Doncaster and Bassetlaw Teaching Hospitals NHS Foundation Trust

ONLY ACCESSIBLE VIA THE INTRANET

Hazardous Materials (HAZMAT) and Chemical Biological Radiological Nuclear and Explosives (CBRNe) PLAN

This procedural document supersedes: CORP/RISK 26 v.3 Hazardous Materials (HAZMAT) and Chemical Biological Radiological Nuclear and Explosives (CBRNe) Plan.

Did you print this document yourself?

The Trust discourages the retention of hard copies of policies and can only guarantee that the policy on the Trust website is the most up-to-date version. **If, for exceptional reasons, you need to print a policy off, it is only valid for 24 hours.**

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Name of author:	Jeannette Reay, Emergency Planning Officer
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Target audience:	All Trust staff. Local category 1&2 partners

WARNING: Always ensure that you are using the most up to date policy or procedure document. If you are unsure, you can check that it is the most up to date version by looking on the Trust Website: www.dbth.nhs.uk www.doncasterccg.nhs.uk → 'Policies and Procedures'

Associated Documentation:

This plan is a subsidiary of Doncaster and Bassetlaw Teaching Hospitals NHS Foundation Trust (The Trust) Major Incident Plan Ref: CORP/RISK 1 and should be read in conjunction with it and the following documents:

- Business Continuity Policy and Strategy Ref: CORP/RISK 9
- Security policy CORP/ HSFS 15 (see section on Lockdown)
- Waste Management Policy CORP/HSFS 17 (A) and Waste Management Manual (B)

External Documentation

- CBRN Incidents: Clinical Management and Health Protection (Health Protection Agency September 2008).

- A guide to the Radiation (Emergency Preparedness and Public Information) Regulations 2001

- TMT Handbook –Triage, Monitoring and Treatment of patients exposed to ionising radiation following a malevolent act. Rojas and Palmas et al 2009

- The NHS Emergency Planning Guidance 2006 : underpinning materials
  Planning for radiation emergencies and managing casualties/patients who may have been exposed to ionising radiation or contaminated with radioactive material as a result of an incident or emergency.

- Initial Operational Response to a CBRN Incident (Joint Emergency Services Interoperability Programme – JESIP) September 2013

- 2018/19 NHS standard contract

- NHS England Core Standards for Emergency Preparedness, Resilience and Response (EPRR)

Legal Framework
Civil Contingencies Act 2004
Health and Social Care Act 2012

Regulatory Framework
NHS Improvement's Single Oversight Framework
Care Quality Commission's Fundamental Standards

For more information on this document please contact:
The Emergency Planning Officer.

Amendment Form

Version	Date Issued	Summary of Changes	Author
Version 4 (amended 3 Oct 2019)	3 October 2019	Further changes to telephone numbers within section 23 – Accessing National Reserve Stocks for Major Incidents (pages 31 and 32).	Neil Colton Emergency Planning Officer
Version 4 (amended 12 August 2019)	12 August 2019	Change to telephone numbers access to Drug Pods, Section 23.1 (page 31) - removal of YAS telephone numbers	Neil Colton Emergency Planning Officer
4	27 June 2018	Reviewed in line with YAS audit recommendations (2017): • Section 15: 'remove it' changed to 'remove contaminant'. • Section 20.2: Wording slightly updated. • Appendix 4: Protocol for self-presenting patients added (inc inform security). Other amendments made: • Updated Trust name and logo throughout; • Updated job titles throughout; • Standardised references to ED throughout; • Replaced references to Monitor's Compliance Framework with NHS Improvement's Single Oversight Framework; • Replaced Care Quality Commission's Essential Standards of Quality and Safety with Care Quality Commission's Fundamental Standards; • 7: Action cards are also held in the decontamination room at DRI; • 14.1: Lockdown switches at DRI are located in the 'Security Hub' (changed from reception desk); • 15.2: Added bullet point: 'The receptionist must inform security staff of the self-presenters'; • 17.3: Paragraph 2 added, paragraph 3 reworded, sentence added to end of paragraph 4 – to clarify requirements per the advice of the Trust's radiation protection advisor; • Section 24: Removed the word 'clinical' from the title (as dealing with all waste); • Sections 24 and 25: Added the sentences 'Special arrangements will be required for radioactive material/aqueous radioactive waste' and 'Red waste bags are available for patients clothing and these should be double bagged, tied, sealed and labelled with the patient's name, date, time etc. Any other contaminated material from the decontamination process will be placed in the plastic bags' and 'In all cases of radioactive waste, the RPA must be contacted so that appropriate reporting is provided to, and advice and permissions can be sought from, PHE and the Environment Agency'. • Section 32: Monitoring compliance – review updated to be every three years or as required due to a change in guidance.	Jeannette Reay Emergency Planning Officer

3	13 December 2016	Review of policy in line with annual requirements for EPRR The following amendments have been made: • Section 15.3: Amendments to Mass decontamination process following discussion with local Fire& Rescue regarding deployment of mass decontamination units. • Appendix 1: Escalation Flow Chart amended to include latest guidance on declaring critical incidents rather than declaring an internal major incident (EPRR Framework 2015). • Appendix 3: Mass decontamination protocol. • Action cards for activating and managing the mass decontamination protocol.	Jean Yates Planning Lead
2	27 October 2015	Reviewed in line with annual requirement: The following amendments made: • Updated in line with the most recent NHS guidance in managing self-presenters potentially contaminated with chemical substances. • Inclusion of the Joint Emergency Services Interoperability Principles : JESIP – 2103 • Section 23: page 26: **Accessing National Reserve Stocks**. Amendment made in line with NHS England Gateway Reference 03088 – 'EPRR: UK Reserve National Stock for Major Incidents – How to Access Stock in England' 27/2/2015. The National process has been changed.	Jean Yates Planning Lead
1	January 2014	Full revision of original 2008 plan, in line with 2013 changes to emergency preparedness, resilience and response and additional requirement to include a section on nuclear, biological and explosive incidents. **Please read in full** This procedural document supersedes: CORP/HSFS 19 v.1 - Chemical or Radiation Contamination Incident Hospital Plan.	Jean Yates Planning Lead.

Contents

List of Key Numbers:

- DBTH Executive On Call: via switchboard
- Senior Manager On Call: via Switchboard
- NHS England Yorkshire & the Humber

  0333 012 4267

  Press option 2 and ask for the South Locality 1st on call officer

  If you are not put through to the paging bureau (ie you are put back to the message to choose from options 1, 2 or 3) then dial the alternative number **0203 949 7273**

  Email: england.yorkshire-eprr@nhs.net

- Public Health England (Health Protection Agency/Environment Agency advice) Via DBTH Switchboard who will contact the On-Call Officer
- DBTH Radiation Protection Adviser – during Office Hours via DBTH Switchboard.
- Trust Waste Management Co-ordinator – during office hours **01909 500990**

1. INTRODUCTION

This plan applies to all hospital sites within the Trust. It describes the action that needs to be taken in order to manage a potential contamination incident, whether involving hazardous materials (HAZMAT) or an incident which may be construed as an attempt to perpetrate an act of terrorism, releasing chemical, biological, nuclear, radiological substances, or explosive devices (CBRNe). Action cards associated with the plan describe the roles and responsibilities of key staff in responding to an incident and are retained in the Incident Control Room, electronically for on call managers and executives and in the Emergency Departments (EDs).

The role of ED staff is critical to the successful implementation of this plan because the ED is the most common route of access for presenters who have been involved in an incident. The staff within ED are required to:

- prevent where possible, or restrict contamination of the ED;
- assess the presenting patient and determine if decontamination of the individual is required before treatment (if any) can be administered;
- escalate any incident to Trust senior managers for support and senior decision-making;
- liaise with partner emergency services to determine the nature and any likely consequences of the particular substance the patient presents with;
- Maintain the Chain of Evidence.

In most incidents where members of the public are exposed to a contaminant, e.g. as a result of a chemical spillage, decontamination would be undertaken at the scene of the incident by the Ambulance Service, before transferring to ED if any medical treatment is required. Mass decontamination, where wider exposure has occurred, is generally undertaken by the Fire and Rescue Service, supported by the Hazardous Area Response Team (HART) branch of the Ambulance Service.

It is however, very likely that contaminated individuals may 'self present' at the ED and the department will work in close partnership with the ambulance and fire service particularly, and Police where a deliberate terrorist attack is believed to have taken place, on managing such incidents.

2. PURPOSE

The purpose of the plan is to ensure the Trust is resilient against HAZMAT and CBRNe incidents.

As a minimum, the Trust plan:

- Delivers the requirements of the Civil Contingencies Act (CCA) 2004 and the duties placed upon acute hospitals as Category 1 responders.
- Complies with the requirements of NHS England national Core Standards for EPRR.
- Meets the expectations of Monitor's Compliance Framework for NHS Foundation Trusts.
- Complies with Care Quality Commission Essential Standards of Quality and Safety.
- Takes into account published expert guidance on management of HAZMAT/CBRNe incidents.

3. DEFINITIONS

3.1 CBRNe

Incidents that involve the **deliberate** release, of chemical, biological, radioactive or nuclear substances, with the intention of causing harm in relation to criminal or terrorist attacks. Explosive devices are now considered part of the threat.

3.2 HAZMAT (Hazardous Material)

Accidental spillage or release of chemical, biological, radioactive or nuclear material with no deliberate intent to cause harm.

3.3 COMAH (Control of Major Accident Hazards) Regulations

If a business manufactures, stores or uses any **dangerous substances** in amounts that exceed certain thresholds, the Control of Major Accident Hazards (COMAH) Regulations apply to that business. The purpose of the regulations is to identify to localities, which high risk facilities are within their areas, and to ensure that such industries, operate in a safe and effective way to mitigate the risks of accidental chemical release. There are two thresholds for dangerous substances under COMAH regulations. These thresholds vary for different substances.

- If a company stores or uses more than the lower threshold for a dangerous substance the site is classed as a **lower tier site**.
- If a company stores or use more than the higher threshold the site is classed as a **top tier site**.

Dangerous substances covered by the COMAH Regulations include:

- ammonium nitrate
- oxygen
- hydrogen

- formaldehyde
- halogens
- petroleum products

A national register of all Top Tier and Lower Tier sites is maintained by the Health and Safety Executive, and is updated regularly. A copy of the most recent register relating to DBTH is kept within the Incident Control Room at DRI and in Kilton Room at Bassetlaw Hospital, along with wall maps identifying COMAH sites and sites of concern (e.g. Keep Moat stadium at Doncaster). All COMAH sites have to have plans in place to mitigate the risk of a major incident occurring on their site, which will impact on the locality.

4. ASSESSING THE RISK

The Civil Contingencies Act 2004 defines a civil emergency as:

- An event or situation which threatens serious damage to human welfare in a place in the UK
- An event or situation which threatens serious damage to the environment of a place in the UK
- War or terrorism which threatens serious damage to the security of the UK.

The defining word is 'threat' which implies intention.

Accidental release or exposure is a hazard and therefore not intentional.

The difference between an intentional release of a harmful substance, and the accidental release of hazardous materials is significant within this plan. To date, DBTH has never been involved in a CBRNe (deliberate intent) incident, although there have been a number of incidences involving members of the public self-presenting to the EDs, who have been exposed accidentally to hazardous substances, generally through work or after an environmental incident.

Nationally, although the likelihood of a significant terrorist threat is relatively low, the impact of such an event is potentially very serious. Terrorist threats therefore remain a very high priority on the National Risk Register (NRR) and as a result, our plans need to reflect this.

It may only become apparent during an incident that it is a CBRNe rather than a HAZMAT incident. Apart from being mindful of the criminal element of a deliberate act, initial management of casualties from either a HAZMAT or CBRNe incident is relatively the same.

5. ACTIVATING THE PLAN

The Senior Nurse or Consultant of the ED will activate this plan on:

- Receiving a warning from an emergency service, local industrial site, or other source, of an incident, release or explosion.
- The unannounced presentation of a number of casualties, small or large, with an unusual illness or symptoms.
- The presentation of a patient after exposure and who may be contaminated as a result, to a substance that may be harmful.
- A combination of the above.

