

Volume 2 of 2: Additional appendices

**The Emergency Department response to
Chemical, Biological, Radiological, and
Nuclear events: A Human Factors and
Ergonomics Approach**

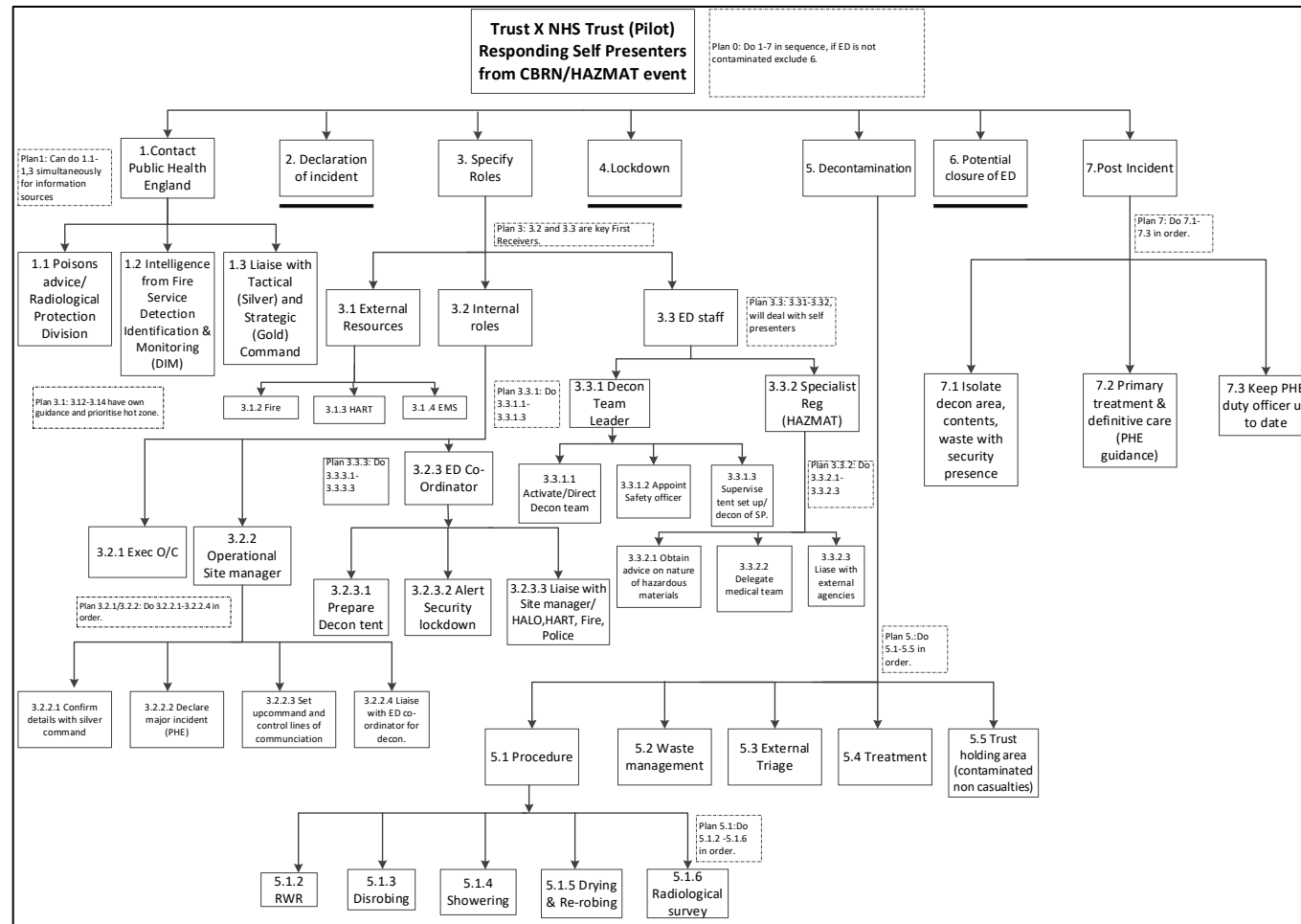
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Vol 2: Appendix 19. Part 1 CBRN plan

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For any advice and further information and advice about responding to a CBRN incident, training or exercising please contact the Emergency Planning officer. Please note this is not an on call/operational response role for use during an incident.

AIM & OBJECTIVES

The Aim of the plan is;

To enable the Trust to respond to the arrival of self-presenting contaminated casualties who require decontamination to limit further damage to their health and to prevent secondary contamination of staff, visitors and hospital infrastructure.

This will be achieved through the following objectives;

- a) To establish the processes for identifying contaminated self-presenters and appropriate activation and notification arrangements
- b) To identify appropriate decontamination procedures to reduce the effects of the contaminants
- c) To identify other agencies who will assist with the management of self-presenters
- d) To identify the command and control arrangements as to how the incident will be managed supported by appropriate action cards
- e) To identify additional specific considerations that may arise during a CBRN incident.

SCOPE

This plan will cover the processes to adopt when it is suspected that a patient(s) may be contaminated with a hazardous Chemical, Biological, Radiological or Nuclear substance (CBRN).

Contaminated casualties will be managed in the location they first present. Contaminated casualties must not be transferred for management to another department unless they have been decontaminated.

Any casualties arriving by Ambulance or other emergency services should have been decontaminated at the scene, the exception to this is P1 casualties that are contaminated with radioactive substances. All arrivals via ambulances during a known CBRN incident should be verified before casualties and ambulance staff are permitted entry to the Emergency Department.

CBRN Plan
Version: 3, May 2017

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Next Review Date: August 2017

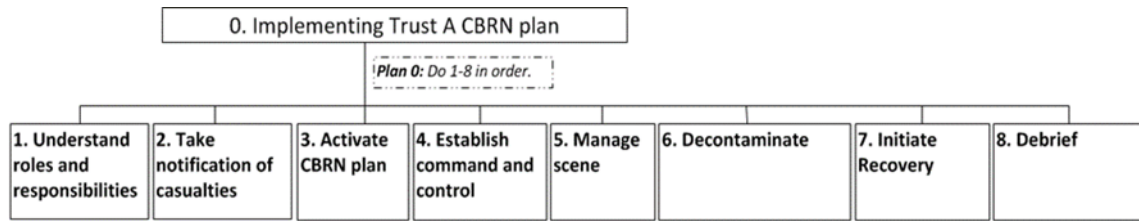
(Example extract of Trust A CBRN plan: Image courtesy of Trust A)

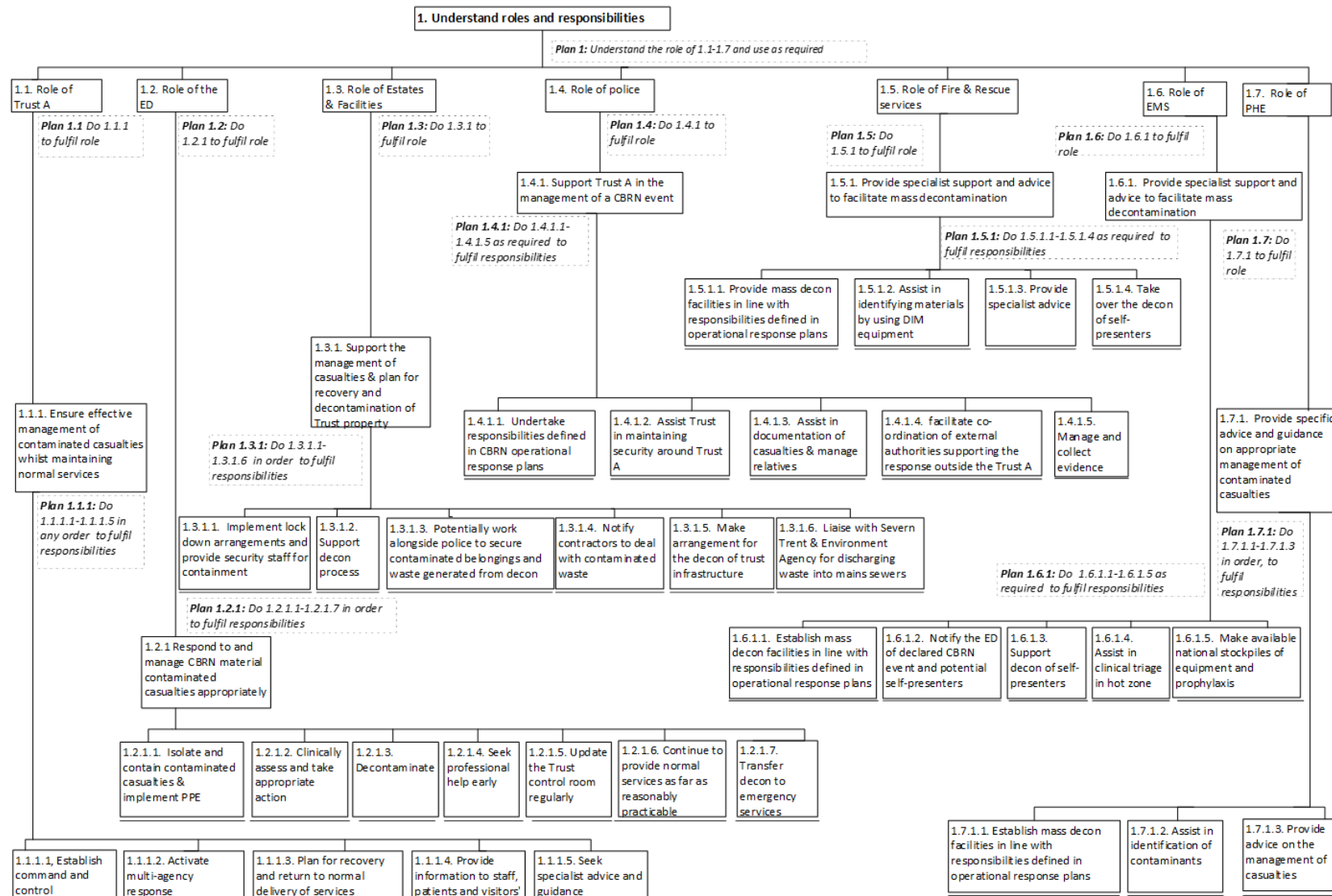
Vol 2: Appendix 20. Part 2 Action card

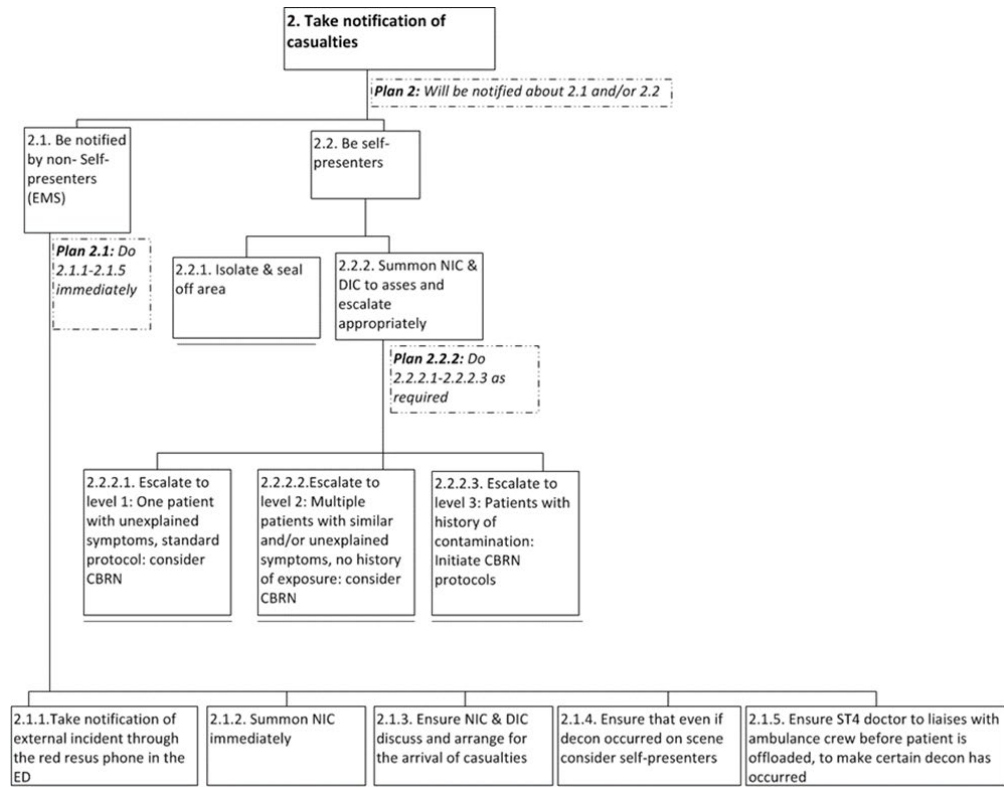
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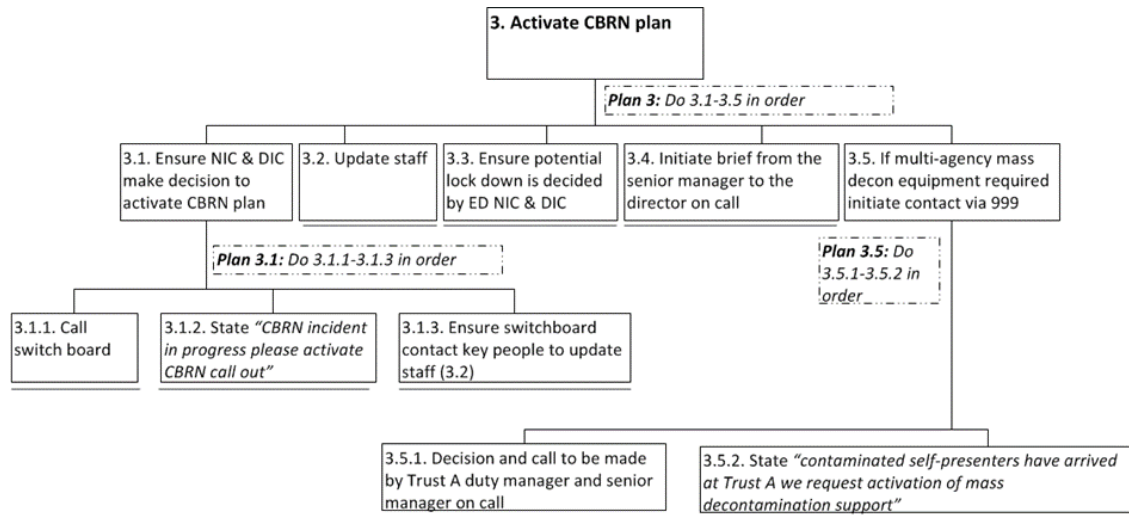
(Example extract of Trust A CBRN plan: Image courtesy of Trust A)

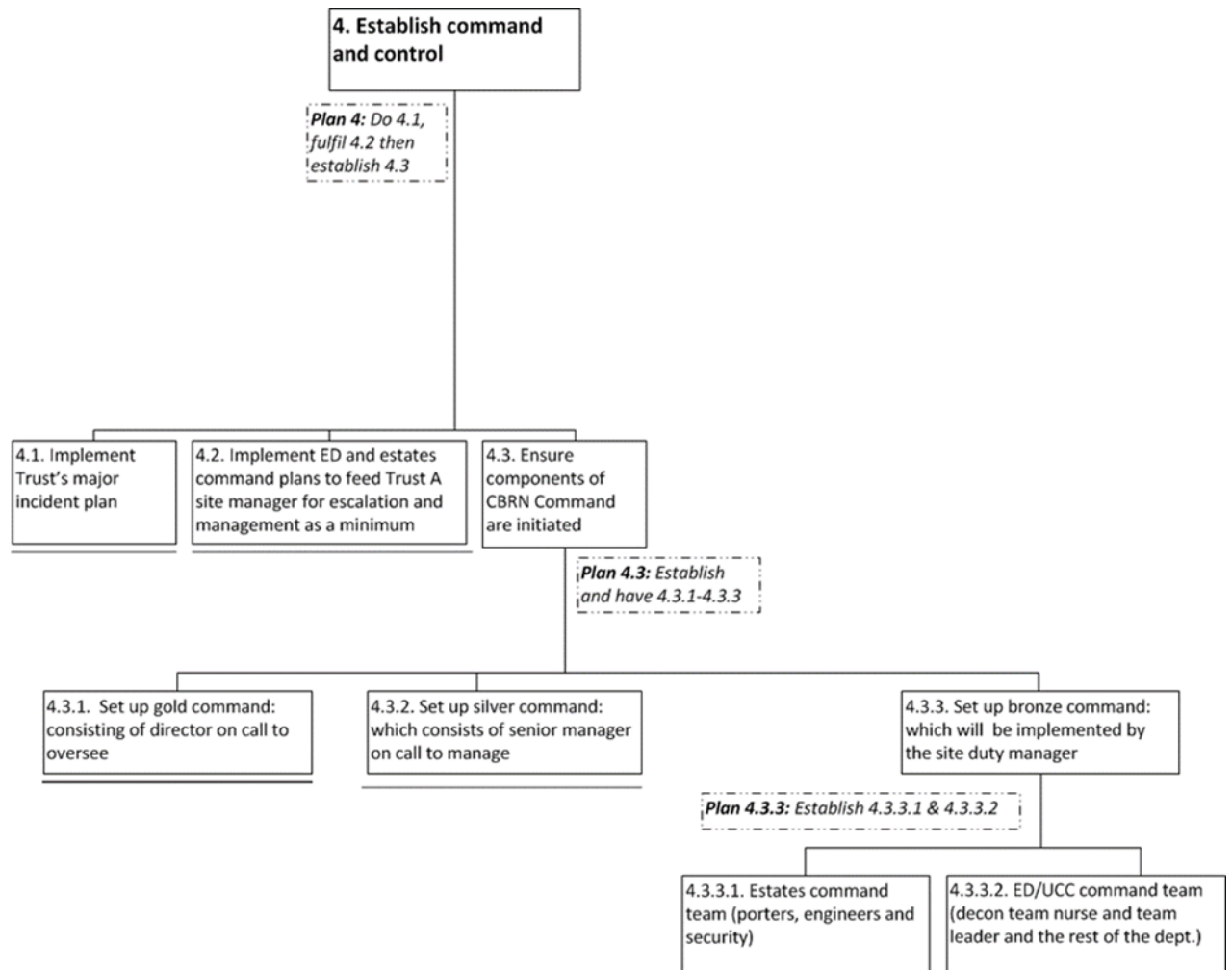
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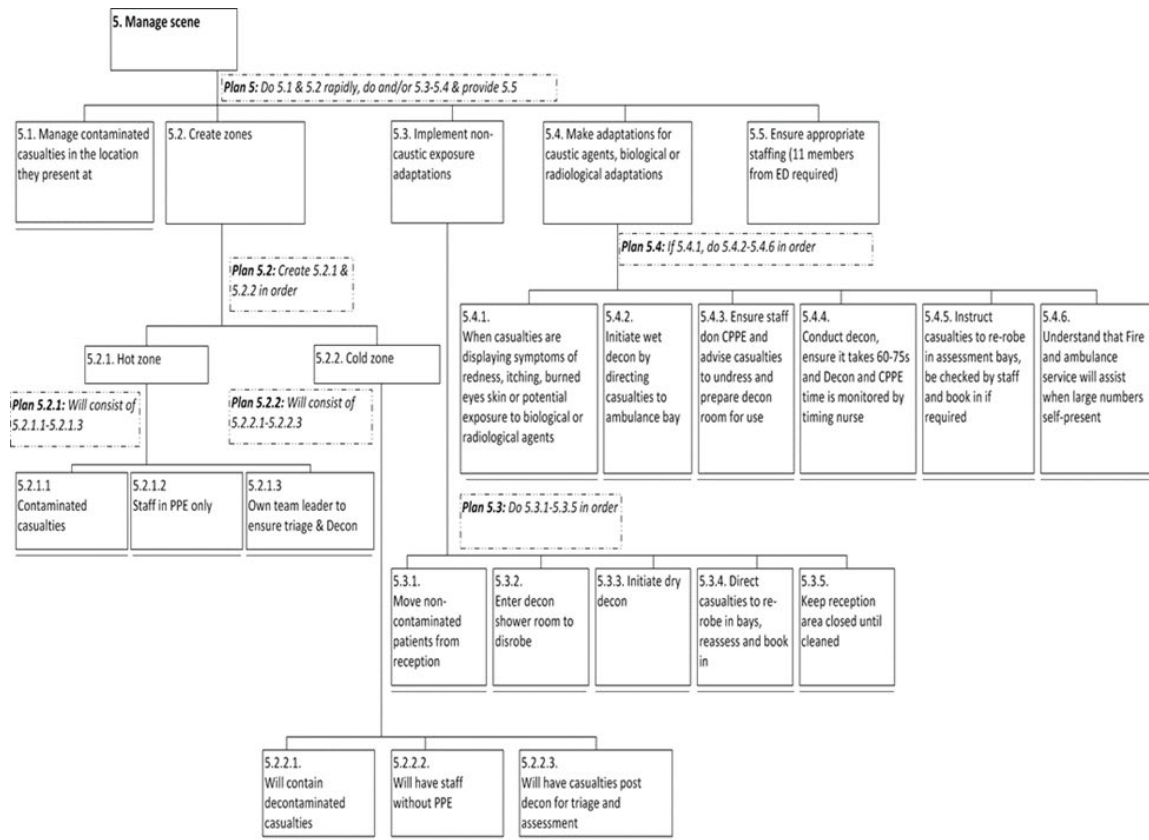


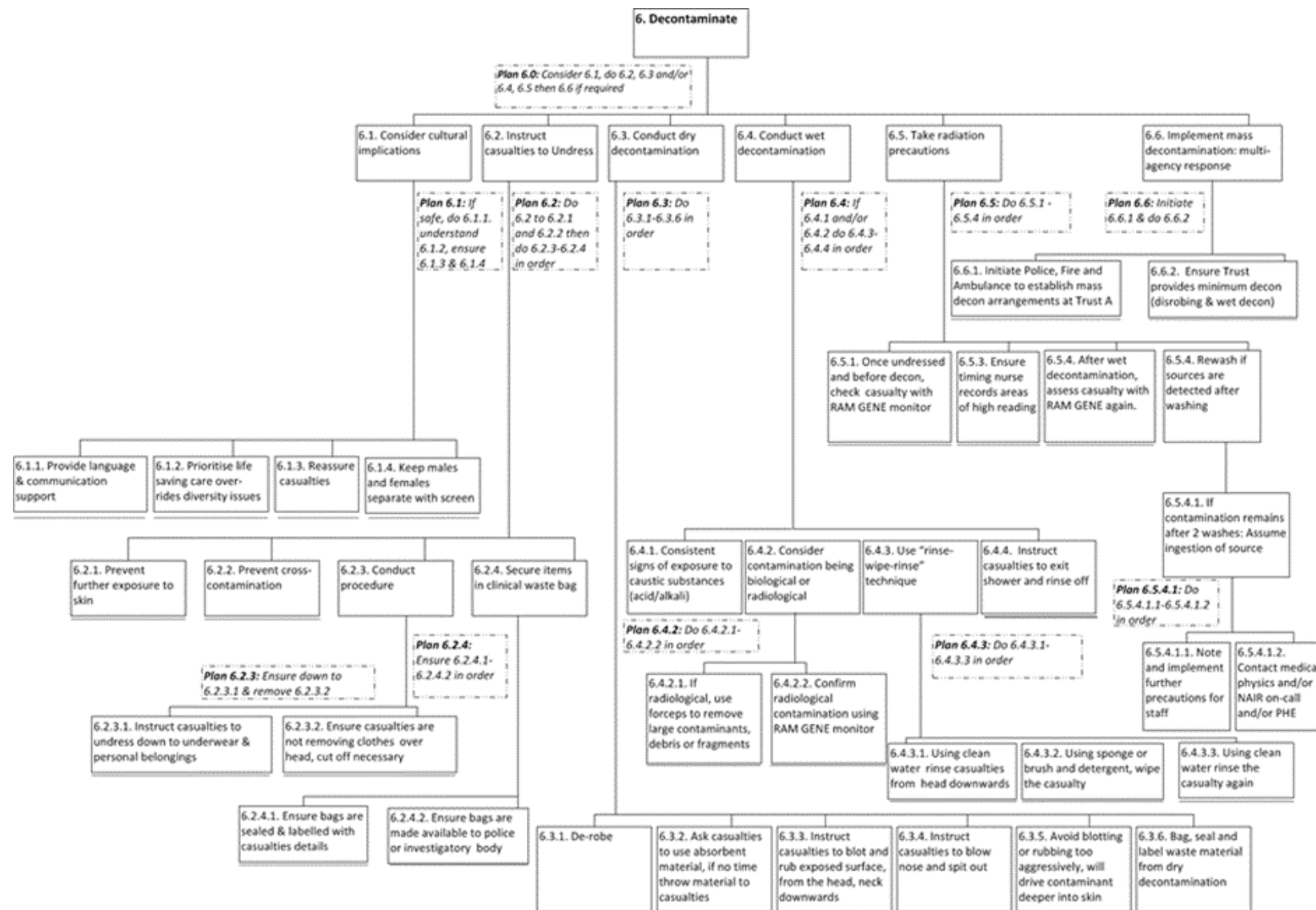


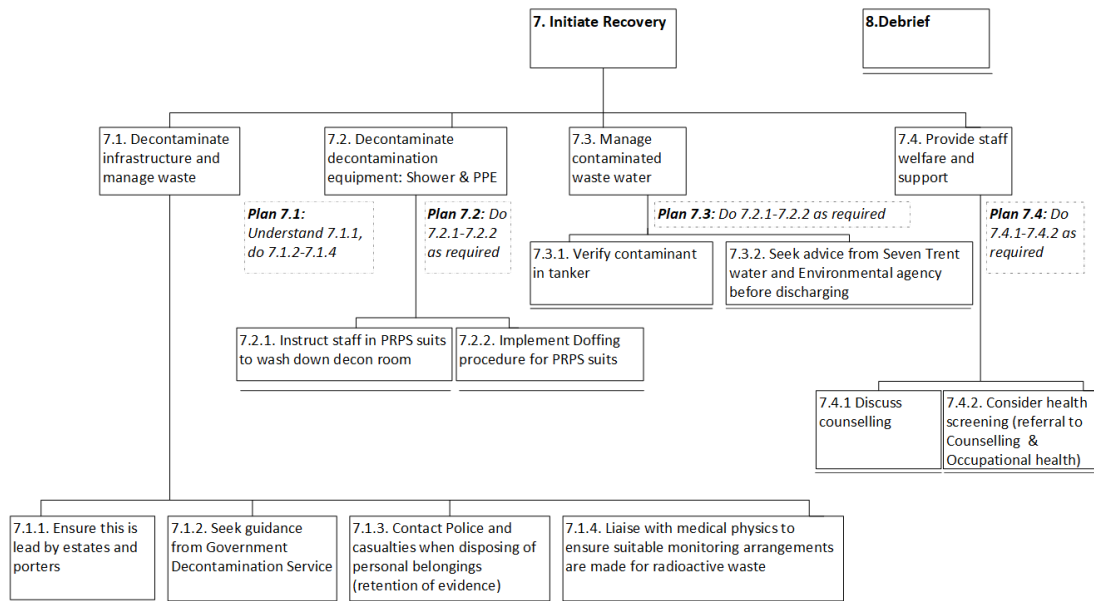




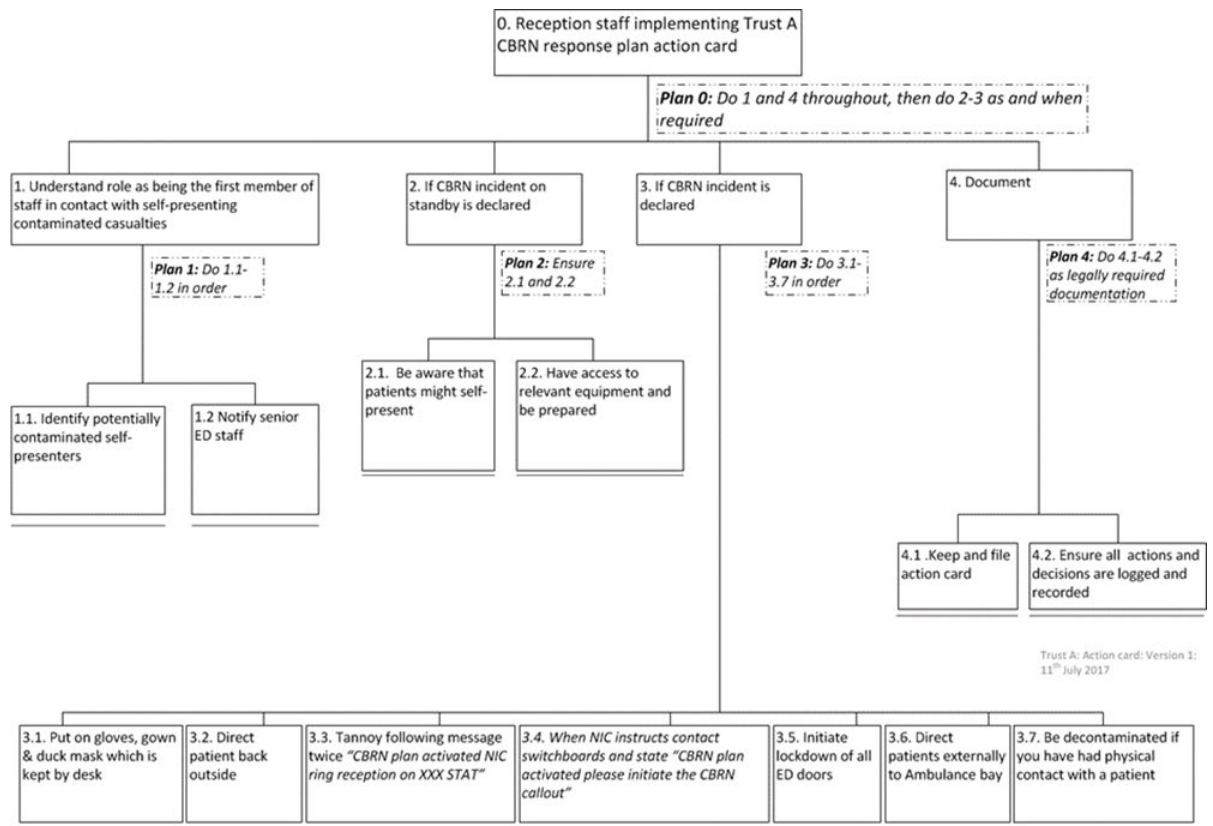


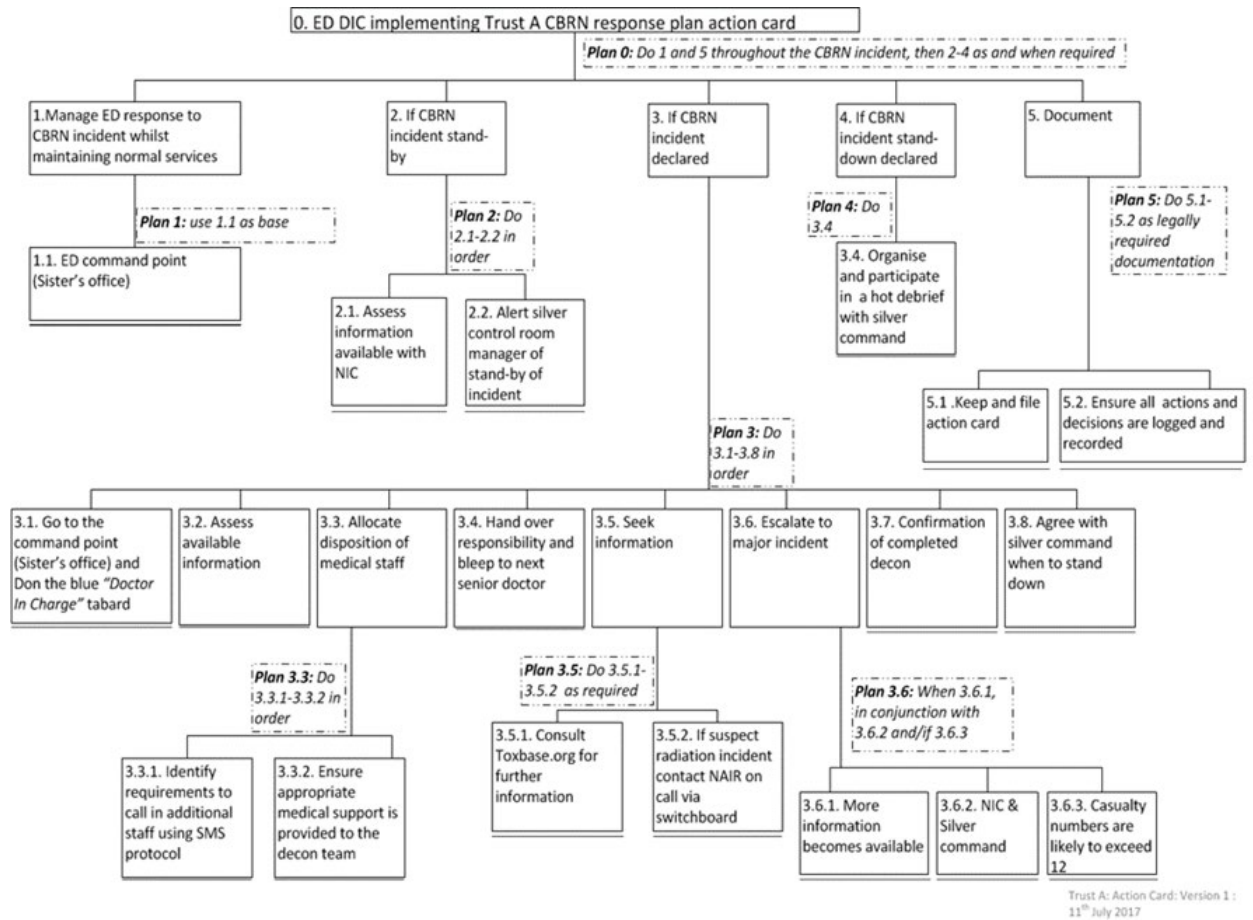


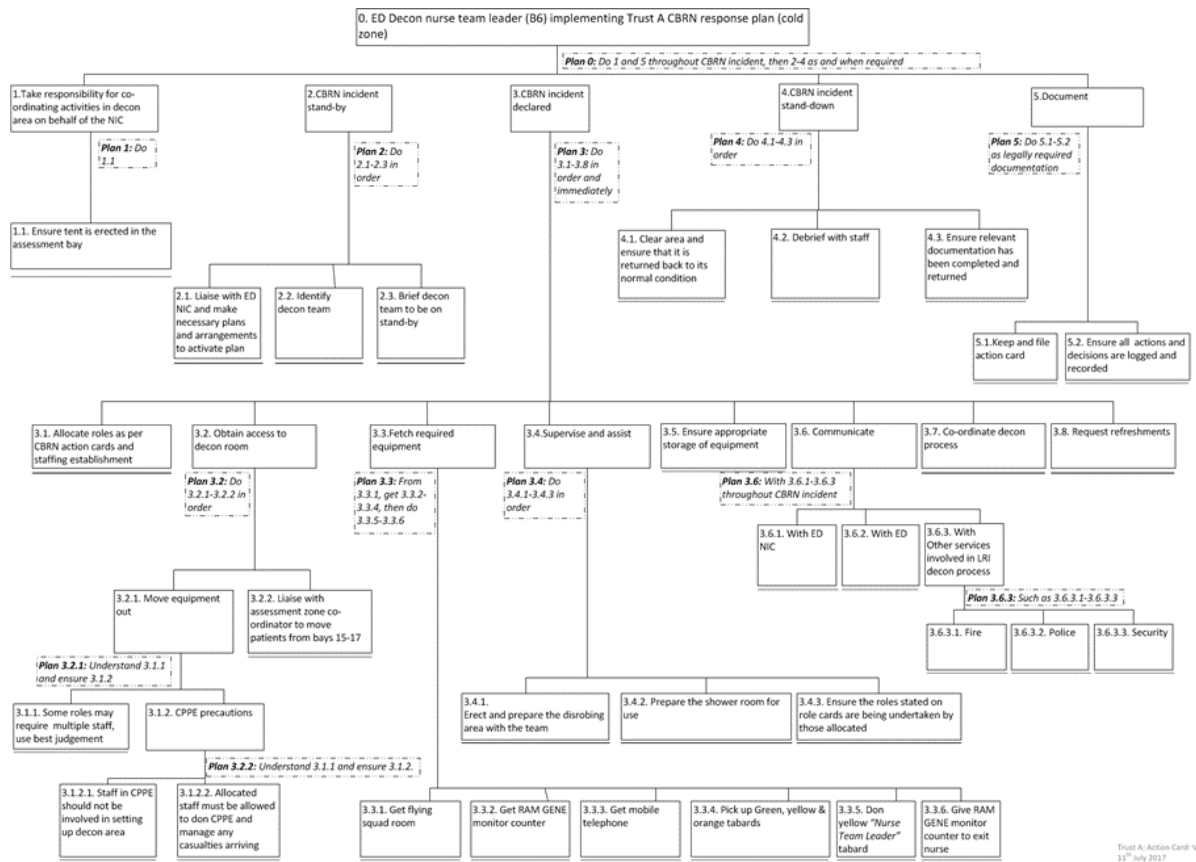




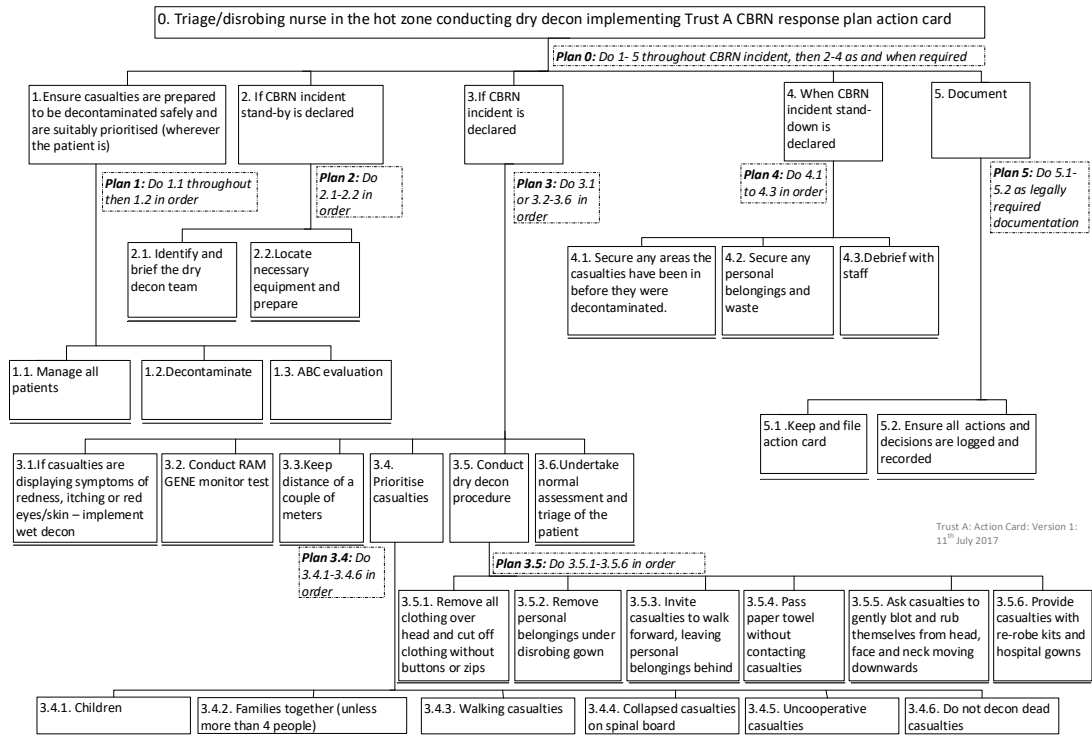
Vol 2: Appendix 22. Trust A: Action cards (V1)

