a daily basis until usual service is resumed. In the event of an IT outage please use this template as a structure to phone in the information to 07896 791389 or to Deputy Chief Executive, the Trust Accountable Emergency Officer.

Note: Please complete all fields. If there is nothing to report, or the information request is not applicable, please insert NIL or N/A.

Directorate:		Date:	
Name & Role (completed by):		Time:	
Mobile Telephone number:			
Email address:			

Type of Incident	e.g. Flooding.
Have you experienced any <u>serious</u> operational difficulties e.g. travel to community service users, staff unable to attend for duty, requests for assistance.	
Impact on services and patients:	
Have you invoked Business Continuity Plans?, <i>including any planned reduction in services and any rescheduled appointments etc.</i>	

Impact on other service providers		
Mitigating actions taken		
Additional comments,		
Staff Unable to attend work Please list job roles and numbers:	Role	Number unable to attend
	•	
	•	
	•	
	•	

Appendix E – Useful contacts

Yorkshire Ambulance Service (Ambulance Control)	01709 828820
National Poisons Information Service's TOXBASE	0344 892 0111
Sheffield Clinical Commissioning Group (SCCG) - in hours On Call Director - out of hours	0114 305 1179 via Ambulance Control
NHS England (Local Area Team)	0333 012 4267
UKHSA (United Kingdom Health Security Agency) (South Yorkshire Health Protection Team) 0114 321 1177	
(out of hours for health professionals only – 0114 304 9843 ask for UKHSA on call)	
Emergency Co-ordinated Scientific Advice System (ECOSA)	0300 3033 493