6. DECLARATION OF CRITICAL INCIDENT

If the number of patients presenting to the ED requiring treatment and/or decontamination is beyond that of normal service capabilities, the ED Senior Nurse in discussion with the ED Consultant will further escalate the incident and seek executive approval as per the Trust Major Incident Plan to declare a Critical Incident (NHS England EPRR Framework 2015) (*Appendix 1: HAZMAT/CBRNe Escalation Flowchart).* If necessary, this could then be escalated to an internal major incident.

6.1 In the event that an internal major incident is declared, the command and control of the incident will be managed through the Incident Control Room as described in the Major Incident Plan (CORP/RISK 1).

7. ACTION CARDS

Action cards for the major roles played during HAZMAT/CBRNe incidents are site specific and are held separately within the relevant departments (in the decontamination room at DRI) and stored electronically on the *B:\Major Incident Control Room.*

Hard copies are retained in the Incident Control Room at DRI and in the Kilton Room at Bassetlaw. They cover the specific categories of incidents:

- Chemical /HAZMAT Incidents
- Biological Incidents
- Radiation/Nuclear Incidents
- Explosives incidents

They are to be used as a guide to key actions during incidents and are not to be seen as a definitive list. Prevailing circumstances will dictate actions.

8. GUIDANCE

National guidelines in the management of such incidents is available, and will support the requirements of both activating this plan and treating patients during any incident, the key guidance being:

- NHS England: Emergency Preparedness, Resilience and Response: Chemical Incidents: *Planning for the management of self-presenting patients in healthcare settings* – 2015.
- A guide to the Radiation (Emergency Preparedness and Public Information) Regulations 2001.
- TMT Handbook –Triage, Monitoring and Treatment of patients exposed to ionising radiation following a malevolent act. Rojas and Palmas et al 2009.
- Initial Operational Response to a CBRN Incident (Joint Emergency Services Interoperability Programme – JESIP) September 2013.

This guidance is referred to throughout the Plan.

9. CHEMICAL INCIDENTS

During a chemical incident staff should be aware that the material released could include some of the classic chemical warfare agents as well as normal industrial and household chemicals. Both groups of material fall into seven further general 'effect' categories:

- Nerve agents
- Blister (damaging) agents
- Choking (lung) agents
- Blood agents,
- Incapacitating (e.g. hallucinatory) agents
- Irritants (e.g. riot control agents)
- Corrosives (e.g. Hydrogen Fluoride)

Generally, most chemical agents likely to be used in an attack cause rapid symptoms in casualties and as such the victims of chemical agents will be quickly identified. However some chemicals can cause symptoms some 3-4 days later.

Signs and symptoms may include individuals attending in large numbers, presenting with inexplicable blisters, wheals, hives, or other rashes, choking or other respiratory ailments. Victims may also show signs of pinpoint pupils or uncontrollable salivation, runny eyes, nasal discharge, nausea, vomiting, urination and defecation.

10. BIOLOGICAL INCIDENTS

Biological hazardous materials may be found stored in hospitals, universities, medical research establishments industry throughout the country. At times, it is necessary to transport quantities of these types of materials. Dependent on the biological hazard that is being stored or transported, effects can range from minor through to life threatening types. A very small quantity of such material can be extremely dangerous. Biological hazards can be serious if the substance is ingested, inhaled or injected.

Biological Warfare is the deliberate dispersal of infective or toxic agents to kill or incapacitate humans and/or destroy or severely damage livestock, crops and disrupt the food chain.

The main risks are:

- Bacterial or viral agents.
    - Anthrax
    - Glanders
    - Tularaemia
    - Plague
    - Smallpox
    - Viral encephalitis e.g. Venezuelan Equine Encephalitis (VEE)
    - Viral Haemorrhagic Fevers

- Toxins
    - Botulinum Toxin
    - Staphylococcal toxins
    - Ricin
    - Mycotoxins

Guidance advises that clinicians should be alert to the unusual, the unexpected, and the case that 'just doesn't fit':

- an unusual illness (e.g. sudden unexplained febrile death, critical illness or pneumonia death in a previously healthy young adult)
- an unusual number of patients with the same symptoms
- an illness unusual for the time of year (e.g. 'flu' in summer)
- an illness unusual for the patient's age group (e.g. 'chickenpox' in a middle-aged adult)
- an illness in an unusual patient (e.g. cutaneous anthrax in a patient with no history of contact with animals, animal hides or products)
- an illness acquired in an unusual place (e.g. tularemia acquired in the UK)
- unusual clinical signs (e.g. mediastinal widening on CXR; sudden onset of symmetrical flaccid paralysis)
- unusual progression of an illness (e.g. lack of response to usually effective antibiotics; 'chickenpox' rash predominant on extremities)

Any confirmed case of smallpox, plague, pulmonary anthrax, glanders, tularemia, Venezuelan equine encephalitis (VEE) or viral haemorrhagic fever (VHF) in the UK should be assumed to be the result of a deliberate release until proven otherwise.

Biological release of bacterial or viral agents**,** as with naturally occurring infection, is likely to become a major public health issue. Strong similarities may be drawn from the outbreak of a naturally occurring infection. Usually biological incidents will be hard to detect or identify. Individual cases are likely to be identified by health care organisations as part of normal patient care. The consequences will only become apparent as increasing casualties present with similar symptoms.

Initial management of a patient with illness suspected to be related to a biological incident

The aim of initial management of the patient on presentation is to:

- Contain the potential biological agent
- Protect other patients staff and the public from exposure
- Seek early diagnosis
- When or if a diagnosis is made, inform Public Health England.

(*HPA CBRN Incidents: clinical management and health protection: Biological Incident Action Guide 2008).*

11. RADIATION AND NUCLEAR INCIDENTS

Manmade sources of radiation and radioactive materials are used in medicine (diagnostic imaging, radiotherapy), research, widely in industry (nuclear power stations, mining, food irradiation), industrial radiography e.g. of pipes, buildings, baggage, and for many other uses: fire exit signs, weapon sights, smoke detectors, and to make nuclear fuel and nuclear weapons.

Radioactive sources are regularly used in the Trust, other NHS establishments, universities, industry and are also transported within the region. The Ministry of Defence (MOD) has contingency plans in place which would be implemented in the event that an emergency occurred during transportation of defence nuclear materials.

Casualties may present who have received high radiation doses from being close to a radiation source and/or have been contaminated with radioactive materials:

- **Exposure** occurs when all or part of the body is irradiated.
- A person is **contaminated** when radioactive material is deposited on skin and/or clothing (**external contamination**), or into the body (**internal contamination**) by inhalation, ingestion (hand-to-mouth, food, drink), or absorption via a wound.

- In the same way that a patient who has had a CT scan or X-ray presents no risk to others, radiation safety precautions are **NOT** needed for patients who have been exposed to radiation but not contaminated.
- External contamination – usually dust or particulate matter – is readily removed by **decontamination.** This should be undertaken OUTSIDE of ED where practical.
- Radiation is readily detectable with equipment, and contamination is easily measurable. Medical physics, nuclear medicine departments, and front line services have equipment for detecting beta and gamma radiation, and people trained to use it.

Public Health England Guidance recommends that radiation exposure should be considered if patients present with:

- any newly diagnosed bone marrow depression (leucopoenia: infection; thrombocytopoenia: bleeding gums, nosebleeds, bruising).
- 'Burns', erythema, or bullae with no history of heat or chemical exposure.
- Sudden, rapid, hair loss **especially** if there is a relevant occupational history or unexplained nausea / vomiting +/- diarrhoea 2-4 weeks before onset.
- When dealing with **ANY** incident involving a bomb or other intentionally placed explosive device.

Initial management of a patient in a radiation incident:

- **Triage and treat** life-threatening injury **before** decontamination; if the patient's clinical condition permits, decontaminate first, and then treat.
- If trauma cases require surgery, perform as soon as possible (and certainly within 48 hours) if dose more than 1 Sievert, or await marrow recovery.

In all cases, ED staff will seek advice from the Trust Radiation Protection Advisor during office hours, or PHE (see how to contact in key numbers page 6).

12. EXPLOSIVE INCIDENTS

Explosive incidents, as with HAZMAT and CBRNe can be accidental or a deliberate intention to cause harm.

Sources of explosive incidents:

- Industrial: mining incidents; chemical plants and storage; firework factories and storage depots; transportation or explosive materials via road, rail, waterways networks
- Military: missiles; hand grenades; bomb; land mine

- Criminal: terrorism; revenge; suicide bombings; illicit drug manufacturing e.g. methamphetamine factories;
- Home; gas leaks; fire works

The characteristics of explosive agents:

Explosives are defined as 'low order' or 'high order'. Public Health England explains this as:

- Low order explosives (LE) make a subsonic explosion without an overpressure wave. LE include gunpowder/black powder (fireworks, pipe-bombs), smokeless powder, and petroleum-based bombs (Molotov cocktail, fuel tanks of aircraft in WTC attack New York 2001).

- High order explosives (HE) make a supersonic blast or 'overpressure' wave on detonation that causes primary blast injury. HE explosives include Semtex, TNT, nitro-glycerine, dynamite, C-4, and ANFO (ammonium nitrate fuel oil, as used in Oklahoma City truck bomb 1998).

- Both HE and LE can create a 'blast wind' (forced superheated air flow) that accelerates people and objects through space.

- Explosive devices may be 'manufactured' (mass produced for military use and subject to quality control; always HE based) or 'improvised' (using HE, LE, or both).

Injuries from an explosive incident can be many and severe:

Type of Injury	**Affects:**
Blast injury type 1: due to the force of the pressure wave	Ear; eye; lung; abdomen; brain. Can cause significant rupture damage to organ structures, air embolism,
Blast injury type 2:	Penetrating or blunt trauma injury due to flying debris. Traumatic amputation of limbs
Blast injury type 3:	Trauma to skull and long bones due to the victim being thrown against solid structures by the blast wind.
Miscellaneous	Burns; crush injuries; smoke inhalation;

Severe disability and death can result from such injuries (HPA *CBRN Incidents: clinical management and health protection: Associated Injuries and Illnesses 2008).*

As a Category 1 responder under the CCA 2004, DBTH needs to be prepared to accept casualties from any incident involving explosives; it is very likely that such an incident would necessitate the declaration of a major incident, with a number of local Category 1 responders being activated.

The Doncaster site of DBTH is a designated Trauma Unit within the Trauma Network. Trauma Units have a specific supporting role in the management of major trauma. In such cases, the nurse in charge of the ED will inform the ED Consultant and will activate the on-call Trauma Team. The purpose of this team is to assess and instigate any immediate life-

saving treatment with minimal delay, prior to transfer to regional trauma and burns facilities *(Yorkshire and the Humber Major Trauma Network - DRAFT Guidelines and Protocols- Management of Unstable Patients TU role p.19).*

ED capacity:

The ED at Doncaster can accept up to six trauma cases, dependant on staffing levels and the complexity of the injuries.

The ED at Bassetlaw is not designated as a Trauma Unit, therefore it is unlikely to be considered by the clinicians at the incident scene as a receiving hospital. The department, however, has the capacity dependant on time of day, to support a small number of patients and should be prepared to receive patients if necessary for stabilisation.

In the event of an explosive incident occurring on one of the DBTH sites, the Major Incident Plan and the Evacuation plan will be activated.

13. IDENTIFYING CONTAMINATION

There are three potential sources of contamination:

Primary Contamination	Takes place as a result of direct contact with the contaminating source.
Secondary Contamination	Results from the individual or object with primary contamination contaminating another individual or object.
Tertiary Contamination	Results from the individual, or object with secondary contamination contaminating another individual or object.

On presentation of a potentially contaminated patient, Emergency Department (ED) staff must attempt to identify the nature of contamination and what the appropriate action should be.

Information can be accessed initially through Toxbase and the Hazardous Area Response Team (HART TEAM) via the Ambulance Service. However if information is not available through this source then advice can be obtained from PHE.

14. LOCKDOWN

The purpose of lockdown is to isolate the ED and to reduce the risk of increasing the contaminated area from individuals attending the department unannounced. It is also security measure to protect or isolate the department in the event of any other serious incident. Both DRI and Bassetlaw have the capability to lock down the EDs. Security policy

CORP/HSFS 15 defines the lock down procedures and each ED has a local lockdown plan (*Appendix 2: Emergency Departments Lockdown protocol).*

It is the responsibility of the Nurse in Charge to authorise the lockdown. This instruction can be for partial or full lockdown. Whilst any door is in lockdown mode, the reception desk will be manned at all times and under no circumstances left unattended. In the event of fire whilst any or all doors are in lockdown, the receptionist must release the lockdown, which will allow the passage of people through to a fire escape route and the fire policy will be implemented in accordance with Trust policy.