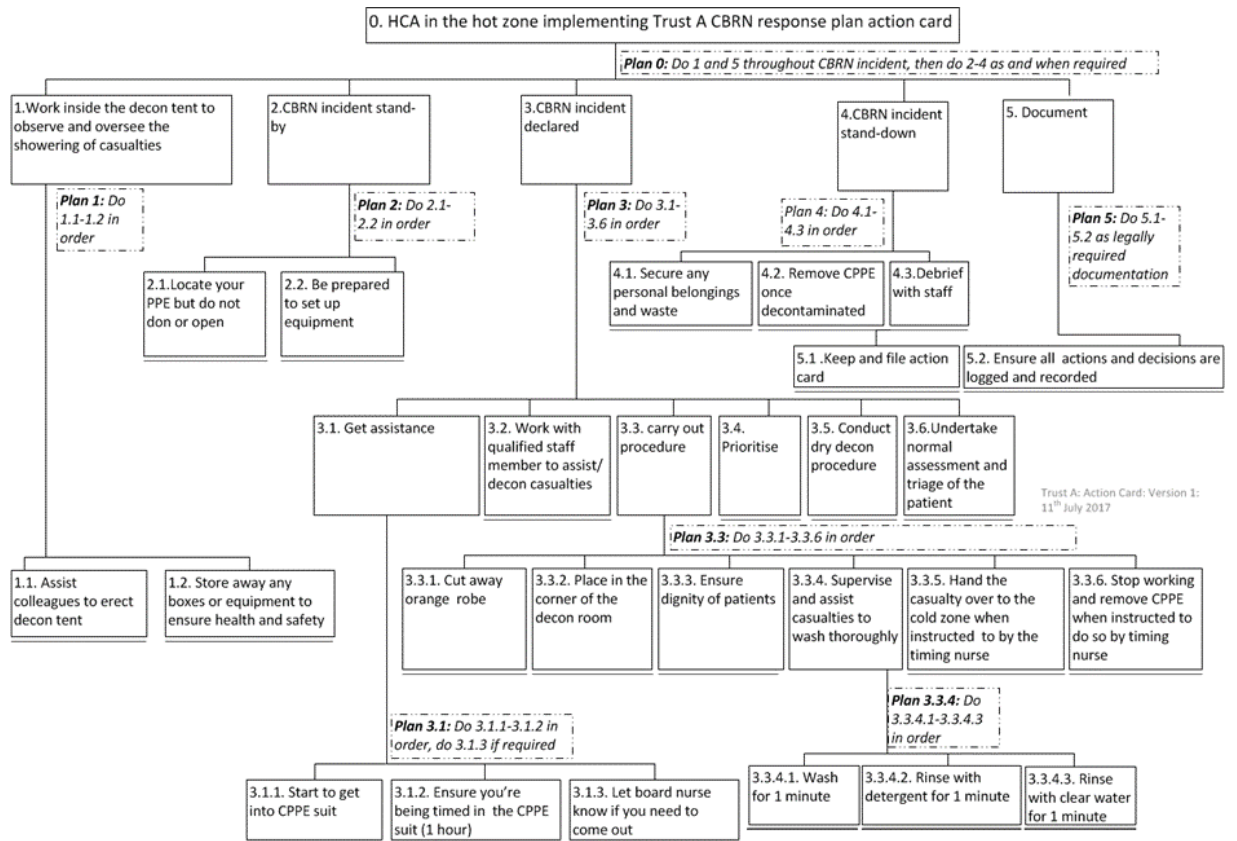




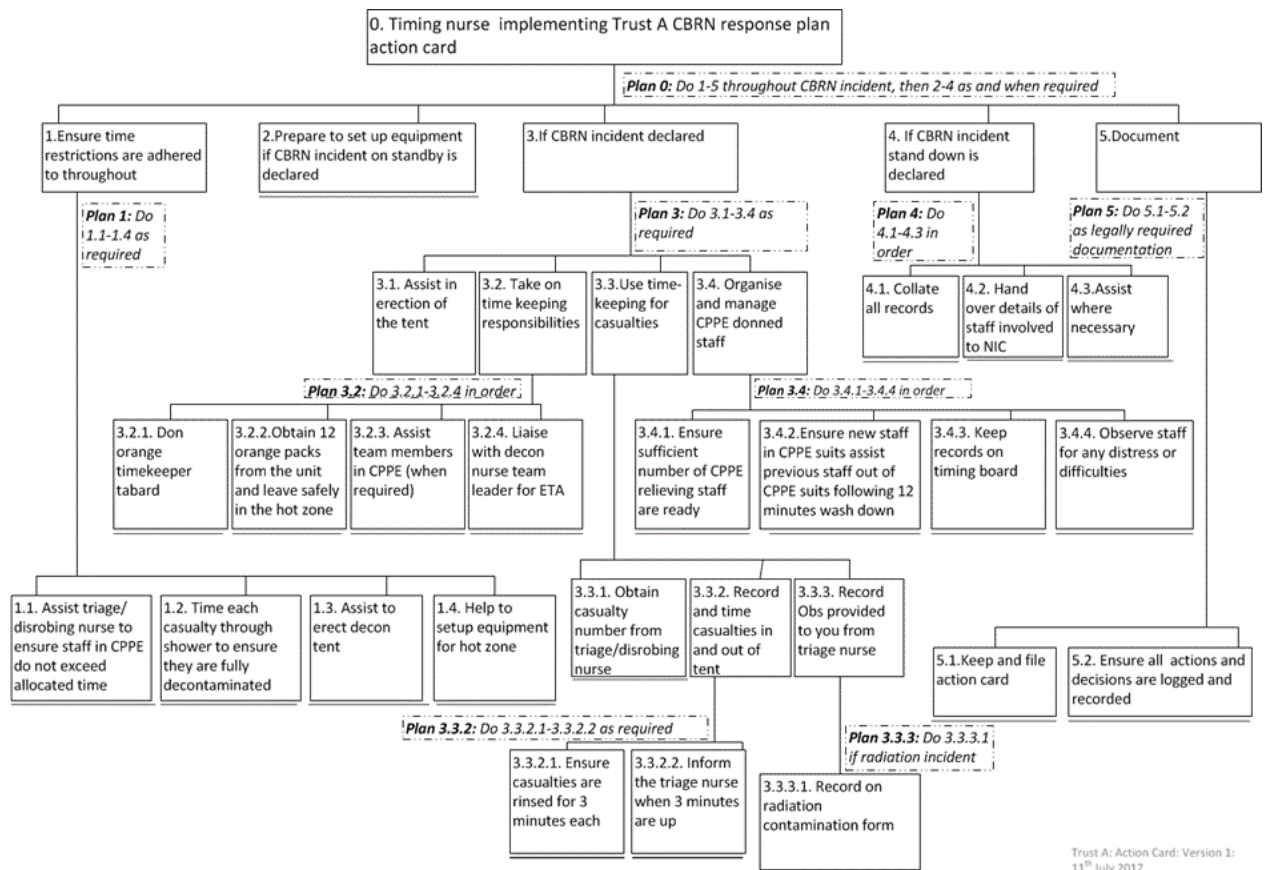


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11th July 2017

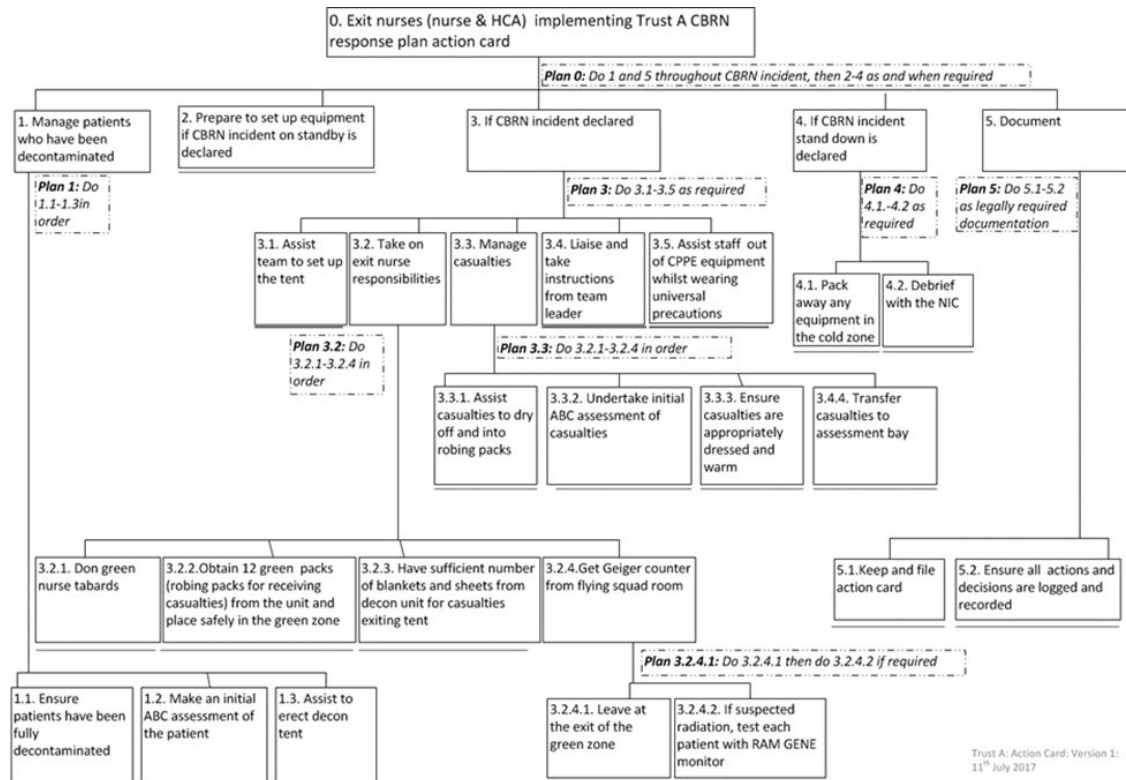




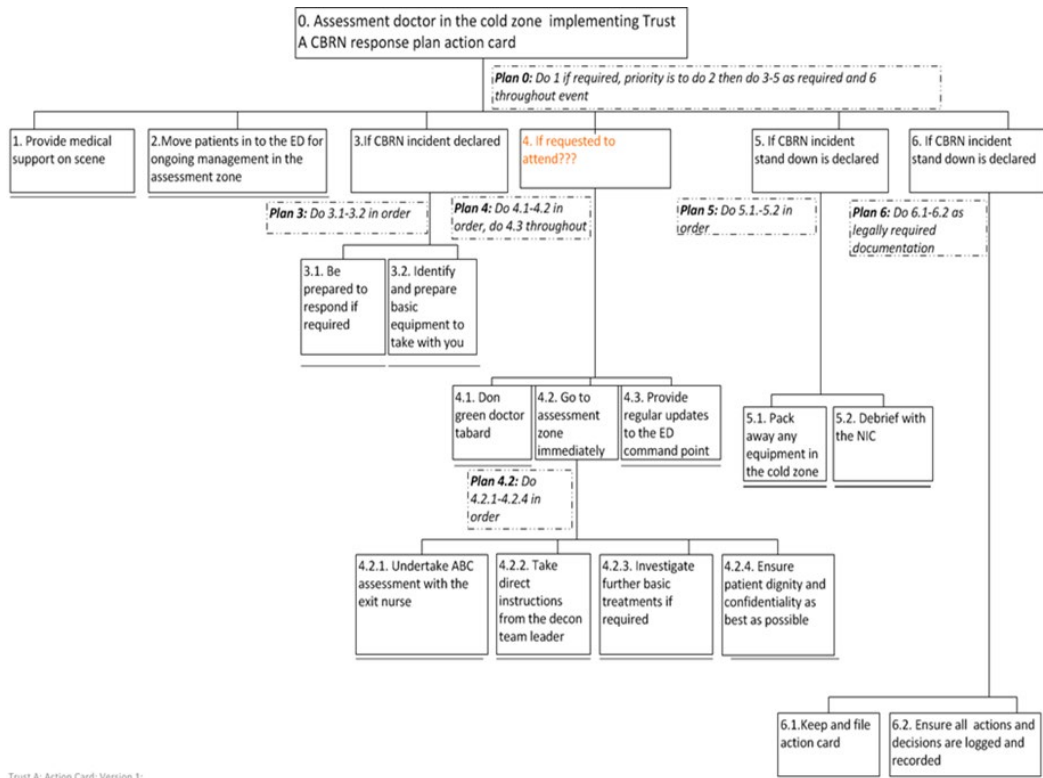
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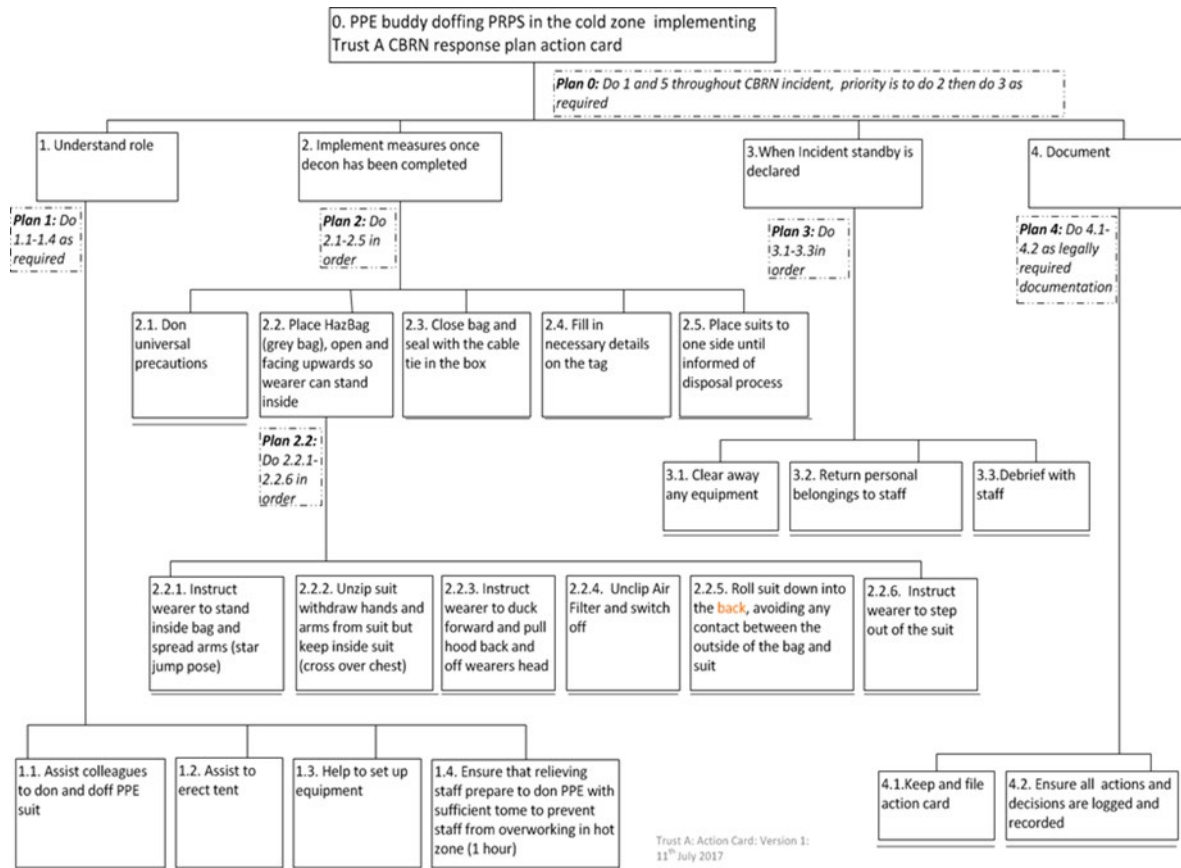
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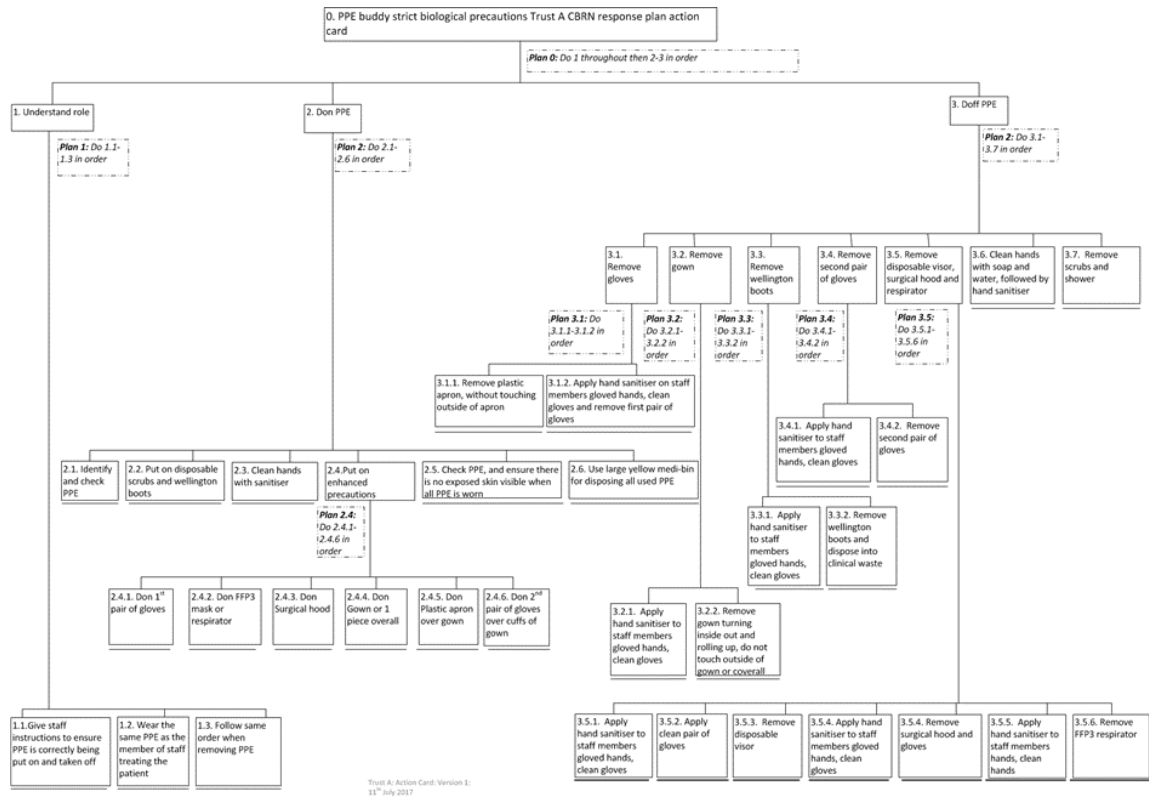
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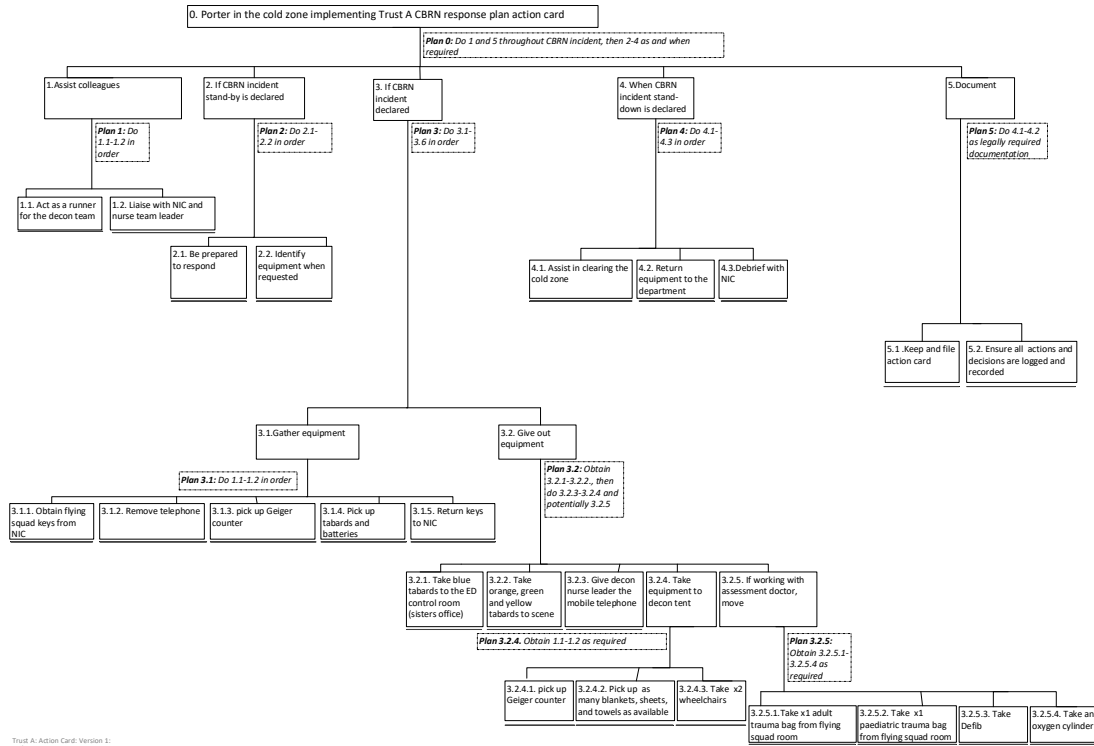


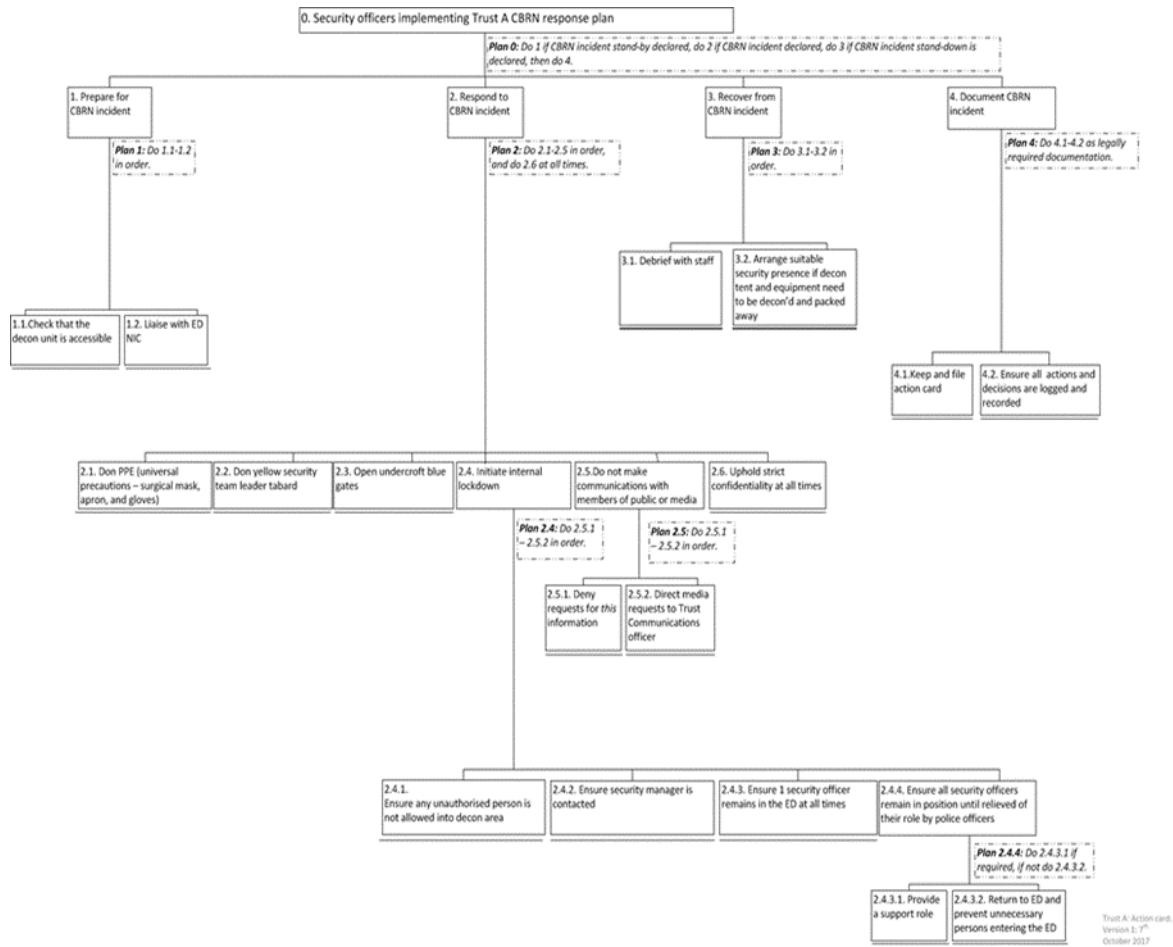
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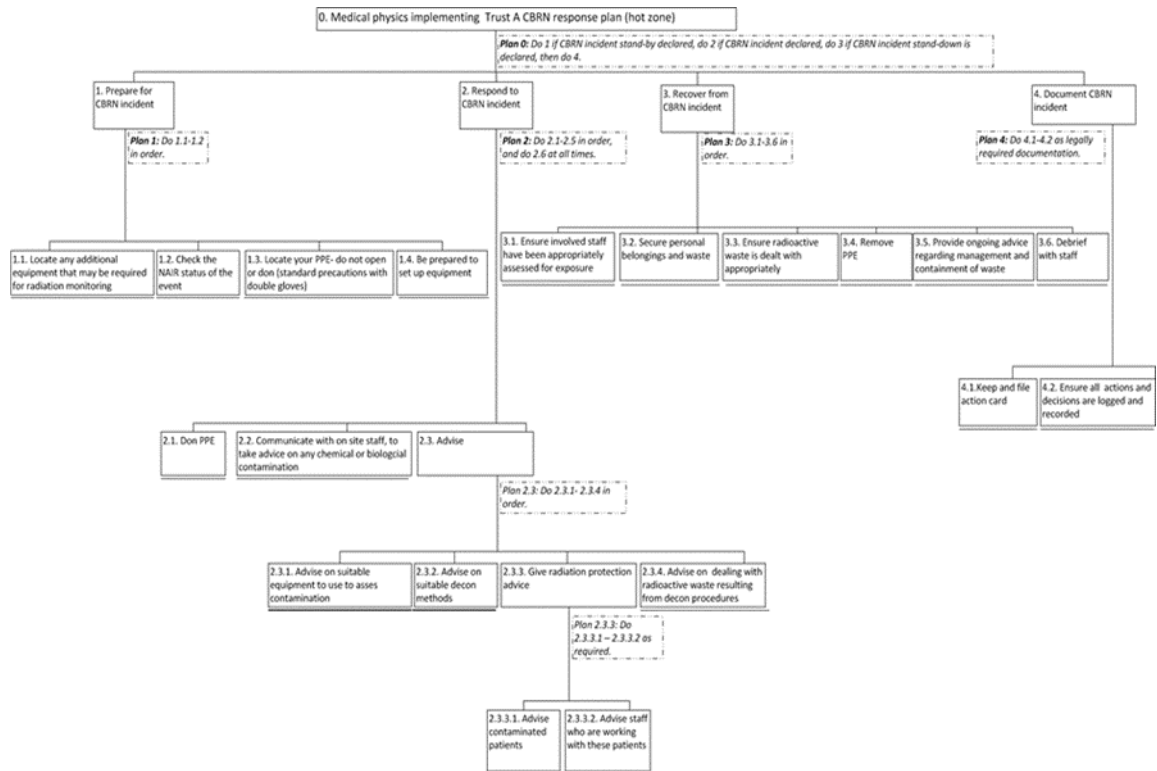






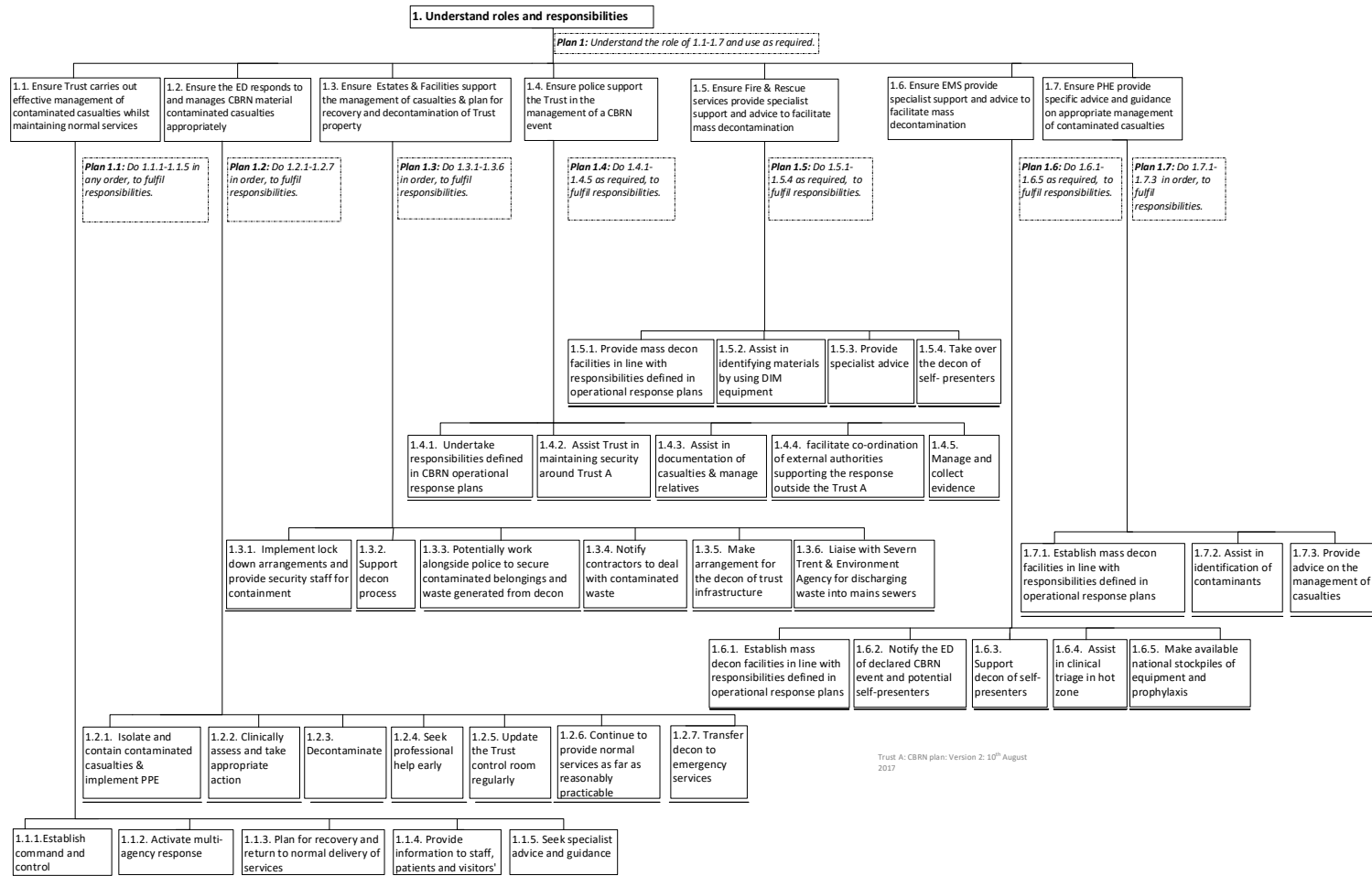


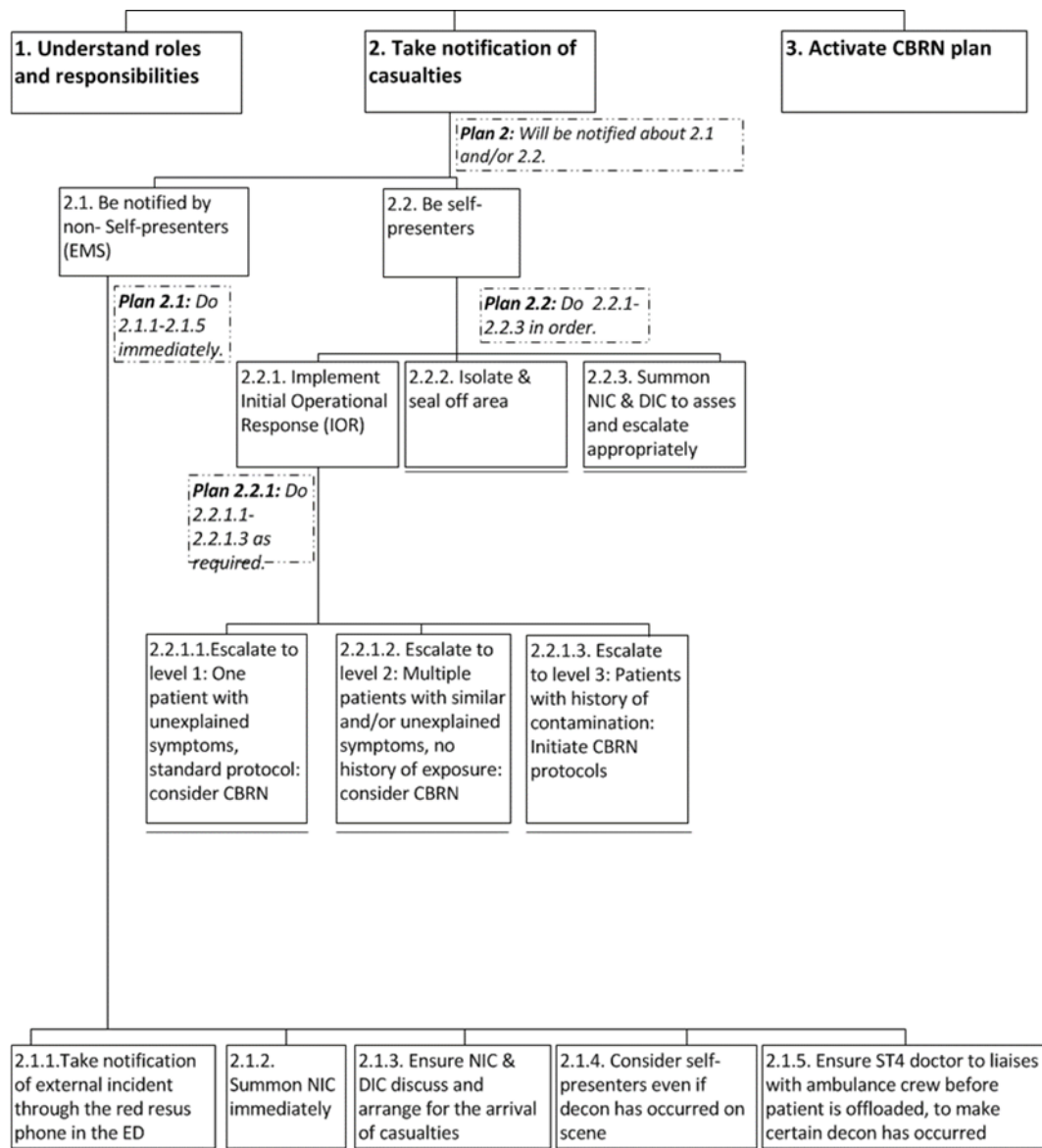




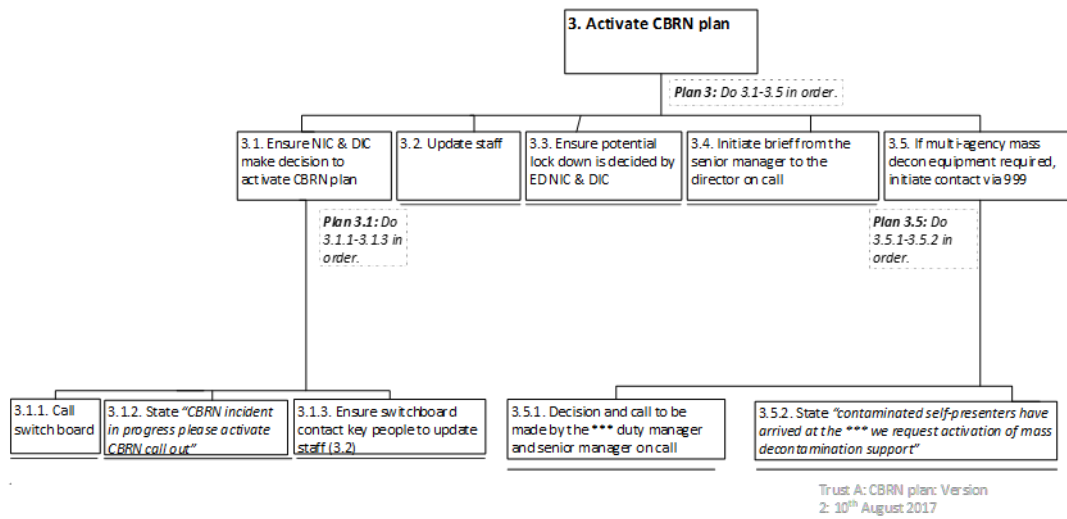
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2017

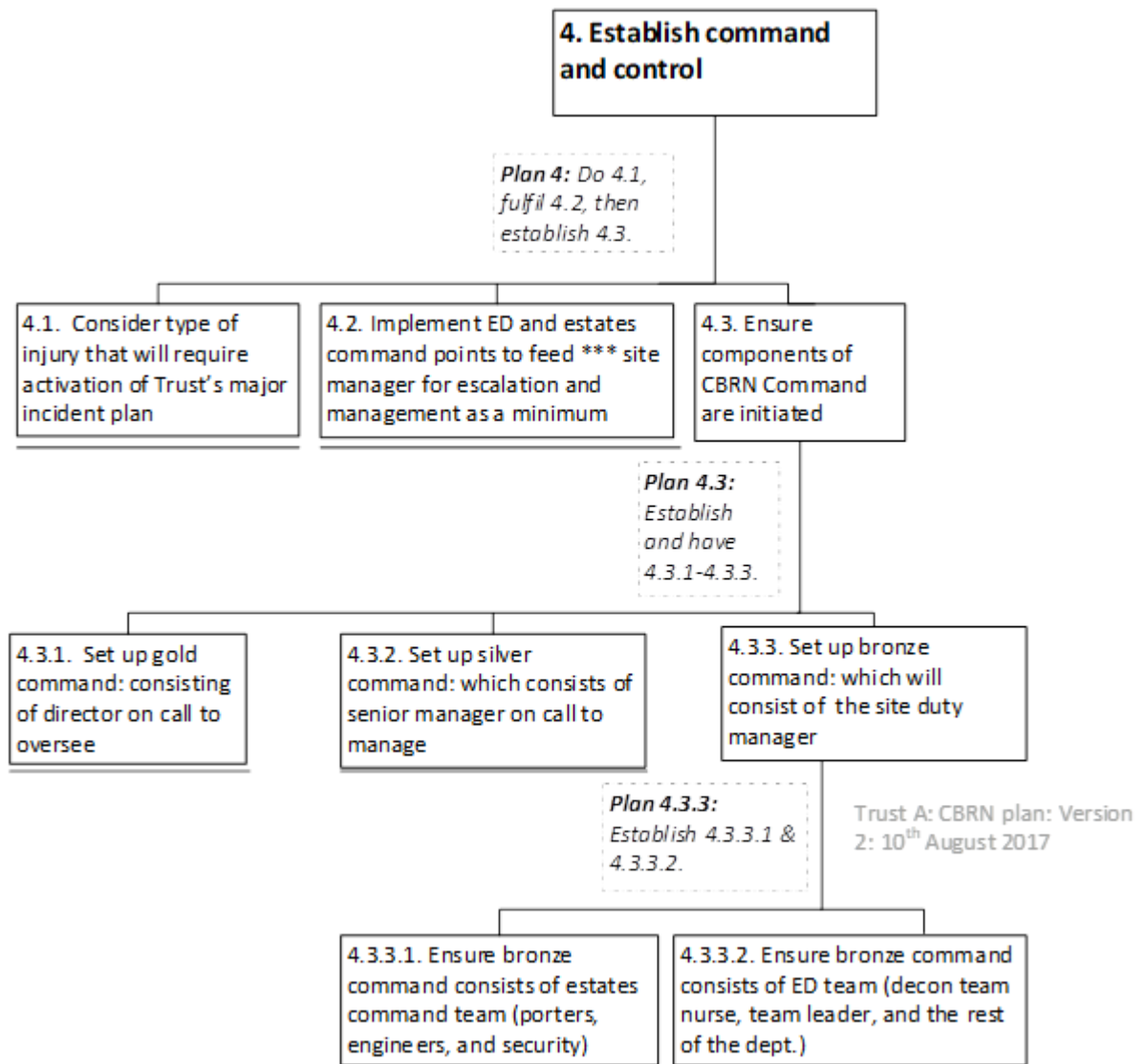
Vol 2: Appendix 23. Trust A: General organisational responsibilities (V2)