Lockdown will be instituted to protect the department in the event of casualties arriving without prior warning. These casualties may be contaminated with substances that are seriously hazardous to health and puts at risk anyone that comes into contact with them. In the event that the ED waiting room becomes contaminated by self presenters before lockdown is achieved all or some of the area will be isolated to preserve the rest of the department.

With an incident involving large numbers of self presenting patients it may be necessary to partially "lockdown" the hospital site to ensure casualties do not enter. In this event the public will need explanations and reassurance on the need for the entrances/exits being secured.

The contaminated area will not be reopened until it is advised by the emergency services that it is safe to do so. This may follow decontamination. Advice can be sought from PHE on call team. In the case of radioactive contamination, advice should also be sought from the Trust Radiation Protection Adviser via DBTH switchboard during office hours and PHE out of hours.

14.1 Doncaster Site

The ED has the facility to electronically lock 6 doors situated on the periphery of the department. These doors can be locked singularly or all at the same time. Each door can be locked or released in isolation. The central control switches for the lockdown facility are situated in the Security Hub in the ED waiting room and will be activated by the receptionist on the instruction of the Nurse in Charge of ED .

14.2 Bassetlaw Site

The Emergency department at Bassetlaw Hospital currently has the ability to create a partial lockdown of the emergency department. This compromises of both internal and external department doors. The two doors at the rear of the department are not currently included in the formal lockdown arrangements. It is anticipated that in future building arrangement for the ED, these two doors will complete the lockdown circuit.

There are six designated lockdown switches situated behind the reception desk within the ED. Each switch is numbered 1-6. Each switch corresponds to a designated door in the ED. There are additional spaces on the panel for further doors to be added to the lockdown facility.

14.3 Montagu Site

The Minor Injuries Unit (MIU) has the facility to lock down the entrance doors to the MIU and also the linking door to the corridor/stair case and roller shutter to the Outpatients department. Should self presenters arrive at the MIU, the Senior Nurse Practitioner will instruct the activation of lockdown and follow procedures to inform the Matron and General Manager at Doncaster.

15. MANAGING CONTAMINATED PATIENTS

The process of managing contamination is straightforward:

"*Remove contaminant from the victims; keep it off yourself: do not spread it around*"

Whenever patients present in the ED with the suspicion of being involved in an incident involving substances hazardous to health, there is the potential to contaminate the area they present to, and any other area they pass through. This includes any staff or patients who are in the vicinity. This leads to specific areas being identified by the following terminology:

Hot Zone – the area of initial contact is declared as 'HOT', therefore anyone in that area is potentially contaminated. The aim is to minimise the risk to remaining 'zones'.

Warm Zone – suspected individuals will need to be decontaminated, and the area where the decontamination unit is set up is declared as a WARM ZONE.

Cold Zone - Once the decontamination process is complete, the affected individuals are removed from the warm zone to a contamination free area known as the COLD ZONE.

15.1 Known Patients Arriving by Ambulance from a Contaminated Scene

Patients arriving by ambulance from a contaminated scene should have been decontaminated at scene, unless their condition is such that urgent medical intervention is needed, at which point they will be transported to the decontamination room at the ED. The ED staff are likely to have been informed, in this situation, by the ambulance service at the scene, of the type of chemical or radiation source and be prepared to treat patients accordingly.

- Patients who have no symptoms will be asked to go home after their name and address and contact details are taken.

- Patients with symptoms are assessed by an appropriate medical person and treated according to their clinical requirements.

If the incident is large scale, YAS or EMAS may declare a Major Incident, and alert the Trust to activate our plan. If the incident results in low numbers of casualties attending, the Nurse in Charge of ED must still escalate the incident to the management teams/on call teams.

15.2 Unannounced Individual Casualties (self-presenters)

Individuals may arrive at ED reception, not necessarily injured, but concerned that they may have been contaminated in some way by a chemical agent or radiation. They may have been involved in an earlier incident known to the department, and then turned up later to the hospital rather than via the Emergency Services. If the ED has already been advised of the incident, the likely contaminant will be known and will therefore, determine the action to the taken.

However if there is no knowledge of the incident and therefore of the chemical involved, self presenters are presumed contaminated until proven otherwise. The ED must be sealed, and movement in and out of the area prohibited, in order to protect the remainder of the hospital from potential contamination (Lockdown).

- ED staff must use the Initial Operational Response (IOR) principles when dealing with unannounced casualties (see appendix 4)
- Contaminated patient(s) will be asked by the Receptionist to go back outside and wait at the identified waiting area next to the decontamination room.
- The receptionist must inform the Nurse in Charge of the department and ask for a decision to invoke the lockdown procedure.
- The receptionist must inform security staff of the self-presenters.
- An Assessment Nurse will enter the decontamination room via the internal doors and will don the appropriate PPE. Triage will then take place inside the decontamination room with the patient stood immediately inside the door (door open) and the triaging nurse at the far wall to maintain an adequate distance. Once a history has been established preparation can be made for the most appropriate method of decontamination (JESIP Guidance 2013).
- The car park attendant will be informed and will secure the entrance and exit to the Emergency Department car park.
- Once the lockdown procedure has been instituted, Service Assistants will man the designated doors, ensuring all doors remain locked, providing information and ensuring health and safety is maintained and potential fire hazards are identified.

- Non-contaminated self presenters will be asked on arrival to sit in the Outpatients visiting area where they will be triaged. If they need to be treated in the ED they will be directed to enter the department via the rear entrance.
- The Nurse in Charge of ED must escalate the incident to the management team during normal working hours, and the on call team out of hours in case there is the potential for the incident to escalate.

15.3 Mass number of self-presenters

The EDs at both acute sites are limited in the number of casualties that could safely be decontaminated. Decontamination involves the redirection of a significant staff resource and therefore undertaking mass decontamination on either site is not appropriate. In such an event, the nurse in charge of the ED may seek assistance from the Fire and Rescue Service, who may be able to attend the hospital site with their mass decontamination unit.

Requesting the Fire service mass decontamination unit should be at the discretion of the nurse in charge of the incident and in conjunction with the Trust Incident Co-ordination Room. The basis of the request should be based on the number of people who are requiring decontamination outweighing the departmental facilities. It may be decided by partner Emergency Services that it would be more appropriate to set up mass decontamination facilities off site but close to ED, in line with Fire & Rescue and Ambulance decontamination plans. Sites for potential mass decontamination have been agreed with the relevant emergency services.

In all cases where Fire and Rescue Services are called to support decontamination, it should be noted that the unit may have to come from out of area (if the local service is involved at the incident scene) and may take some time to arrive. It may also take some time for the mass decontamination unit to be set up therefore the ED staff must continue to decontaminate until support is available.

15.3.1 Mass Decontamination site - Doncaster Royal Infirmary

South Yorkshire Fire and Rescue Service has assessed suitable sites. In the event of the department needing the support of a mass decontamination unit, the main car park (Gate 3) would be closed by the police and the fire service would erect the unit in the car park between the two outpatient entrances.

15.3.2 Mass Decontamination site - Bassetlaw Hospital

East Midlands Ambulance Service has assessed suitable sites. In the event of the department needing the support of a mass decontamination unit, Blyth Road would be closed by the police and the fire service would erect the unit on Blyth Road, opposite the main entrance to the hospital grounds.

15.4 Maintaining Emergency Services for Patients

During any incident, unless the scale is significant, we must continue to accept 'normal' Priority 1 and cardiac arrest patients. It is therefore imperative that both sites have alternative routes into the departments that do not compromise any contaminated scene. If the numbers attending from the scene are such that normal P1s cannot be safely managed, this must be escalated to the Incident Control Team for a decision and action to divert to other acute Trusts (SY&B Divert Policy).

Doncaster site:
Route 1: Depending upon the size of the Hot Zone, ambulances will access the site at Gate 4, Main Entrance, and proceed along the main corridors as designated into the back of the ED.

Route 2: Ambulances will access the site via Gate 1A and proceed to orthopaedic clinic main entrance. From there, proceed along the designated corridor to access the back of ED.

Bassetlaw site:
Ambulances will access the site via Gate 2 on Kilton Hill, and proceed to the maternity entrance. From there, proceed along the designated corridor to the back of ED.

For further information see appendix 3 Mass Decontamination Plan

16. PERSONAL PROTECTIVE EQUIPMENT (PPE)

PPE protects staff and patients from chemicals, and other hazards, by forming a physical barrier. However it will only protect the user if it is applied and used correctly. It is for this reason staff wearing PPE require training and frequent updates.

Staff who are pregnant or think they may be pregnant must not be part of the decontamination of patients. These staff will be relocated to another area of the department, or the hospital for their safety.

It is the responsibility of an appropriately trained person, delegated by the ED CBRNe lead to maintain the CBRN/HAZMAT incident equipment, including PPE.

16.1 PPE for Chemical Incidents

16.1.1 High Level PRPS (Powered Respirator Protective Suit

PRPS (Powered Respirator Protective Suit) is the primary PPE utilised by the ED for decontamination and is issued by the Department of Health. It provides contact and vapour protection against chemicals and airborne particles. The suit consists of:

- Respirex tychem chemical protective suit with integral hood, visor and feet.
- 3M Jupiter powered air filter unit (AFU)
- 3M Jupiter A2B2E2K2P3 CW enabled filters
- The NHS suit is re-usable after manufacturer's re-certification.
- Filters & Batteries are single use only.

NHS PRPS has a shelf life of five years and must be replaced before the expiry date. Once used, the PRPS suit needs to be sent back to Respirex, the company which produces such equipment, for testing and re-certification. There is a significant cost attached to this.

If advised by an appropriate source of information that a patient requires full decontamination then **full PRPS must be worn** by all staff.

16.1.2 Medium Level Chemical Protection

This will be the minimum level of protection worn by any member of staff whilst **assisting decontamination** but not having physical contact with contaminated individuals.
The following will be used by staff receiving casualties from the decontamination tent and by staff securing entrances and directing patients to decontamination areas. These staff should not have physical contact with contaminated persons.

- Theatre scrub suits
- Double surgical gloves
- Goggles and FFP3 mask
- Wellington boots (with HAZMAT specifications)

16.1.3 Low Level Chemical Protection

Precautions including gloves and apron and standard face mask (similar to standard infection control precautions for preventing exposure to body fluids) will be used by those members of staff managing non-contaminated / decontaminated patients.

16.1.4 PPE for Biological, Radiation and Nuclear Incidents

In all cases staff providing care for a patient potentially contaminated/infected will wear the following as a minimum level of protection:

PPE will consist of:

- Correctly Fitting Filtered Face Piece 3 (FFP3) Face Mask
- Surgical Gowns with plastic apron
- Double surgical gloves

16.1.5 Log of Trained Staff

A log of all staff trained in the use of NHS PRPS and the erection of the decontamination unit will be kept within the EDs for use when calling in staff.

NB. All staff using FFP3 masks must undertake training in their correct use and maintain competency by undertaking fit testing, according to Trust guidance on essential principles of Infection Prevention and Control.

Whilst it is the general manager's responsibility to ensure that staff who are required to use this type of personal protective equipment are fully trained and updated, the individual staff member is also responsible for ensuring they are up to date with any training, if they will be required to use such equipment as part of their role.

16.1.6 Storage and Recertification of PRPS

It may be necessary to bag and seal PRPS pending an expert decision as to its re-usability. It may be necessary to dispose of all PRPS and replace it with new equipment.

Post self-decontamination, PRPS suits should be stored in the boxes from which they were removed, so as to correlate identification numbers, and kept in a secure external area. Contact Respirex®, the company that supplies the NHS with PRPS equipment, to collect. Respirex® will only collect the equipment once the contaminant has been identified, and after the suits have been decontaminated on site.

17. DECONTAMINATION

17.1 Dynamic Risk Assessment of Casualties

Before embarking on the decontamination process, a risk assessment needs to be undertaken to determine the appropriate response level and associated tactics, including type of PPE, medical interventions and the most appropriate decontamination process. (See JESIP Guidance: Joint Interoperability Principles 2013, NHS England Guidance on Chemical Incidents 2015).

Research indicates that the single most important step for decontamination of people contaminated by non-caustic chemical material is the prompt removal of clothing, at least to underwear, ideally within 15-20 minutes of exposure to the contaminant (or as soon as is reasonably practicable) and the use of dry decontamination. It does not mean that subsequent specialist advice may not also recommend the use of alternative decontamination processes including wet decontamination. Wet decontamination is advised for the decontamination of hair following the disrobe and dry decontamination.

The JESIP Interoperability Principles provide the following guidance in first line response to HazMat/CBRNe casualty management, and this has been incorporated into the management of self-presenters at NHS provider premises, including ED's GP surgeries and Walk In centres:

STEP 1-2-3 Plus - Safety Triggers for Emergency Personnel

STEP 1-2-3 is a familiar and well-established protocol for assessing the likelihood of hazardous materials being present at an incident scene, and determining subsequent actions. In this guidance, first responders are directed to consider a range of life saving actions once they have established that the situation requires a STEP 3 response. This is known as STEP 1-2-3 Plus:

Step 1: One person incapacitated with no obvious reason

- Approach using standard protocols

Step 2: Two people incapacitated with no obvious reason

- Approach with caution using standard protocols

Step 3: Three or more people in close proximity, incapacitated with no obvious reason

- Use caution and follow plus

Plus: Follow the CBRN First Responder Flow Chart to consider what actions can be undertaken to save life, using the following principles:

Evacuate – get people away from the scene of contamination

Communicate and advise – immediate medical advice and reassurance that help is on its way

Disrobe – remove clothing

Decontamination – dry decontamination should be the default process

17.2 Decontamination Processes

Decontamination can be carried out in a number of ways:

- Dry decontamination, by blotting and rubbing expose skin surfaces with dry, absorbent material such as paper towels.
- Wet decontamination - external full decontamination, using specialist equipment, to shower ambulant casualties outside the Emergency Department or decontamination of casualties, inside the department, using shower facilities to remove non-hazardous chemicals
- Partial decontamination of casualties that are seriously unwell using buckets, water, detergent, wipes and towels.

DRY decontamination is the recommended default method for CHEMICAL EXPOSURE following disrobing of the casualty (JESIP 2013).

WET decontamination should only be used if the casualties are presenting with symptoms of exposure, such as redness, itching and burning of the eyes or skin, and then only once the contaminant has been identified and wet decontamination agreed as the appropriate route for that contaminant. Wet decontamination is also the recommended procedure for people contaminated by radiation of biological sources.

17.3 Decontamination of Radiation or Nuclear Incident Patients

A person is contaminated when radioactive material is deposited on skin and/or clothing (external contamination), or into the body (internal contamination) by inhalation, ingestion, or absorption via a wound.

The presence of this form of contamination can be identified using one of the Trust's RAM Gene, radiation contamination monitors. Specific action areas are available for the monitoring and decontamination of patients that are contaminated with radioactive materials.

In the same way that patients who have had CT scans or X rays present no risk to others, radiation safety precautions are not needed for patients who have been exposed to external radiation but are not found to be contaminated with radioactive materials.

Those patients with external contamination, usually dust or particulate matter should be fully decontaminated outside the ED, where practical. If a patient's injuries are life-threatening, treat the patient first, then decontaminate.

17.4 Decontamination of Chemical and Biological Incident Patients

Decontaminate patient whilst seeking specialist advice. Not all chemicals and biological agents will require external full decontamination, subsequent storage of effluent and wearing of PRPS.

18. SITING OF DECONTAMINATION TENT AND PATIENT FLOW

The Trust has decontamination facilities in each of its EDs:

- A dedicated decontamination room in the ED and a tent (Department of Health Issue) at Doncaster.
- External decontamination tent (Department of Health Issue) at Bassetlaw.

18.1 Tent position

The tents on both sites are set up designated areas of the car park. Each tent has access water supply. Consideration must be given to the wind direction when the tent is set up – if downwind of the contaminated patients, it is in effect in a dirty zone. Patients would be re-contaminated as they leave the decontamination tent. If in doubt, advice should be sought from the Fire and Rescue Service who would be able to advise on the position appropriately. Consideration should be given to the ability to set up the tent in another area to avoid this issue.

Best practice indicates that a second water source would enable an alternative site for the tent, or enable the fire service to connect up and assist.

19. PROCESS OF DECONTAMINATION

19.1 Reception and Triage

In an incident involving multiple casualties requiring decontamination, the decontamination nurse in the decontamination room will use standard triage methodology (triage sieve) to prioritise patients for decontamination.

The triage and treatment priorities for contaminated children who arrive with parents are as for adults. However note that for an equivalent level of exposure in general, children are more likely to exhibit greater toxic effects than adults, this should be considered within the triage sieve.

The order of treatment:
Guidance recommends the following when determining whether to treat the ill patient first or decontaminate first:

- Chemical incident – decontamination of itself can be life-saving - decontaminate first then treat
- Radiation incident – if life-threatening, treat the patient first then decontaminate.

19.2 Removal of Clothing

Research shows that the removal of clothing from a patient can remove up to 80% of any contaminant. The following steps should be taken when the decontamination team are assisting with the removal of clothing to commence decontamination.

- Clothed patients awaiting triage or decontamination should stand if possible
- Minimise patient contact by only touching the patient to perform a specific task
- Explain the procedure to the patient.
- Instruct patient to undress completely, using the disrobing kits in the ED.
- Clothes are not to be taken over the head, if possible. (This may require the cutting of clothes.)
- Non-ambulant patients should have clothes cut away.
- Minimise patients' contact with the outside of their clothes, peel clothes back in order to avoid this.
- Remove patients clothing: "STRIP-BAG-SEAL" in individual clear plastic bags
- Put valuables in separate bag.
- Put wrist label on patient with corresponding information onto property bag in indelible ink.
- All bags to remain in the warm zone.
- Valuables to be stored in the warm zone in double, sealed clear, numbered plastic bags.
- Change scissors and equipment frequently.

19.3 Improvised Dry Decontamination of Ambulant (Walking) patients

(JESIP Guidance 2013)

- Explain the procedure to the patient.
- Walking patients should be encouraged to self-decontaminate wherever possible, supervised and assisted by Emergency Department staff.
- Use any available dry, absorbent material e.g. kitchen towel; paper tissues; towels and clean rags; strips of blankets or sheeting. Other absorbent material such as dry soil or cat litter can be used.
- Exposed skin surfaces should be blotted and rubbed, starting with the face, head and neck and moving down and away from the body.
- Sufficient absorbent material should be used to avoid transferring contamination from one part of the body to another.
- Rubbing and blotting should not be too aggressive or it could drive contamination further into the skin.
- All absorbent material used in this process may also be contaminated and should not be used on another casualty.
- Move the casualty from the waste decontamination material as soon as the process is complete.
- Bag all dry decontamination material and arrange removal as per the contaminated waste process.

19.4 Wet Decontamination of Ambulant (Walking) Patients (Rinse-Wipe-Rinse method)

(JESIP Guidance 2013)

- Explain the procedure to the patient.
- Walking patients should be encouraged to self-decontaminate wherever possible, supervised and assisted by Emergency Department staff.
- Issue patients with a bucket of warm water and detergent and cloth (approximately 5ml/litre of warm water).
- Brush off gross contamination before washing down (Chemicals Only).
- Use RINSE-WIPE-RINSE procedure

    - **RINSE with shower-head, no detergent, from the highest point, downwards**
    - **WIPE the affected areas with sponge and water-detergent mix from bucket**
    - **RINSE with shower head, no detergent,**

- During wet decontamination the duration of decontamination has changed to between 45 and 90 seconds and ideally, to use a washing aid such as a cloth .
- Assist the patient to “backwash” the face and head (including the hair) avoiding further contamination of the airway, eyes and the rest of the body
- Ensure that the ears and eyes are decontaminated.
- Eyes: contact lenses should be removed if possible.

- Proceed to full body shower working downwards to avoid recontamination of cleaned areas.
- Ensure that the patient washes in the creases of the elbows, under the breasts, behind the knee, under the buttocks and around the genitalia and groins.
- Endeavour to wash wounds from the centre outwards.
- Patient to dry in the tent (towels to stay in the warm zone).
- Patient can then walk out of the tent, dress in modesty clothing, be wrapped in a blanket and be directed into emergency department.

19.5 Decontamination of Non-ambulant (Stretcher) Patients

The following actions should be undertaken when decontaminating all non-ambulant patients:

- Keep patient on the ambulance cot before rolling through the decontamination tent (cot is already contaminated) and bending to treat the patient renders the suits ineffective.
- Wear appropriate PPE i.e. gloves, aprons and surgical masks.
- Decontaminate patients in the order determined by triage.
- Explain the procedure to the patient.
- Decontaminate on a spinal board.
- Put the patient head first into the tent.
- Brush off gross contamination before beginning decontamination (Chemical Only).
- Use the recommended method of decontamination (see reference to JESIP guidance S.17).
- If wet decontamination is appropriate, backwash the face and head (including hair) avoiding further contamination of the airway, eyes and the rest of the body.
- Ensure that the ears and eyes are decontaminated.
- Eyes: contact lenses should be removed if possible. Ensure that the creases of the elbows, under the breasts, behind the knee, under the buttocks and around the genitalia and groins are decontaminated.
- Wash wounds from the centre outwards.
- Log-roll the patient and ensure that the backs and sides of all patients are decontaminated.
- Cover patient with clean gown and blankets.
- Transfer the patient over the clean/dirty line (assisted by personnel in medium level PPE).
- Patient may require further drying on the clean side.
- Transfer patient to into the Emergency Department.

20. POST DECONTAMINATION CARE

Patients leaving the decontamination area must be covered as soon as possible to restore their dignity and be kept wherever possible in a draft-free and warm environment. Patients will then be treated according to their clinical needs.

20.1 Investigation/Samples to Be Taken

For an unusual illness, where the cause is not certain, it is preferable to take samples for toxicology, microbiology and radiological investigations, as well as for routine haematology and biochemistry.

Sample Consideration

- Patients will require decontamination before samples are taken.
- All samples should be taken ideally before antidotes are given.
- Samples should be collected and transported safely and rapidly to the laboratories.
- The laboratory should be contacted by telephone to expect the samples.
- Samples should be identified as high risk according to local protocols.
- Radioactive samples may require special transport arrangements and will have to be labelled.

Contact the relevant department for further advice if unsure about sample collection, storage and transport.

20.2 Deceased Contaminated Patients

Mortuary staff should be immediately informed that the deceased patient is/has been contaminated, and the nature of the agent involved. The deceased patient will be removed to the Mortuary in a sealed body bag and sited in the segregation storage fridge.

21. CULTURAL, RELIGIOUS AND DIGNITY ISSUES

While the paramount consideration is always the health and safety of people affected by a CBRNe/HAZMAT incident, some will find the process of decontamination distressing. Staff should offer reassurance and be prepared to answer any queries at all times. Staff must always remain sensitive to the cultural and religious concerns and requirements of different communities and social groups and of the special needs of individuals.
The dignity of patients should be maintained at all times. During the decontamination process staff should deal with patients of the same sex and patients of different sexes should not be mixed wherever possible. If possible immediate families, such as husband, wife and children, should be decontaminated together.

As soon as possible post decontamination patients should redress using the pyjamas and hospital gowns, kept in the ED. For non-ambulant patients surgical gowns and blankets should be used.

22. PATIENTS PROPERTY AND VALUABLES

- Each patient's property, once removed, to be stored in two double plastic bags, one containing valuables and one containing clothing.

- The bags are to be sealed and labelled with the corresponding ID number on the patient's wrist band.
- A number of plastic bags containing property will be stored in the decontamination room.
- Radioactive property must be labelled with radioactive warnings and stored separately from other items. The RPA will advise on suitable storage locations.
- The bags of contaminated property are to remain in the warm zone until after discussion with involved agencies such as the police in CBRN incident.
- Spectacles required for vision, can be cleaned and dried with the rinse-wipe-rinse system and returned to their owner.
- Hearing aids should not be immersed in water, they should be wiped with gauze moistened with saline, put in a clear plastic bag and kept with patient. If the patient can hear without, it can be stored with the rest of that patients valuables.