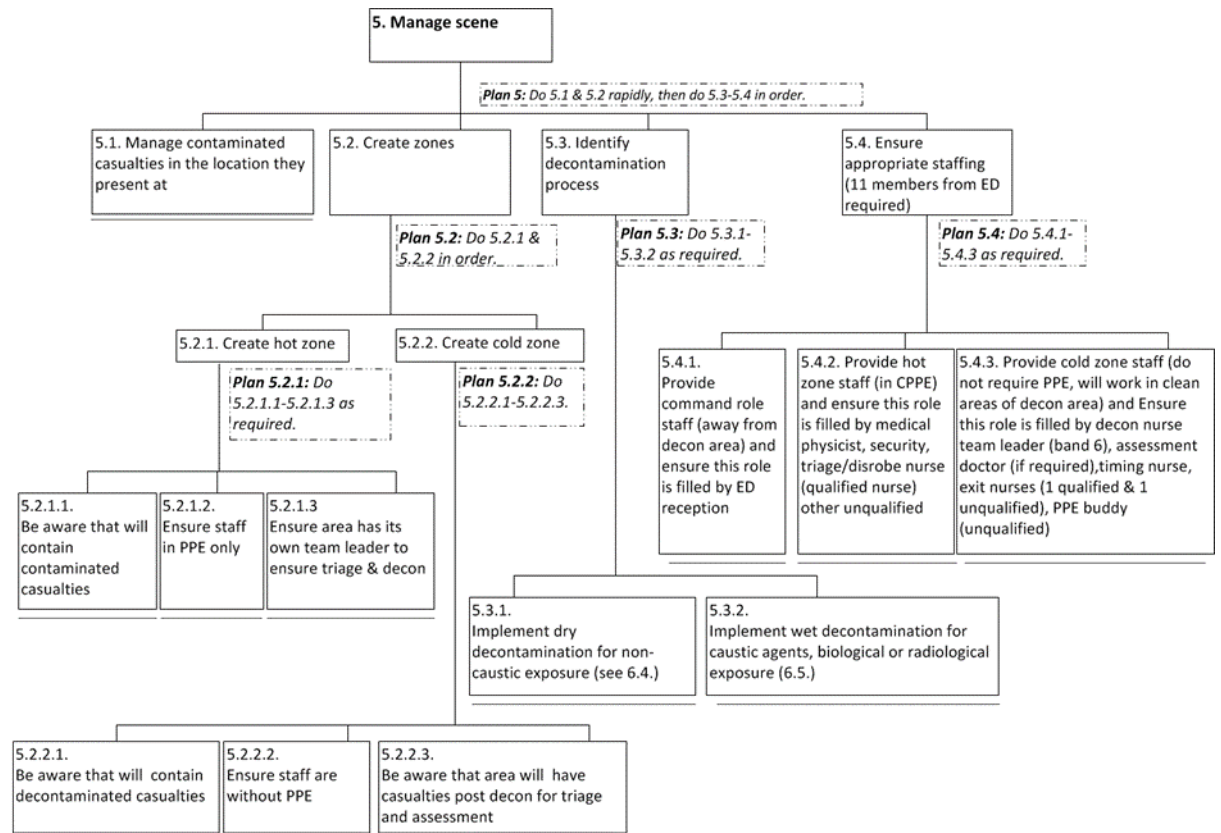


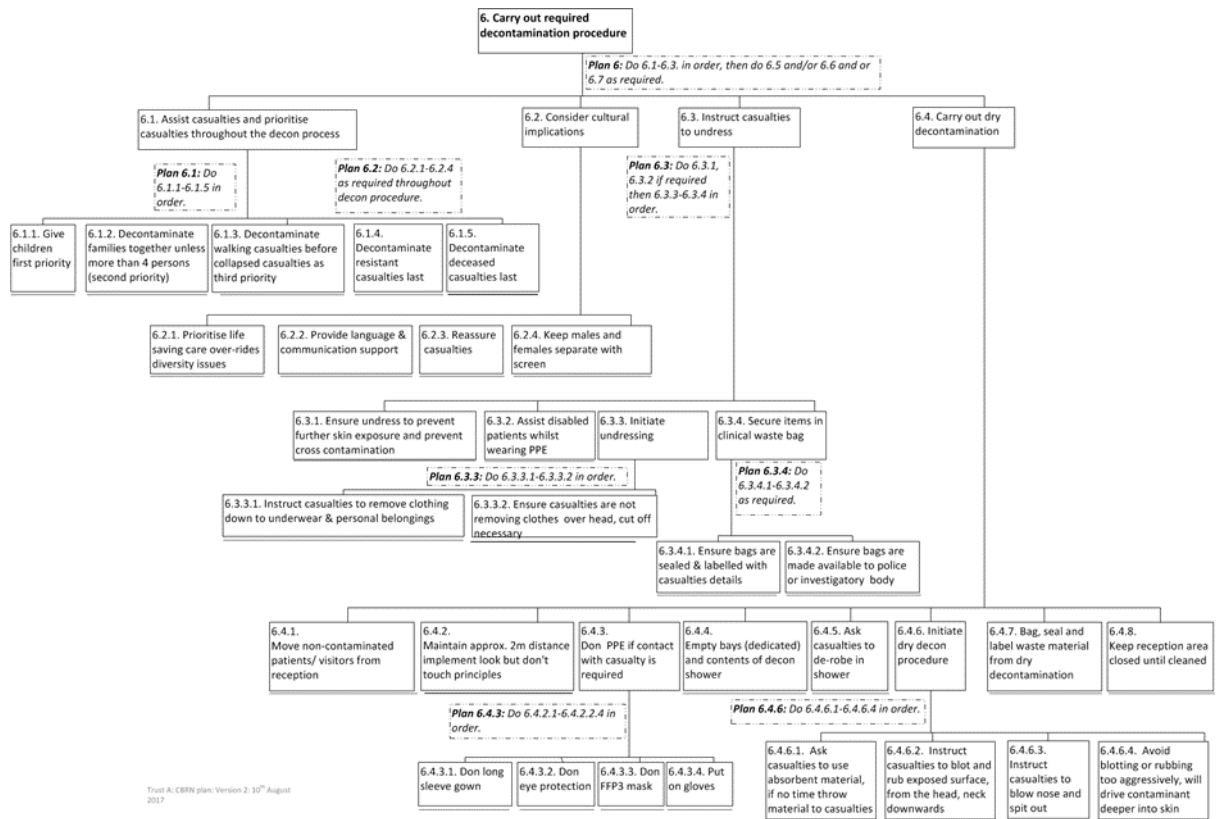


Trust A: CBRN plan: Version 2: 10th August 2017

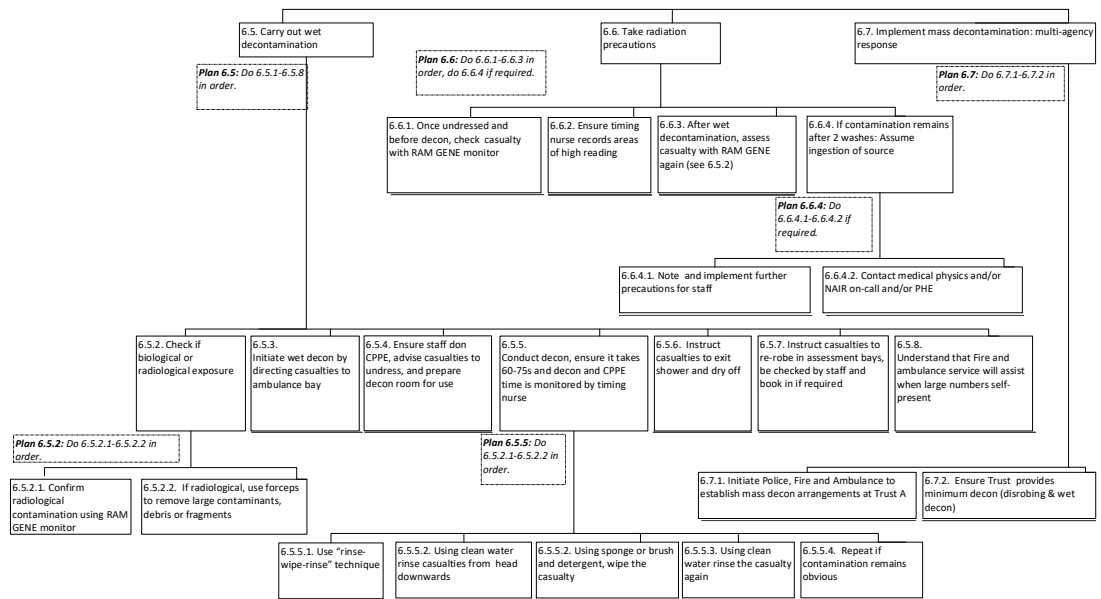




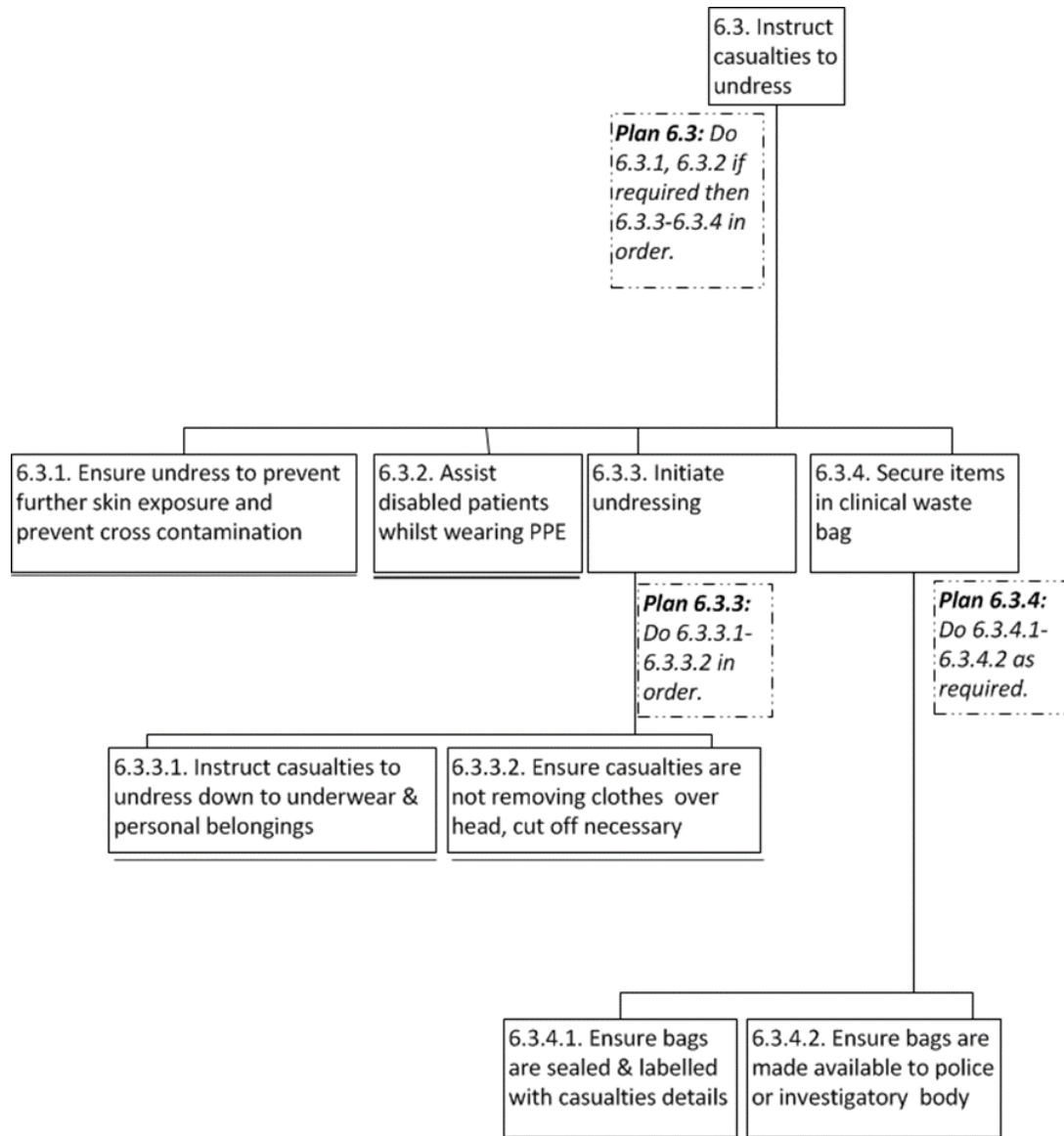




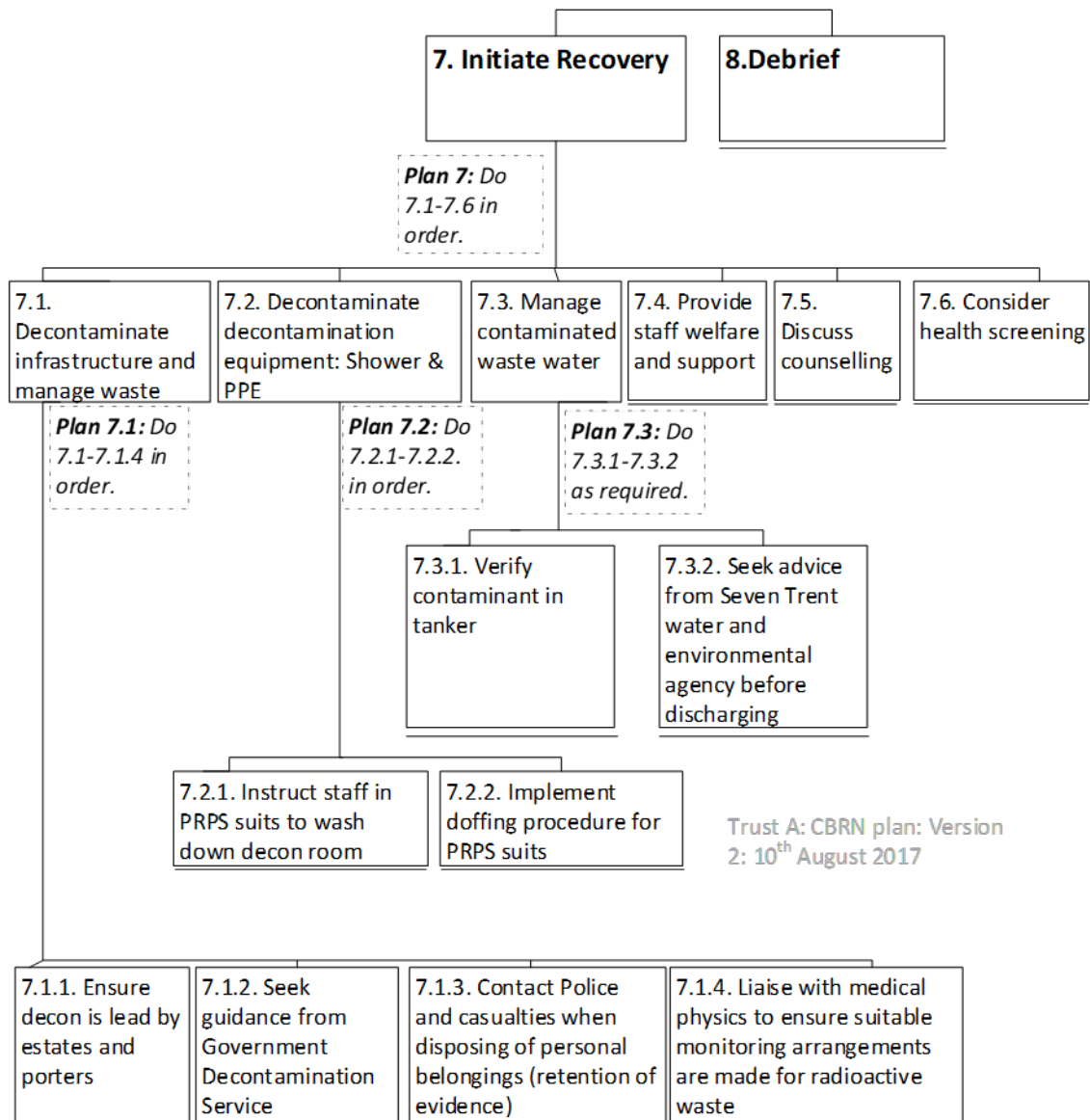
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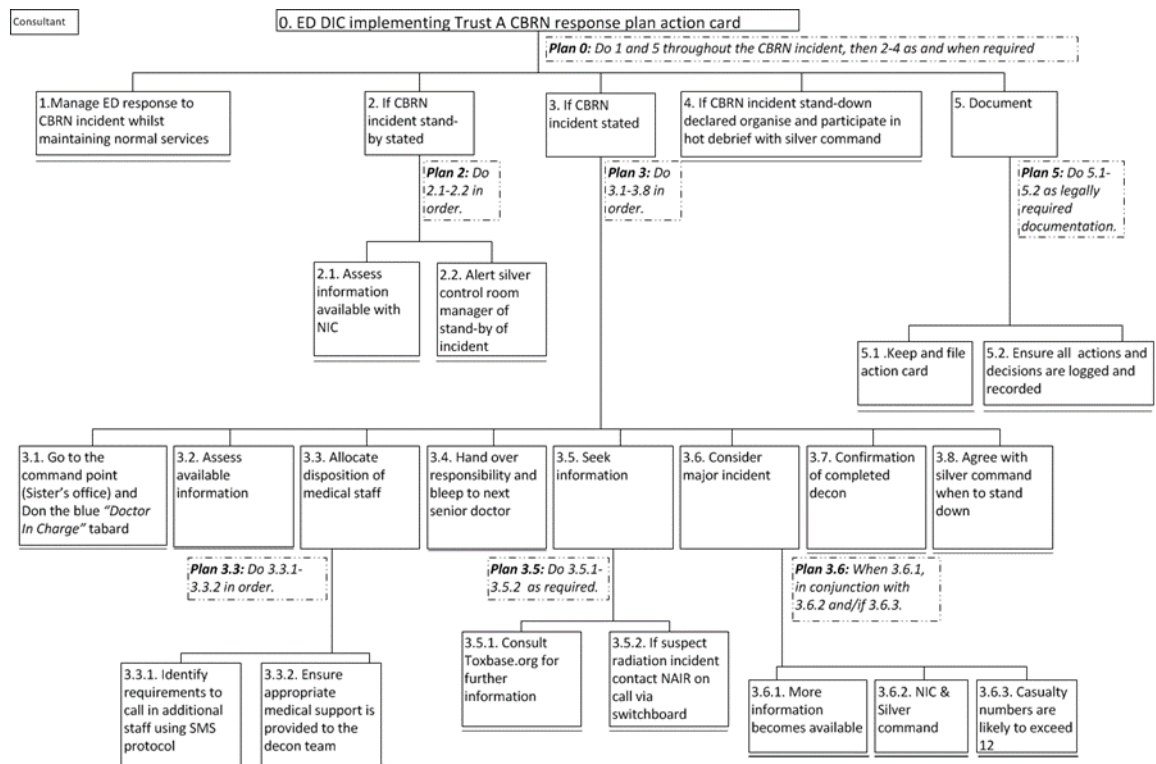
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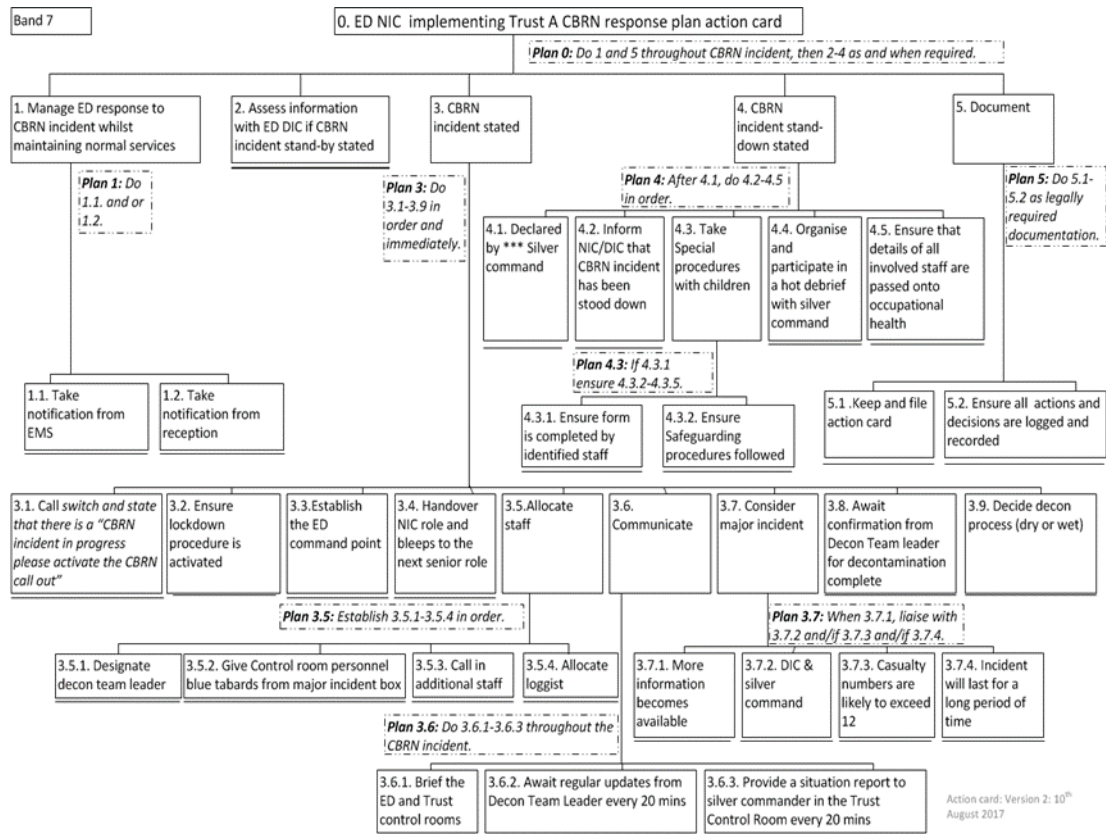
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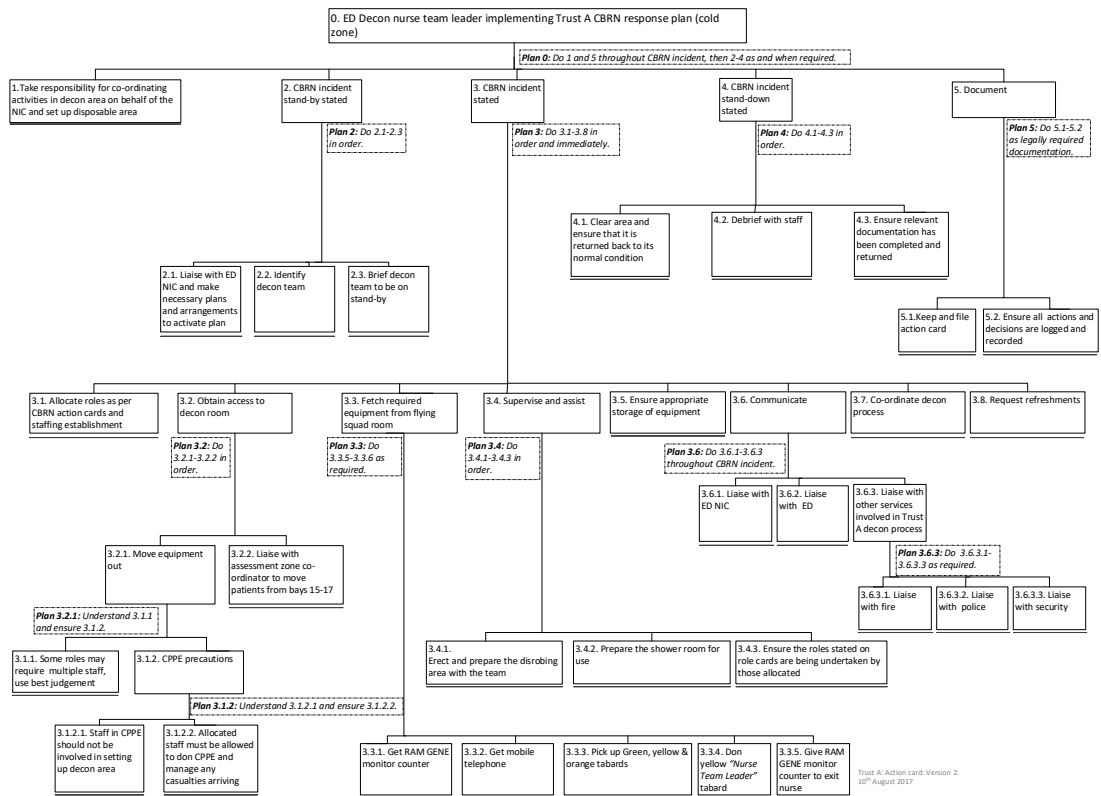


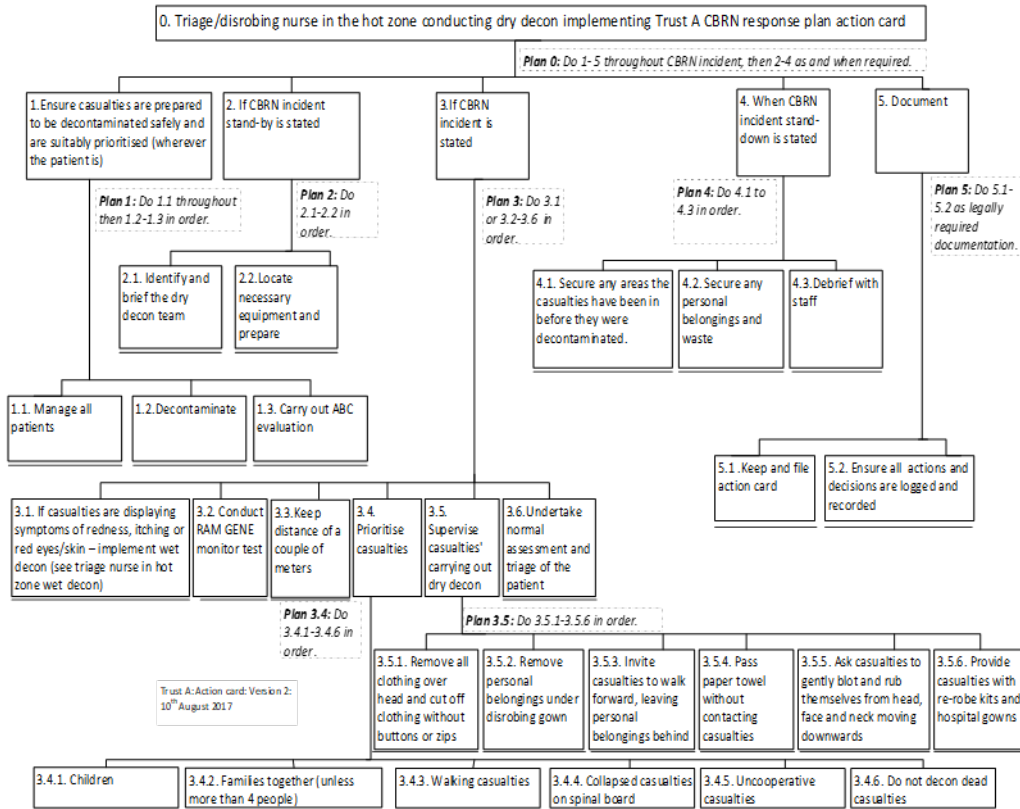
Vol 2: Appendix 24. Trust A: Action Cards (V2)

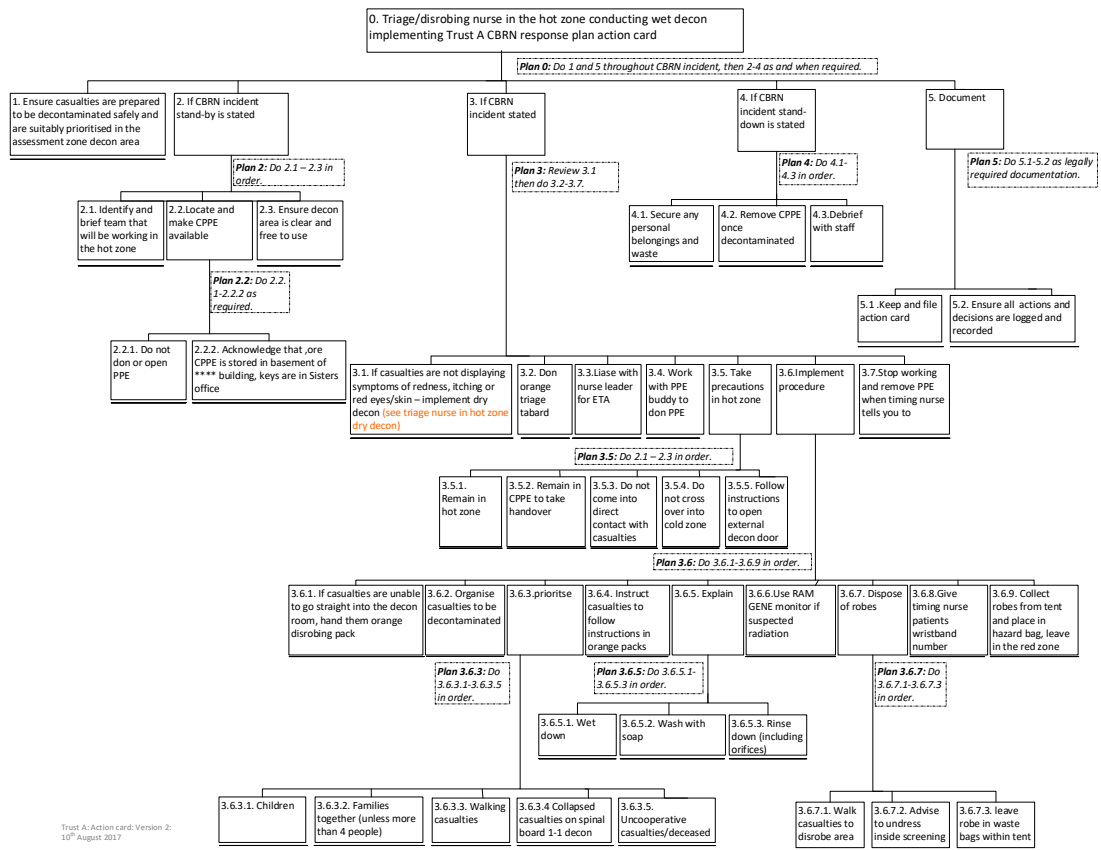


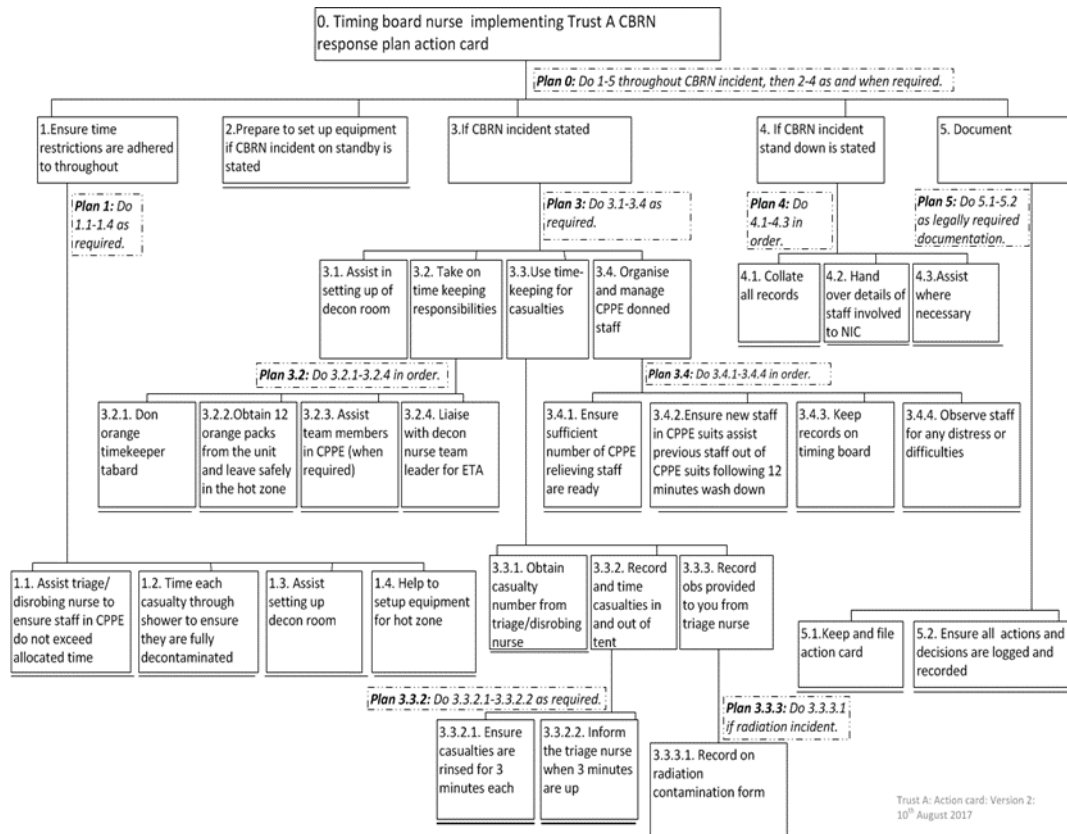
Trust A: Action card: Version 2: 21st
July 2017

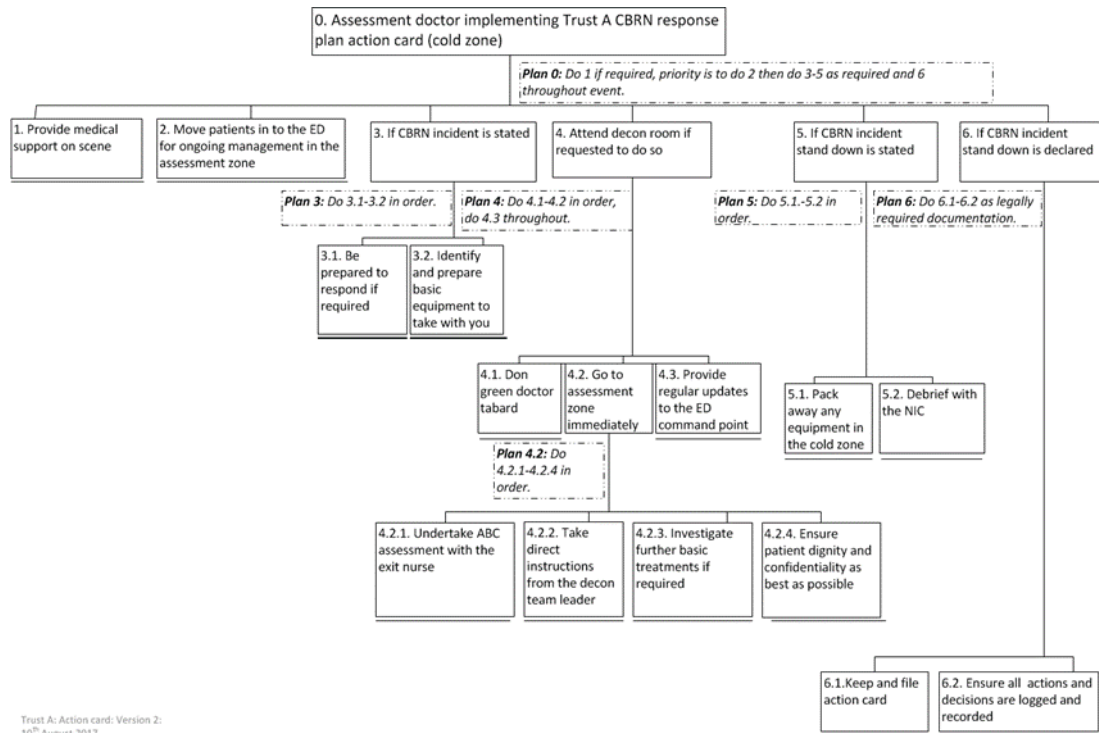


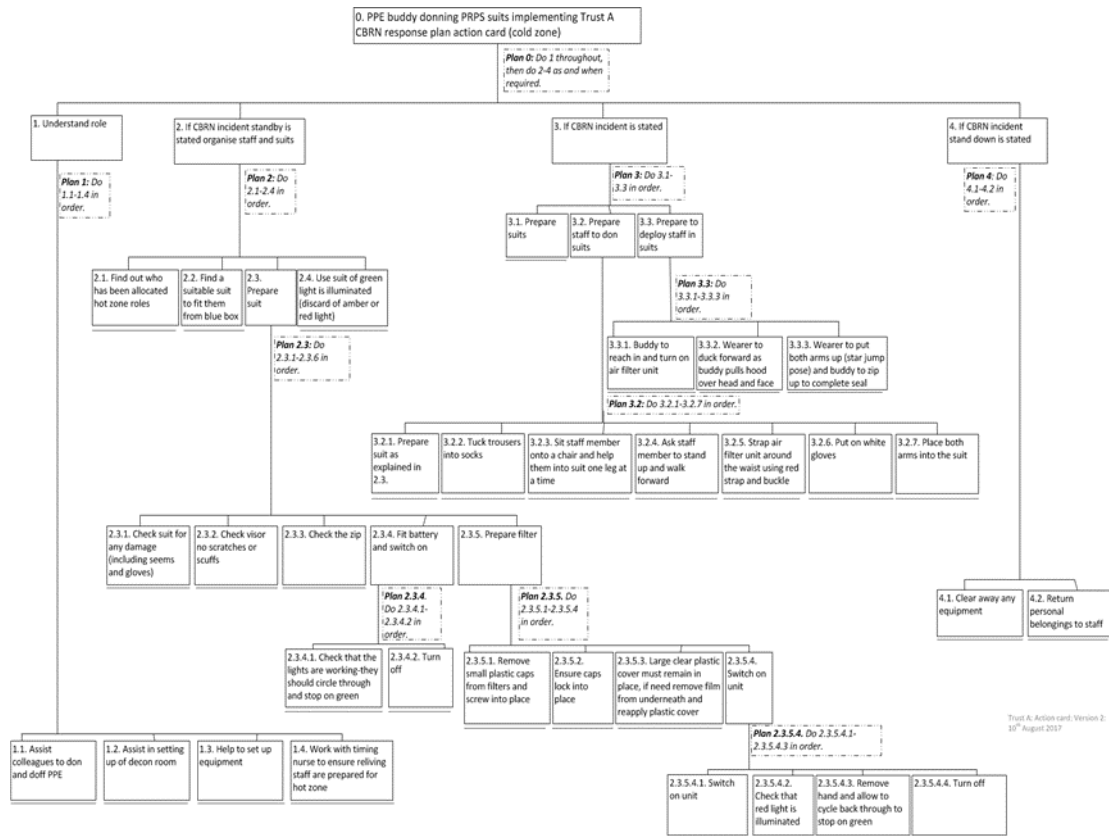


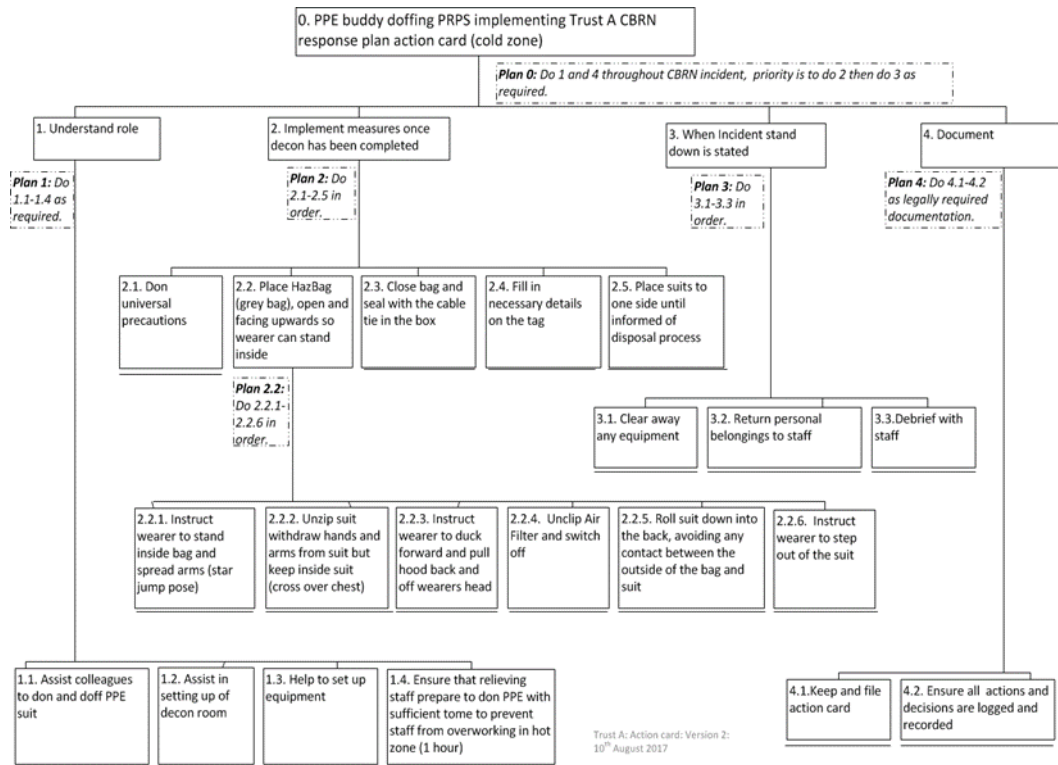




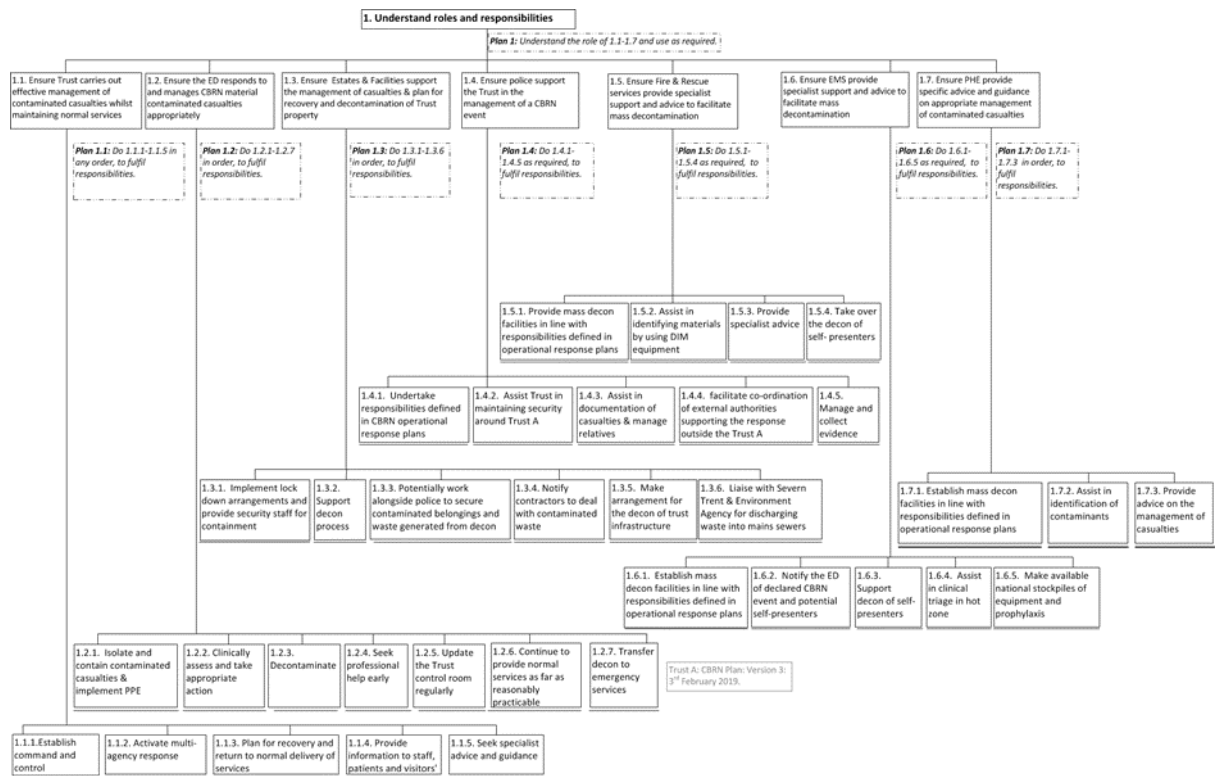


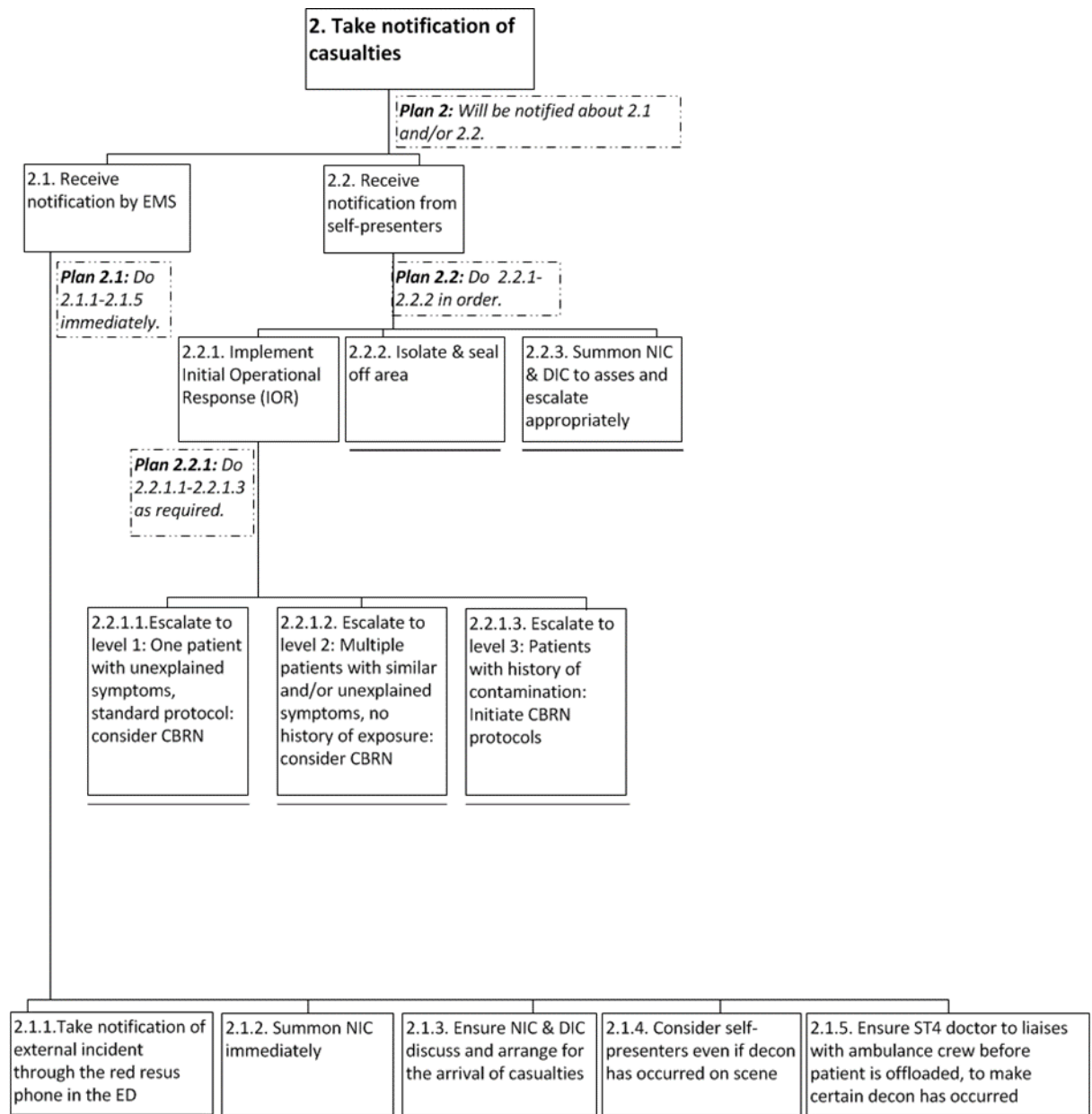




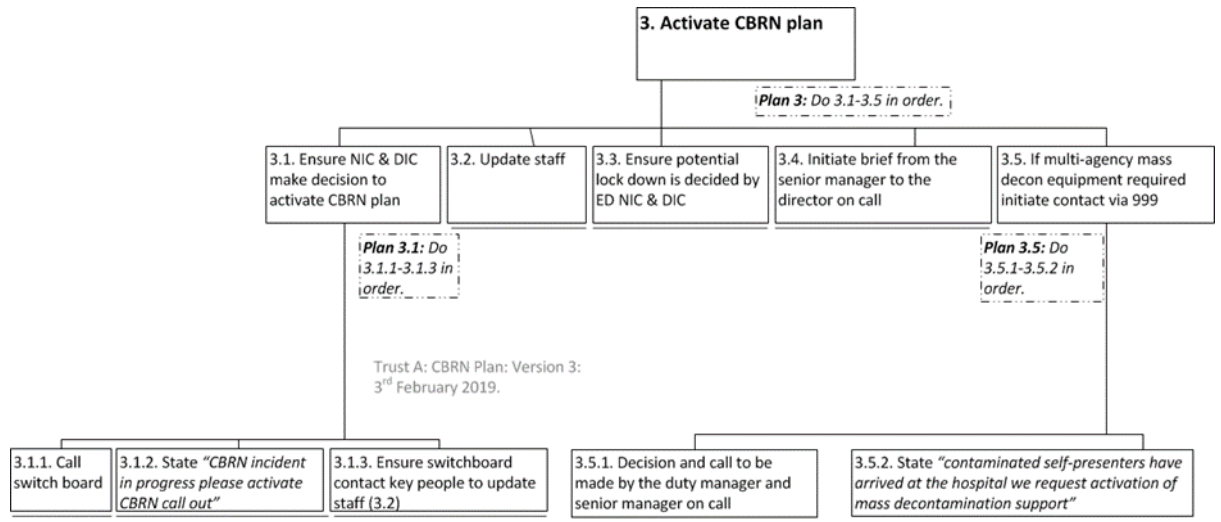


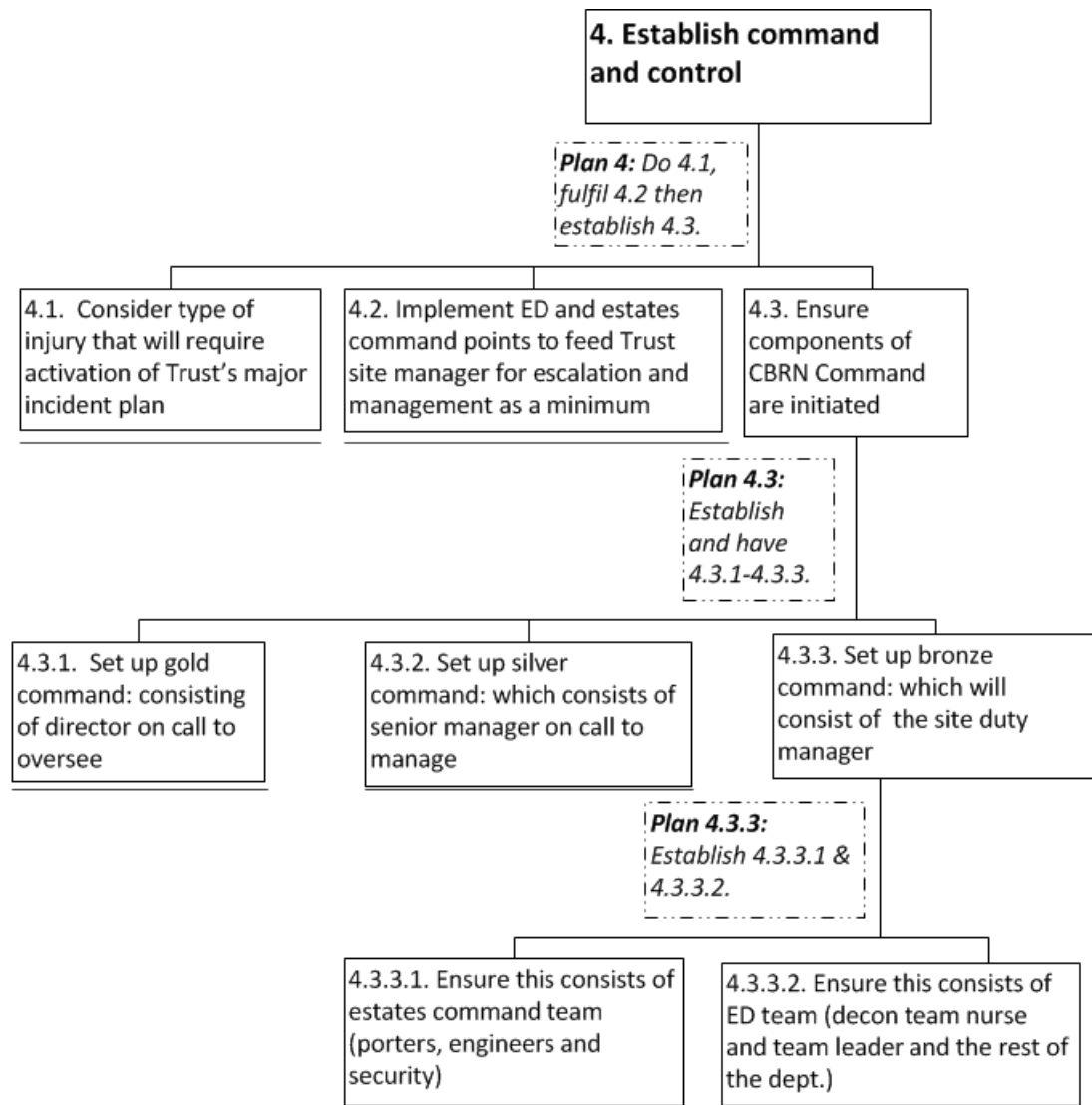
Vol 2: Appendix 25. Trust A: General organisational responsibilities (V3)