22.1. Forensic Evidence – Maintaining the Chain of Evidence

If a deliberate release is suspected or there are other forensic considerations, chain of evidence (sometimes called 'chain of custody') documentation will be needed for diagnostic samples. The police will collect any details needed for this. It is the Trusts responsibility, however, to ensure all property and valuables are bagged, labelled and stored as above.

23. ACCESSING NATIONAL RESERVE STOCKS FOR MAJOR INCIDENTS

23.1 NHS Trusts, Foundation Trusts and NHS Regional Teams should access the following items by contacting their local NHS Ambulance Service Trust Emergency Control Room on:

YAS EOC BRONZE – 300 0330 0238

- **Nerve agent antidote pod** for the treatment of nerve agent poisoning (90 people)
- **Obidoxime injection -** further treatment for nerve agent poisoning
- **Dicobolt edentate pod** for treatment of cyanide poisoning (90 people)
- **Botulinum antitoxin –** Treatment of botulism

The contact telephone number for hospitals requiring to access reserve stocks of countermeasures for major incident in England is:

The NHS England – North On Call Duty Officer via 0191 4302453 / 0191 4302498

Callers should clearly give details of the incident, the number of pods requested and their contact details

A. **Antibiotic Pods (oral ciprofloxacin)** To treat 250 adults and children aged 12 years and above (using 500mg tablets), or 250 children aged 8-less than 12 years (using 250mg tablets) or 50 children aged 0-less than 8 years (using 250mg suspension), for 10 days, with post exposure prophylaxis for anthrax, plague or tularaemia

B. **Further stocks of ciprofloxacin** To treat post exposure prophylaxis for anthrax, plague or tularaemia

C. **Ciprofloxacin intravenous injection** for post-exposure treatment of for anthrax, plague or tularaemia

D. **Gentamicin intravenous/intramuscular injection** for post exposure treatment of plague

E. **Potassium iodate tablets** to block the uptake of radioactive iodine, plus information leaflets for the public

F. **Prussian blue** for treatment of thallium and caesium poisoning

G. **Naloxone** for the treatment of opioid poisoning

The decision to request any of these medical supplies should be made in consultation with the Health Protection Consultant from the local Public Health England (PHE) Centre and/or the local Director of Public Health

24. DISPOSAL OF CONTAMINATED WASTE

In the event of contamination with hazardous materials staff should ensure that all contaminated materials including used PPE (not PRPS) is disposed of in double clinical waste bags secured, labelled and stored securely in an external environment.

Some waste depending on the nature of the contaminant, or the level of contamination, can be managed by the Trust waste management processes into the yellow bins with white lids. However, any chemical waste put into these bins must be correctly packaged and labelled otherwise this would breach Trust compliance with waste legislation. In all cases, completion of the appropriate documentation for Control of Substances Harmful to Health

(COSHH) legislation **must** be undertaken, a copy retained in the department and a copy sent to the Waste Management Co-ordinator. Without the relevant COSHH forms, Contractors will not remove waste.

In all cases, the Waste Management Co-ordinator must be contacted as soon as is practicable, to seek advice on appropriate disposal of chemical waste.

Special arrangements will be required for radioactive material/aqueous radioactive waste. Red waste bags are available for patients clothing and these should be double bagged, tied, sealed and labelled with the patient's name, date, time etc. Any other contaminated material from the decontamination process will be placed in the plastic bags.

In all cases of radioactive waste, the RPA must be contacted so that appropriate reporting is provided to, and advice and permissions can be sought from, PHE and the Environment Agency.

25. STORAGE AND DISPOSAL OF CONTAMINATED WATER

There are three effluent containers (Blue drums) to be used in conjunction with the decontamination tents and SUMP drain.

Under Section 34 of the Environmental Protection Act (EPA) 1990, DBTH has a duty to ensure contaminated waste water is managed properly, recovered or disposed of safely. Also that it does not cause harm to human health or pollution of the environment and is only transferred to someone who is authorised to receive it.

During any CBRNe/HAZMAT decontamination incident all waste water must be retained, utilising chemical-proof effluent liners, until deemed safe for disposal into the drain system or removed by a Licensed Hazardous Waste Disposal Contractor.

If waste water is required to be stored and disposed of by specialist means the Trust has contractual arrangements with an authorised Hazardous Waste Disposal Contractor for all waste other than radioactive waste.

The contractor is contactable through the Waste Management Co-ordinator based at Bassetlaw Hospital.

Special arrangements will be required for radioactive material/aqueous radioactive waste.

In all cases of radioactive waste, the RPA must be contacted so that appropriate reporting is provided to, and advice and permissions can be sought from, PHE and the Environment Agency.

26. TRAINING

It is the responsibility of the CBRNe Lead in the ED to ensure that all staff who are likely to be required to respond to an incident, receive appropriate and regular training, annually as a minimum. For clinical and non-clinical staff within the department, the following is a minimum guide to training needs:

- About the plan and key roles and responsibilities
- About the setting up of the decontamination tent
- About the use of and safe disposal of PPE
- About the use of PRPS suits; decontamination of the suits after use
- The process of Buddy arrangements for care and safety of each other whilst donning suits and during suit wear.
- Time allowed in the suits
- About care and custody of patient property and valuables in case of forensic requirements

The department will also provide training, tailored to the requirements of specific groups, e.g. managerial staff called on during escalation of the incident and non clinical staff who support the clinical team to deliver the response, supported by the Emergency Planning Support officer.

27. COOPERATING WITH HIGH SECURITY VIP ARRANGEMENTS

On occasion, the Trust may be required to receive and treat casualties of an exceptionally high VIP status who, whilst visiting the local area, may have been the focus of a CBRNe attack. On such occasions, we are obliged to follow the instructions set out by the attending security forces. If such an occasion is pre-eminent, the Nurse in Charge **MUST** escalate without delay.

In order to ensure that the Trust is prepared for and has the capability to assist, the ED staff will contribute to and comply with pre-event site visits to satisfy external security managers that we have the right facilities, appropriately trained staff and plans in place to discretely manage such events. The Emergency Planning Officer will facilitate these visits and work with the department to ensure compliance.

28. DEBRIEFING

It is best practice to ensure that all events are debriefed in order to determine whether the plan is effective or whether changes need to be made. The process of debriefing an incident is a well-documented one, the principles of which are:

- It should be conducted openly and honestly
- Pursue personal, group and organisational understanding and learning
- Be consistent with professional responsibilities

- Respect the rights of individuals
- Value equally all those involved
- Does not seek to apportion blame.

The key findings should address as a minimum:

- What went well and why
- Any recommendations from the positive aspects to take forward
- What could have gone better and why
- How can we improve that/ what would we do differently next time.

The process

There are two steps to the debriefing process:

- A hot debrief organised as soon after the event has ended to gather the 'here and now' issues whilst they are still fresh and raw in the minds of the key contributors. It should be before the individuals have had time to reflect and should be kept short requiring little planning.

- A cold debrief – this is usually conducted within one month of the event and is usually structured and captures the whole event. This should last between 60 to 90 minutes.

Post event, the Director who lead the response to the event or the Lead Director for EPRR supported by the EP Lead, will organise a hot debrief as soon as practical after the stand down of an incident. This will include all key players and any external partners if necessary. The EPO will take responsibility for setting up a cold debrief process according to the above recommendations ensuring that a report is written and presented to the Board of Directors and Management Board. Any amendments to the CBRNe Plan found as a result of the debrief will be made and submitted as a report at that time.

29. STAFF SUPPORT AND WELLBEING

Those staff involved in the decontamination of patients in any incident, will be required to decontaminate themselves using the 'buddy' system where a colleagues help each other to undertake a strip wash once personal protective equipments has been removed. A record will be taken of staff involved and advice sought from PHE about whether it is appropriate for these staff members to return to duty, depending on the nature of the substance involved. The Trust Occupational Health and Wellbeing department will be informed of the substance and of the individuals involved, and will advise on any follow up required and will record the incident on staff records.

Staff may feel distressed or anxious after dealing with such incidents, and should be offered access to the Trust staff support mechanisms.

30. EMERGING CONCERN WITH SPECIFIC CHEMICAL SELF–HARM INCIDENTS

In recent months, there has been an emerging issue relating to self-administration of chemicals in order to procure suicide. This suicide method originated in Japan, and advice on how to commit suicide using various combinations of chemicals is now freely available on websites for individuals to procure their own death. The main concern is that individuals who have inhaled or ingested specific chemicals, or combinations of chemicals, produce gases which then leak into the atmosphere thereby contaminating the surrounding area and exposing people who respond to the incident or who are in the vicinity, to the chemicals. In effect they become a hazard.

This is becoming an issue for health services on a number of counts:

- How is the body managed if the individual is successful in his attempt to commit suicide, in order to ensure that category 1 responders do not expose themselves to the risk of noxious gases whilst dealing with the incident.
- Do mortuaries have the facilities to manage the body – are technicians trained in managing bodies contaminated with noxious chemicals and is there appropriate storage to isolate the contaminated body.
- How do we manage the individual who fails in their attempt at suicide, and subsequently is delivered by the ambulance service at an ED in a critical condition and needs emergency treatment.

These issues are being widely discussed through local resilience forums, and Public Health England is in the process of updating guidance on the wider management of these incidents.

In the interim, should DBTH be required to accept a patient who has attempted suicide using chemical substances, then the ED at Doncaster is the only site with suitable facilities. The patient would be received into the decontamination room and managed according to their clinical condition, type and level of contamination. Staff will follow the guidance in the document in the use of PPE and FFP3 equipment as necessary.

DBTH does not currently have the mortuary facilities to accept and manage bodies contaminated in this way.

In all cases, expert advice must be obtained through PHE and staff must be mindful that there may be a police investigation involved, therefore care must be taken as per chain of custody. Should the patient not survive treatment, then the deceased will become the responsibility of HM Coroner and all guidance in relation to Coronial jurisdiction will be followed.

31. EQUALITY IMPACT ASSESSMENT

An Equality Impact Assessment (EQIA) has been conducted on this procedural document in line with the principles of the Equality Analysis Policy (CORP/EMP 27) and the Fair Treatment For All Policy (CORP/EMP 4).

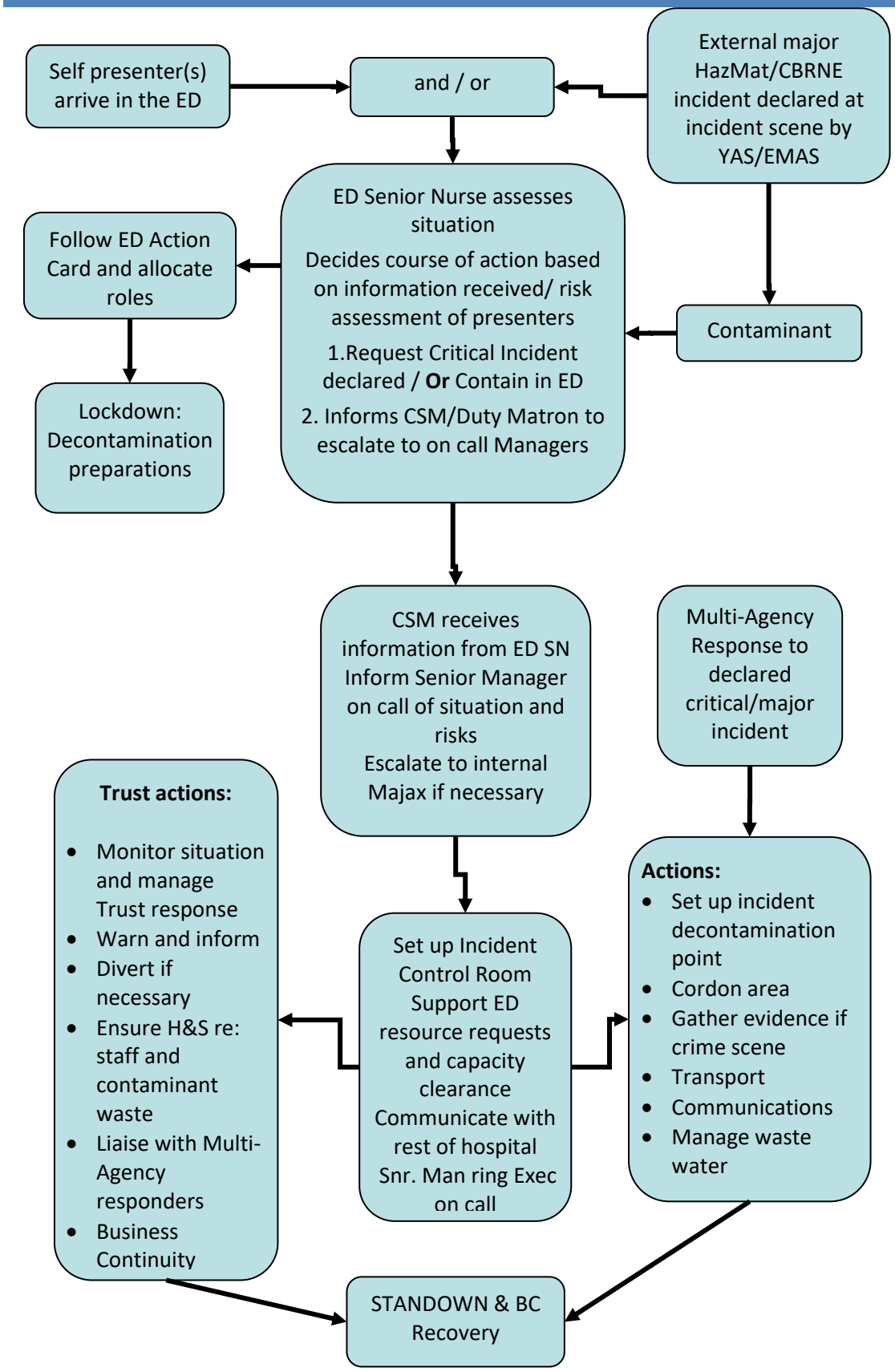
The purpose of the EIA is to minimise and if possible remove any disproportionate impact on employees on the grounds of race, sex, disability, age, sexual orientation or religious belief. See Appendix 5.

PLEASE NOTE: A number of safety issues arise in this plan which mean that some staff will be precluded from taking part in elements of the response, in particular, the wearing of PPE and PRPS, first line management of contaminated individuals.

32. MONITORING COMPLIANCE WITH THE PROCEDURAL DOCUMENT

What is being Monitored	Who will carry out the Monitoring	How often	How Reviewed/ Where Reported to
Compliance, effectiveness and currency of the CBRNe plan	The Trust Emergency Planning Officer in conjunction with the Trust CBRNe Lead through the Business Resilience Steering Group (BRSG)	Every three years or following any incident or change in national policy/guidance (including EPRR standards)	EPO and CBRNe Leads responsible for changes/amendments. Full review reported to the BRSG
Knowledge, understanding and capability of staff who are required to activate and respond to the plan	CBRNe Lead with key trainers within ED. Supported by the Emergency Planning Support Officer.	Bi-annually	Training programmes, records of attendance, testing and exercising the plan using a variety of methods percentage attendance at specialist training – Matron ED to provide bi-annual stats to the BRSG
Collaboration with partners/multi-agency teams	Emergency Planning Officer	Onset of plan and following any incident/change in policy/ guidance	Peer review of plan according to LHRP action plan

APPENDIX 1 - HAZMAT/CBRNe ESCALATION FLOWCHART



APPENDIX 2 - PROTOCOL FOR LOCKDOWN IN THE EMERGENCY DEPARTMENTS AT DONCASTER AND BASSETLAW

BASSETLAW HOSPITAL

The Emergency Department at Bassetlaw Hospital has the capability to partially lockdown the internal and external doors. There are two doors at the rear of the department which are not currently included in the formal lockdown arrangements. During an incident, this may pose a risk, therefore contingency plans are in place to mitigate this risk.

- Door number BD943.L02.R0060 (rear door near plaster room) can be remotely locked via switchboard.
- The second rear door (rear door near CDU no door number attached) does have a key code locking facility but the code is well known throughout the hospital.

Both of these locking mechanisms can be breached which would allow the passage of patients and staff through the department and potential contamination of a cold zone. Part of the Bassetlaw plan therefore allocates two staff to man these doors and restrict entry and exit.

It is expected that in the future, the two rear doors will either become included as part of the refurbishment of the department or the two existing doors will be connected to the control panel.

1. Purpose of lockdown

The purpose of lockdown within the Emergency department is to restrict access to and from the department and to limit human exposure to potential life-threatening, hostile or hazardous situations. Emergency lockdown is necessary in situations where there is reason to believe that exiting a sheltered area will expose individuals to greater danger than remaining in place.

2. Who can request lockdown

Lockdown should only be instigated at the request of the Nurse in Charge. That request must be made directly to the reception staff.

3. When should lockdown be used?

Lockdown should only be used in specific circumstances, and the Nurse in Charge must be able to provide an adequate rational for the use of lockdown. The Nurse in Charge must keep a log of the reasons for locking down the department and the log retained for future inquiries or investigations. Lockdown would be used in a variety of incidents, ranging from public disorder to hazmat/CBRNe incidents.

4. Designated lockdown doors

There are six designated lockdown switches situated behind the reception desk within the Emergency Department. Each switch is numbered 1-6. Each switch corresponds with a specific door as below:-

Door No.	Location	Door Reference
Lockdown Reference 1	Waiting room	BDG43.L02.R0162
Lockdown Reference 2	Majors entrance	No door reference
Lockdown Reference 3	Main hospital link corridor.	BDG43.L02.R0009
Lockdown Reference 4	AE Majors corridor	BDG43.L02.R0079
Lockdown Reference 5	AE waiting corridor to AE minors	No door reference
Lockdown Reference 6	AE waiting to fracture clinic	BDG43.L02.R0036

There is capacity on the panel for further doors to be added to the lockdown facility. When the department is in lockdown the **reception desk must not be left unattended at any time, unless relived by another individual.** It is the receptionist's responsibility to maintain a presence behind the reception desk. In the event of a fire or if the fire alarms sounding within the vicinity of ED the doors must be released in order to allow the free passage to emergency exits, for the safety of patients, staff and the public.

5. Releasing individual doors

There may be an occasion when one or more of the locked doors need to be temporality unlocked, e.g. to allow the entry or exit of authorised personnel or patients. The Nurse in Charge will contact the Receptionist and tell them which door number to unlock. Following passage through the door, the Nurse in Charge must contact the receptionist again and instruct them to re-lock the specific door, referring again to the door number. The nurse in charge can delegate this action to another senior member of the team if so required.

No other unauthorised personal should be allowed to enter or exit without first seeking permission of the Nurse in Charge.

6. Release of lockdown

Notwithstanding fire alarm activation, it is the decision of the Nurse in Charge to give the instruction to release the lockdown. On receiving the instruction, the receptionist must release all six doors by releasing the corresponding switches and confirm that this action has taken place.

The receptionist must remove the patient information notice from the reception window and inform the waiting area that the incident is over and they were free to move around the department again.

7. Testing the lockdown procedure

Testing of the lockdown procedures should be performed on the 1st Sunday of every month.

This is the responsibility of the Nurse in Charge in conjunction with the receptionist.

- Each door switch should be individually locked and each door tested.
- On completion of the individual door testing all six switches should be placed in to lockdown position and peripheral security checked.
- Faults must be documented and reported immediately.

DONCASTER ROYAL INFIRMARY

The Emergency department at Doncaster Royal Infirmary has the ability to lock six external facing doors. Lockdown creates a secure peripheral environment which restricts the entry and exit of patients and people.

1. Purpose of lockdown

The purpose of lockdown within the Emergency department is to restrict access to and from the department and to limit human exposure to potential life-threatening, hostile or hazardous situations. Emergency lockdown is necessary in situations where there is reason to believe that exiting a sheltered area will expose individuals to greater danger than remaining in place.

2. Who can request lockdown

Lockdown should only be instigated at the request of the Nurse in Charge. That request must be made directly to the reception staff.

3. When should lockdown be used

Lockdown should only be used in specific circumstances, and the Nurse in Charge must be able to provide an adequate rational for the use of lockdown. The Nurse in Charge must keep a log of the reasons for locking down the department and the log retained for future inquiries or investigations. Lockdown would be used in a variety of incidents, ranging from public disorder to hazmat/CBRNe incidents.

4. Designated lockdown doors

There are six designated lockdown switches situated behind the reception desk within the Emergency Department. Each switch is numbered 1-6. Each switch corresponds with a similar labelled door as below:-

Door No.	Location	Door Reference
Lockdown Reference 1	Main waiting room doors	DRI18 LO2 R0002
Lockdown Reference 2	Exit door in Paediatric waiting area (by toilet)	No door reference
Lockdown Reference 3	Exit door in the mental health room – UCC	No door reference

Lockdown Reference 4	Exit doors in CDU leading into main corridor	DRI18 LO2 R0008
Lockdown Reference 5	Rear door from ED to main corridor	DRI18 LO2 R0034
Lockdown Reference 6	External ambulance entrance door, leading into transfer bay	No door reference

When the department is in lockdown the **reception desk must not be left unattended at any time, unless relieved by another individual.** It is the receptionist's responsibility to maintain a presence behind the reception desk.

In the event of a fire or if the fire alarms sounding within the vicinity of ED the doors must be released in order to allow the free passage to emergency exits, for the safety of patients, staff and the public.

5. Releasing individual doors

There may be an occasion when one or more of the locked doors need to be temporality unlocked, e.g. to allow the entry or exit of authorised personnel or patients. The Nurse in Charge will contact the Receptionist and tell them which door number to unlock. Following passage through the door, the Nurse in Charge must contact the receptionist again and instruct them to re-lock the specific door, referring again to the door number. The nurse in charge can delegate this action to another senior member of the team if so required.

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The receptionist must remove the patient information notice from the reception window and inform the waiting area that the incident is over and they were free to move around the department again.

7. Testing the lockdown procedure

Testing of the lockdown procedures should be performed on the 1st Sunday of every month.

This is the responsibility of the Nurse in Charge in conjunction with the receptionist.

- Each door switch should be individually locked and each door tested.
- On completion of the individual door testing all six switches should be placed in to lockdown position and peripheral security checked.
- Faults must be documented and reported immediately.

APPENDIX 3 - MASS DECONTAMINATION PROTOCOL

Purpose

The Trust's Hazardous Materials (HAZMAT) and Chemical Biological Radiological Nuclear & Explosives (CBRNe) Plan CORP/RISK 26 details a robust system for decontaminating limited numbers of persons who self-present at the Emergency Department Doncaster Royal Infirmary or Emergency Department Bassetlaw Hospital who are potentially contaminated with substance/s harmful to their health and the health of others. The Mass Decontamination Plan is an appendix to CORP/RISK 26 and has the purpose of ensuring that a robust system exists to provide a safe system of decontamination of large numbers of persons self-presenting at the Emergency Department who are potentially contaminated with substance/s harmful to their health and the health of others.

Overview

If a large Hazardous Material (Hazmat) or Chemical, Biological, Radiation, Nuclear, explosive incident occurs the standard procedure is that all possibly contaminated persons would be decontaminated close to the scene and then triaged. Only those people requiring hospital treatment would be transported to hospital. However during such incident it could arise that a number of those directly or indirectly involved leave the immediate scene and subsequently self-present at the hospital prior to being decontaminated, and in such numbers that the Trust's own decontamination system does not have the capacity to safely operate, the Mass Decontamination Plan is design for such a situation.

This Plan should be implemented if the Lead Nurse/Senior Manager On-Call considers that the Emergency Departments capacity to safely decontaminate persons self-presenting is being compromised.

The Plan enables the Trust to call upon external assistance from the Emergency Services and Local Authority to put in place extensive systems to expediently decontaminate large numbers of persons to ensure any risks to health are minimised.

The Plan details the site layout and flow from contaminated holding areas to decontaminated areas, where triage can be safely undertaken, and then the flow for patients needing admission, and those people not requiring any treatment who will be assisted by the Local Authority to return home or to Rest Centres.

Trust Responsibilities

- **Lead Nurse Emergency Department**

Identify when Department's capacity to decontaminate self-presenters is being compromised and either activate the Mass Decontamination Plan or inform Senior Manager On-Call of situation.

Liaise with Incident Commanders from emergency services to ensure efficient and effective communications and command and control.