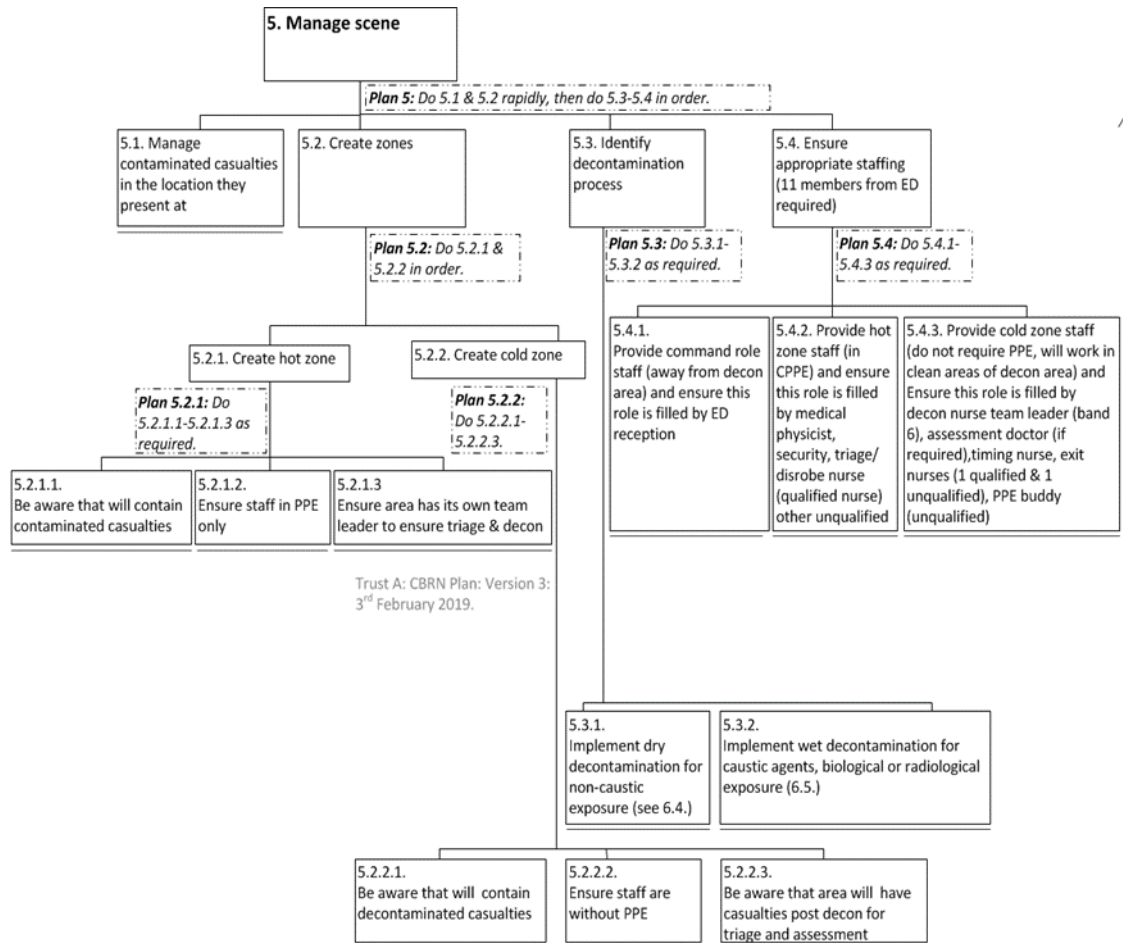


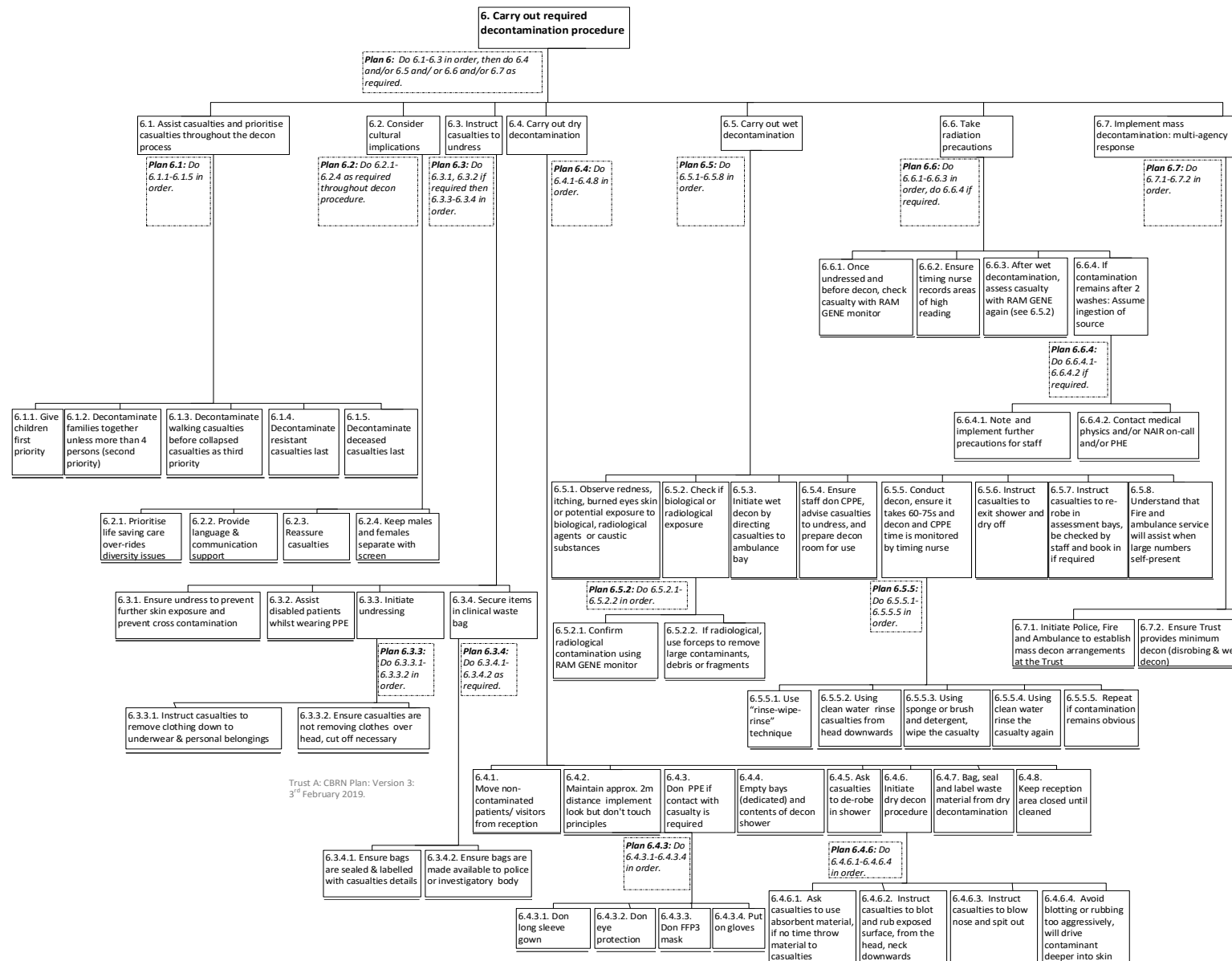
Trust A: CBRN Plan: Version 3:
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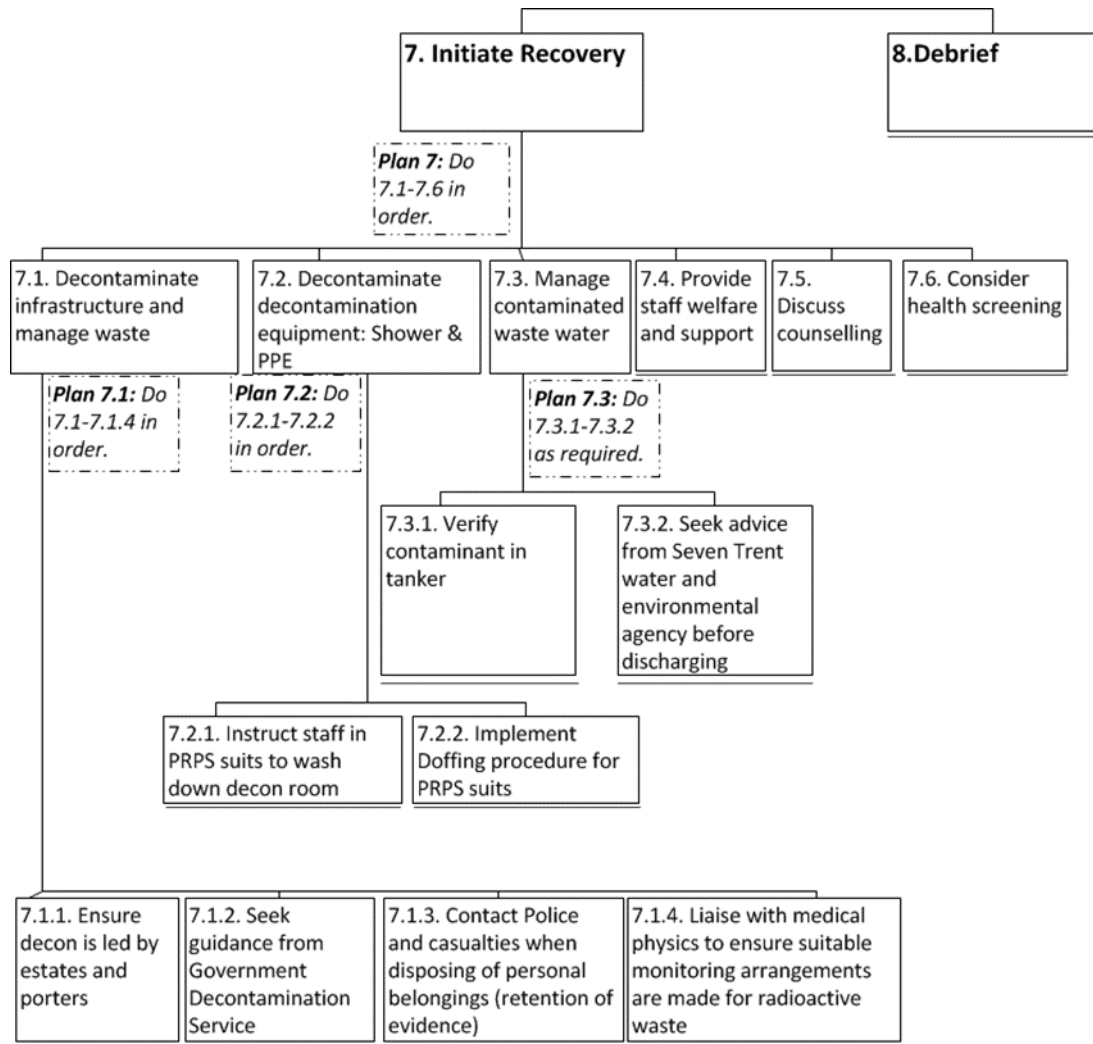


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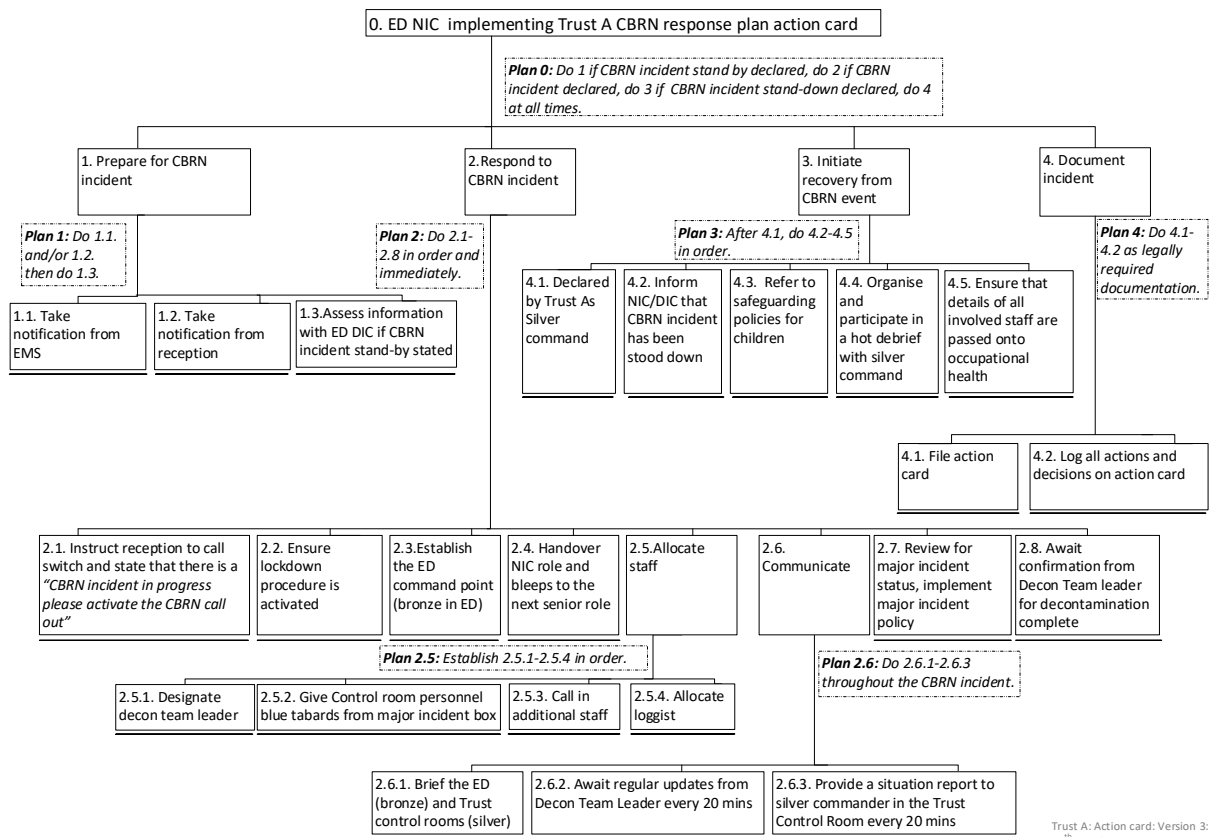




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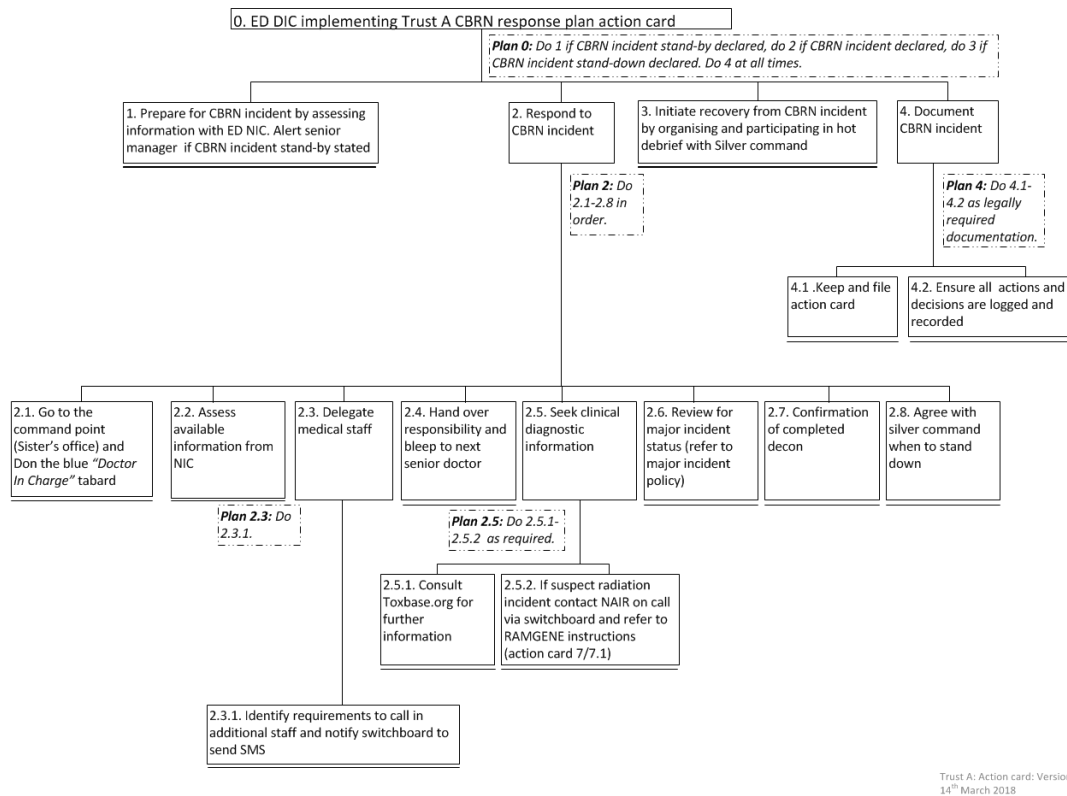


Vol 2: Appendix 26. Trust A: Action cards (V3)

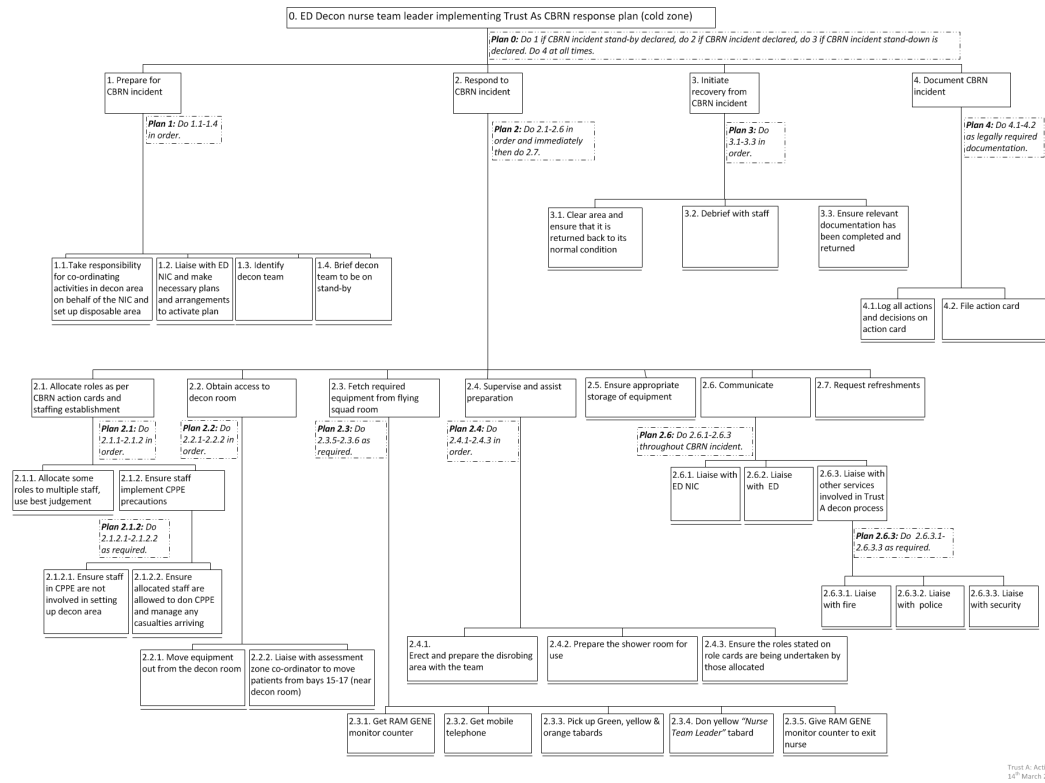


Trust A: Action card: Version 3:
14th March 2018

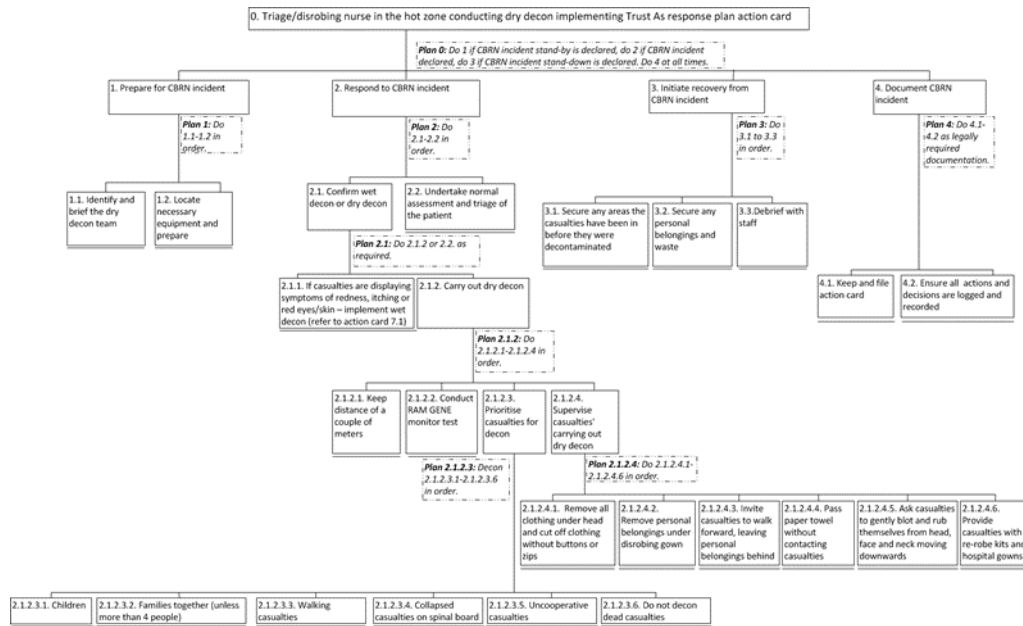
A26 1: ED NIC



A26 2: ED DIC

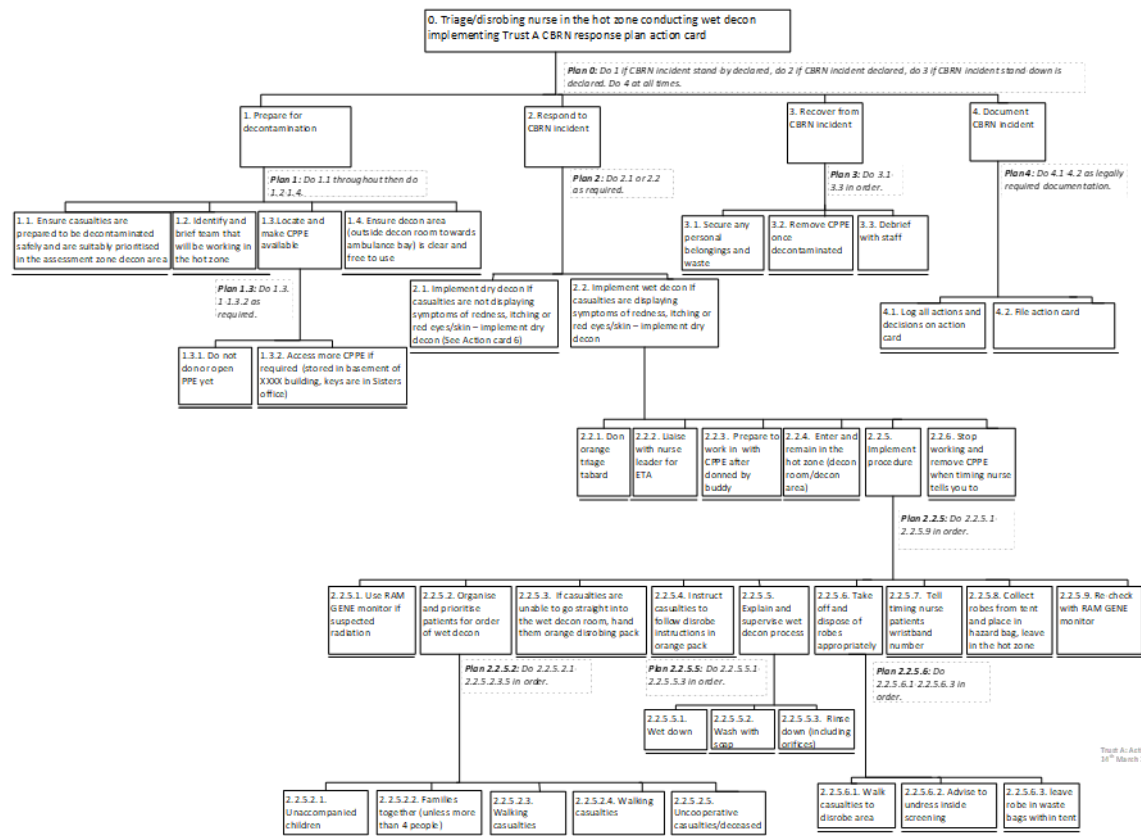


A26 3: Decontamination nurse team leader

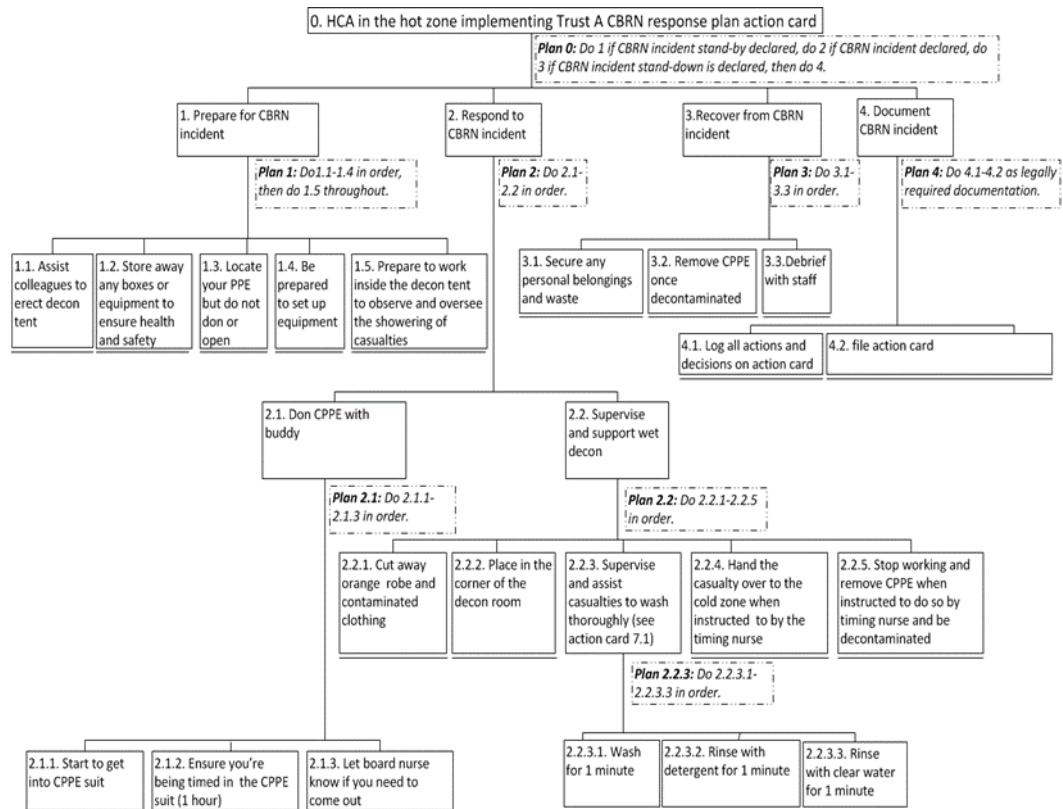


Trust As Action card: Version 3
 14th March 2018

A26 4: Triage/disrobing nurse (dry decontamination)

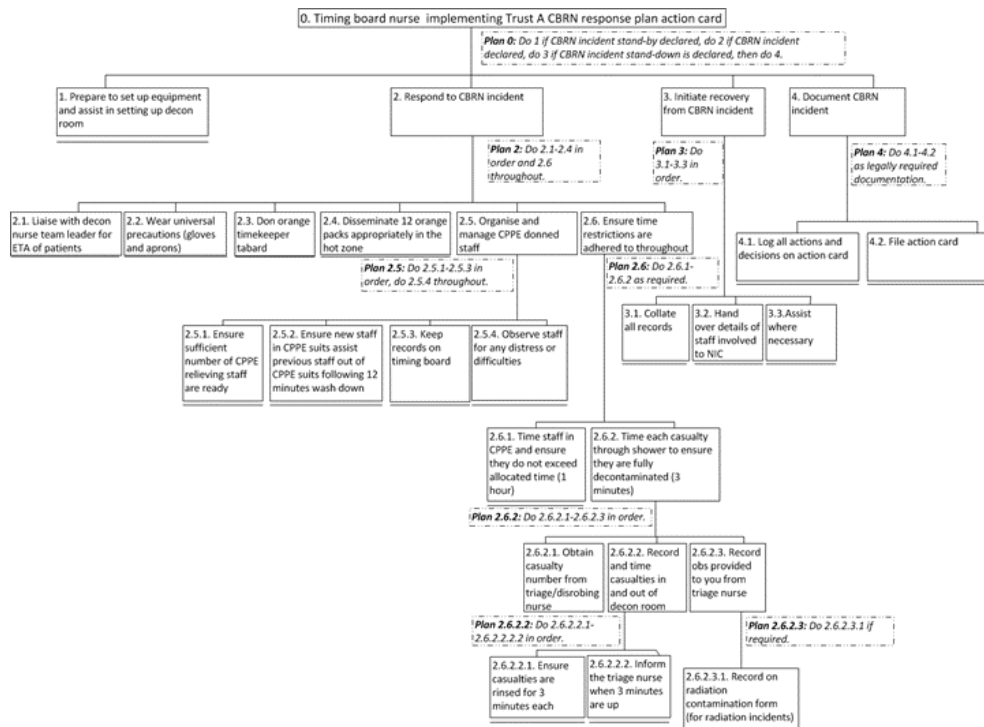


A26 5: Triage/decontamination nurse (wet decontamination)

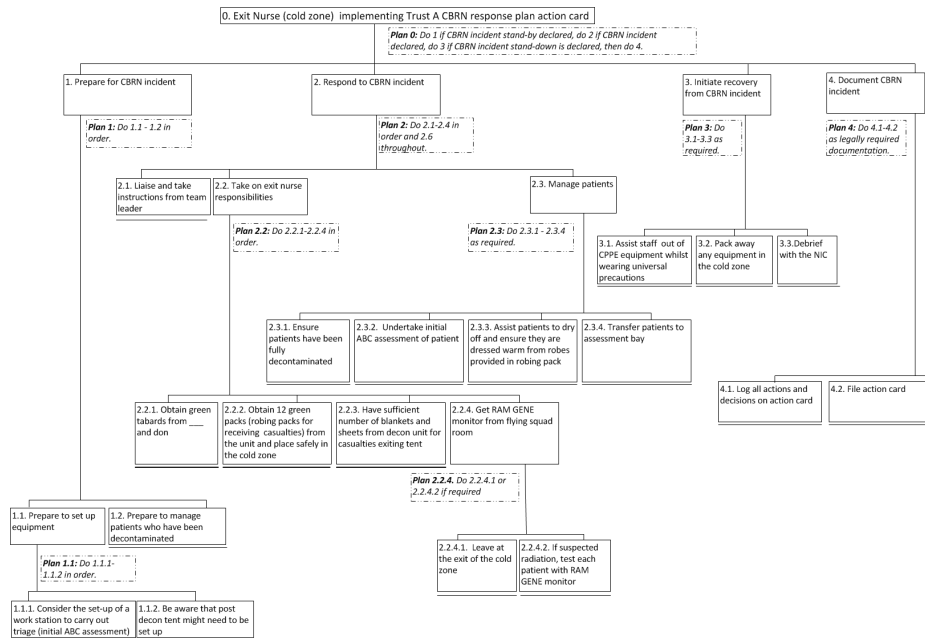


Trust A: Action card: Version 3:
14th March 2018

A26 6: HCA

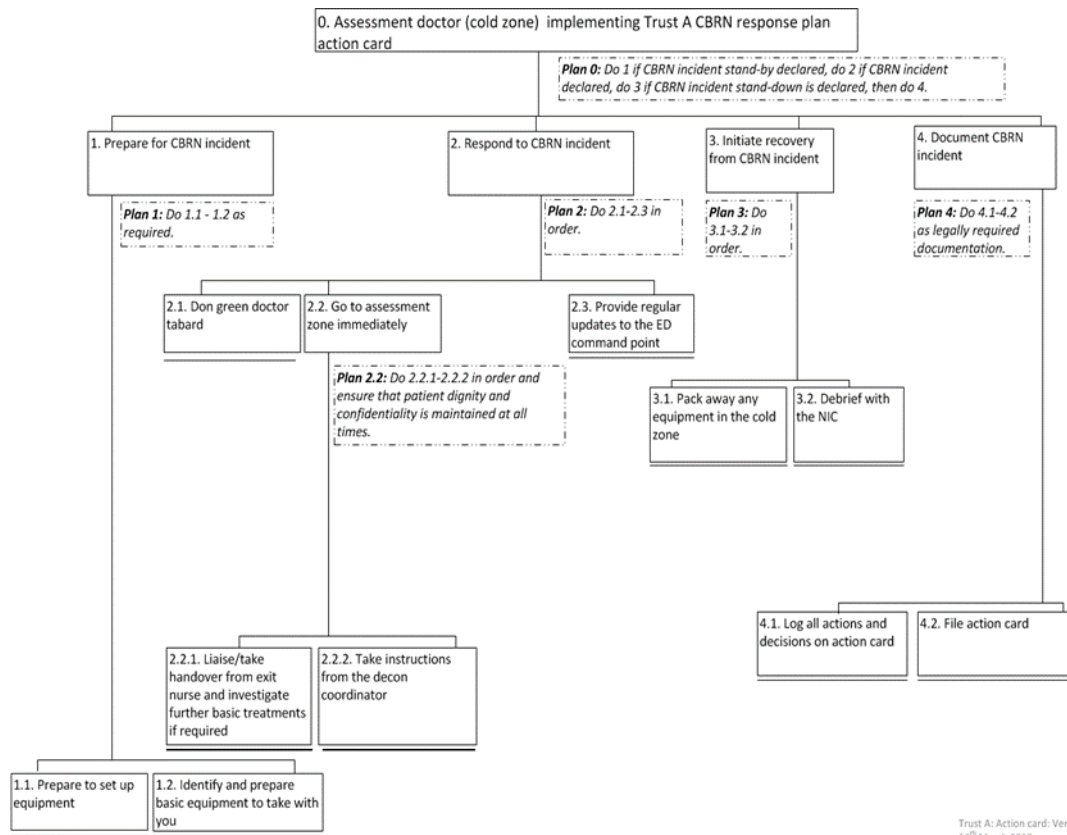


A26 7: Timing board nurse

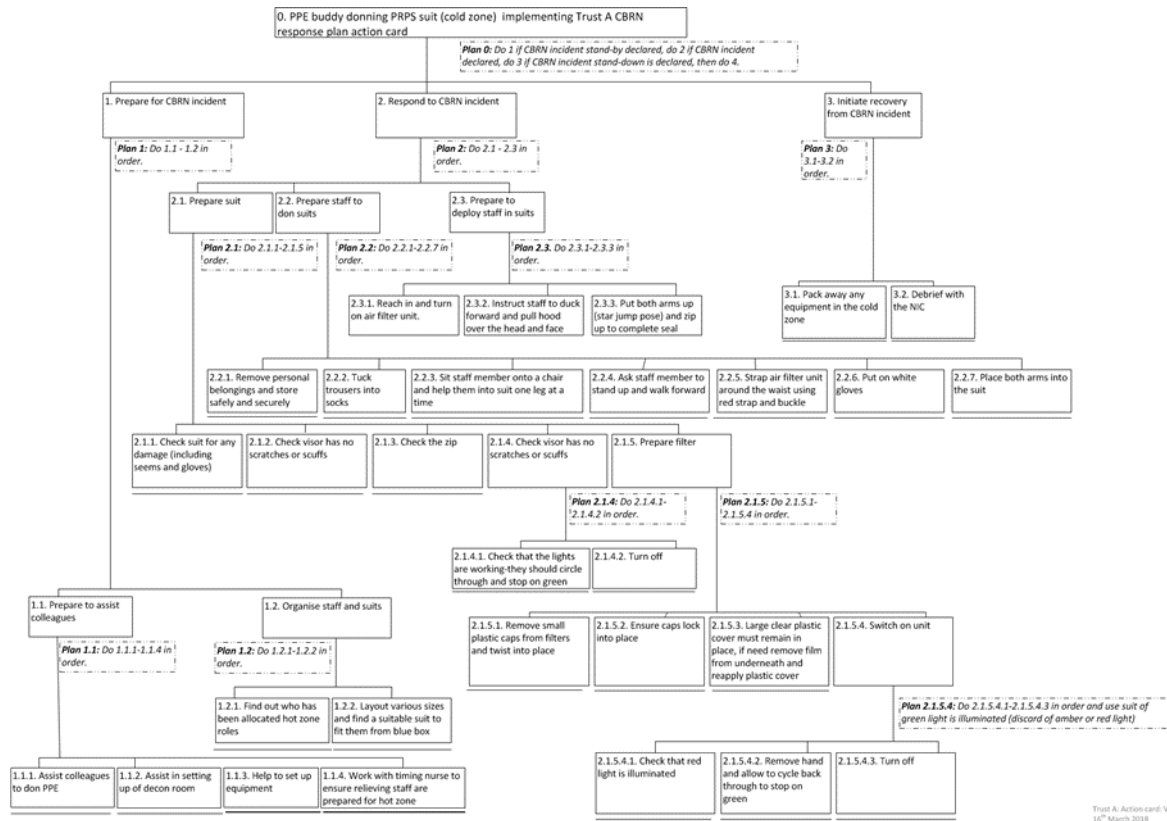


Trust A: Action card: Version 3:
15th March 2018

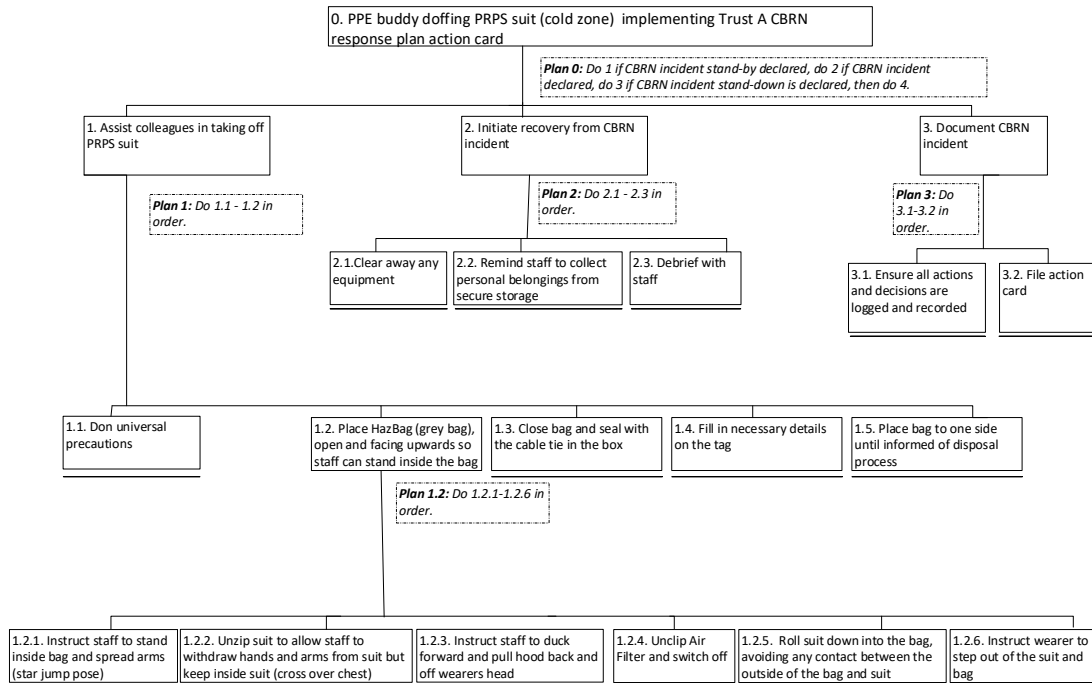
A26 8: Exit nurse



A26 9: Assessment doctor

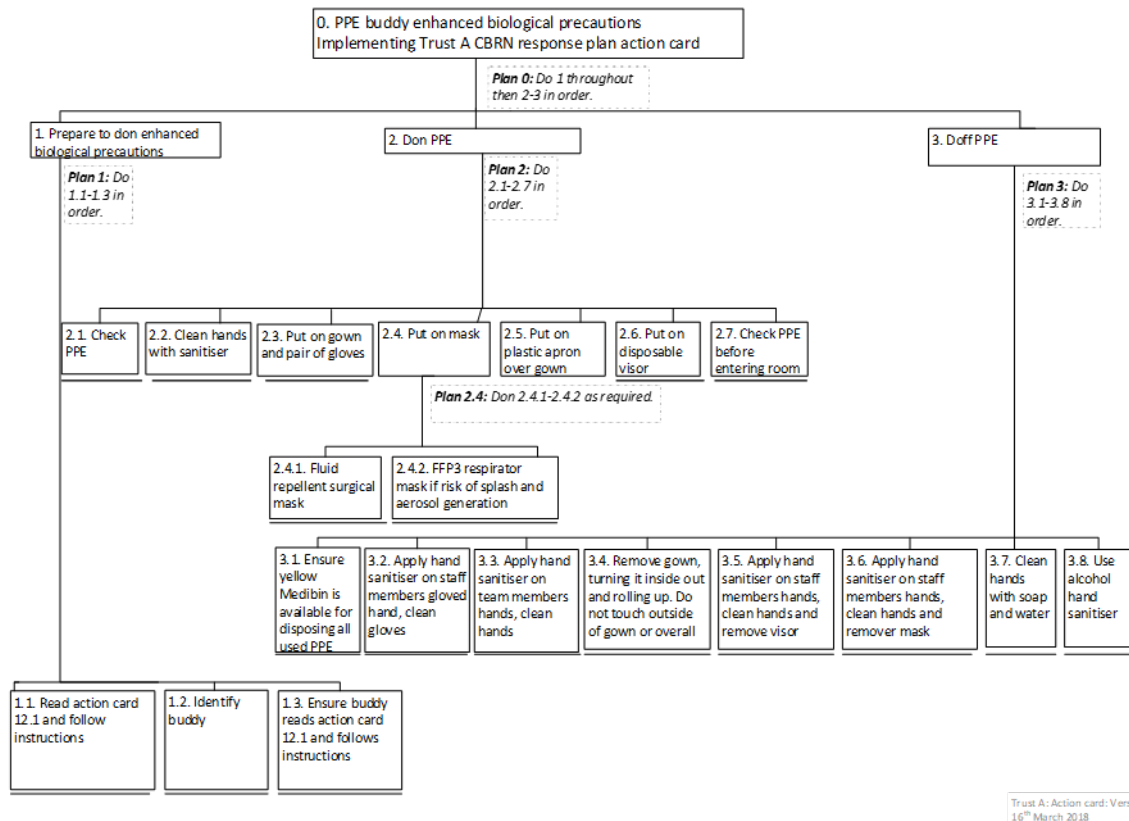


A26 10: PPE buddy donning Powered Respirator Suit (PRPS)

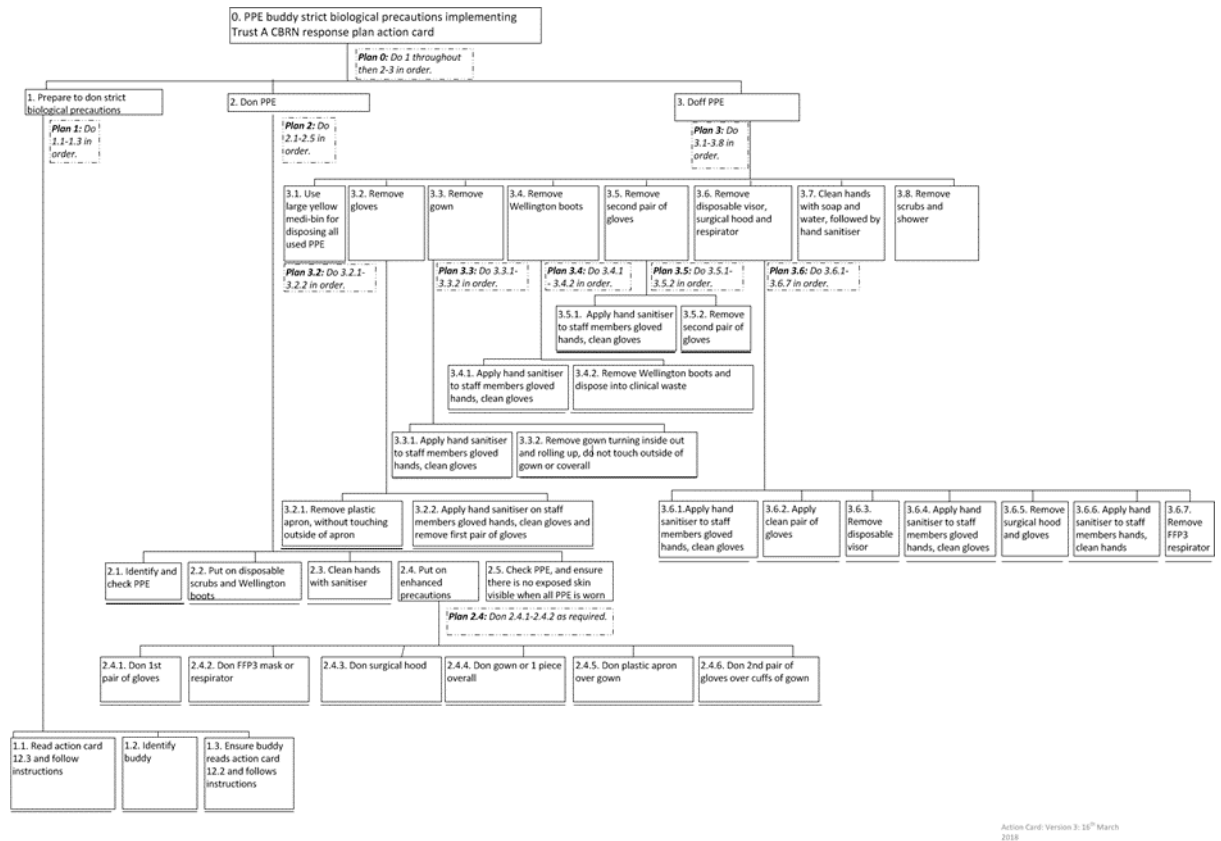


Trust A: Action card: Version 3:
16th March 2018

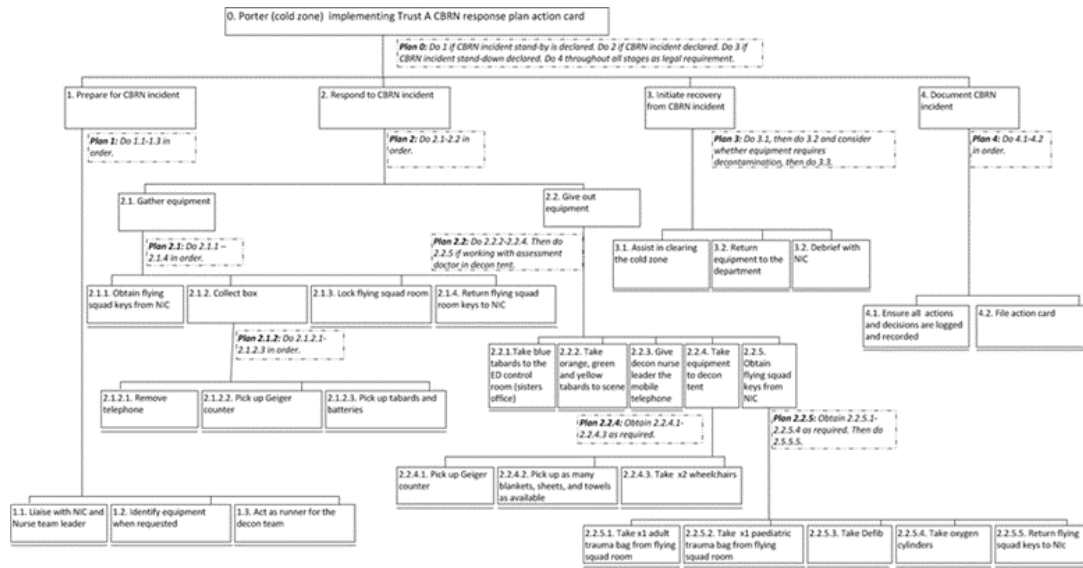
A26 11: PPE buddy doffing PRPS suit



A26 12: PPE buddy (enhanced biological precautions)

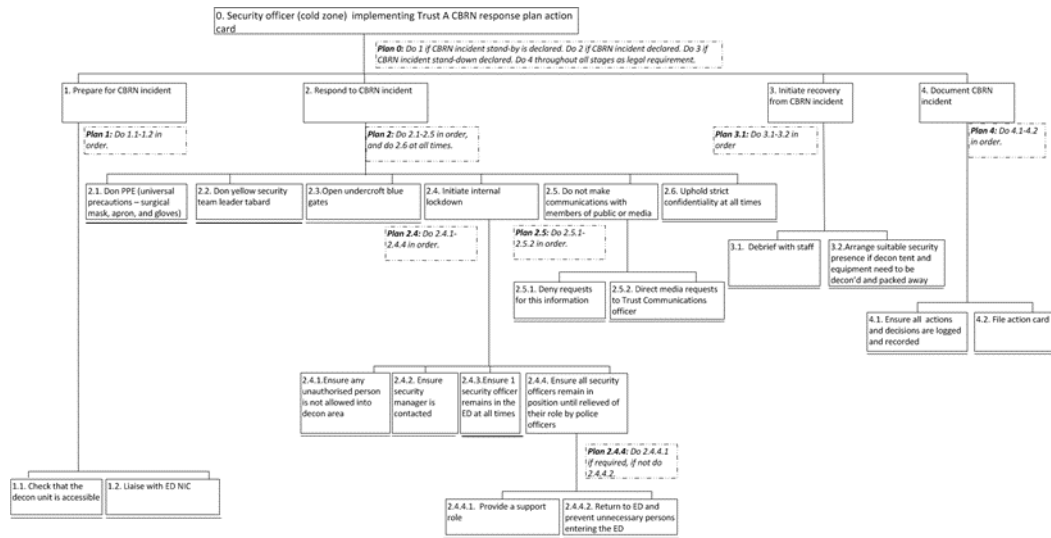


A26 13: PPE buddy strict biological precautions



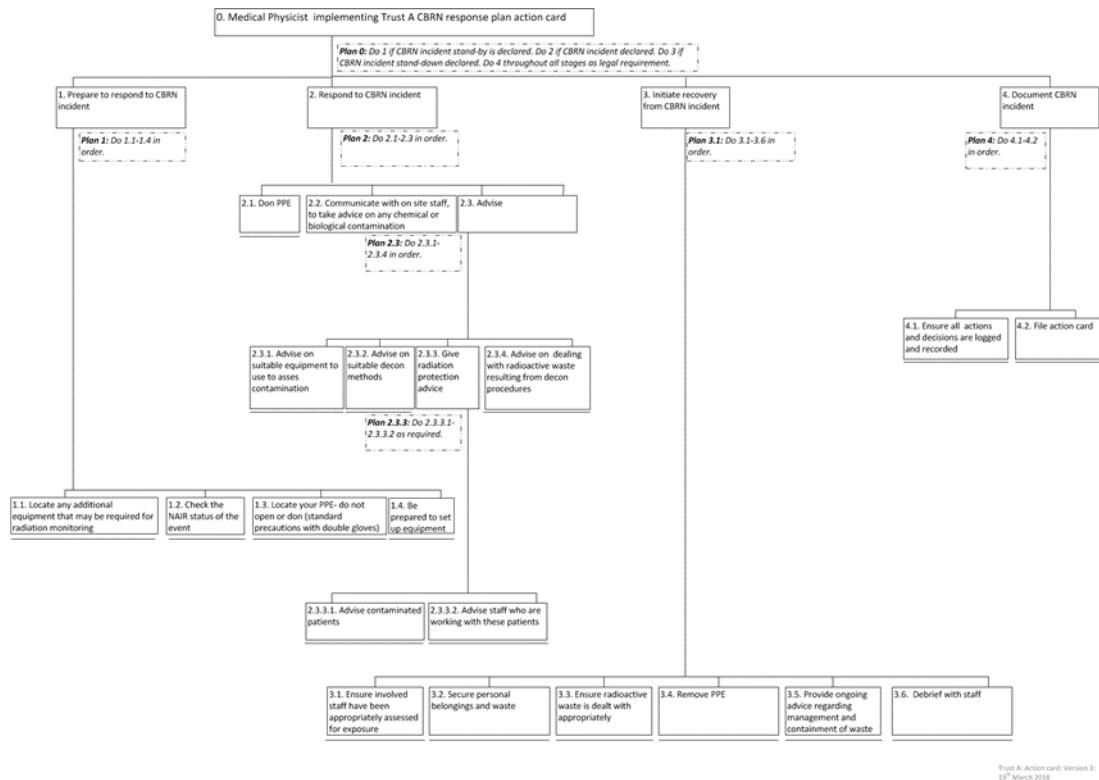
Trust A: Action card, Version 9:
10th March 2019

A26 14: Porter



Trust A: Action card: Version 3
13th March 2018

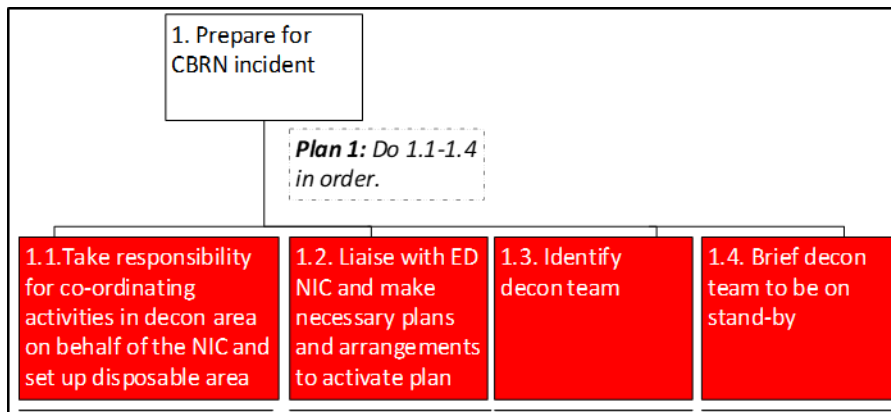
A26 15: Security officer



A26 16: Medical physicist

Vol 2: Appendix 27. Trust A: WAI Analysis of HTAs

2. Decontamination was vital in Trust A GORs. Specific action cards were allocated to the decontamination process (e.g. decontamination team leader), highlighting decontamination as a part of the first receiver role when responding to a CBRN event at Trust A (A27 1):

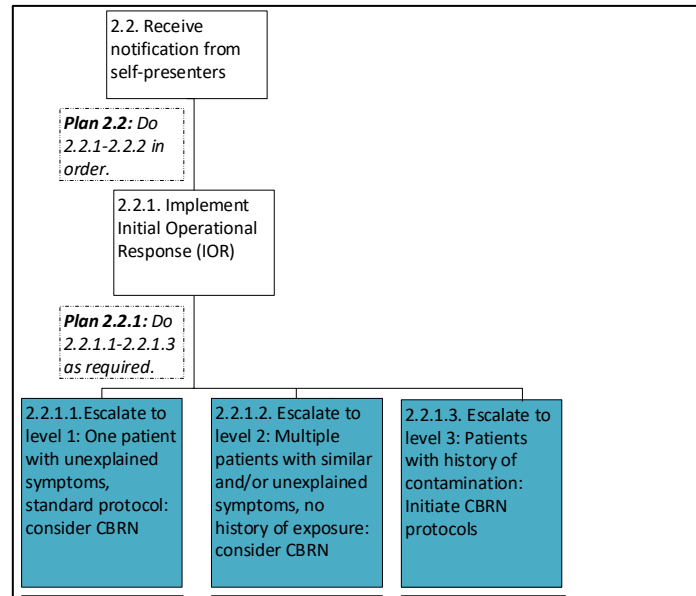


A27 1: Example of decontamination theme

3. Clinical assessment determines the type of treatment or care that would best suit the presenting conditions. This was included on the General Organisational Responsibilities through subordinate tasks such as: *“Be aware that the area will have casualties post decon for triage and assessment”* (subordinate task 5.2.2.3.).

4. Isolate and contain were core to the General Organisational Responsibilities and first receiver action cards at Trust A.

5. Escalation in the General Organisational Responsibilities was the organisational escalation (escalating the incident to an external organisation, or escalating the status of the incident within the department) as shown in A27 2 (p. 68).



A27 2: Example of organisational escalation theme on general organisational responsibilities (Trust A)

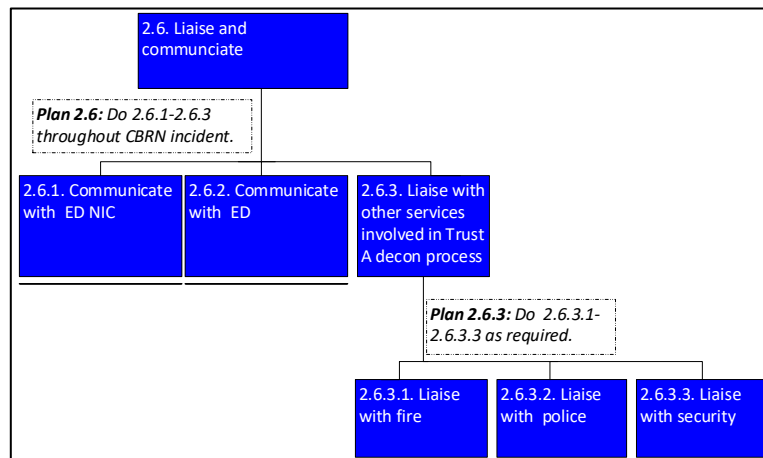
6. To **document** was mentioned once on Trust As General Organisational Responsibilities HTA, when implementing radiation precautions: *“Ensure timing nurse records areas of high reading”* (subordinate task 6.6.2). However, documentation was included as a legal requirement in all action cards.

7. Guidance was a means of gaining practical information by carrying out subordinate tasks such as: *“Seek guidance from Government Decontamination Service”* (subordinate task 7.1.2).

8. **Management** was clearly demonstrated as a means of taking control of the CBRN event effectively. This was illustrated through superordinate tasks such as *“3. Activate CBRN plan”*.

9. To **liaise** was to contact external agencies and organisations by carrying out subordinate tasks such as *“Contact medical physics and/or NAIR* on-call and/or PHE”* (subordinate task 6.6.4.2.). To **communicate** was to make contact and exchange information with internal colleagues, patients, and specialities. Such differentiation was also evident on first receiver action cards as shown in A27 3 (p. 69).

* National Arrangements for Incidents involving Radioactivity

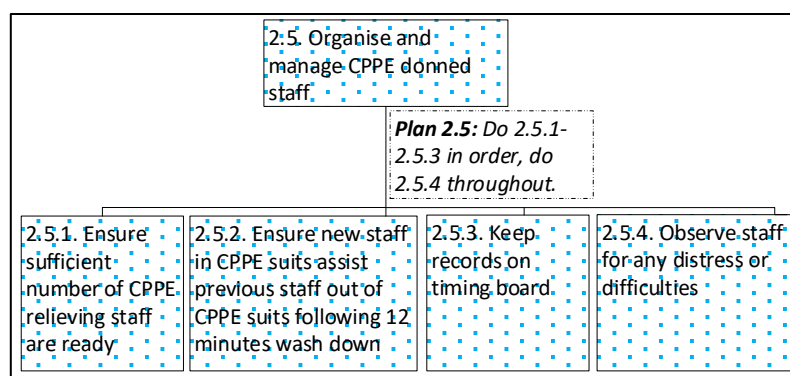


A27 3: Liaise and communicate theme on decontamination nurse team leader action card (Trust A)

10. To **detect/identify** agent in the WAI HTA of Trust A's CBRN plan, was associated with external agencies such as the fire services and PHE assisting in identifying the contaminants.

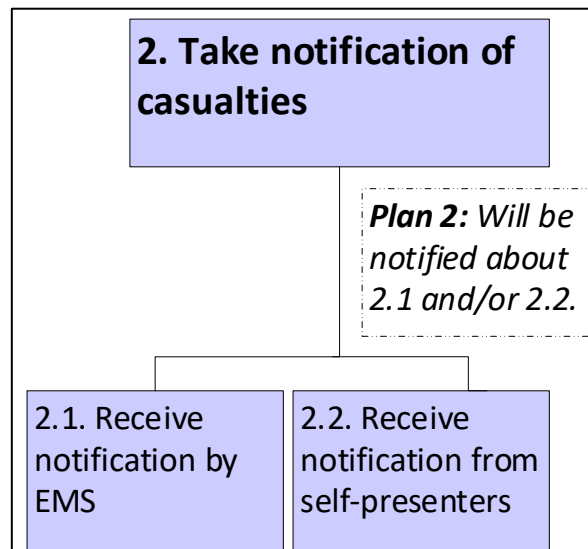
11. The roles and actions required from **teams** in the General Organisational Responsibilities were clear, for example establishing the Command and Control structure of the CBRN response.

12. The theme of **manage staff** emerged in the HTA representation of the timing board action card as illustrated in A27 4:



A27 4: Example of manage staff theme on timing board nurse action card (Trust A)

13. Taking **notification of casualties** initiated the practical actions of the CBRN plan as shown in A27 5:



A27 5: Example of notification of casualties within General Organisational Responsibilities (Trust A)

Action card specific themes (validation)

14. The theme of **recognising event occurring** was associated with acknowledging that a CBRN event was occurring by carrying out subordinate tasks such as “Assess available information with NIC” (subordinate task 2.2.).

15. To **manage casualties** was illustrated on the action card HTA representation of the timing board nurse, through general actions such as recording observations.

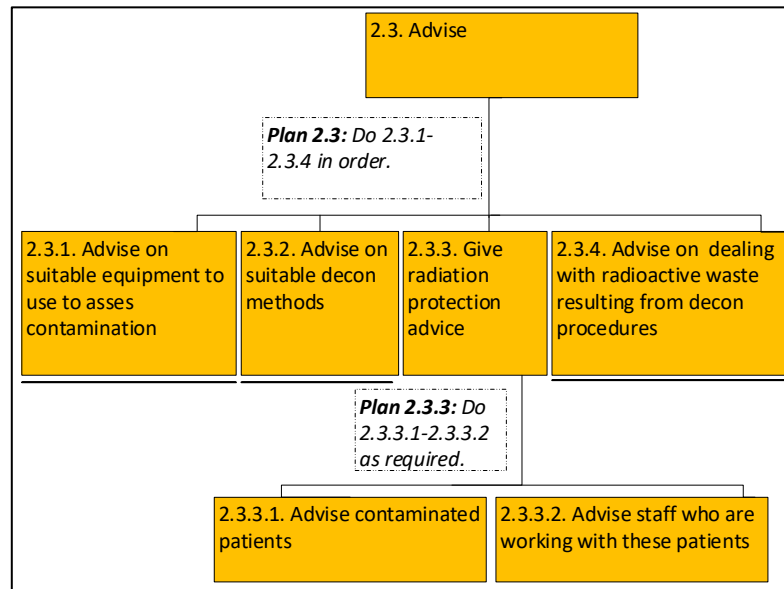
16. To **check** was the implementation of safety measures that were carried out by first receivers such as the PPE buddy donning PRPS, to ensure that equipment was safe to use.

17. The CBRN plan outlined that security officers were to **provide access** to decontamination facilities and staff only entrances, to the ED.

18. Security officers were expected to **secure** the ED by “Initiating internal lockdown” (subordinate task 2.4.). Security officers were further expected to **liaise/support** by

carrying out subordinate tasks such as *“Provide a support role”* (subordinate task 2.4.4.1.) and *“Debrief with staff”* (subordinate task 3.1.).

19. To **advise** was a central role of the medical physicist (A27 6):



A27 6: Illustration of the advice theme on Trust A's medical physicist action card

20. To **access relevant equipment** during a CBRN event was an action expected to be fulfilled by receptionists.

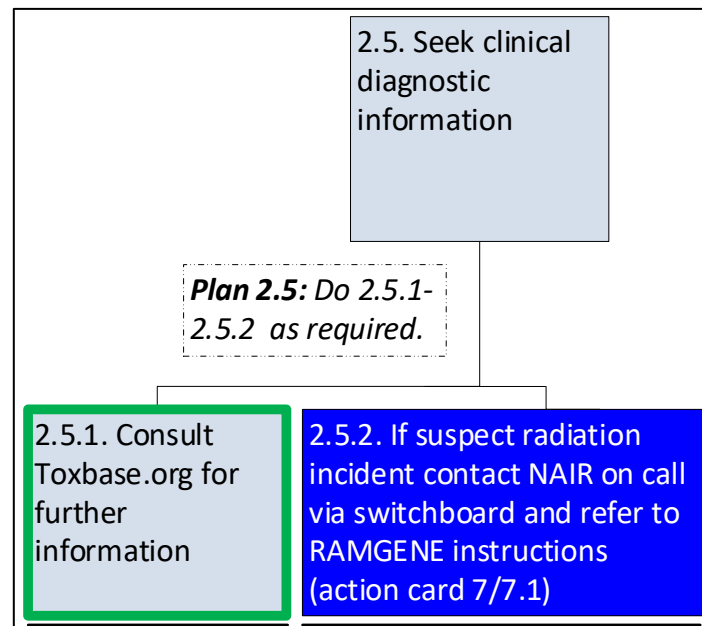
21. To **protect** was a part of the NIC's role according to Trust A's action cards. This would be done by carrying out actions such as *“Ensure details of all involved staff are passed onto occupational health”* (subordinate task 4.5).

22. Security officers at Trust A were expected to **assist ED** through tasks such as *“Provide a support role”*.

23. **Treat and provide patient care** were a part of first receiver action cards. For example, by the exit nurse.

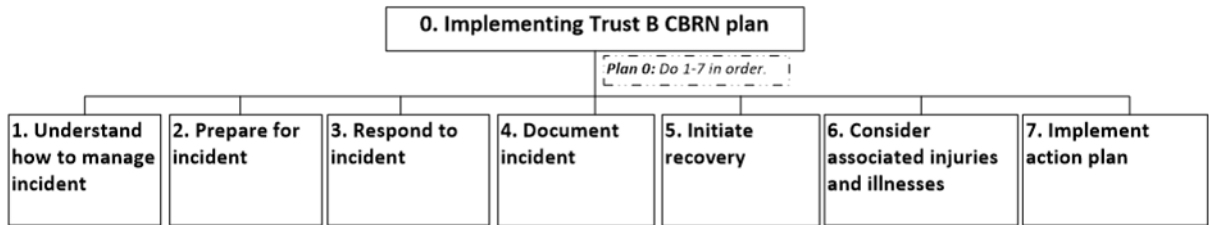
24. To **time** was a role allocated to the timing board nurse at Trust A.

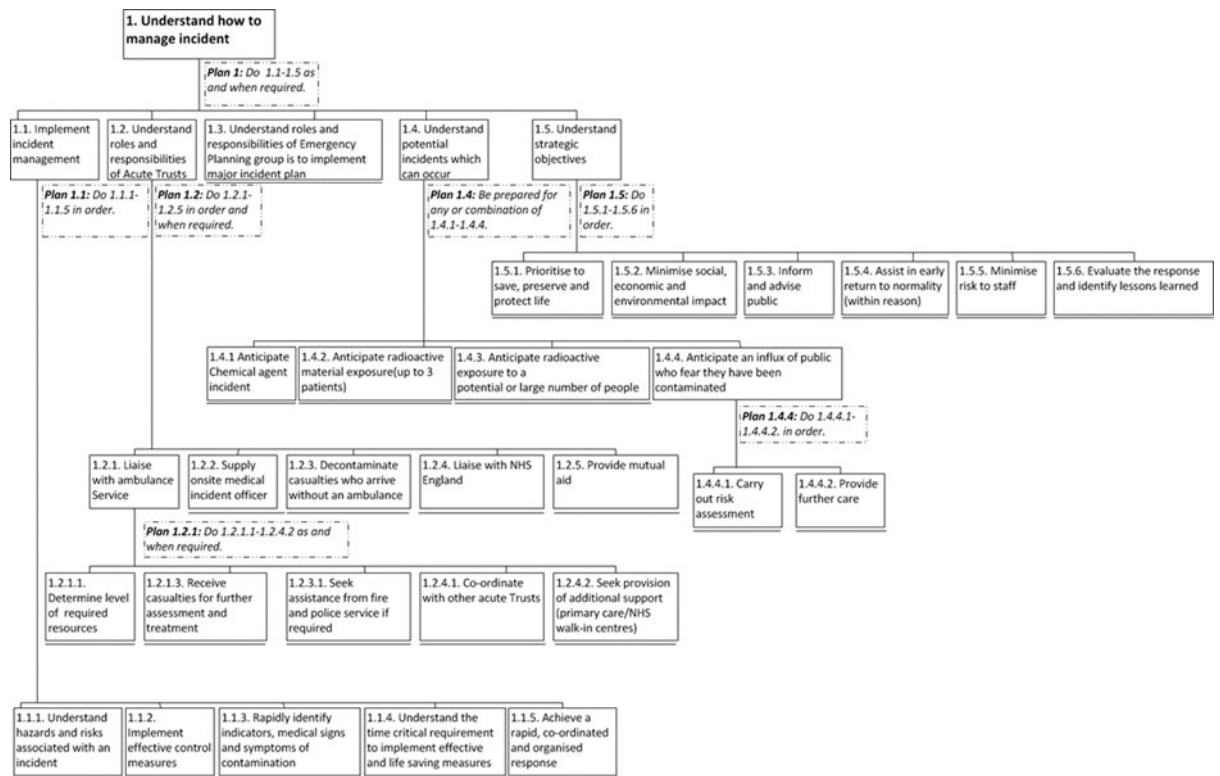
25. Trust A Doctors in Charge (DIC) were expected to **diagnose** the presenting condition as illustrated in A27 7 (p. 72).

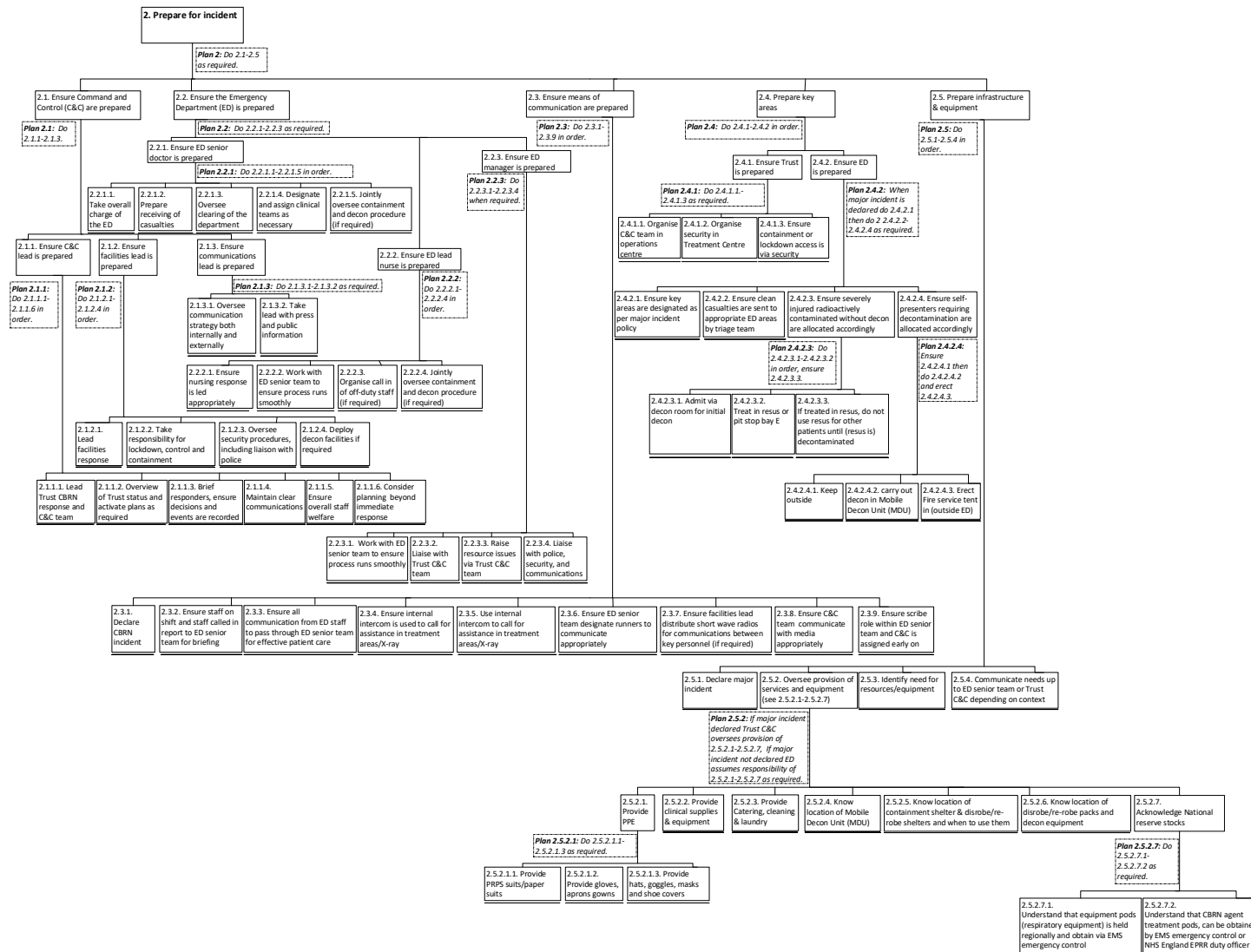


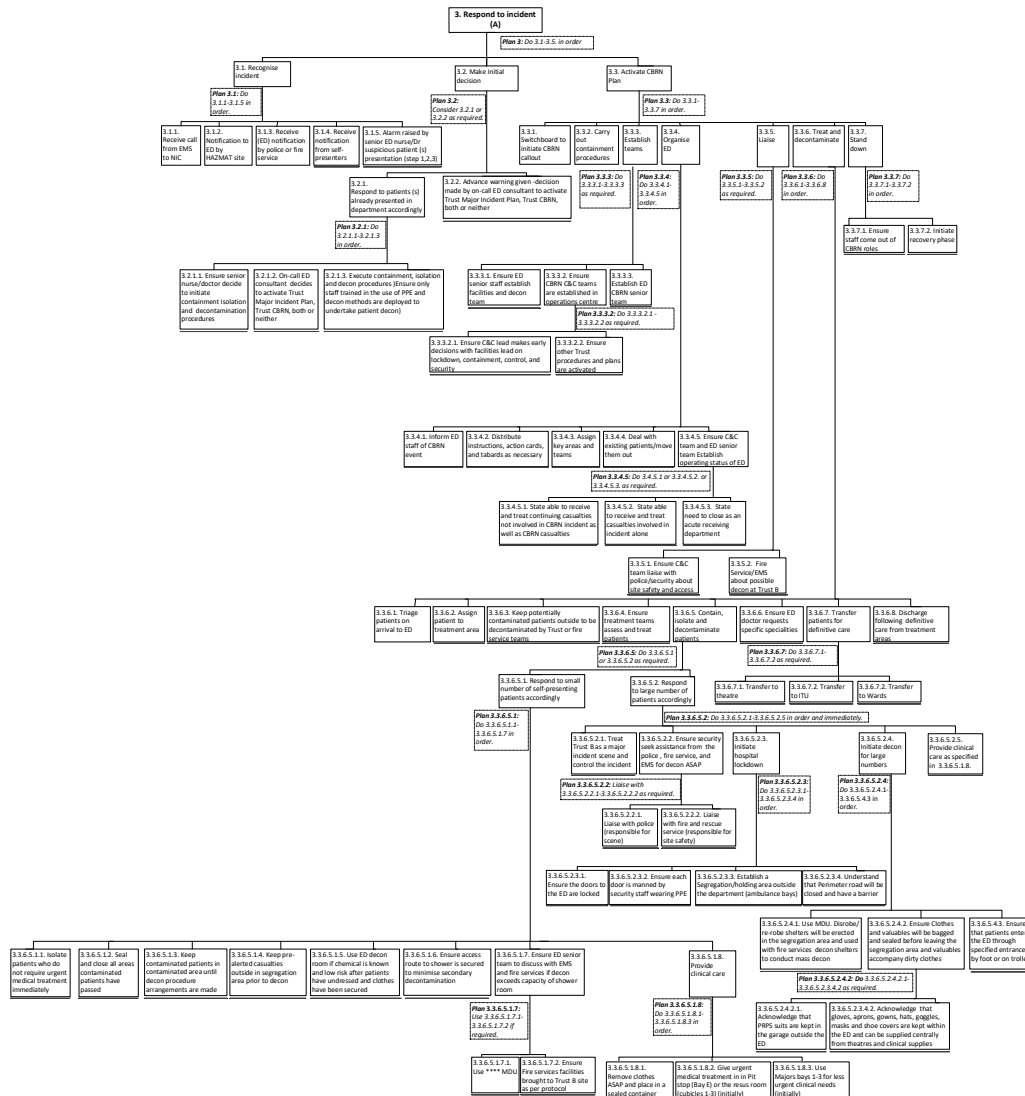
A27 7: HTA representation of DIC diagnosing presenting condition (Trust A)

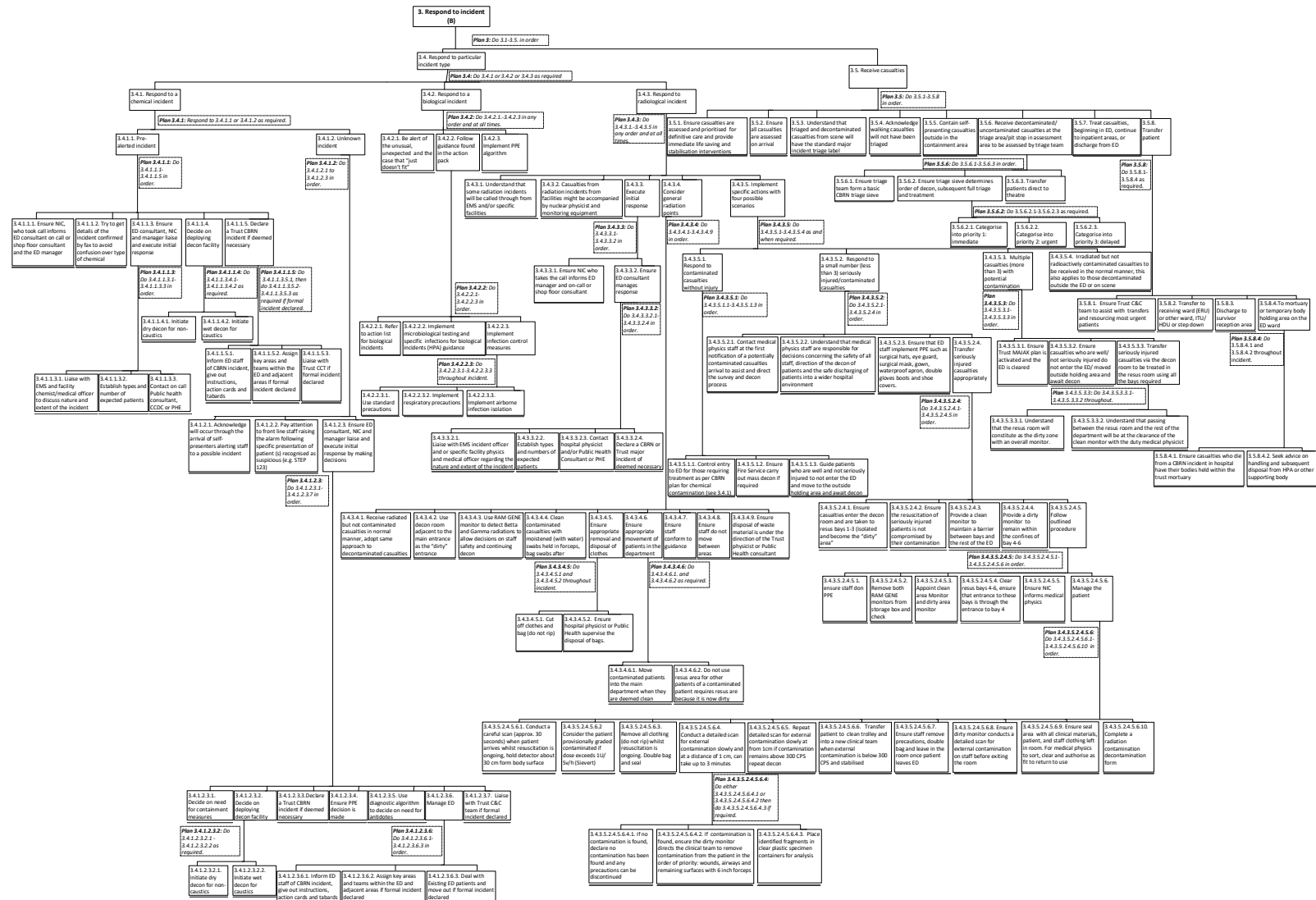
Vol 2: Appendix 28. Trust B: General Organisational responsibilities (V1)