Inform the relevant Ambulance Service Regional Operations Centre that Mass Decontamination Plan has been activated and that alternate emergency ambulance access points have been established (Ref - CORP/RISK – 15.4)

- **Senior Manager On-Call**

Liaise with Lead Nurse Emergency Department and assist in identifying when Emergency Department capacity to decontaminate is compromised and activate Plan as appropriate.
Liaise with Incident Commanders from emergency services to ensure efficient and effective communications and command and control.

- **Switchboard**

On being informed Mass Decontamination Plan has been activated:
Inform Executive On-Call of situation and that Plan has been activated.
Inform Security/Car Park that Plan has been activated.

- **Security/Car Park**

On being informed that Plan has been activated
Close access to designated areas and entrances as detailed in Plan.

Multi-Agency Partners External to Trust

- **Fire & Rescue Service**

To expediently provide a Mass Decontamination facility and expert advice in order to decontaminate members of the public self-presenting at Doncaster Royal Infirmary Emergency Department.

- **Police**

To expediently provide a Causality Bureau and Documentation Team, in addition if the size or type of the incident warrants co-ordinate the Emergency Services at the scene.

- **Ambulance Service**

Provide a Hospital Liaison Officer (HALO) within the Emergency Department.
Provide assistance in triaging decontaminated persons
Provide a Hazardous Area Response Team to decontaminate any members of the public who are potentially contaminated and injured.

- **Local Authority**

The Local authority is responsible for all decontaminated person/s who either will be directed to return home or housed in Rest Centres dependant on location, type, or size of incident.

Doncaster Royal Infirmary Plan

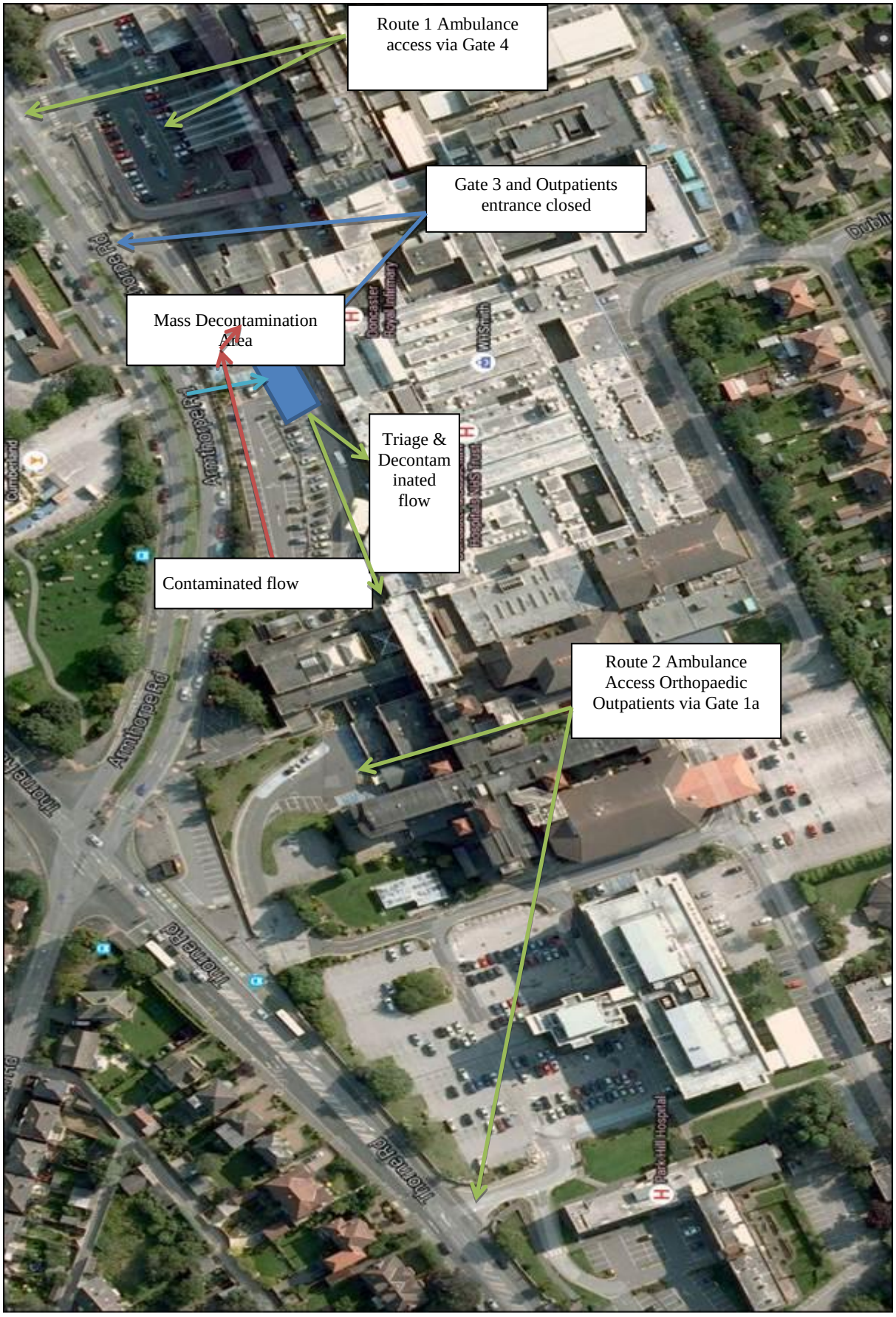
The Plan is based on the principle that potentially contaminated persons could be held in the upper portion of the car park number 9 Main Outpatients and directed round to the decontamination units. Fire and Ambulance services will erect the Mass Decontamination Units next to the Main Outpatients in the main thoroughfare of car park number 9.

Once decontaminated hospital or ambulance staff will triage and direct persons requiring treatment to ED, while those who do not require any treatment will be directed towards the Local Authority holding area for either onward transportation to Rest Centres or their own homes.

Security staff will ensure Gate 3 is closed to all non-emergency vehicles not attending the decontamination including ambulances that are attending ED who will use the following routes

- Route 1: Depending upon the size of the Hot Zone, ambulances will access the site at Gate 4, Main Entrance, and proceed along the main corridors as designated into the back of the ED.
- Route 2: Ambulances will access the site via Gate 1A and proceed to orthopaedic clinic main entrance. From there, proceed along the designated corridor to access the back of ED.

See outline schematic plan below.


Route 1 Ambulance access via Gate 4
Gate 3 and Outpatients entrance closed
Mass Decontamination Area
Triage & Decontaminated flow
Contaminated flow
Route 2 Ambulance Access Orthopaedic Outpatients via Gate 1a
Doncaster Royal Infirmary
WHSmith
Doncaster NHS Trust
Armthorpe Rd
Thorne Rd
Park Hill Hospital

Bassetlaw Hospital Plan

The Bassetlaw Plan is based on the planning assumption that Blyth Road will be closed with the emergency services erecting their decontamination units on the Blyth Road entrance access road.

Ambulances attending ED will access the site via Gate 2 on Kilton Hill, and proceed to the maternity entrance. From there, proceed along the designated corridor to the back of ED. Security will close the main ED entrance and direct users to Outpatients main entrance and onward to ED reception past fracture and orthopaedic clinic reception.

Security will close the perimeter road at Outpatients Car Park entrance – allowing access to the car park but not beyond.

The contaminated holding area will be on Blyth Road with the decontaminated triage and holding area outside Nottinghamshire Healthcare entrance. Those requiring admission to ED will use ED Main Entrance while those awaiting onward transportation to a Rest Centre or home will be directed to the Local Authority holding area in Car Park 3 authorised.

See outline schematic plan:


Wessex Rd
B6041
Road closed by Security
Deconta mination Units & Triage Area
Bassetlaw District General Hospital
Route 1 Ambulance entrance
Local Author ity Holdin g Area
Decont aminat ion Flow
Kilton Hill

ACTION CARD	**Lead Nurse A&E BDH– Request for Fire Service Mass Decontamination Assistance – number of self-presenters outnumber ED's capacity to decontaminate.**
Accountable to	**On Call - Senior Manager**
Responsible for: Decision to request Fire Service Mass Decontamination Unit to assist with decontamination of self-presenters.	

1.	Take the following action: Assess (in conjunction with Senior Manager On-Call) necessity to request assistance of Fire Service Mass Decontamination Unit to assist ED in the decontamination of large numbers of self-presenters. Assessment should include: Number of self-presenters attending and ED's capacity to swiftly decontaminate the patients to ensure any exposure to substances is minimised. Type of incident they have been involved in – accidental release from industrial plant or spillage is a Hazmat Incident – purposeful release or suspected terrorist incident is a CBRNe Incident **Lead Nurse to contact FRS directly on 999 and provide following information** **Person making request –** *Lead Nurse Emergency Dept – Bassetlaw District Hospital* **Exact Location –** *Bassetlaw District Hospital* **Type of Incident –** *Large numbers of persons attending ED with possible contamination from Hazmat (Industrial) or CBRNe (Suspect/Terrorist)* **Suspected Hazards –** *Give details as known* **Access –** *Blyth Road Bassetlaw District Hospital* **Number of Causalities –** *numbers as known* **Assistance Required –** *Mass Decontamination Unit to assist in decontamination procedures*
2.	Contact Switchboard; inform them that the Mass Decontamination Plan has been activated.
3.	Begin a decision/action log to record the processes and actions you take.

ACTION CARD	Lead Nurse ED DRI– Request for Fire Service Mass Decontamination Assistance – number of self-presenters outnumber ED's capacity to decontaminate.
Accountable to	On Call - Senior Manager
Responsible for: Decision to request Fire Service Mass Decontamination Unit to assist with decontamination of self-presenters.	

1.	Take the following action: Assess (in conjunction with Senior Manager On-Call) necessity to request assistance of Fire Service Mass Decontamination Unit to assist ED in the decontamination of large numbers of self-presenters. Assessment should include: Number of self-presenters attending and ED's capacity to swiftly decontaminate the patients to ensure any exposure to substances is minimised. Type of incident they have been involved in – accidental release from industrial plant or spillage is a Hazmat Incident – purposeful release or suspected terrorist incident is a CBRNe Incident **Lead Nurse to contact FRS directly on 999 and provide following information** **Person making request –** *Lead Nurse Emergency Dept – Doncaster Royal Infirmary.* **Exact Location –** *Doncaster Royal Infirmary* **Type of Incident –** *Large numbers of persons attending ED with possible contamination from Hazmat (Industrial) or CBRNe (Suspect/Terrorist)* **Suspected Hazards –** *Give details as known* **Access –** *Gate 3 off Armthorpe Road, Doncaster* **Number of Causalities –** *numbers as known* **Assistance Required –** *Mass Decontamination Unit to assist in decontamination procedures*
2.	Contact Switchboard; inform them that the Mass Decontamination Plan has been activated.
3.	Begin a decision/action log to record the processes and actions you take.