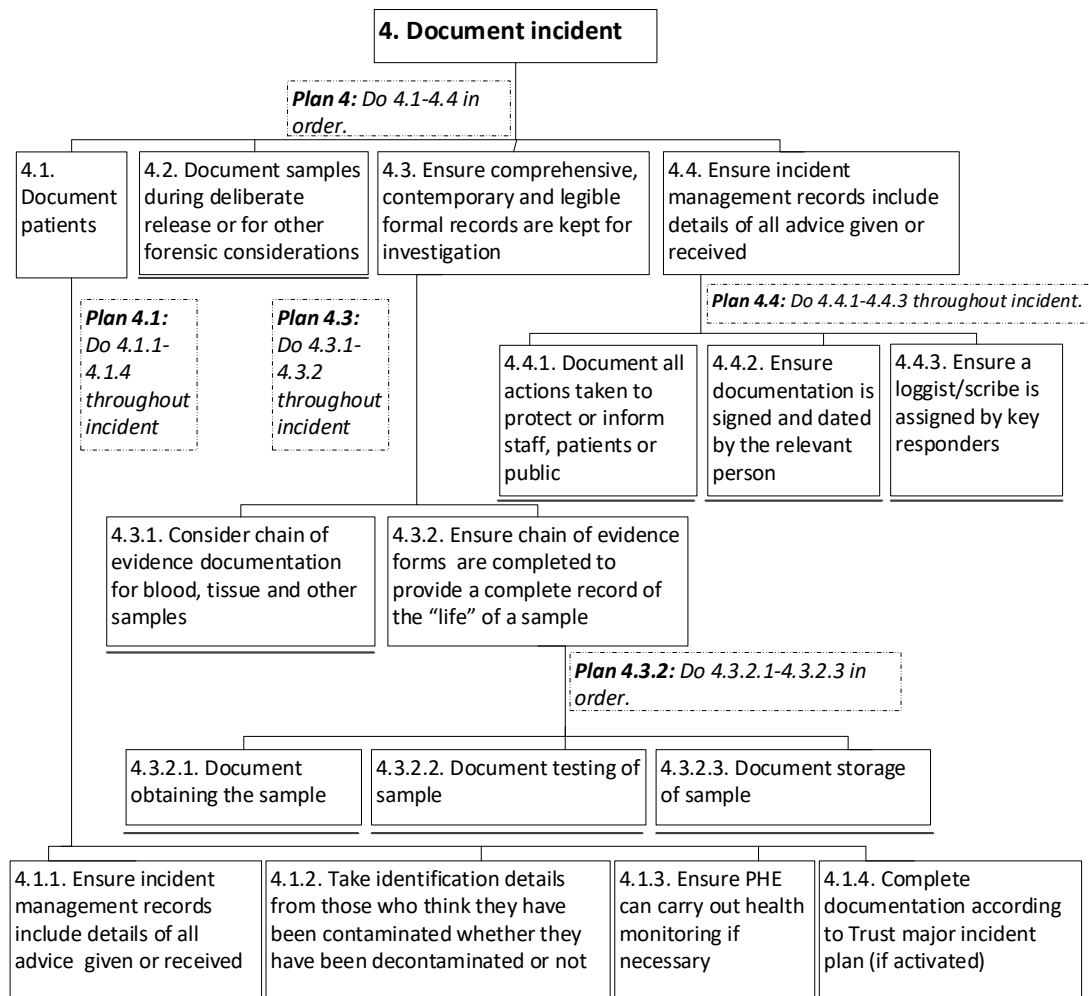


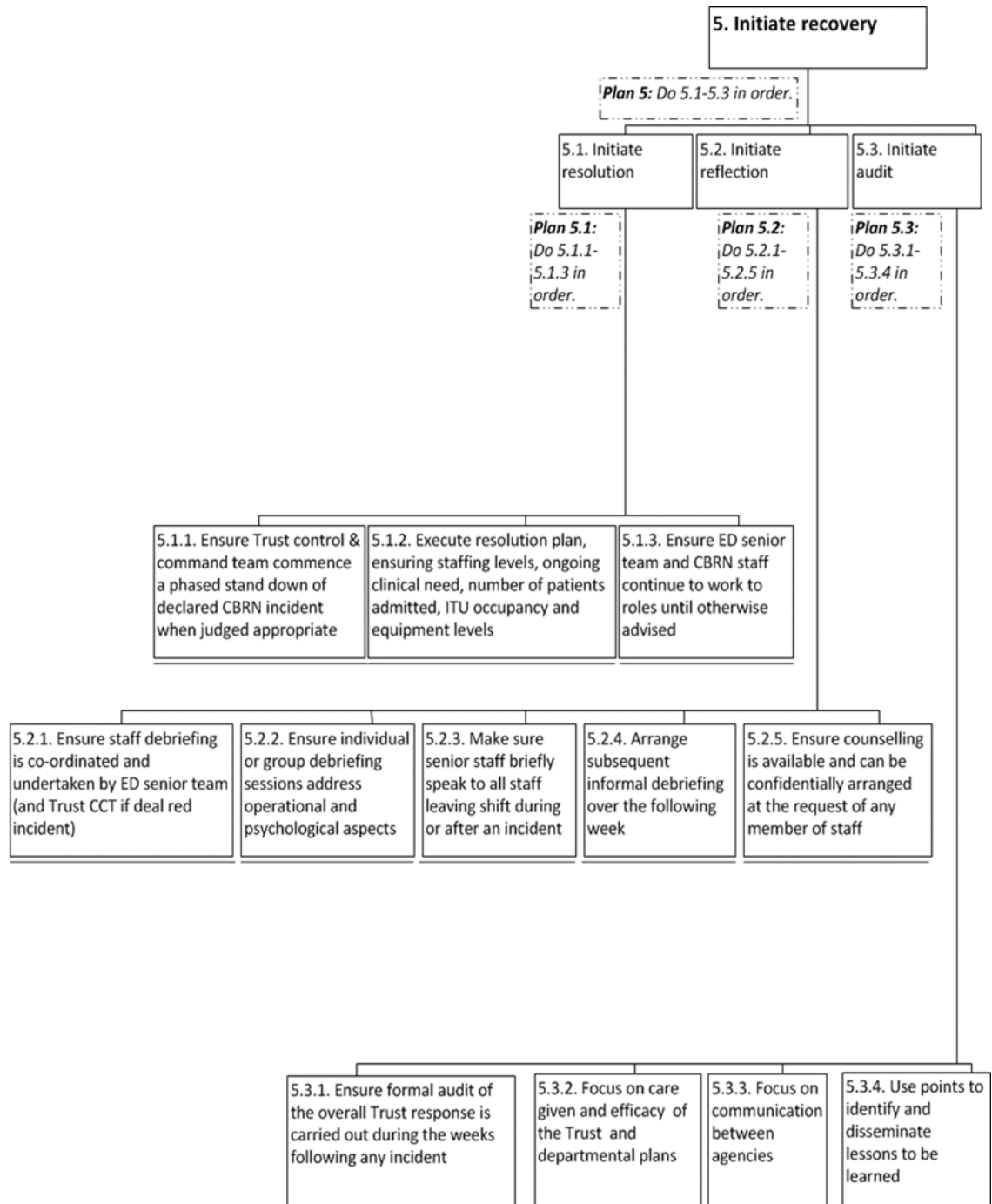


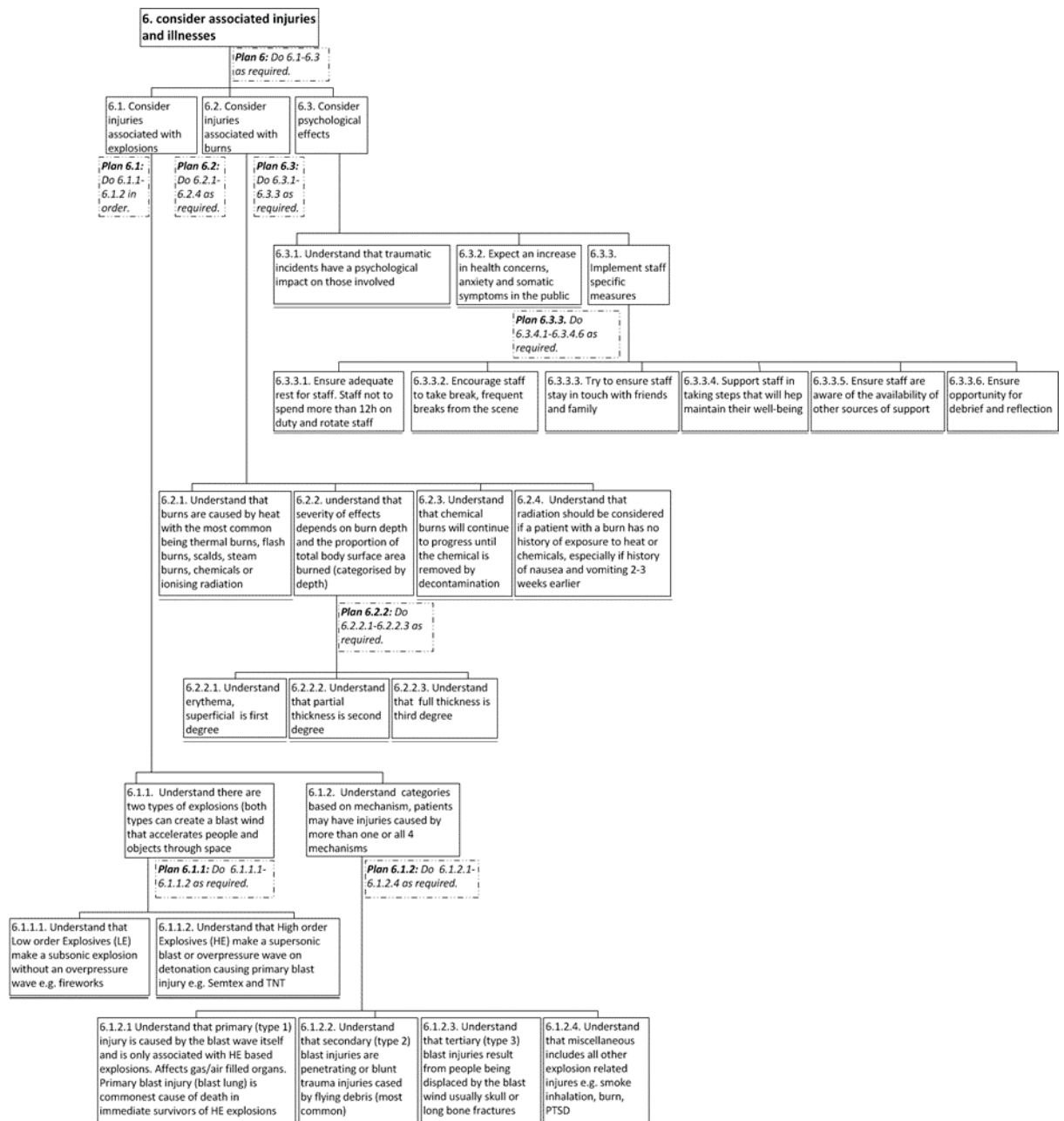


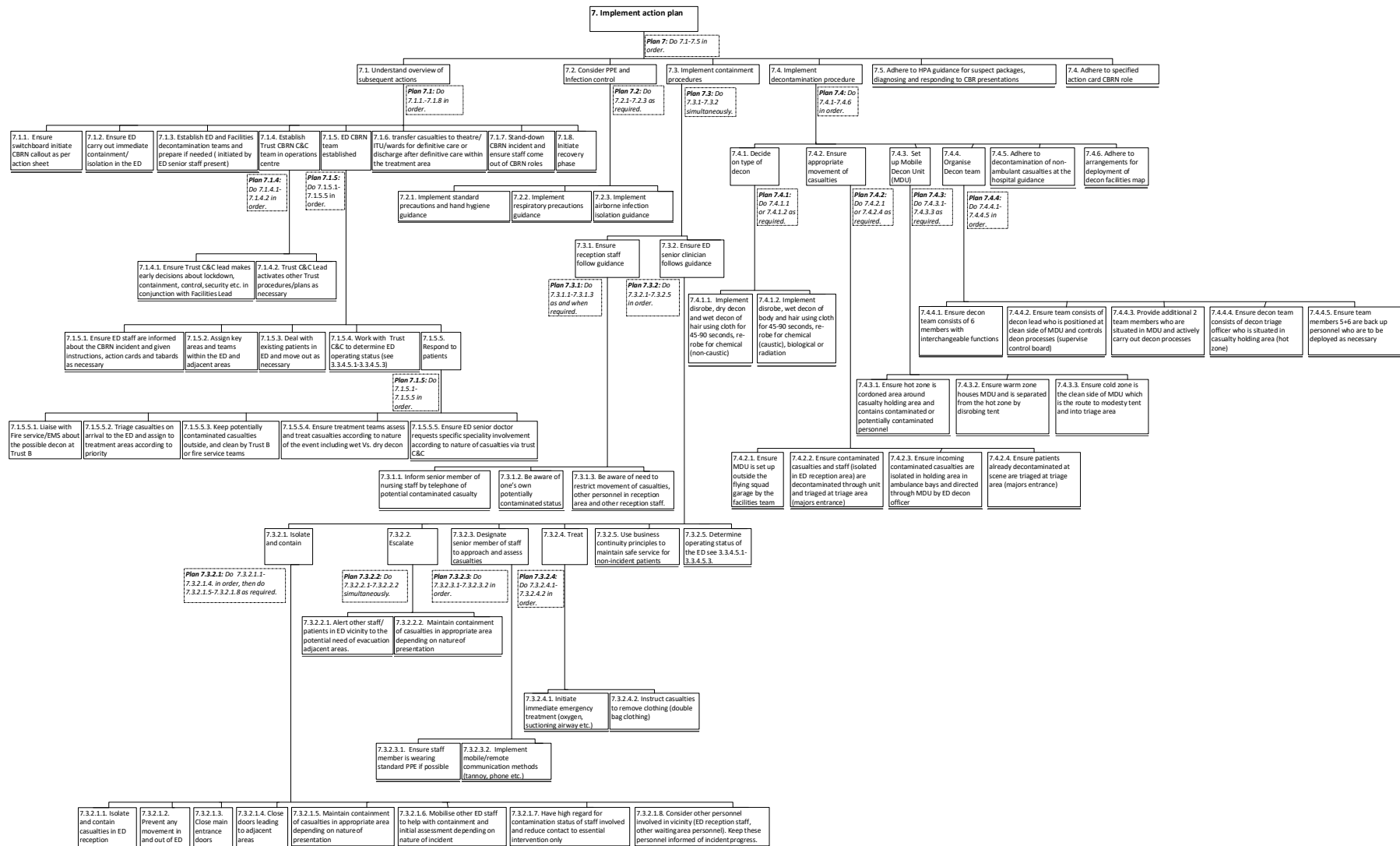




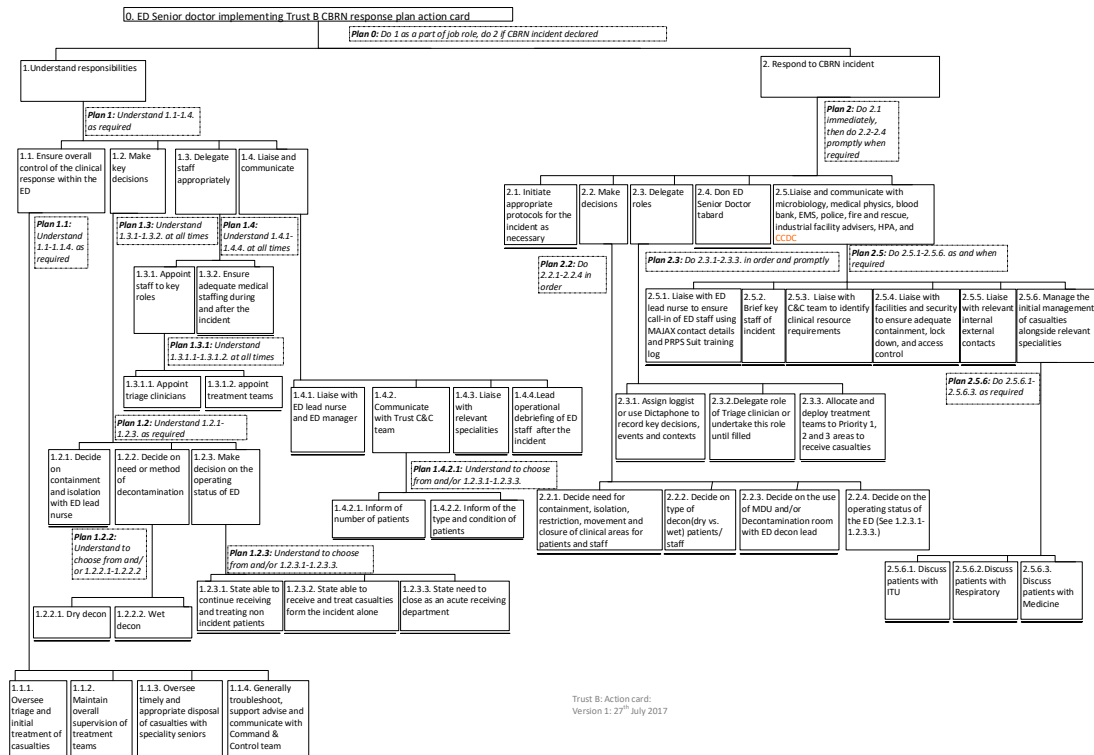


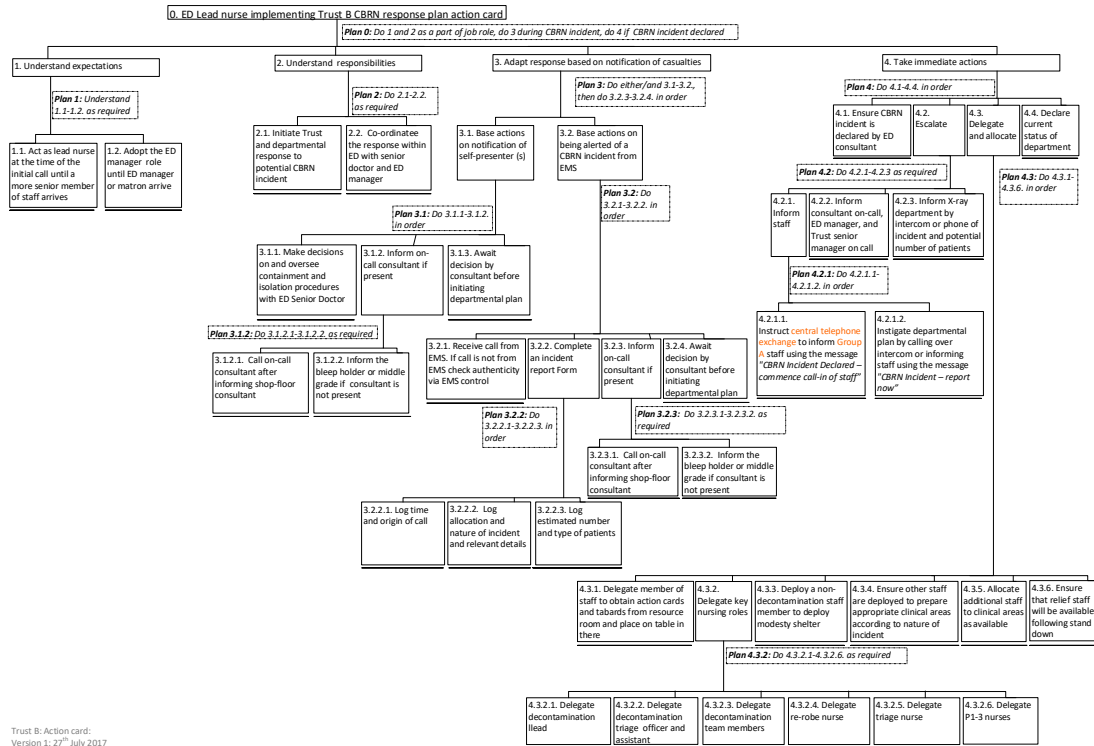




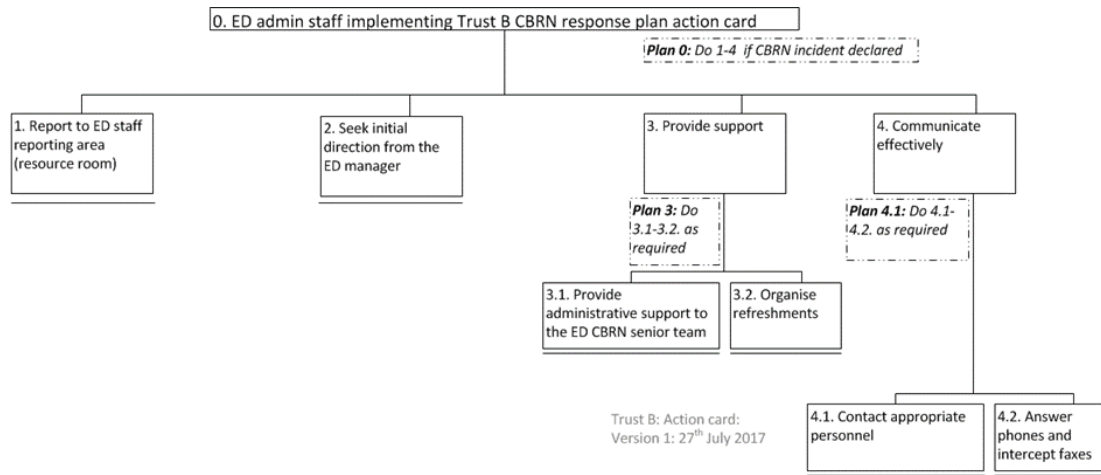


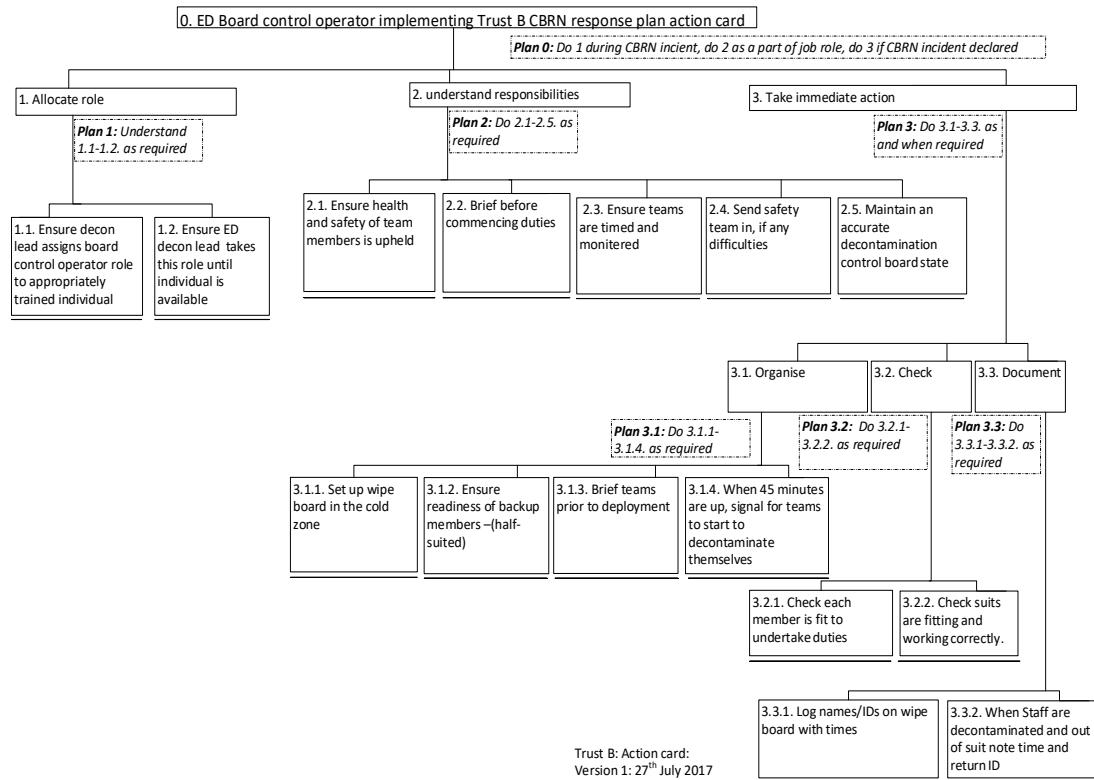
Vol 2: Appendix 29. Trust B: Action card HTAs (V1)

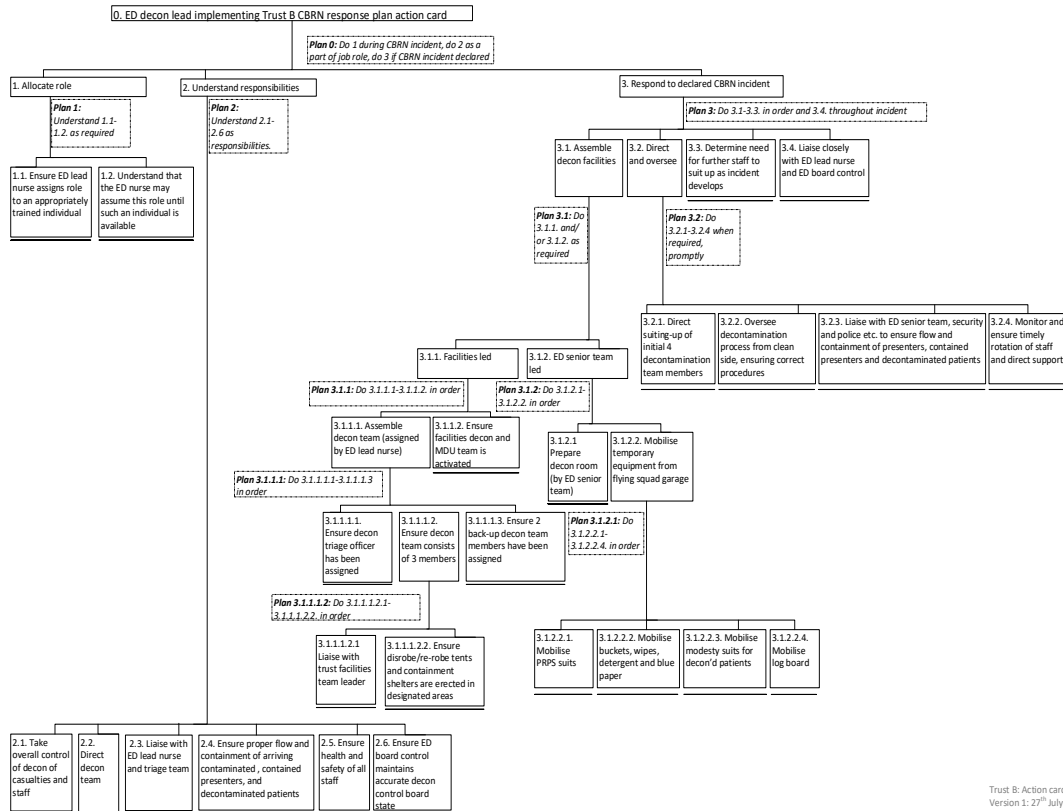




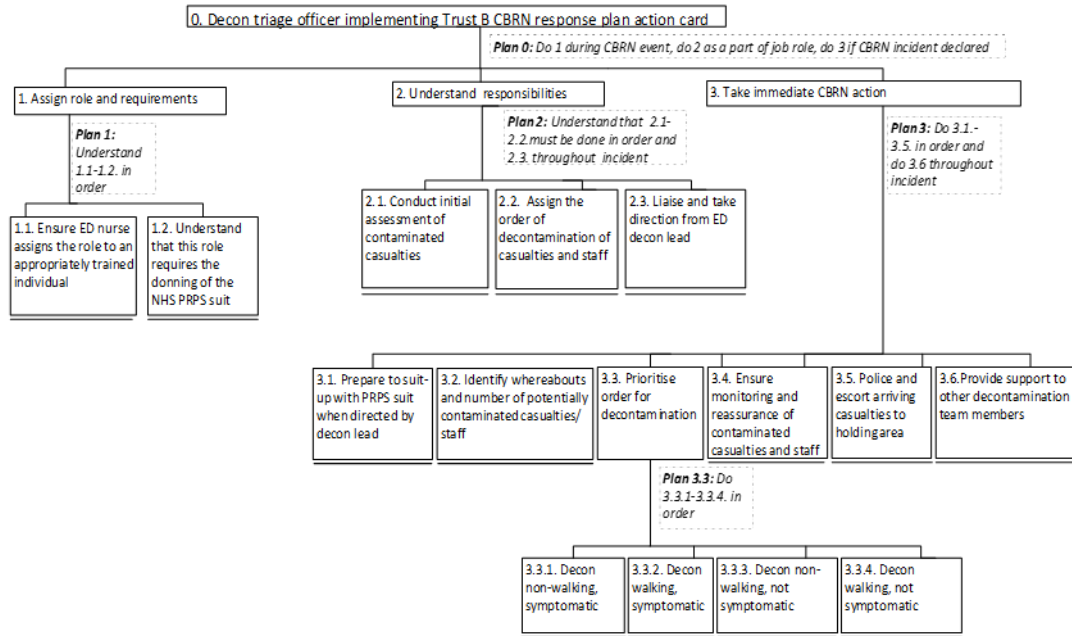
Trust B: Action card:
Version 1: 27th July 2017



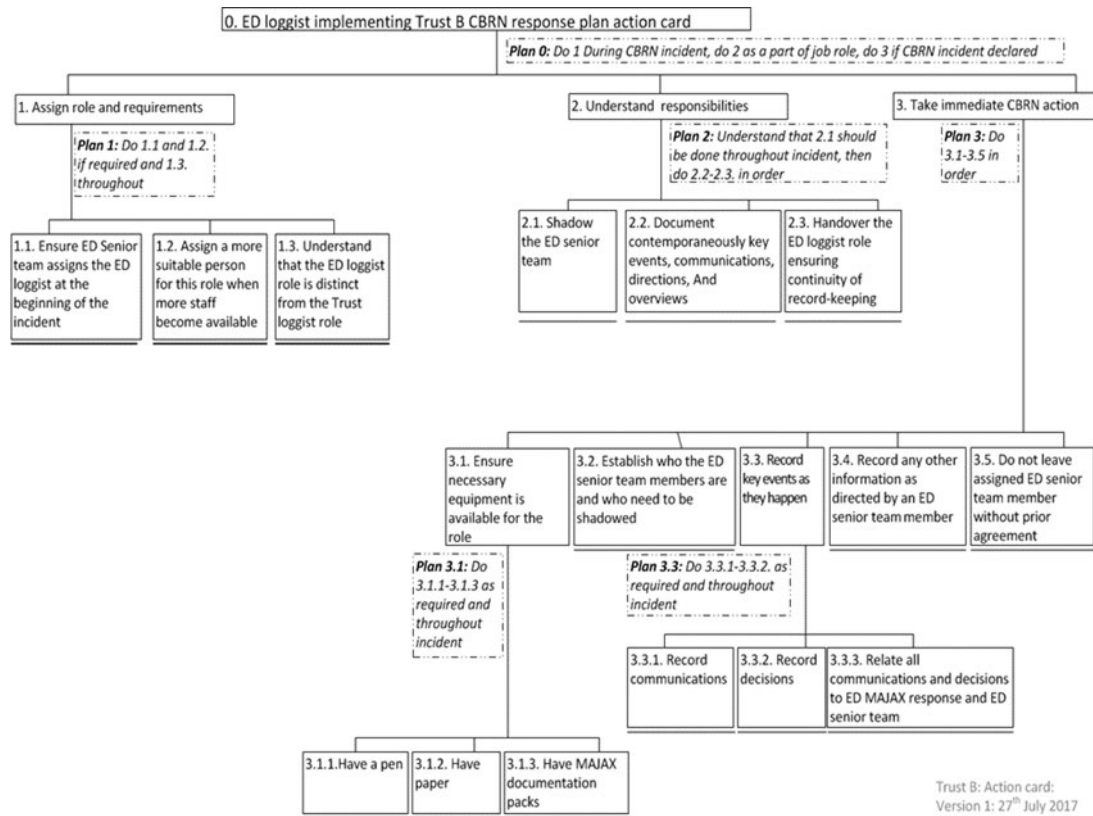




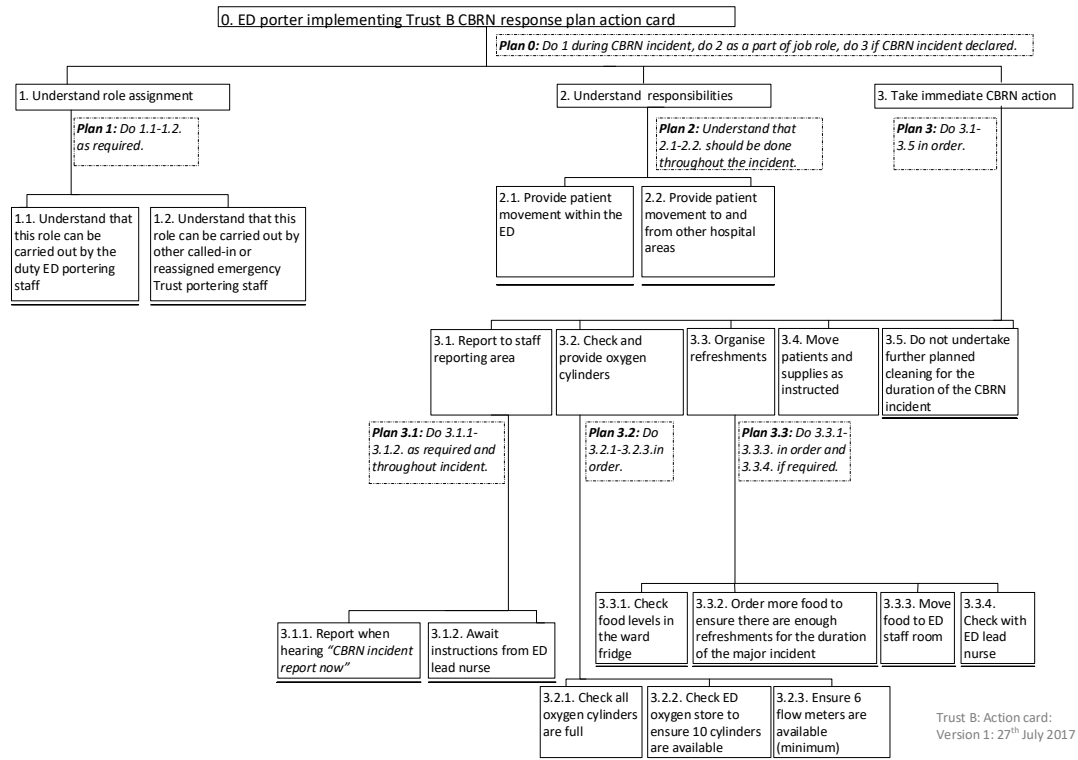
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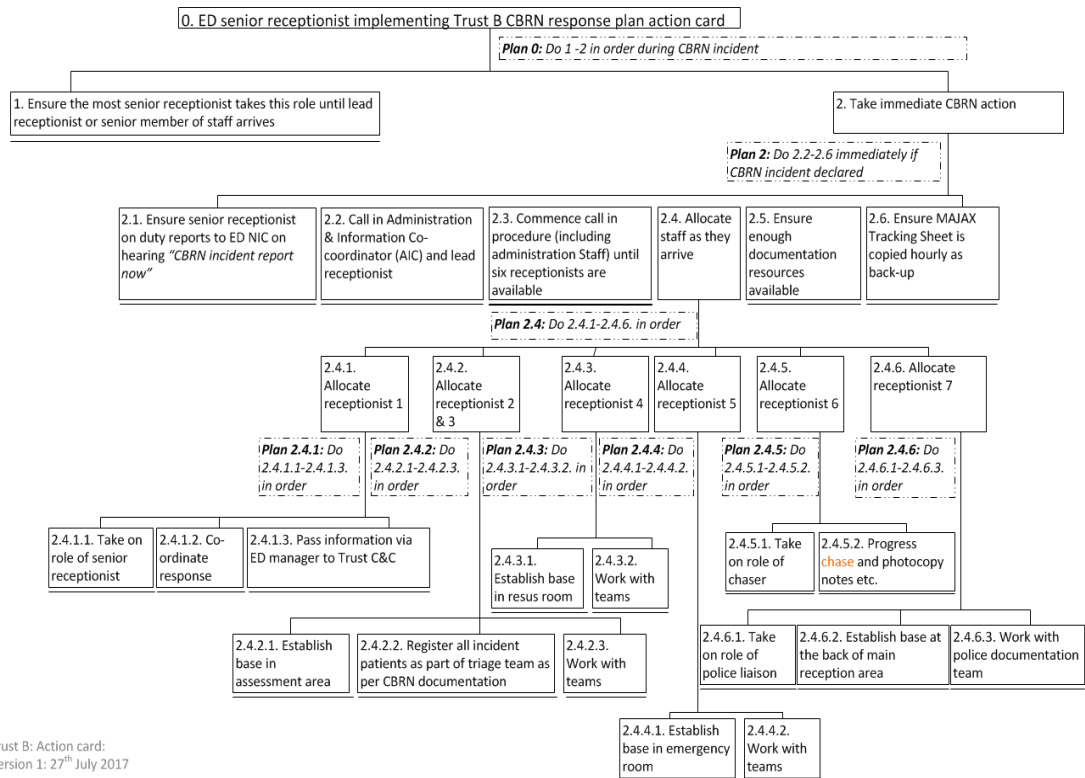


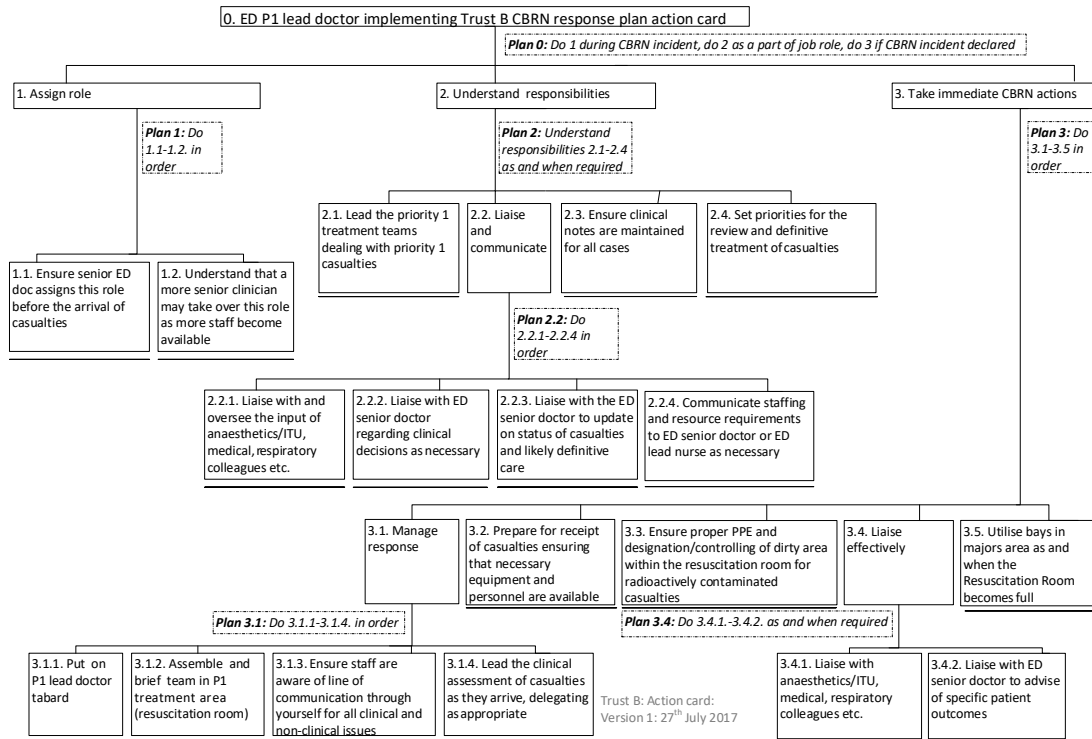
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Version 1: 27th July 2017

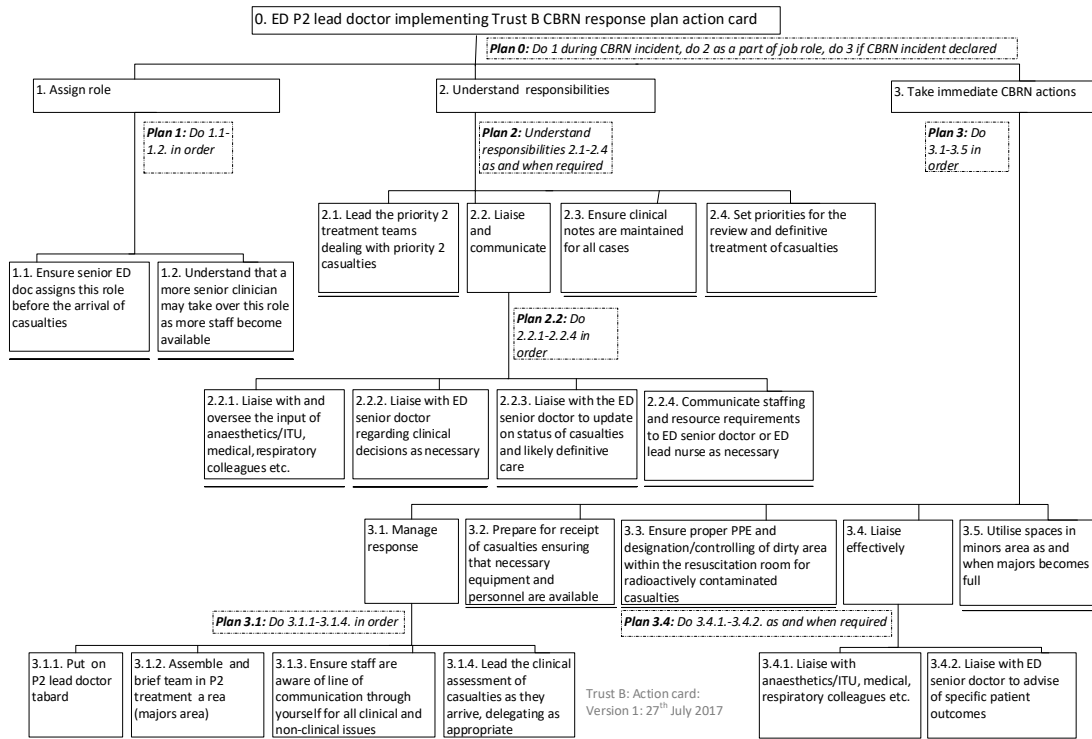


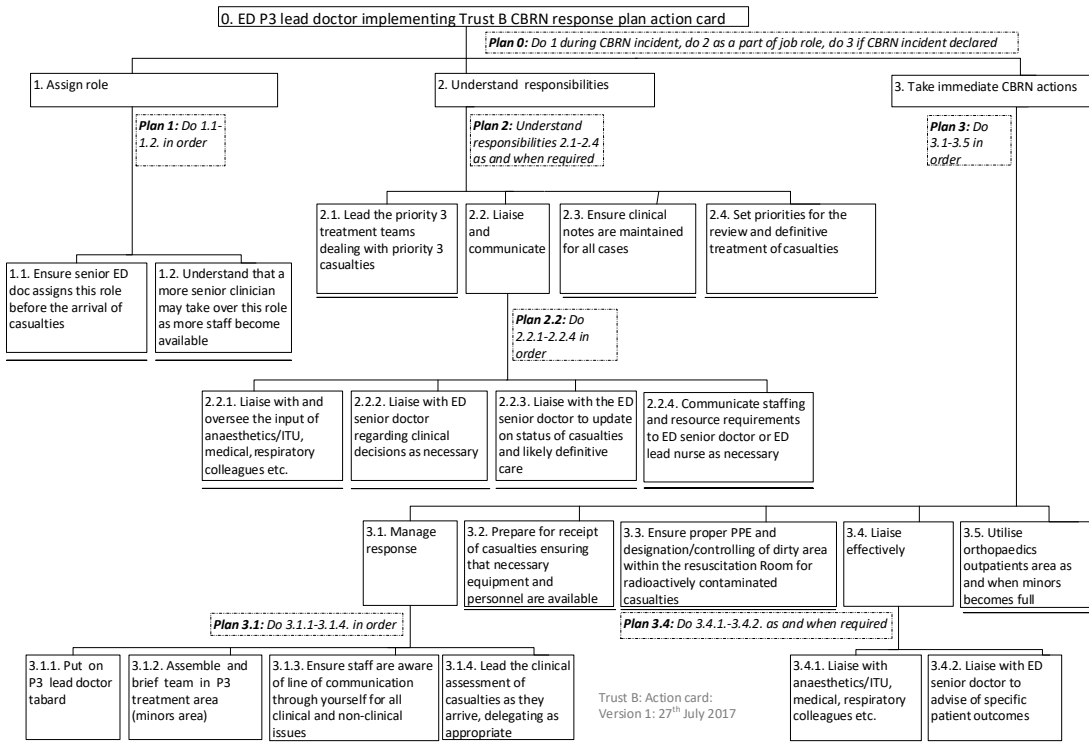
Trust B: Action card:
Version 1: 27th July 2017





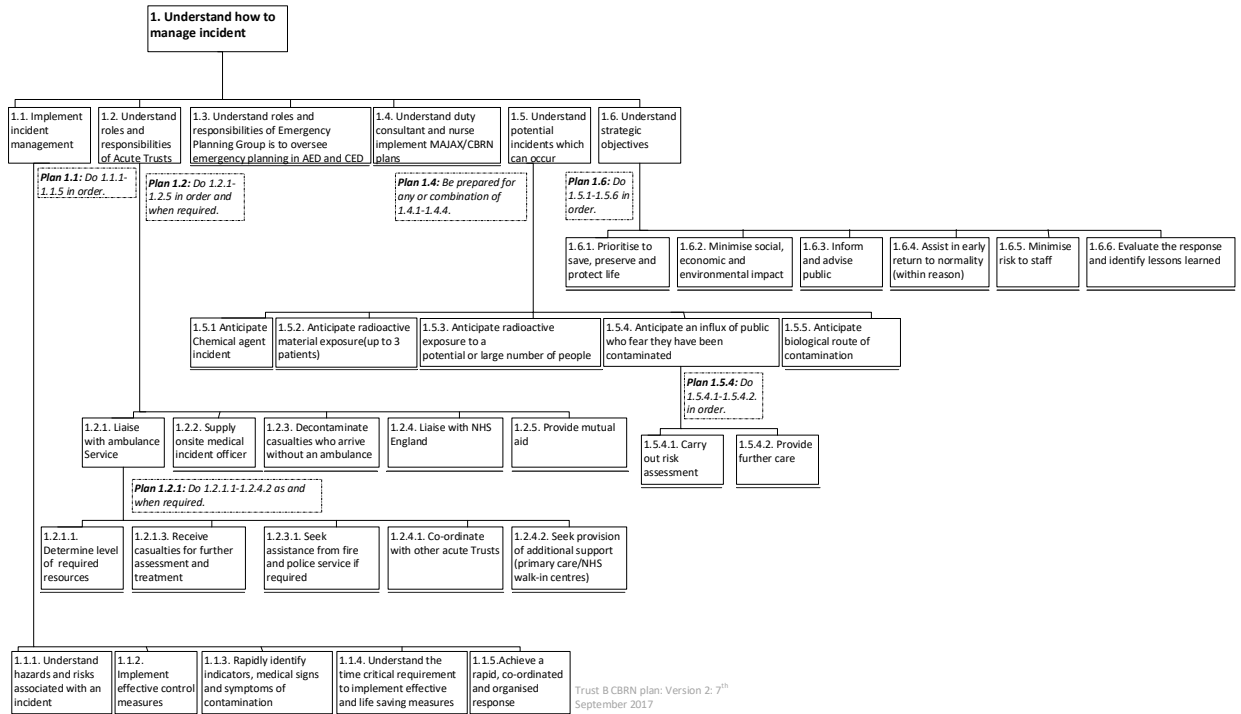


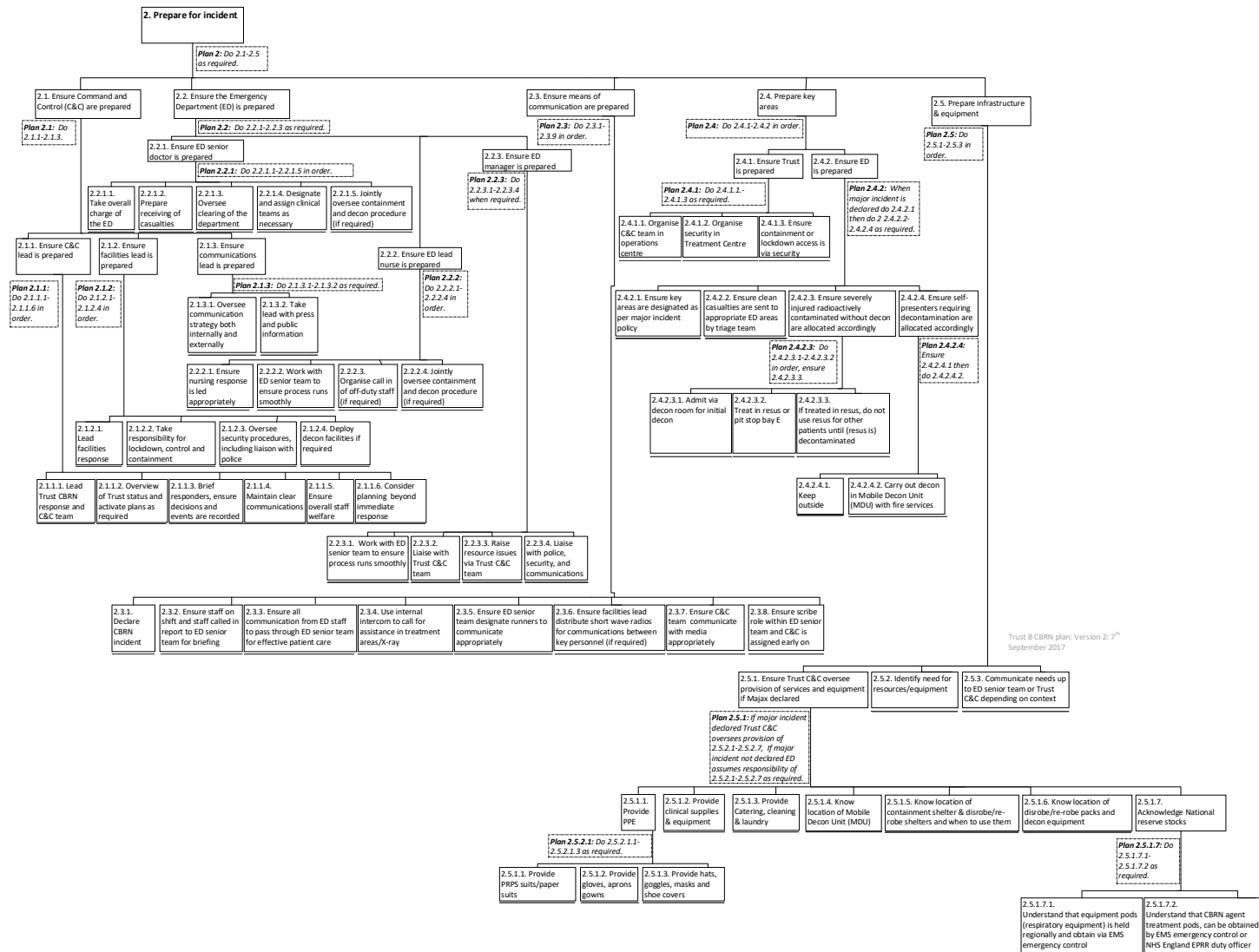


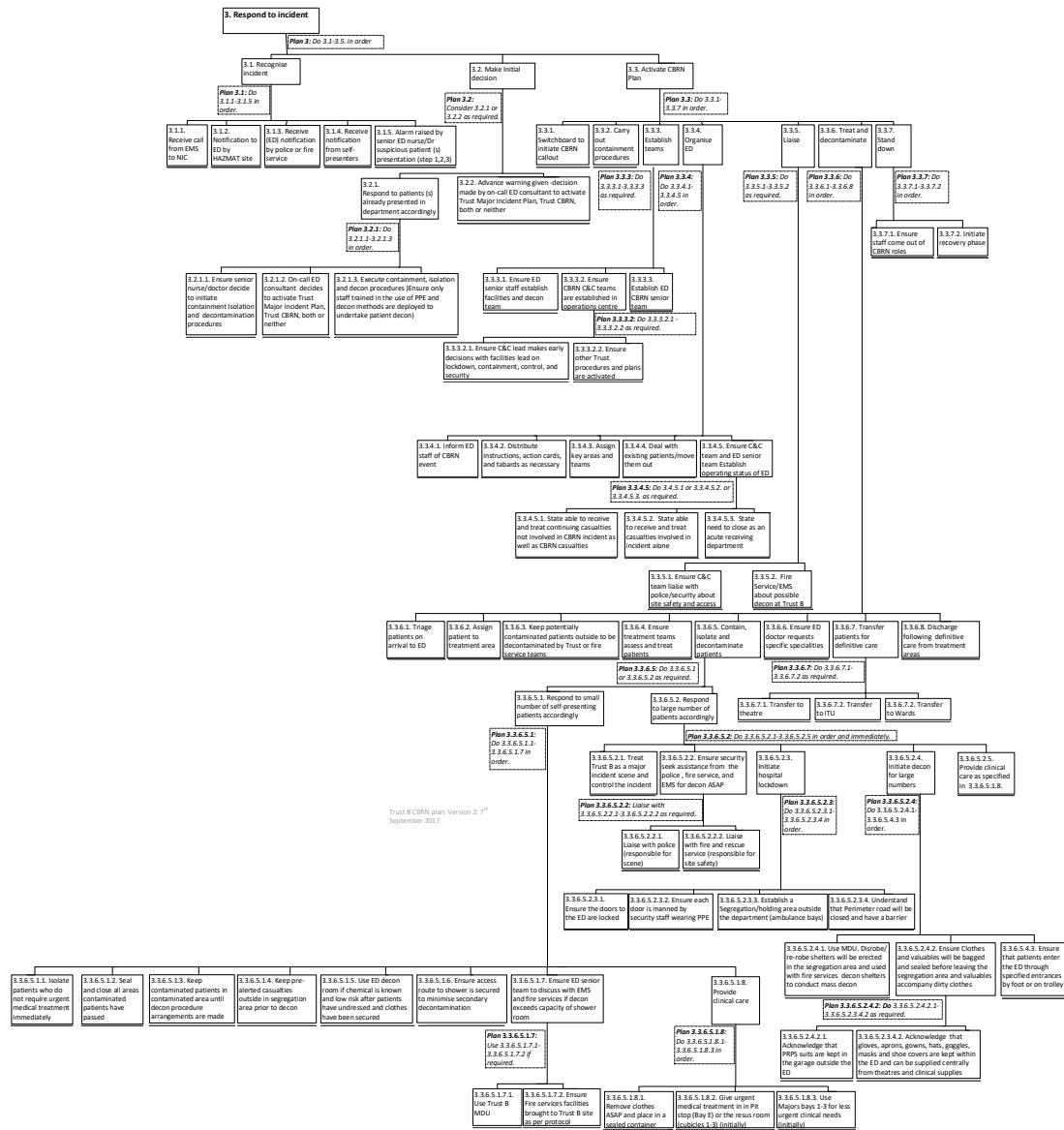


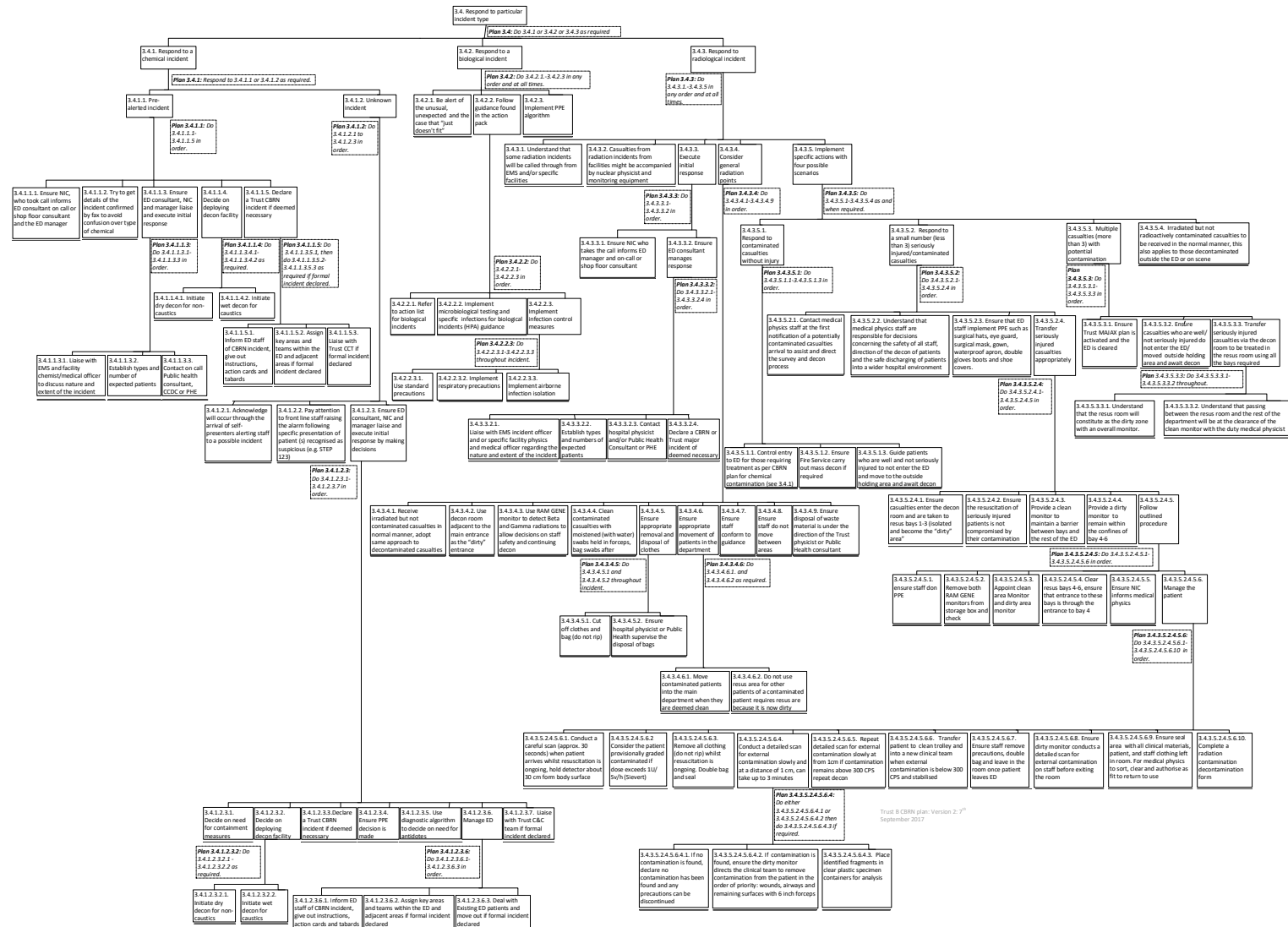


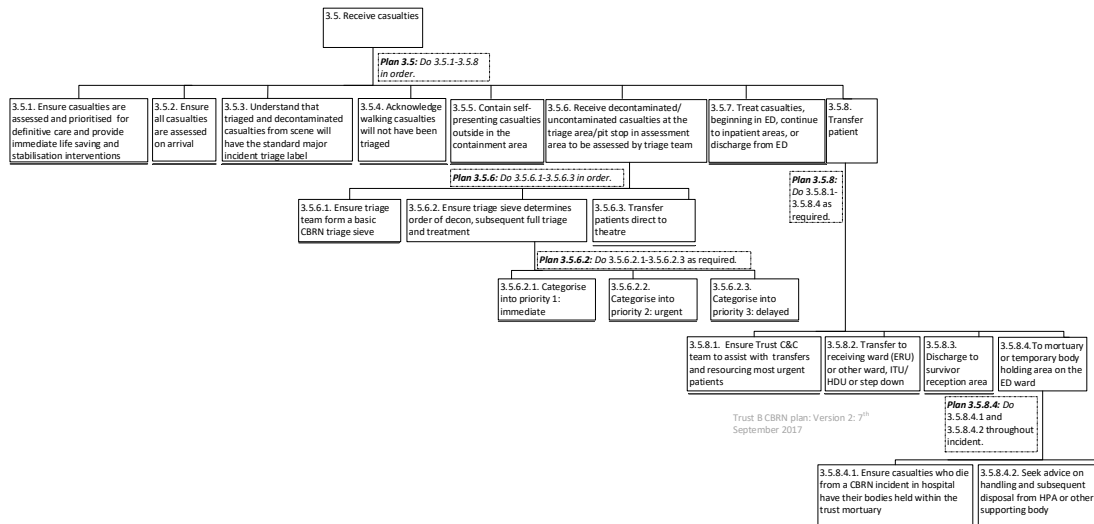
Vol 2: Appendix 30. Trust B: General organisational responsibilities (V2)

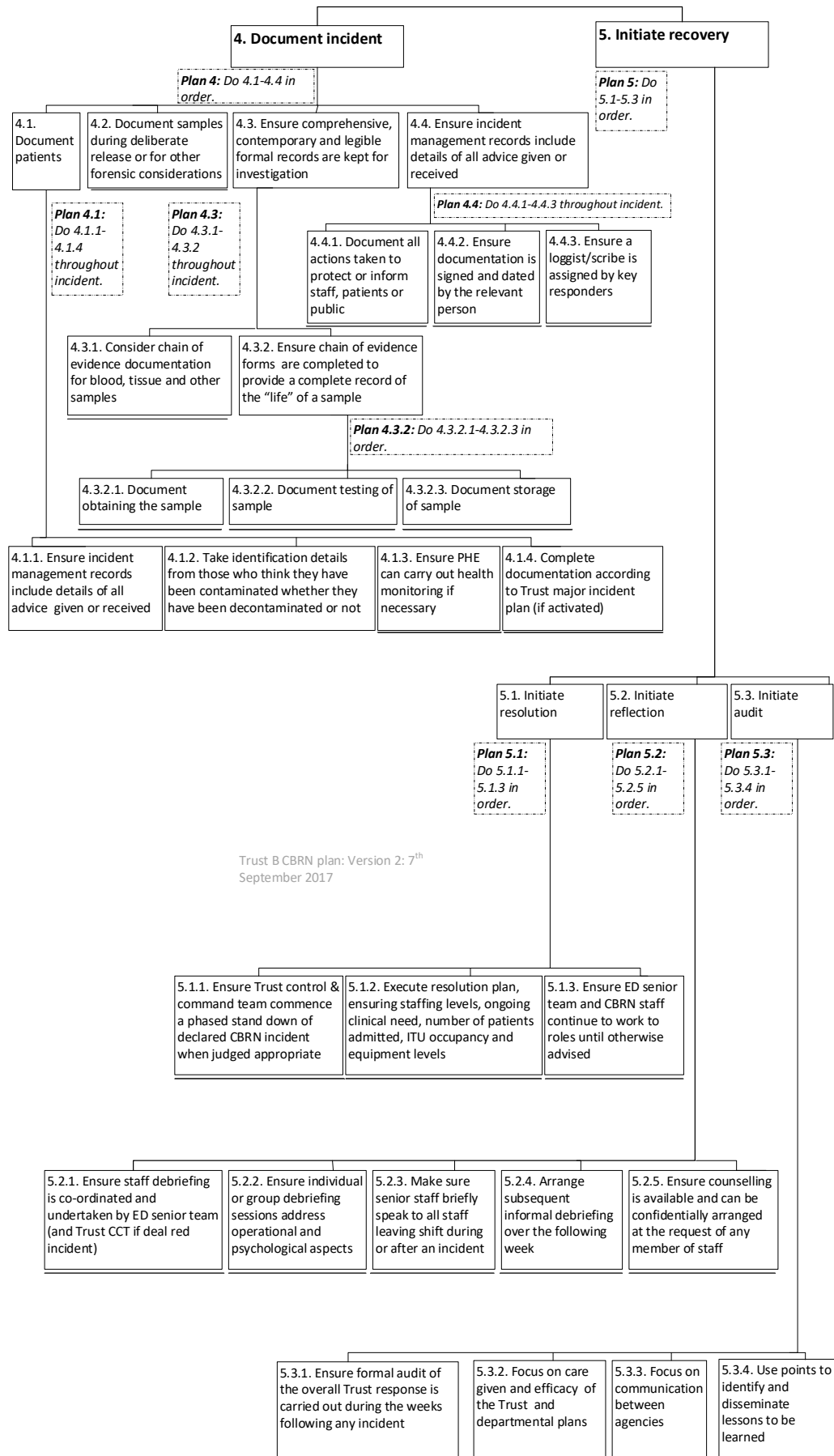


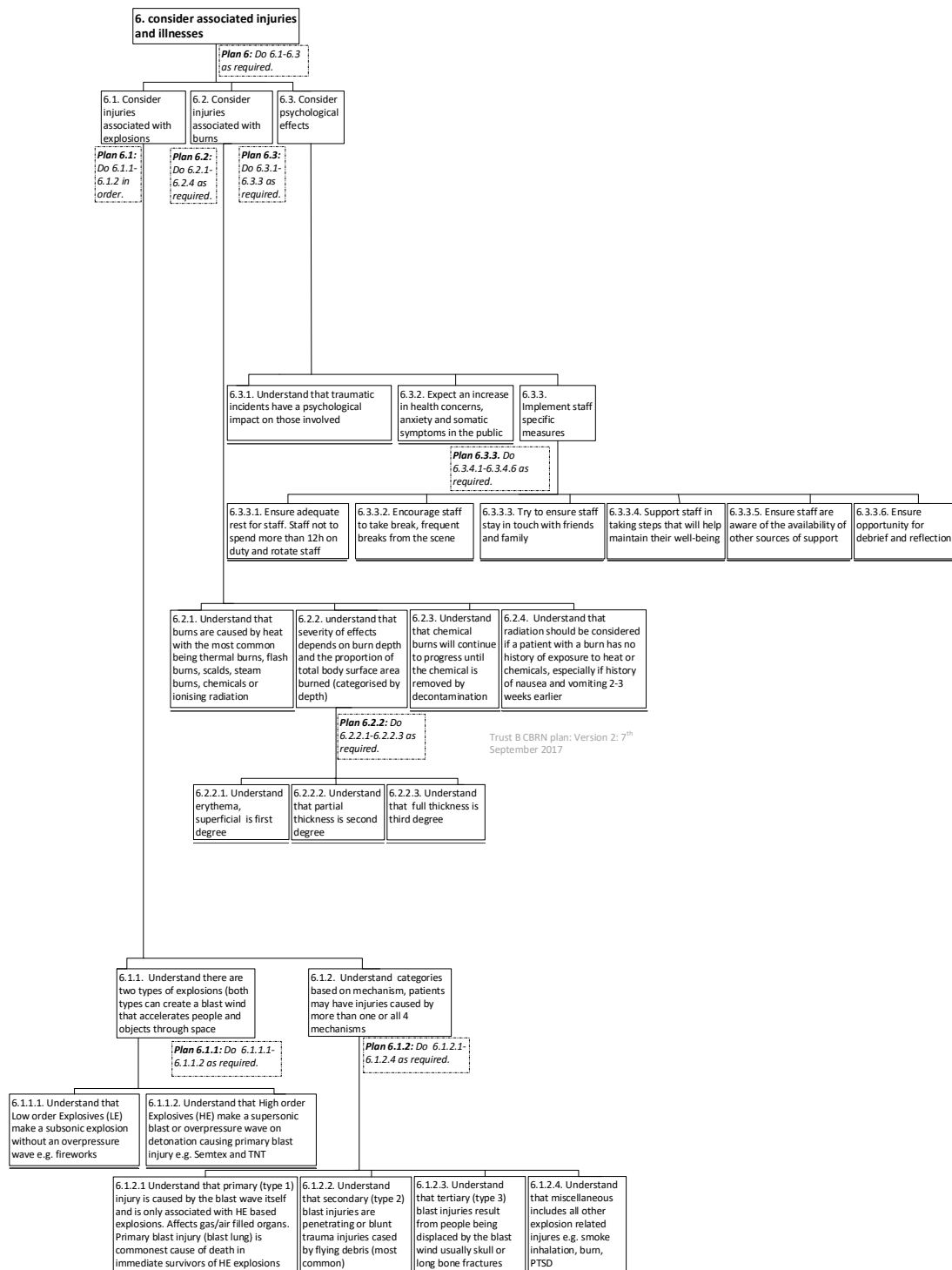


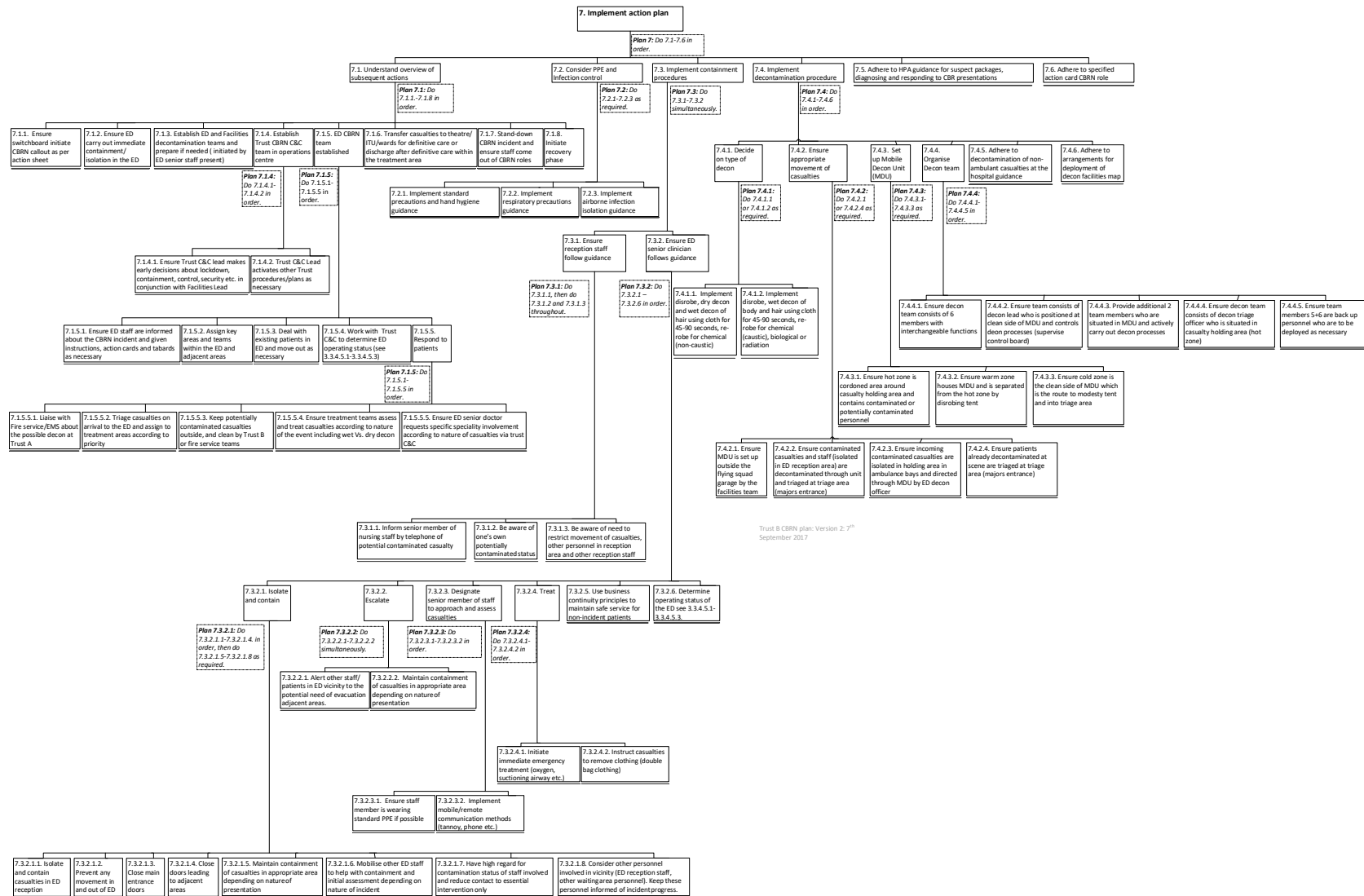




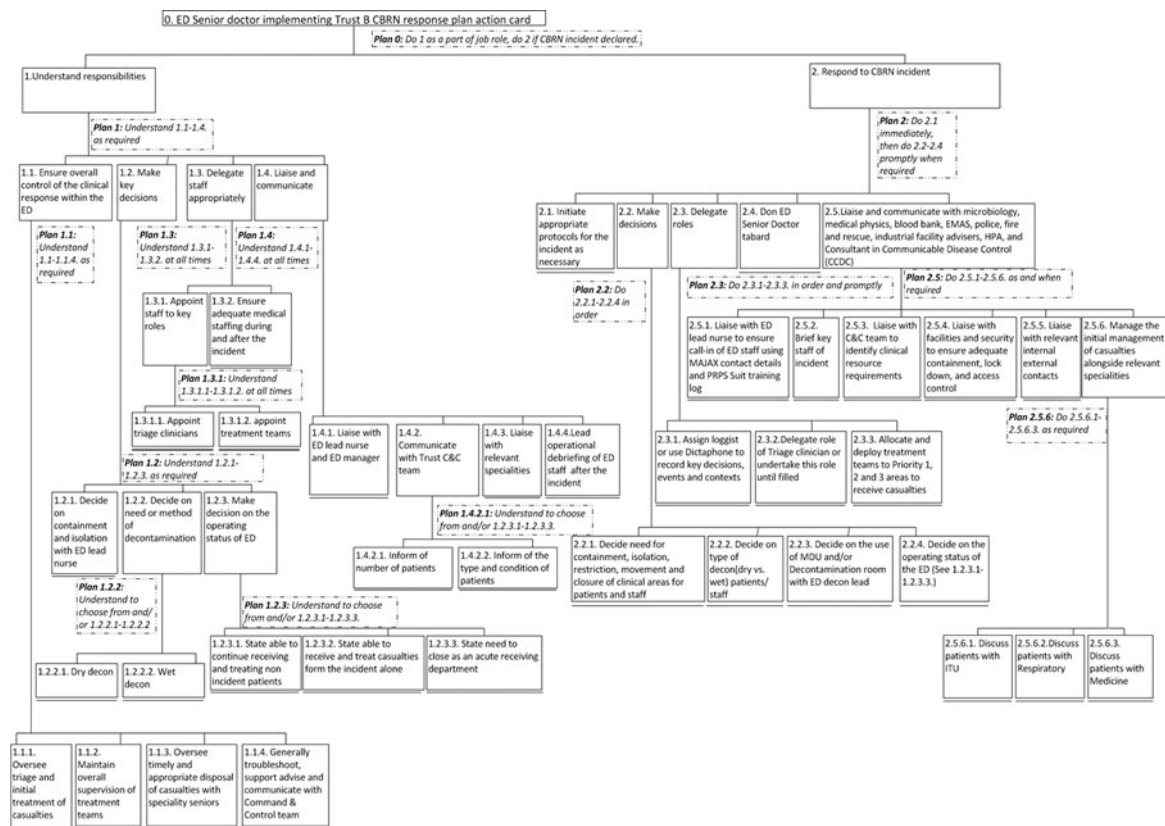


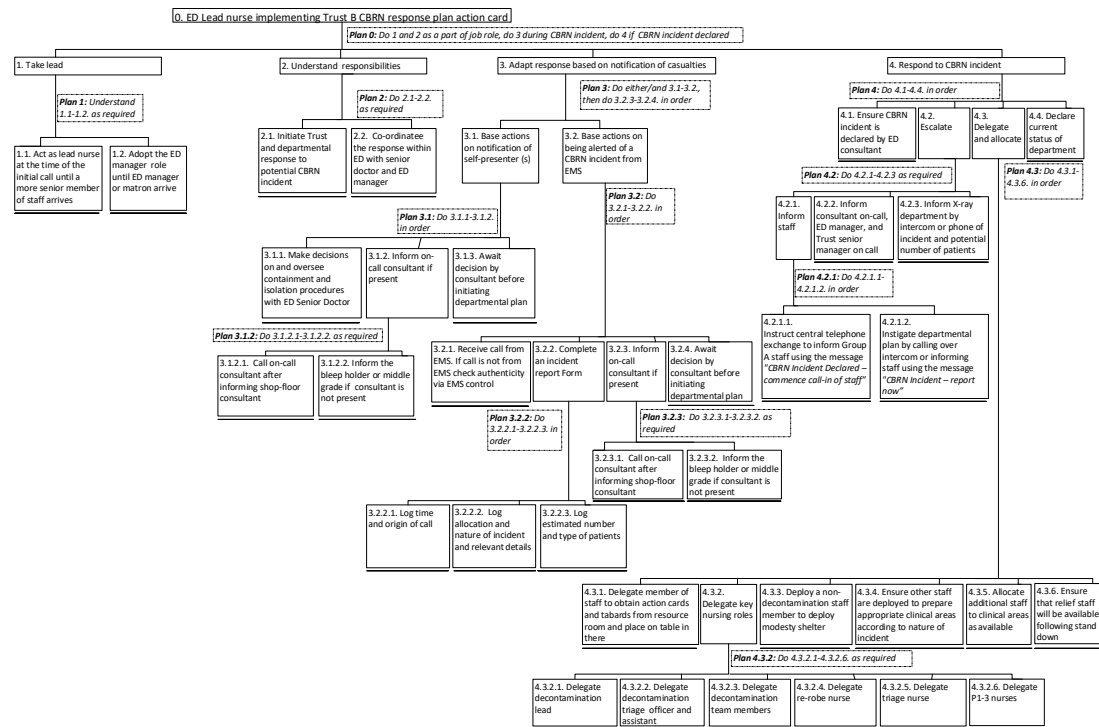


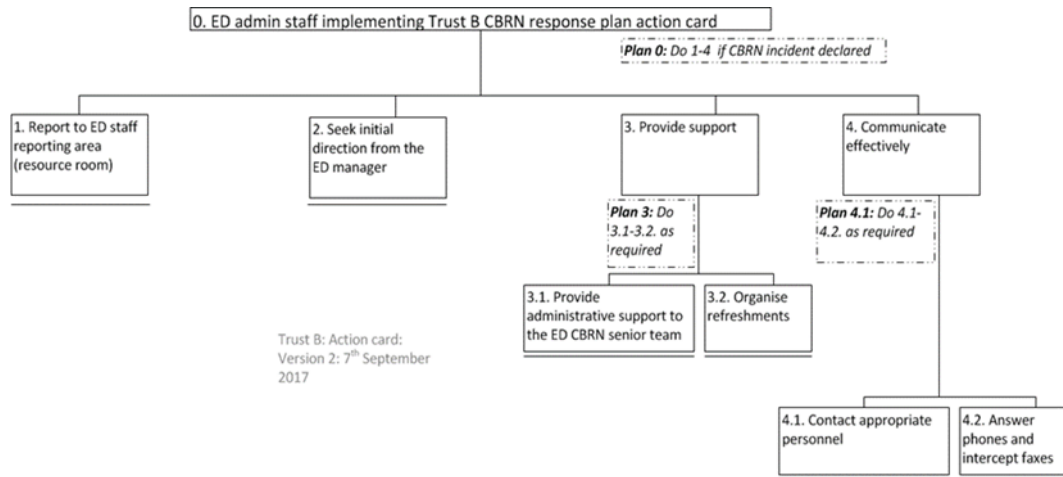


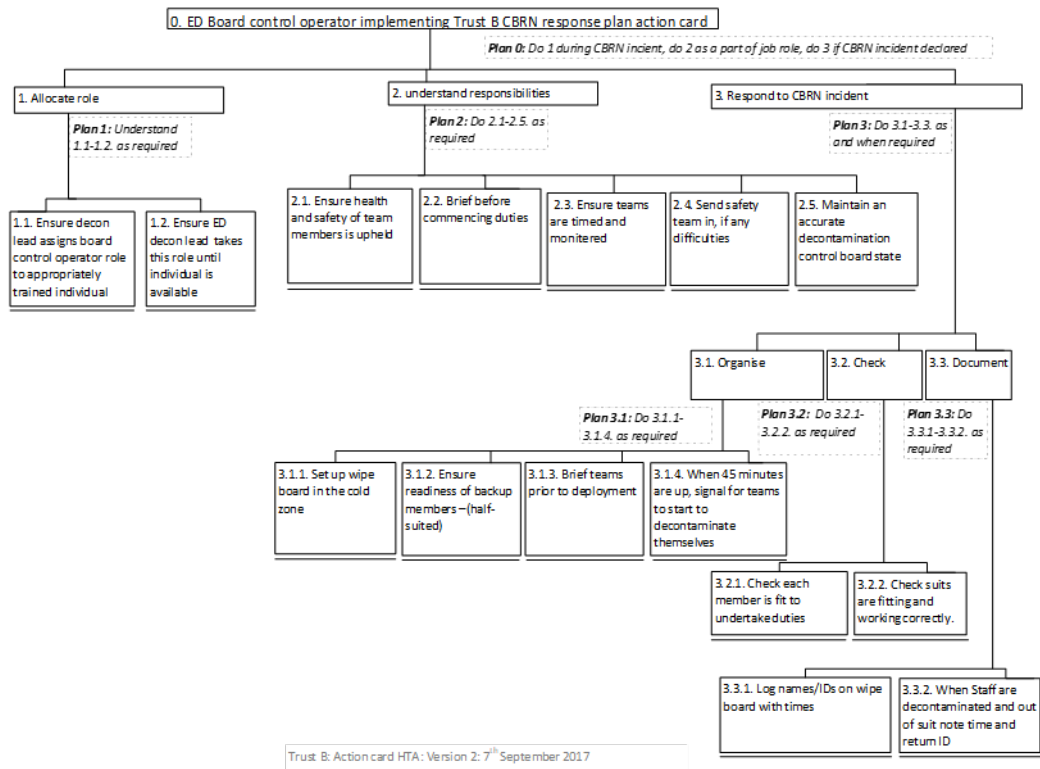


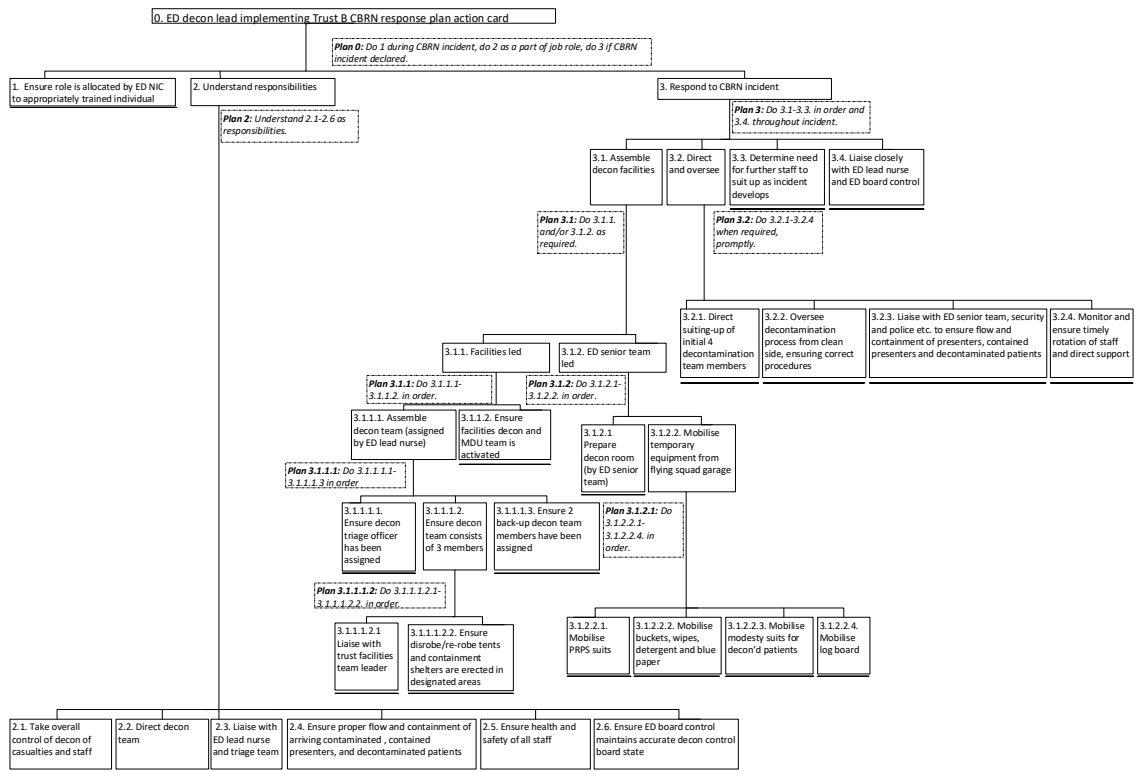
Vol 2: Appendix 31. Trust B: Action card HTAs (V2)



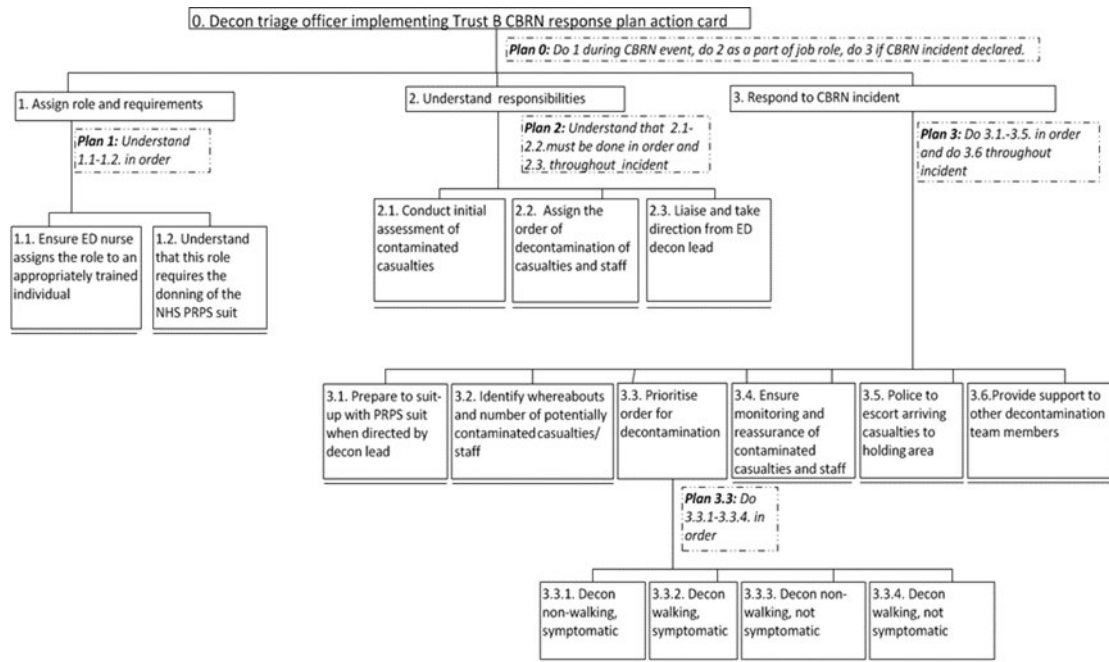
Trust B: Action card: Version 2: 7th September 2017

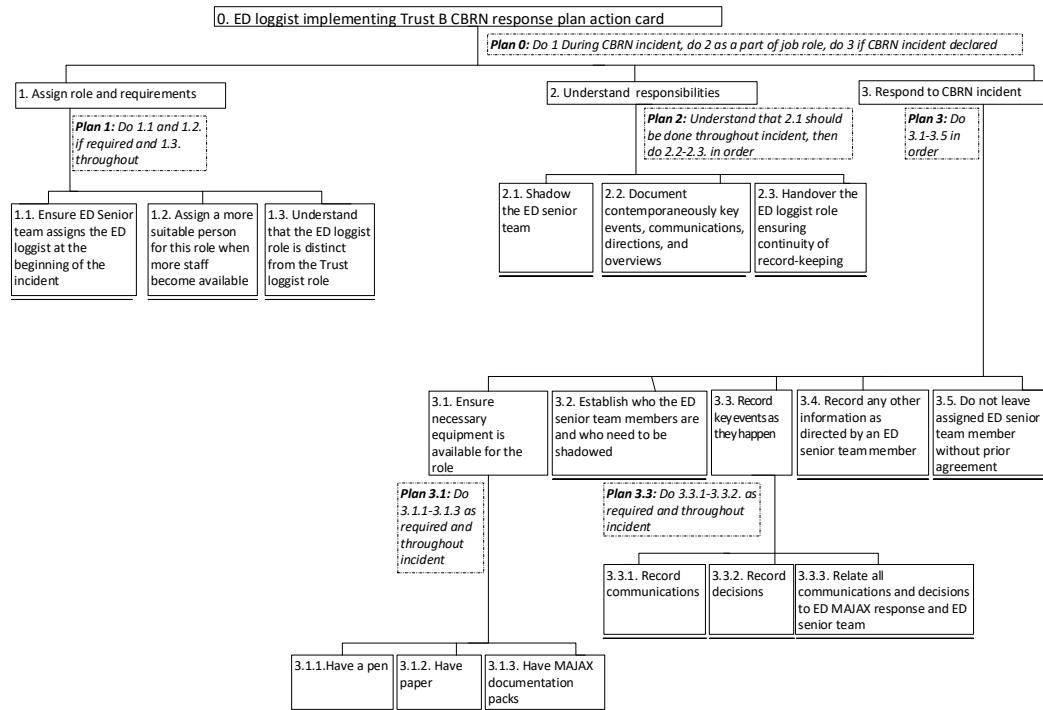


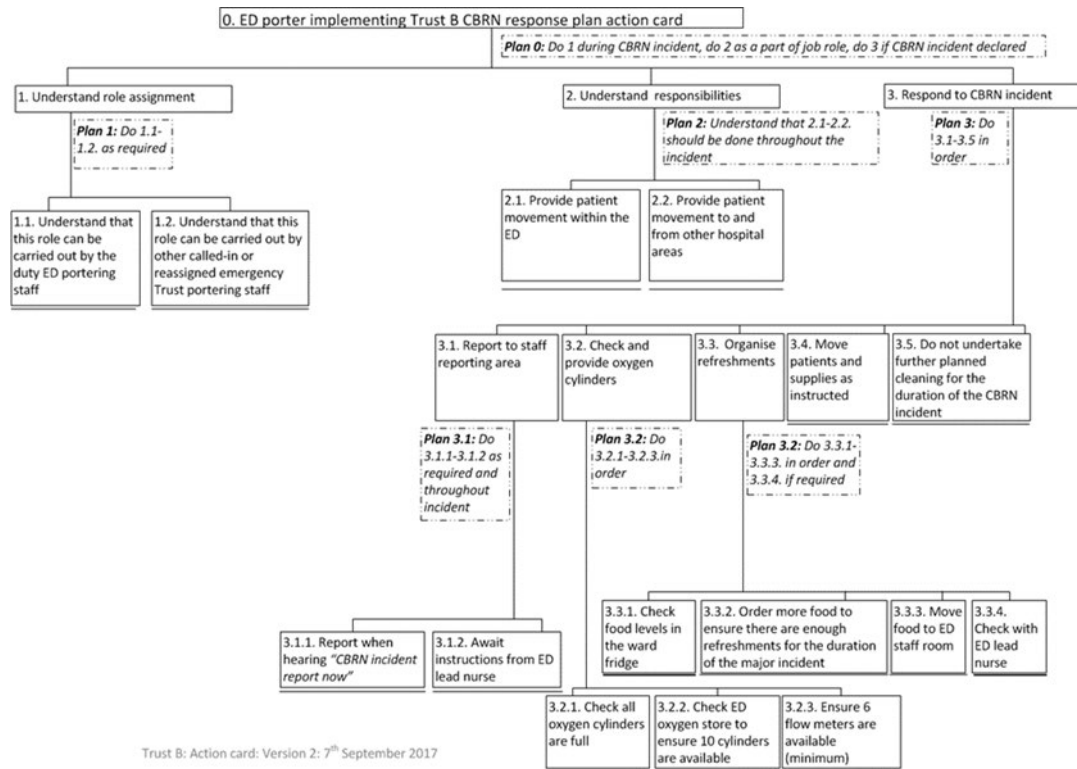


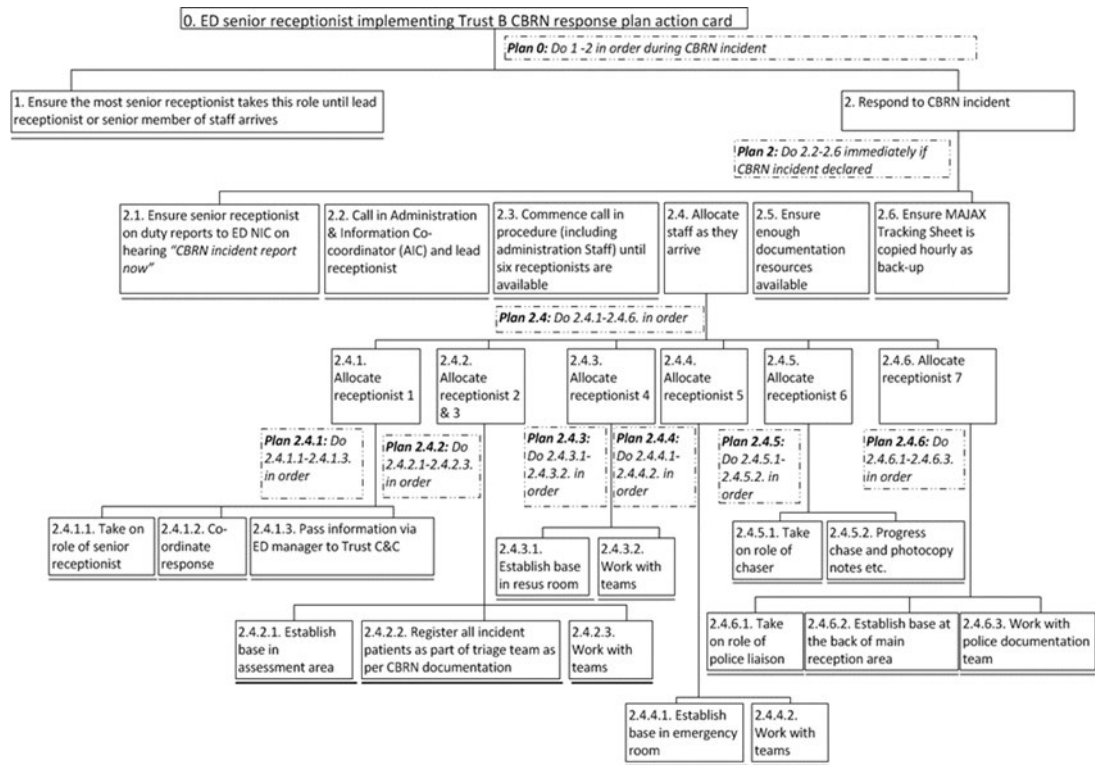


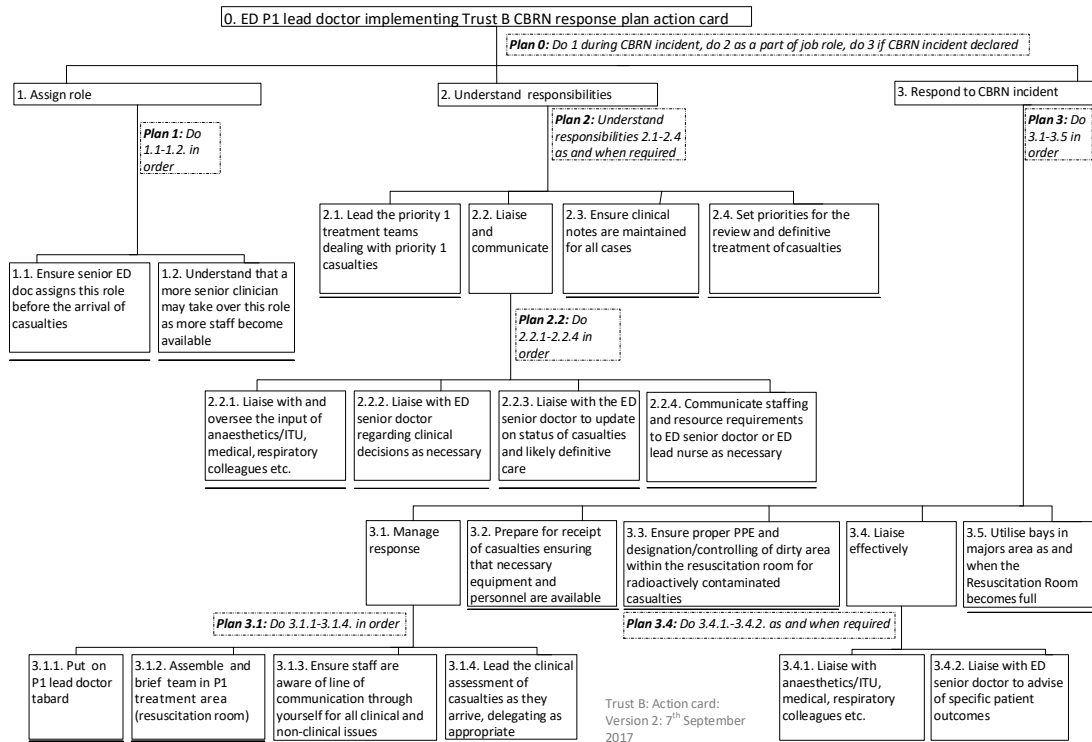
Trust B: Action card:
Version 2: 7th
September 2017

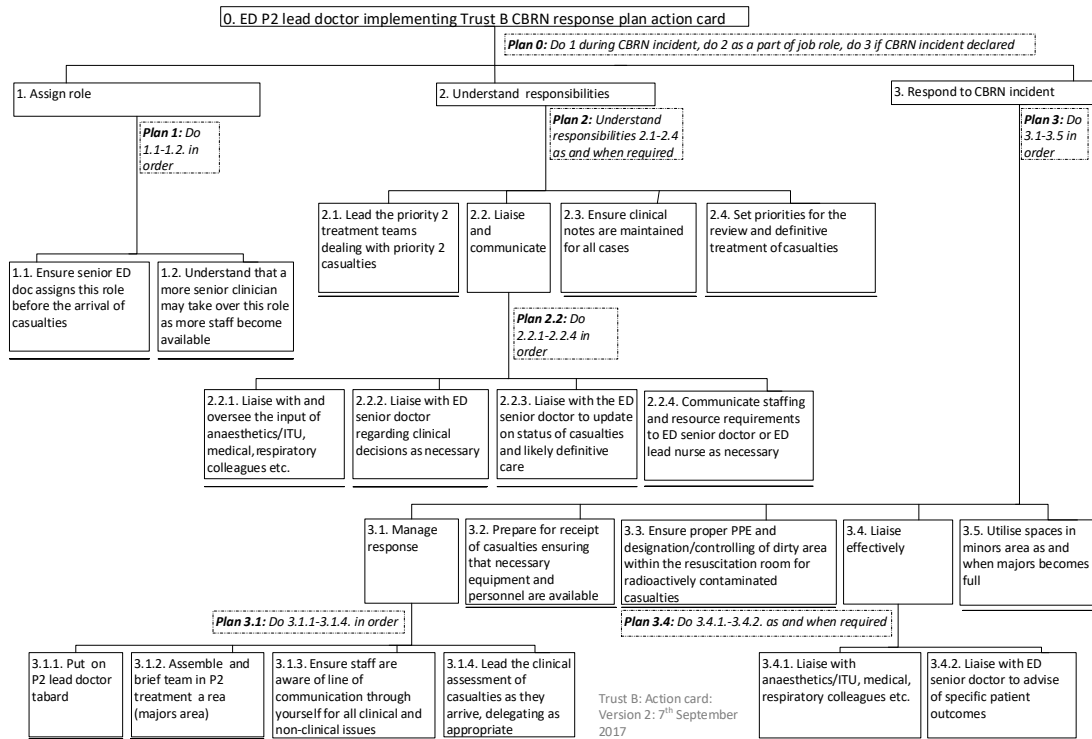
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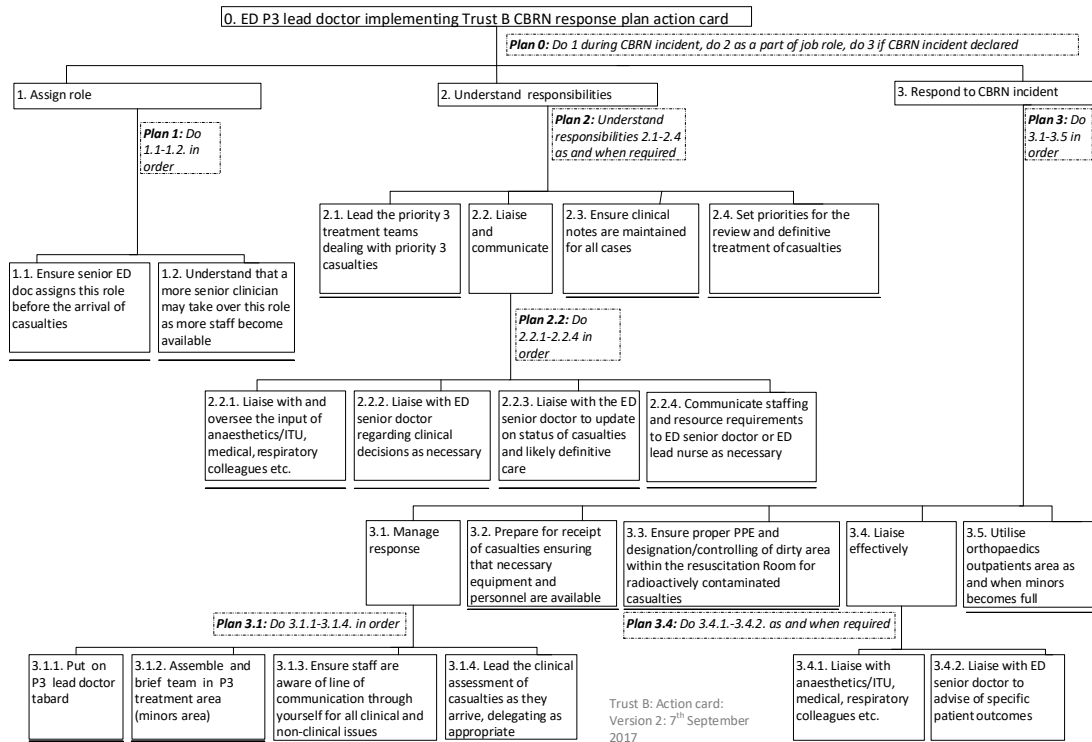
Trust B: Action card: Version 2: 7th September 2017