ACTION CARD	Incident Co-ordinator (Mass Decontamination)
Accountable to	Incident Director/Chief Executive
Responsible for: Co-ordinating, Command and Control	

1.	Ensure comprehensive gathering of information regarding the incident is established. Consider: 1 Incident Information ➢ Type of incident (Hazmat – CBRNe) ➢ Location of Incident ➢ Area affected by Incident 2 Resource Information ➢ Patients – Staff – Visitors ➢ Services – Wards directly affected 3 Hazards and Safety Information ➢ Sufficient Staff at scene to safely manage situation ➢ Have Emergency Services been requested ➢ Is the Command and Control system robust ➢ Consider informing NHS England Yorkshire & Humber On-Call Team (0333 012 4267) Consider need to Take Command of Incident (record decision & rationale)
2.	On Taking Command as Incident Co-ordinator ensure following: ➢ Don Incident Co-ordinators Tabard ➢ Decision to Take Command is clearly communicated to All Bronze teams (record) ➢ Ensure Log is established ➢ Establish Aim and communicate Priority Objectives (record) ➢ Establish robust channels of communications with All Bronze Teams (record) ➢ Set clear timescales for update briefings from Bronze Teams (record) ➢ Liaise with Emergency Services – Incident Commander (record) ➢ Brief Executive On-Call (record)
3.	Consider whether Patients, Visitors and Staff are in imminent danger and consider need to evacuate to place of safety. (record) ➢ Consider location of temporary shelter location (record decision and rationale) ➢ Consider redeployment of staff from non-affected areas; consider skill sets required and available. ➢ Consider evoking 'Divert' of emergencies from A&E ➢ Consider the establishment of ICR ➢ Consider establishing role of Silver Command Team to deal with the

	mass decontamination area
4.	Deploy resources – staff – equipment to priority areas (record)
5.	Consider Traffic Management Plan for site (record) ➢ Consider use of Site Security personnel ➢ Police assistance

ACTION CARD	Incident Director (Mass Decontamination)
Accountable to	**Chief Executive**
Responsible for: Strategic Command and Control of Incident	

1.	Ensure a comprehensive gathering of information regarding the incident is established. Consider: 1 Incident Information ➢ Type of Incident (Hazmat – CBRNe) ➢ Location of Incident ➢ Area affected by Incident ➢ Command and Control Structure ➢ Ensure Incident Log has been established 2 Resource Information ➢ Patients – Staff – Visitors ➢ Services – Wards/Buildings directly affected 3 Hazards and Safety Information ➢ Sufficient Staff at scene to safely manage decontamination ➢ Emergency Services involvement ➢ Are the personnel currently leading mass decontamination suitable qualified and experienced ➢ Is the Command and Control system robust ➢ Review Incident Aim and Objectives are they clear and appropriate Consider need to Take Command of Incident (record decision, rationale and outcome of above information gathering)
2.	On Taking Command as Incident Co-ordinator ensure following: ➢ Don Incident Director's Tabard ➢ Decision to Take Command is clearly communicated (record) ➢ Establish Incident Directors Log ➢ Aim and Priority Objectives reviewed/changed (record) ➢ Consider Declaring Critical/Major Incident (record decision and rationale) ➢ Robust channels of communications are in place and working (record) ➢ Set clear timescales for update briefings (record) ➢ Liaise with Emergency Services – Incident Commander (record)
3.	Consider whether Patients, Visitors and Staff are in imminent danger– prioritise if necessary, evacuate to place of safety. (record) ➢ Consider redeployment of staff from non-affected areas; consider skill

	skill sets required and available (record) ➢ Consider evoking 'Divert' of emergencies from ED if not already in place (record) ➢ Establishment of ICR if not already in place (record) ➢ Consider establishing role of Silver Command Team to manage Mass Decontamination
4.	Deploy resources – staff – equipment to priority areas (record)
5.	Consider Traffic Management Plan for site (record) ➢ Consider use of Site Security personnel ➢ Police assistance
6.	Consider the establishment of Communications Team to manage (record) ➢ Press and Media ➢ Warning and Informing public ➢ Liaison with Family and Friends of Patients
7.	Consider informing (record) ➢ CCG ➢ NHS England Area Team ➢ Local Authority (Social Services – Adult Services)

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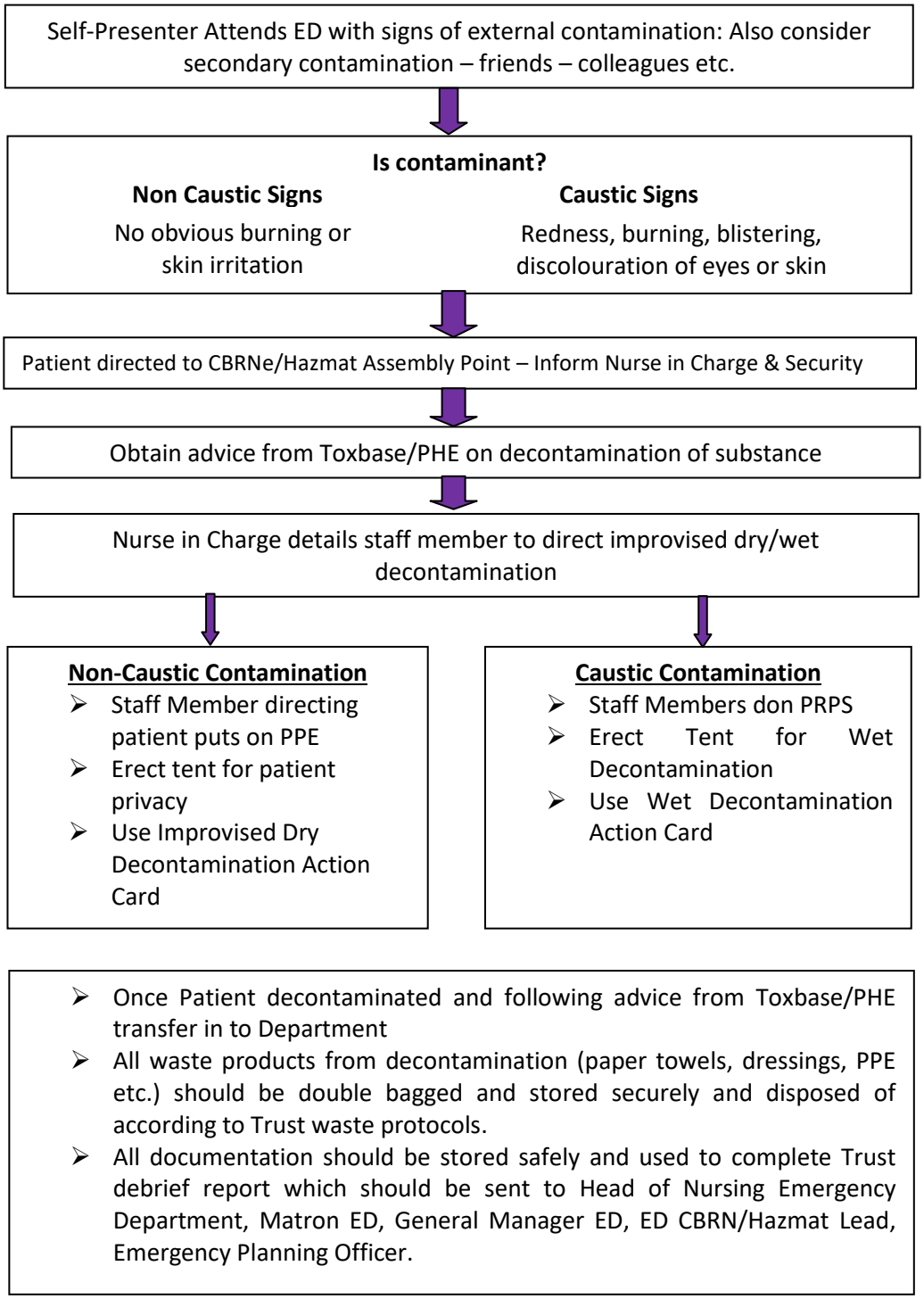
Florida Health Government, Hospital Medical Surge Planning for *Mass Casualty* Incidents START Adult Triage Algorithm. Radiation Emergency Medical Management: REMM (US Department of Health and Human Services).

APPENDIX 4 - PROTOCOL FOR SELF PRESENTING PATIENTS

Self-Presenting CBRN/Hazmat Patients

Emergency Department staff have received training on the Initial Operational Response (IOR). It is important all contaminated patients arriving in ED are immediately instructed to return outside and proceed to the CBRN/Hazmat 'Assembly Point'; this will reduce possible contamination of waiting area.



- Once Patient decontaminated and following advice from Toxbase/PHE transfer in to Department
- All waste products from decontamination (paper towels, dressings, PPE etc.) should be double bagged and stored securely and disposed of according to Trust waste protocols.
- All documentation should be stored safely and used to complete Trust debrief report which should be sent to Head of Nursing Emergency Department, Matron ED, General Manager ED, ED CBRN/Hazmat Lead, Emergency Planning Officer.

GLOSSARY

HAZMAT	Hazardous Material
CBRNe	Chemical, Biological, Radiation, Nuclear and Explosive (Incident)
COMAH	Control of Major Accident Hazards – relates to industrial companies who store significant volumes of hazardous materials which may be a significant risk to a locality if not stored and controlled according to Health and Safety Executive requirements
CCA 2004	The Civil Contingencies Act 2004 – which governs how category 1 and 2 responders will work together to manage risk , plan for and respond to and emergency
Category 1 Responder	A group or organisation that has specific duties under the CCA 2004 to ensure that they meet the above obligation e.g. Acute Trusts, Ambulance, Police and Fire Services.
Category 2 Responder	A group or organisation that lesser duties than Cat 1, under the CCA 2004 to ensure that they can support Category 1 Responders in an emergency, and assist in co-ordination of the local response e.g. CCGs
HART	Hazardous Area Response Team – a specifically trained group of ambulance personnel who have skills and capabilities to respond in an emergency, such as setting up casualty clearing stations at the scene of an incident or directing decontamination of casualties at the scene of an incident (not limited to these examples).
ICR	Incident Control Room – a room set up to provide the facilities and equipment to enable the command and control of an incident to be managed effectively
Command and Control	The nationally accepted process during an incident whereby a control structure is set up to ensure the strategic, tactical and operational response to, and recovery from, the incident is managed effectively.
Lockdown	A controlled process by which an area/department/building can be segregated by the electronic locking of doors to both secure and protect the area/department/building and the individuals therein.
IOR	Joint Emergency Services Interoperability Response
STEP 1-2-3-PLUS	Safety Triggers for Emergency Personnel
Decontamination	The process of safely removing contaminants from casualties involved in incidents
Hot Zone	The area of initial contact by contaminated casualties, which is therefore a dirty/contaminated zone
Warm Zone	The area of decontamination of affected casualties
Cold Zone	The receiving area for decontaminated casualties - this area is clean
Self- presenter(s)	An individual(s) who may have left the scene of an incident before being decontaminated, or an individual(s) who is

	concerned they may have been contaminated as a result of an incident
PPE	Personal protective equipment which is used by staff to protect themselves from hazardous materials, by forming a barrier between the staff and the hazard. PPE varies according to the type of contamination.
PRPS	Powered Respirator Protective Suit – High level protective suits which protect the staff member from contaminant contact and vapour protection against chemicals and airborne particles.

APPENDIX 5 – EQUALITY IMPACT ASSESSMENT PART 1 INITIAL SCREENING

Service/Function/Policy/Project/Strategy	Care Group/Executive Directorate and Department	Assessor (s)	New or Existing Service or Policy?	Date of Assessment
CORP/RISK 26 v.4 - HazMat & CBRNe Plan	David Purdue – COO & Accountable Emergency Officer	Jeannette Reay	Existing Policy	May 2018

1) Who is responsible for this policy? Name of Care Group/Directorate The Accountable Emergency Officer for Emergency Preparedness, Resilience and Response (EPRR) and the Emergency Planning Officer who has delegated responsibilities.

2) Describe the purpose of the service / function / policy / project/ strategy? Who is it intended to benefit? What are the intended outcomes? The purpose of the plan is to ensure that the Trust is prepared to respond to any incident where patients are involved in accidental exposure to chemical biological radiation nuclear or explosive incidents and also to deliberate terrorism attacks using the same materials.

3) Are there any associated objectives? Legislation, targets national expectation, standards: Statutory requirements to have such plans in place under the CCA 2004; NHS Improvement's Single Oversight Framework; CQC essential Standards; NHS England Core Standards; NHS England EPRR Framework; National Standard Contract Compliance.

4) What factors contribute or detract from achieving intended outcomes? – Non-compliance with the Plan.

5) Does the policy have an impact in terms of age, race, disability, gender, gender reassignment, sexual orientation, marriage/civil partnership, maternity/pregnancy and religion/belief? Details: [see Equality Impact Assessment Guidance] - No.

- **If yes, please describe current or planned activities to address the impact [e.g. Monitoring, consultation] –**

6) Is there any scope for new measures which would promote equality? [any actions to be taken] Non required.

7) Are any of the following groups adversely affected by the policy?

Protected Characteristics	Affected?	Impact
a) Age	No	
b) Disability	No	
c) Gender	No	
d) Gender Reassignment	No	
e) Marriage/Civil Partnership	No	
f) Maternity/Pregnancy	Yes	Pregnant staff are not allowed to undertake decontamination of patients in this plan as a safety measure for those staff.
g) Race	No	
h) Religion/Belief	No	
i) Sexual Orientation	No	

8) Provide the Equality Rating of the service / function /policy / project / strategy – tick (✓) outcome box

Outcome 1 ✓	Outcome 2	Outcome 3	Outcome 4

Date for next review: June 2021

Checked by: Neil Colton – Emergency Planning Support Officer **Date: 11 May 2018**