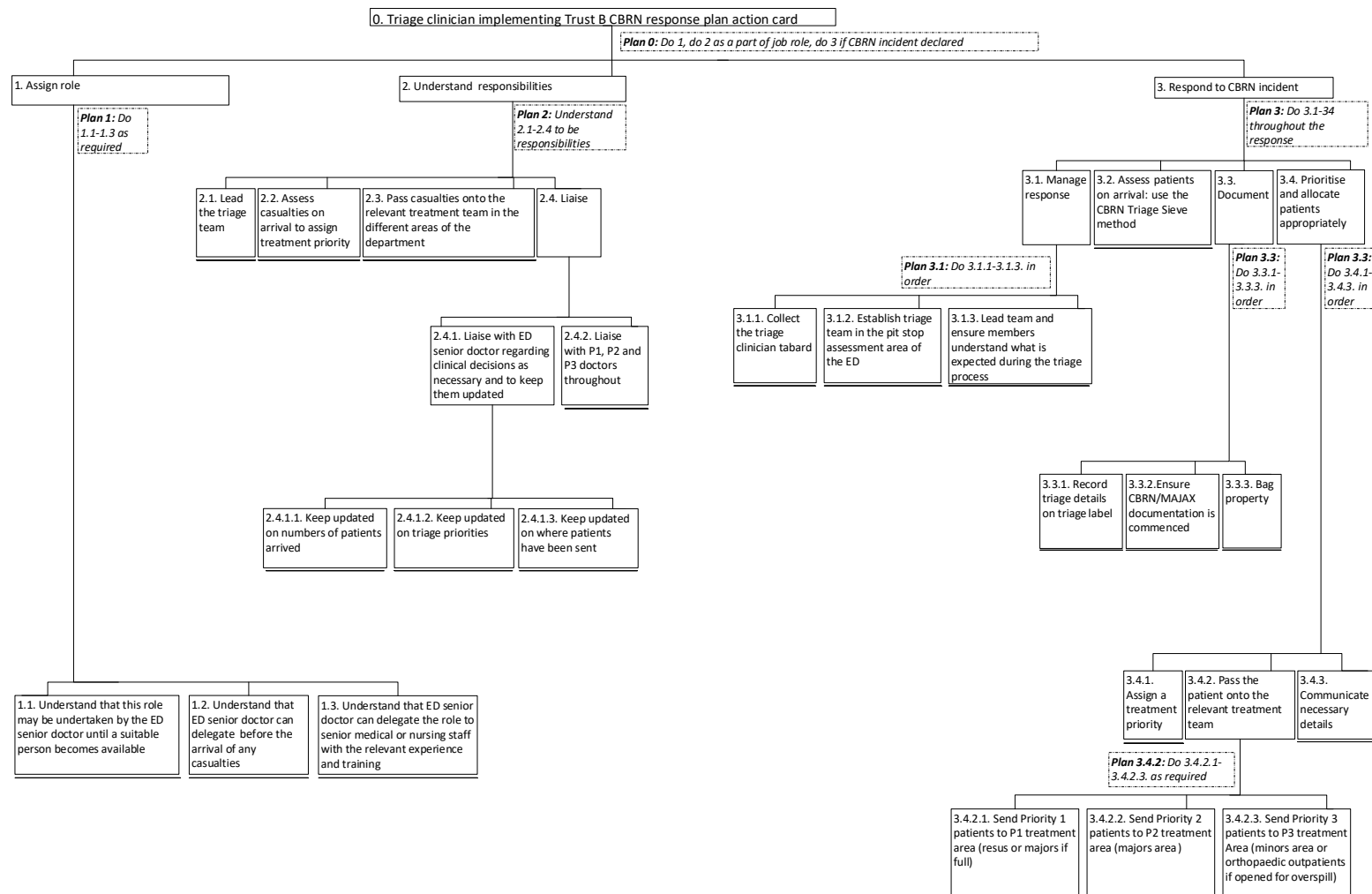




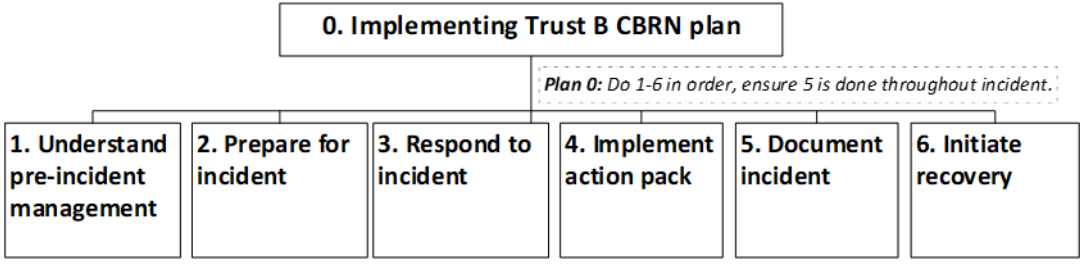


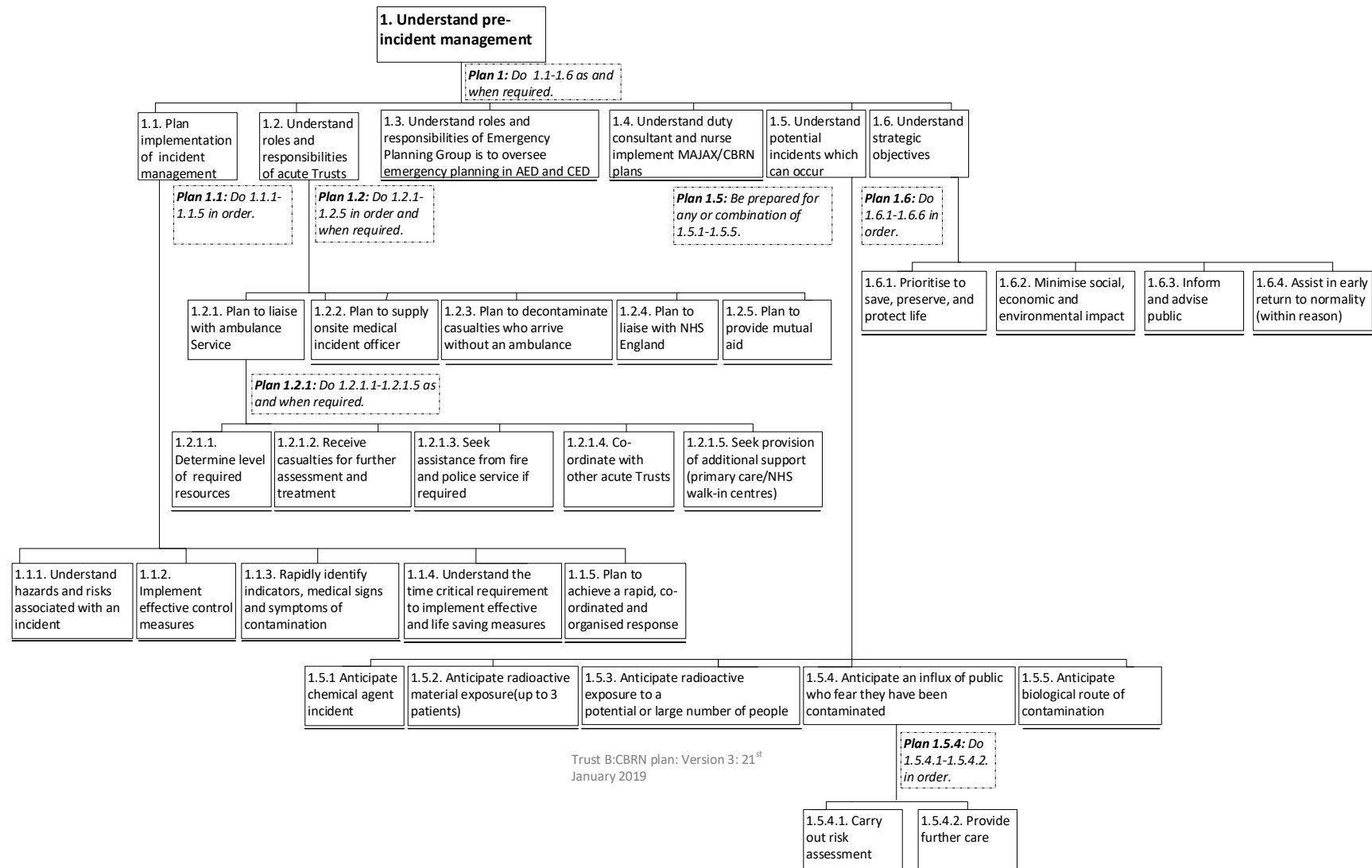




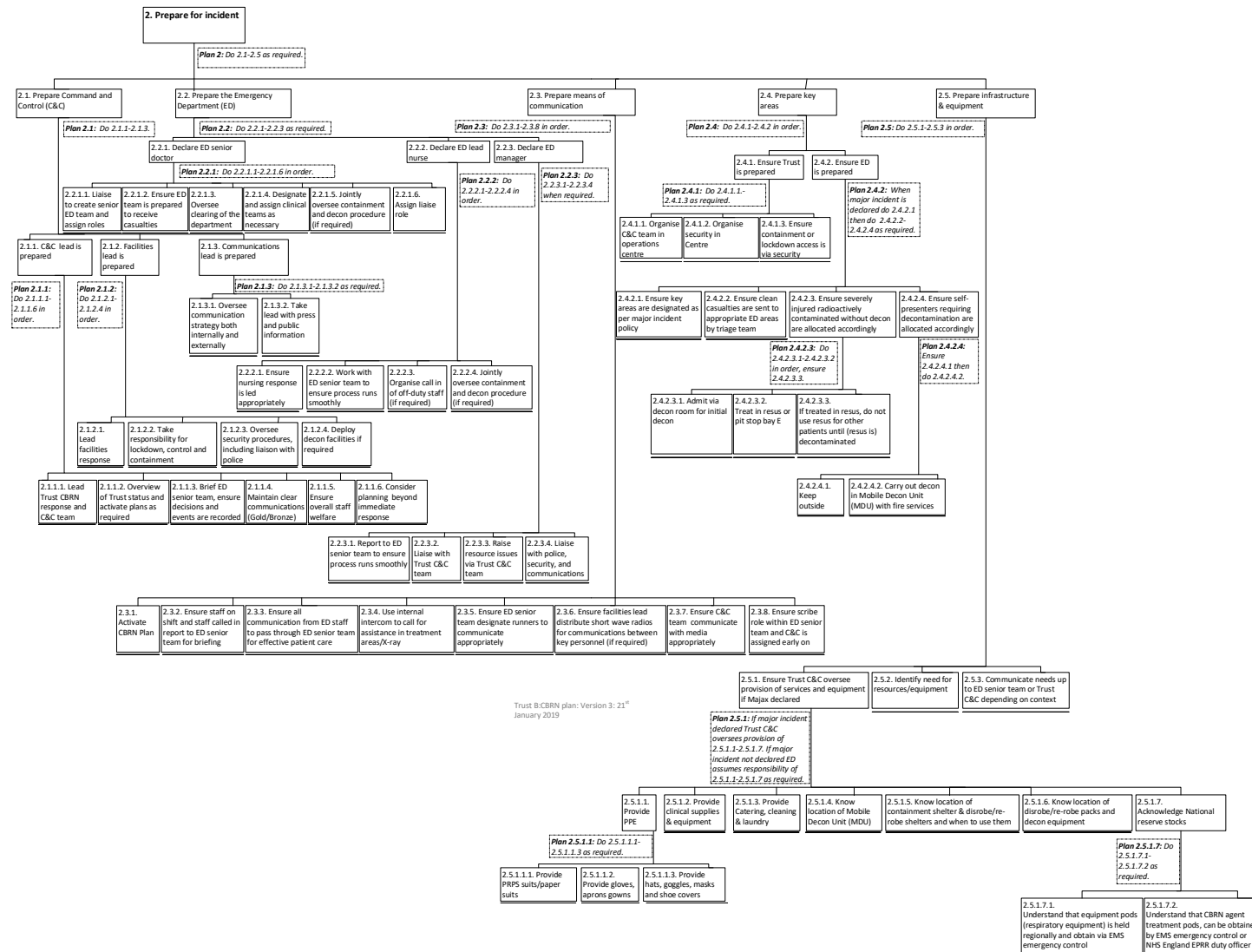


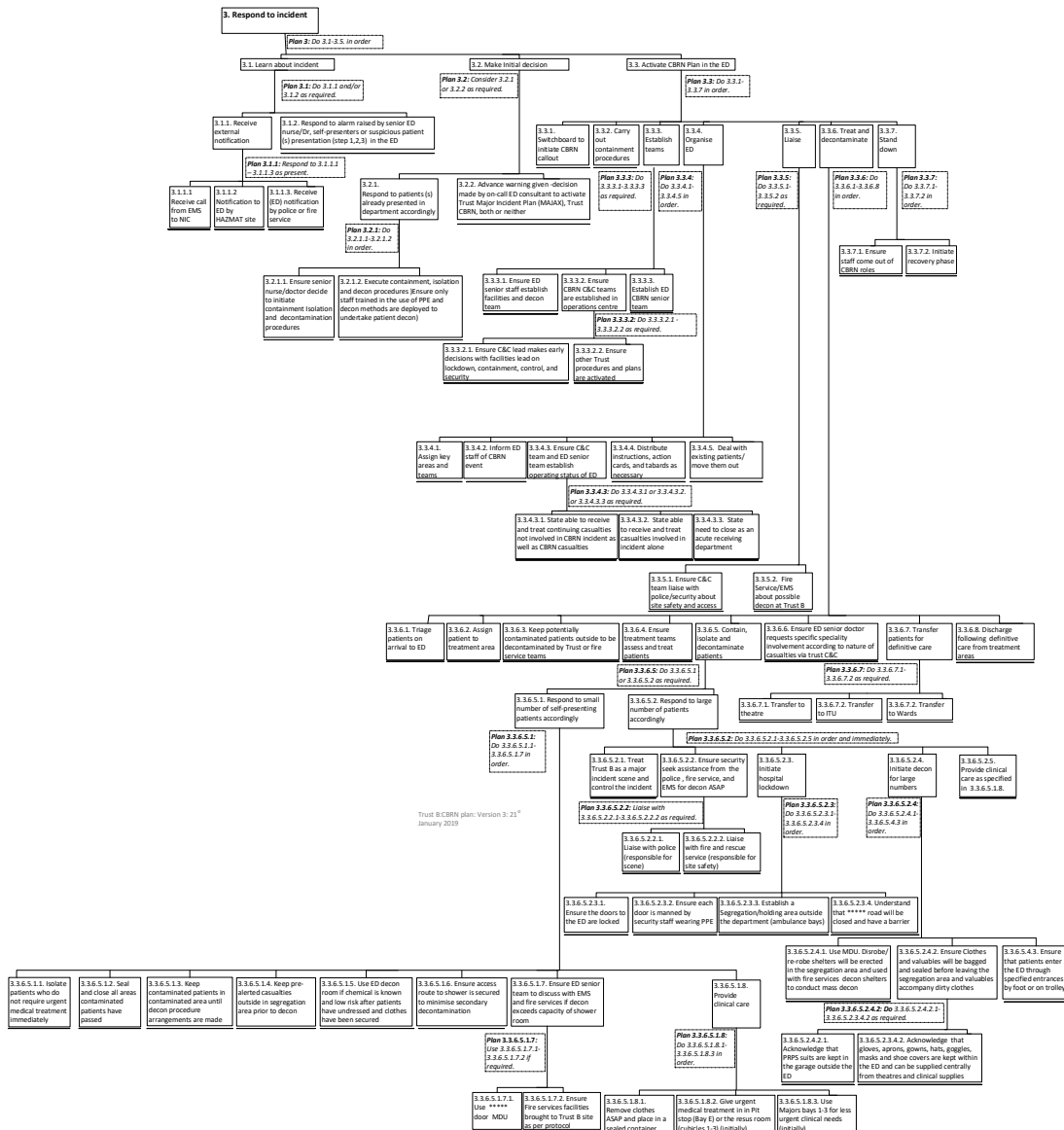
Vol 2: Appendix 32. Trust B: General organisational responsibilities (V3)



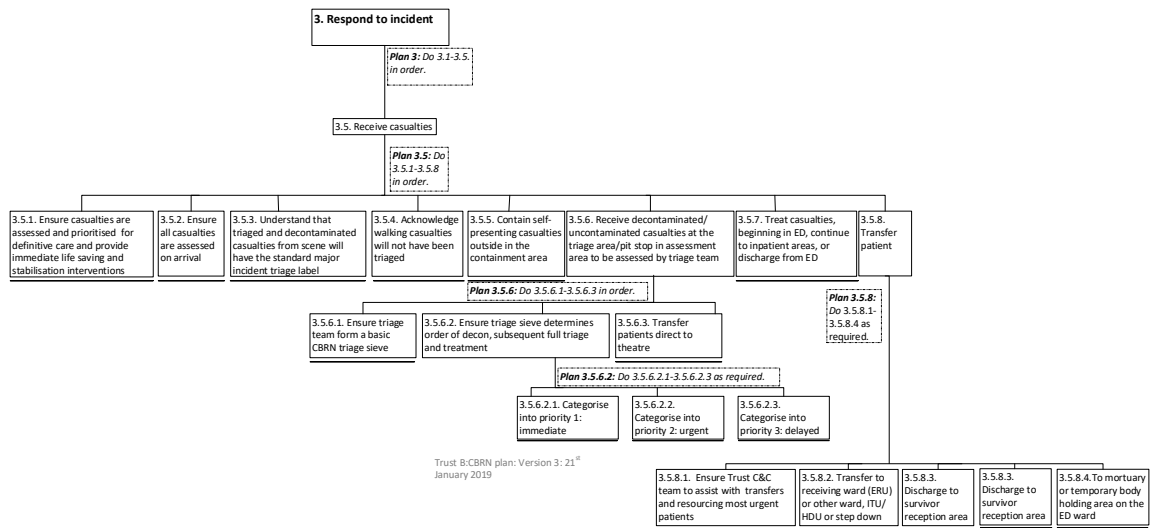


Trust B:CBRN plan: Version 3: 21st
January 2019

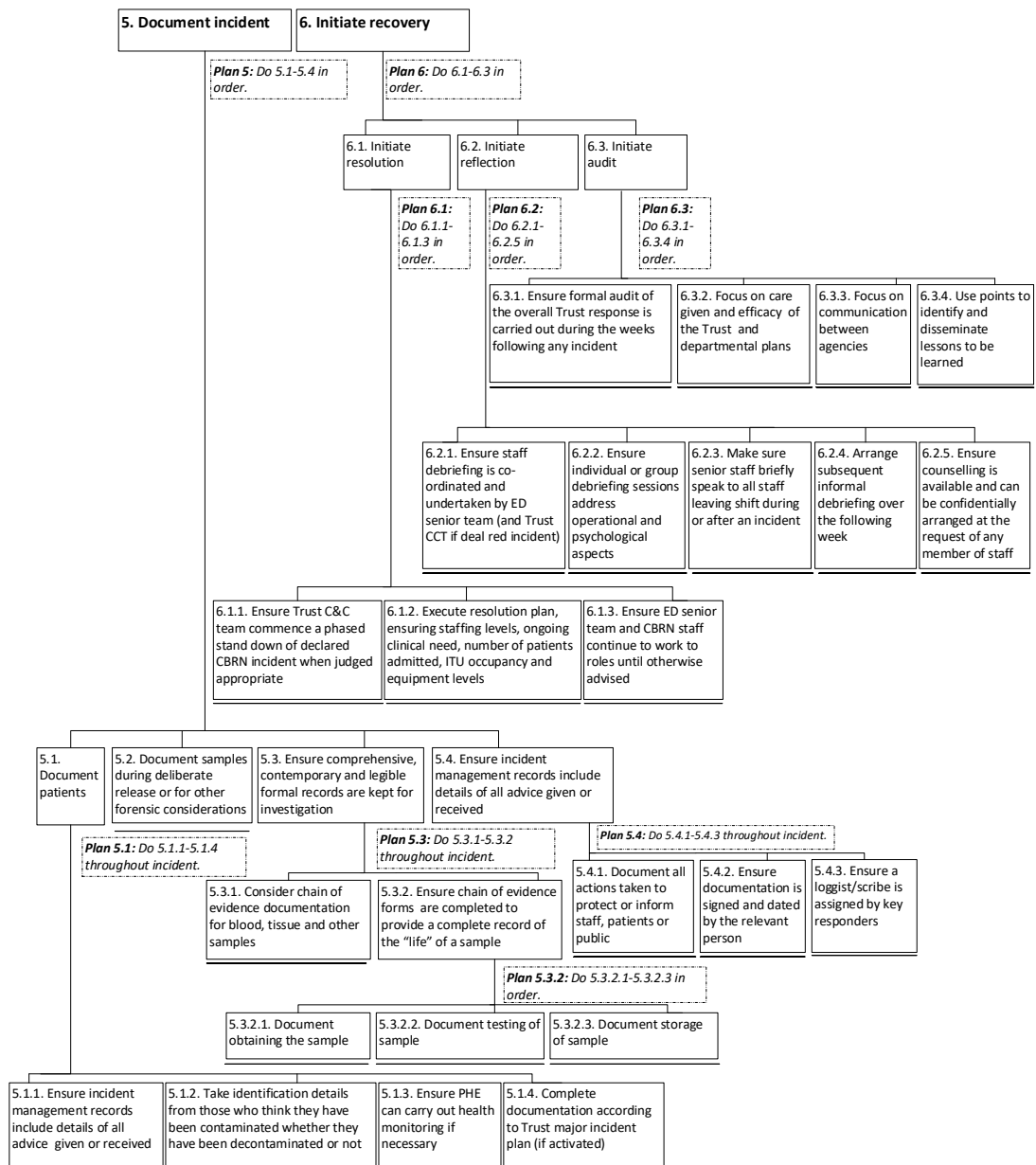






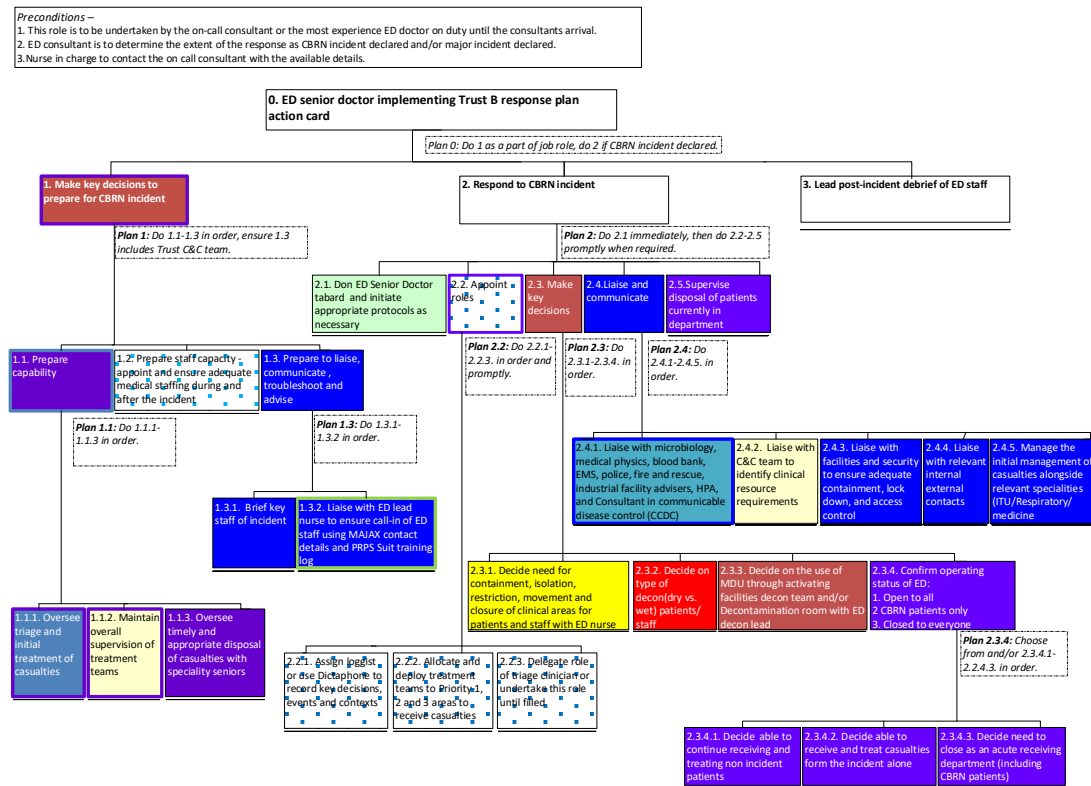




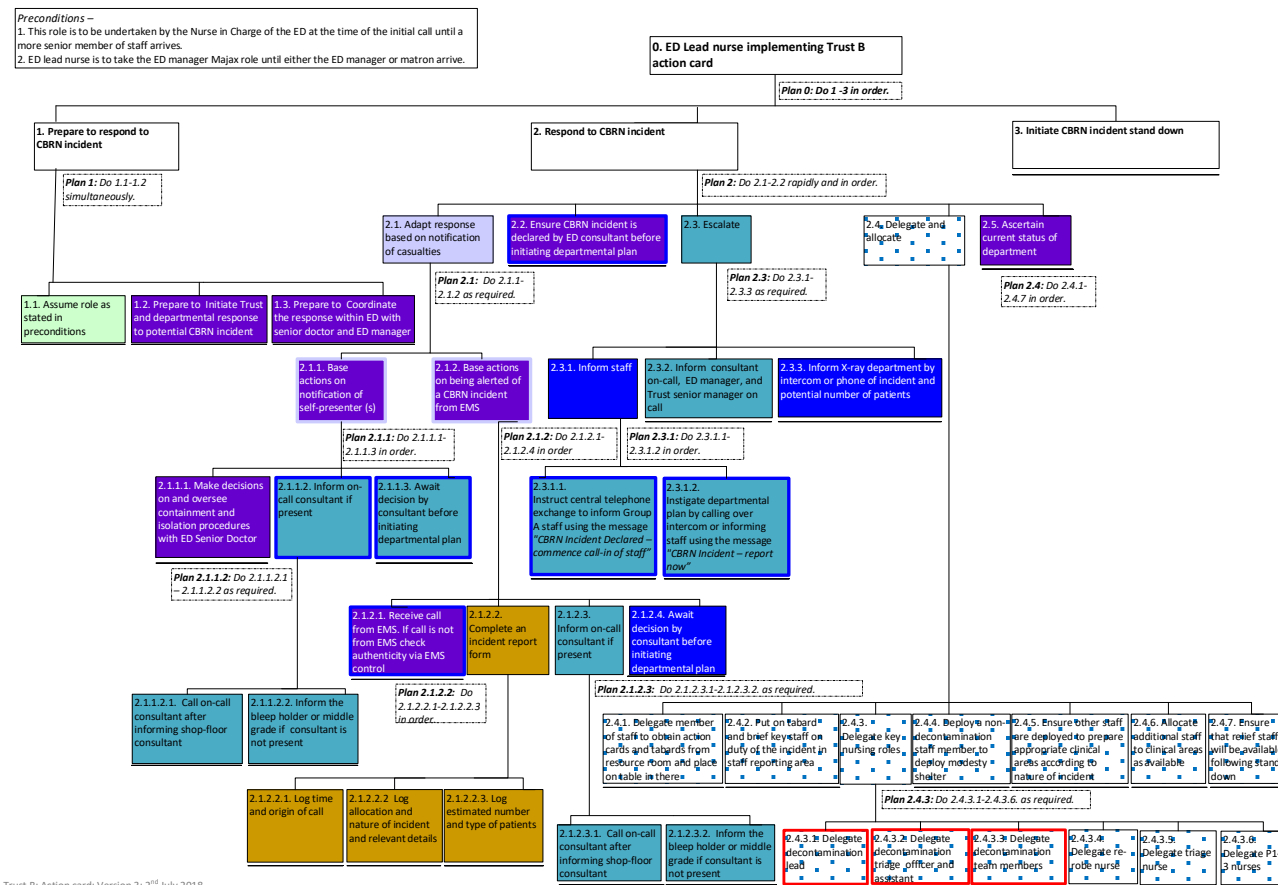


Trust B: CBRN plan: Version 3: 21st
January 2019

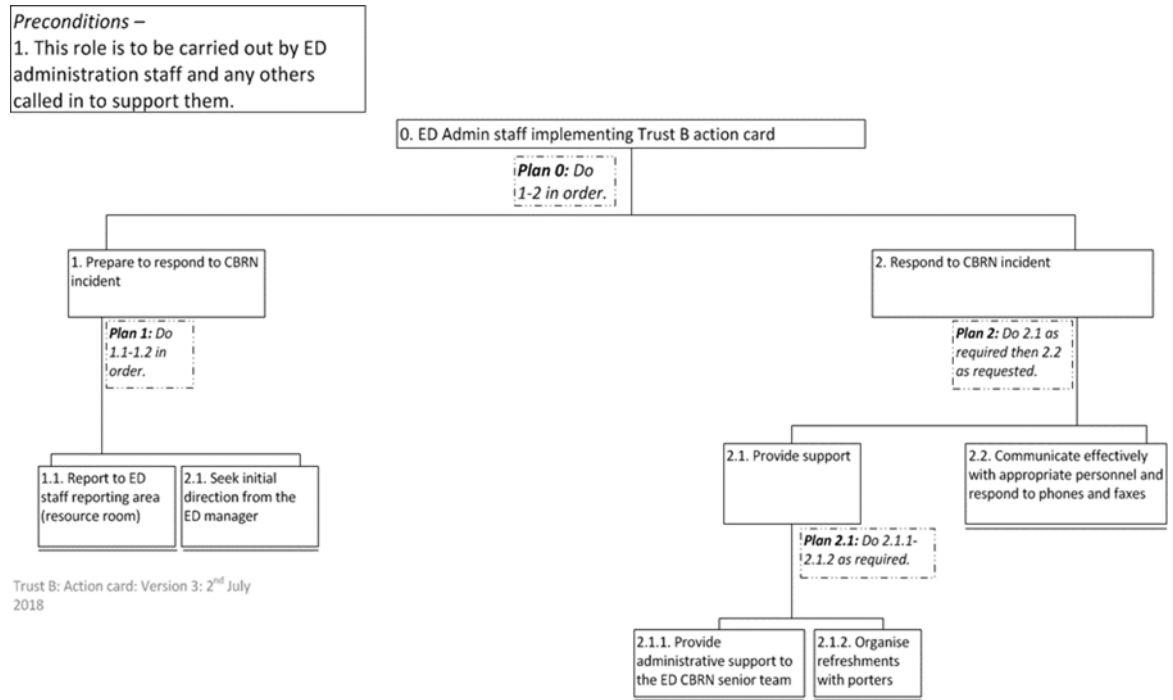
Vol 2: Appendix 33. Trust B: Action card HTAs (V3)

Trust B: Action card: Version 3: 2nd July 2018

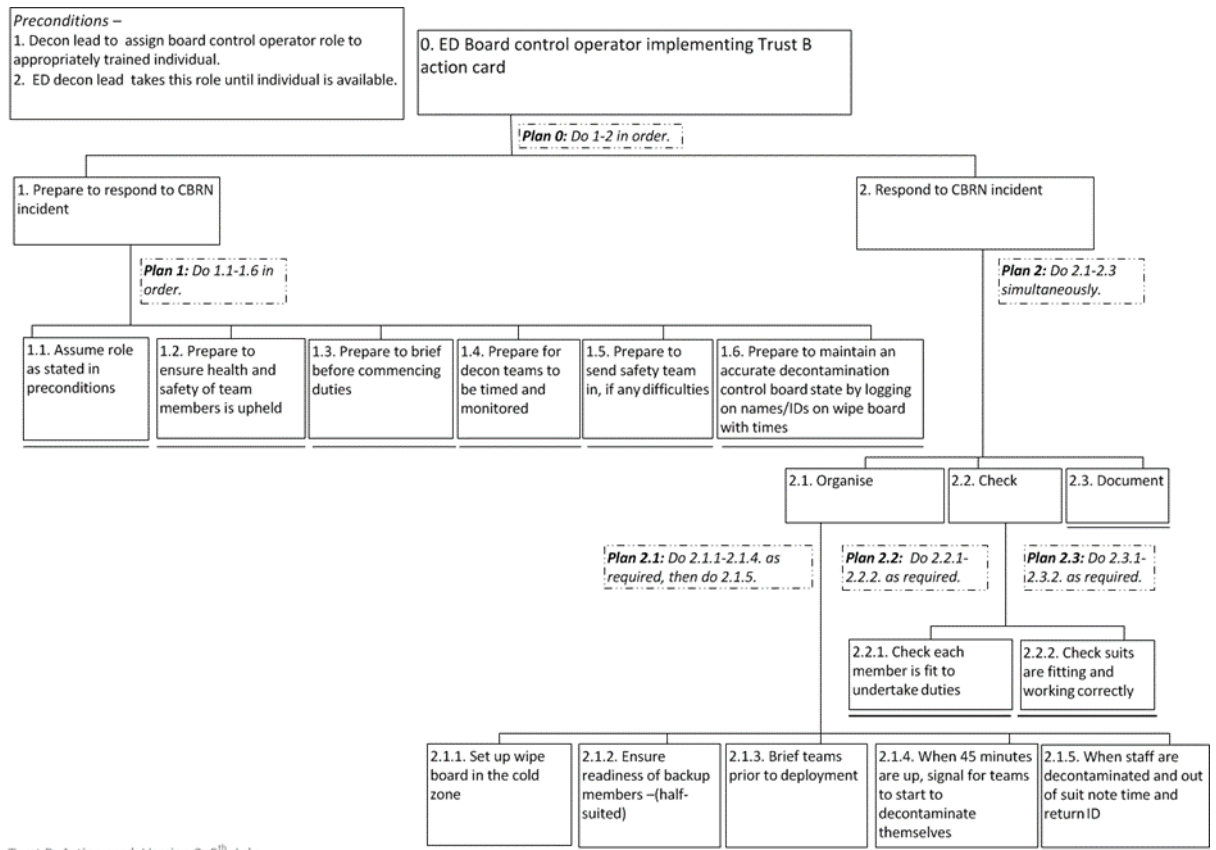
A33 1: Senior doctor



A33 2: Lead nurse

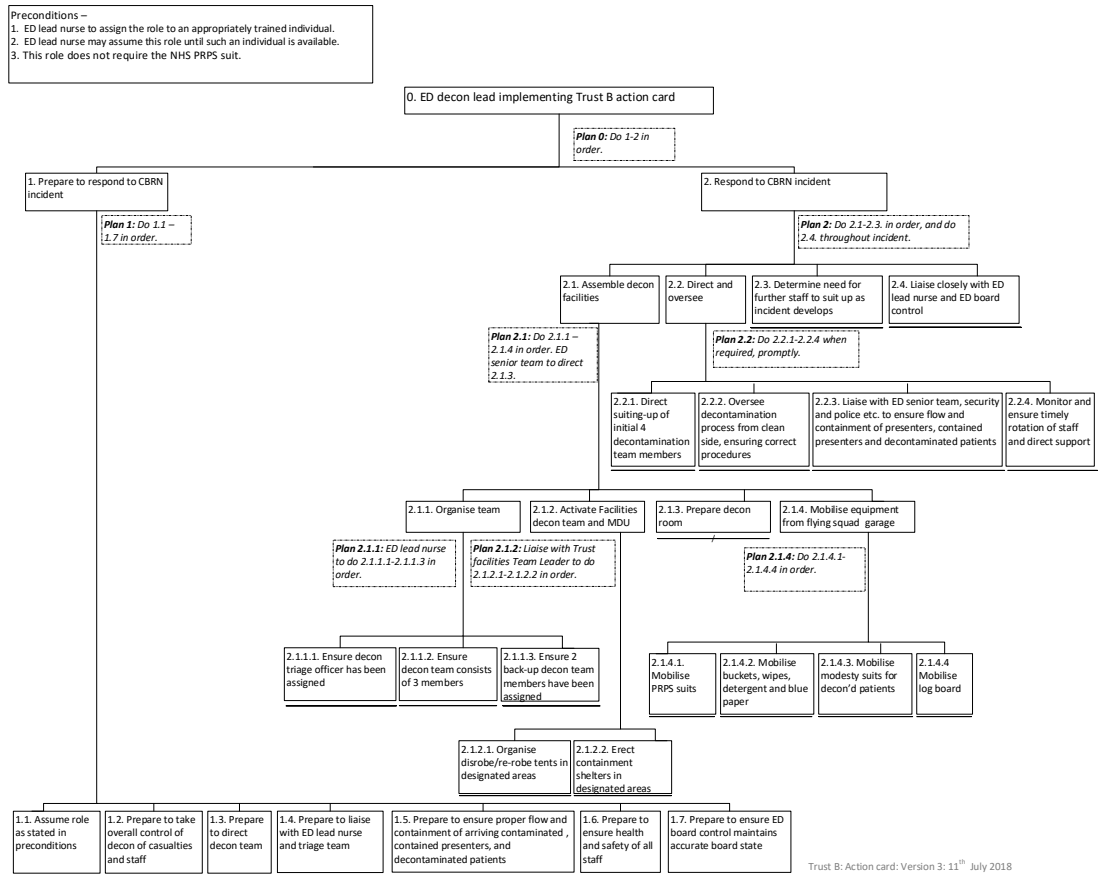


A33 3: Administration staff

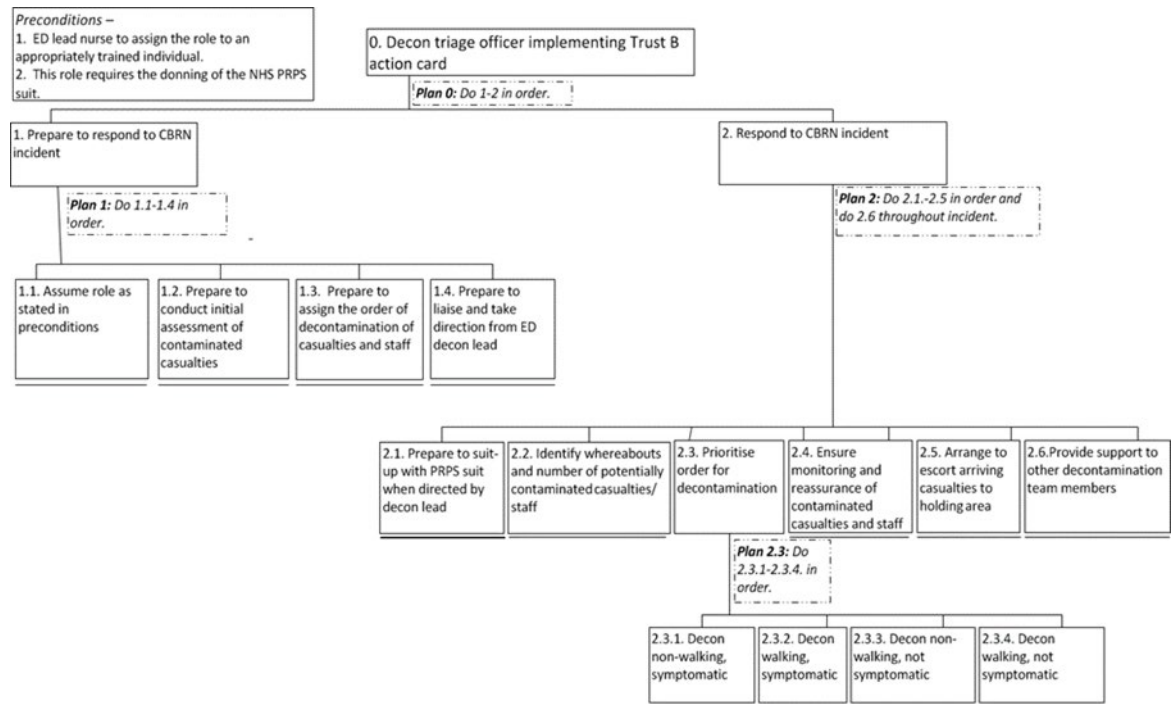


Trust B: Action card; Version 3: 5th July 2018

A33 4: Board control operator

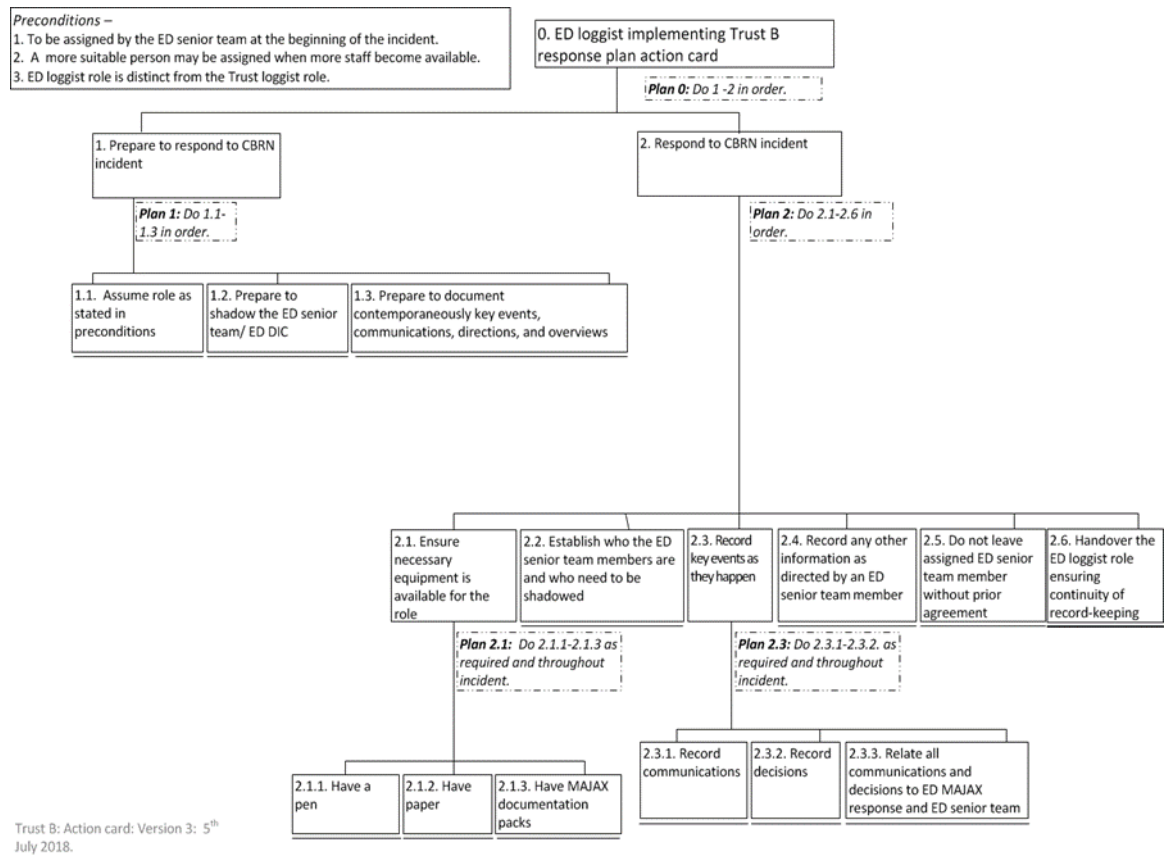


A33 5: Decontamination lead



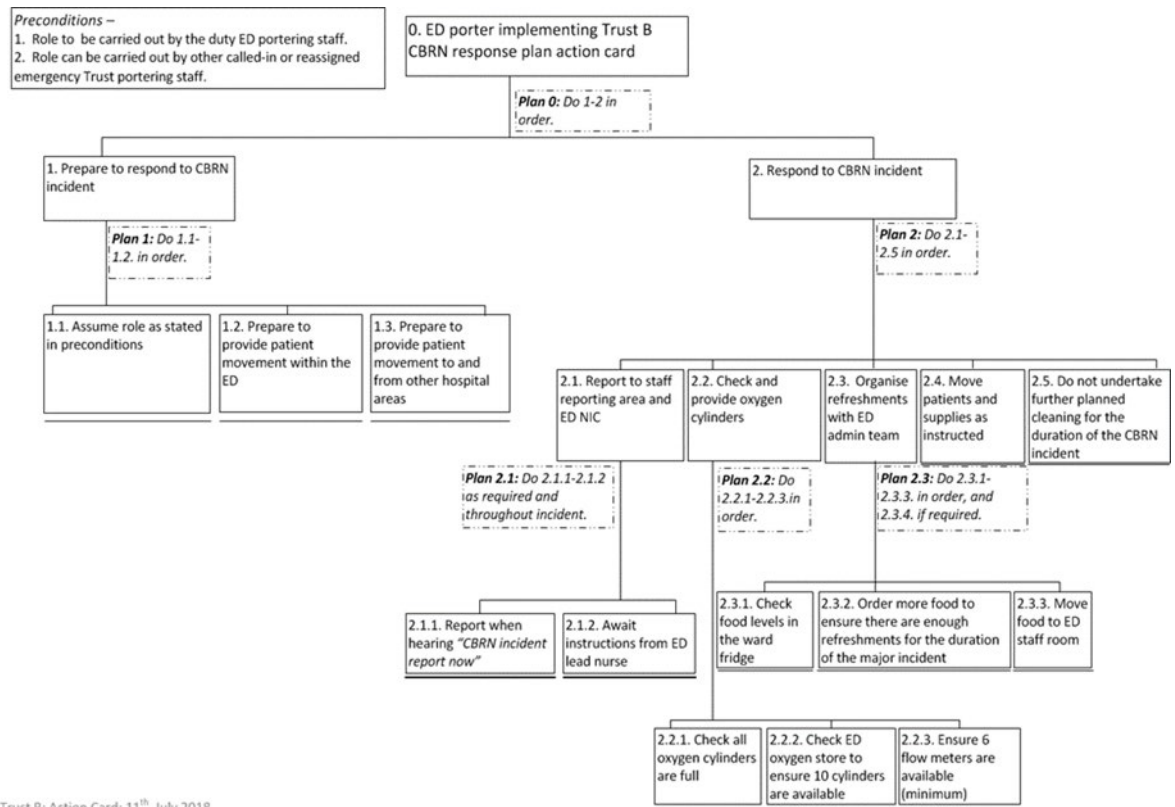
Trust B: Action card: Version 3: 5th July 2018

A33 6: Decontamination triage officer

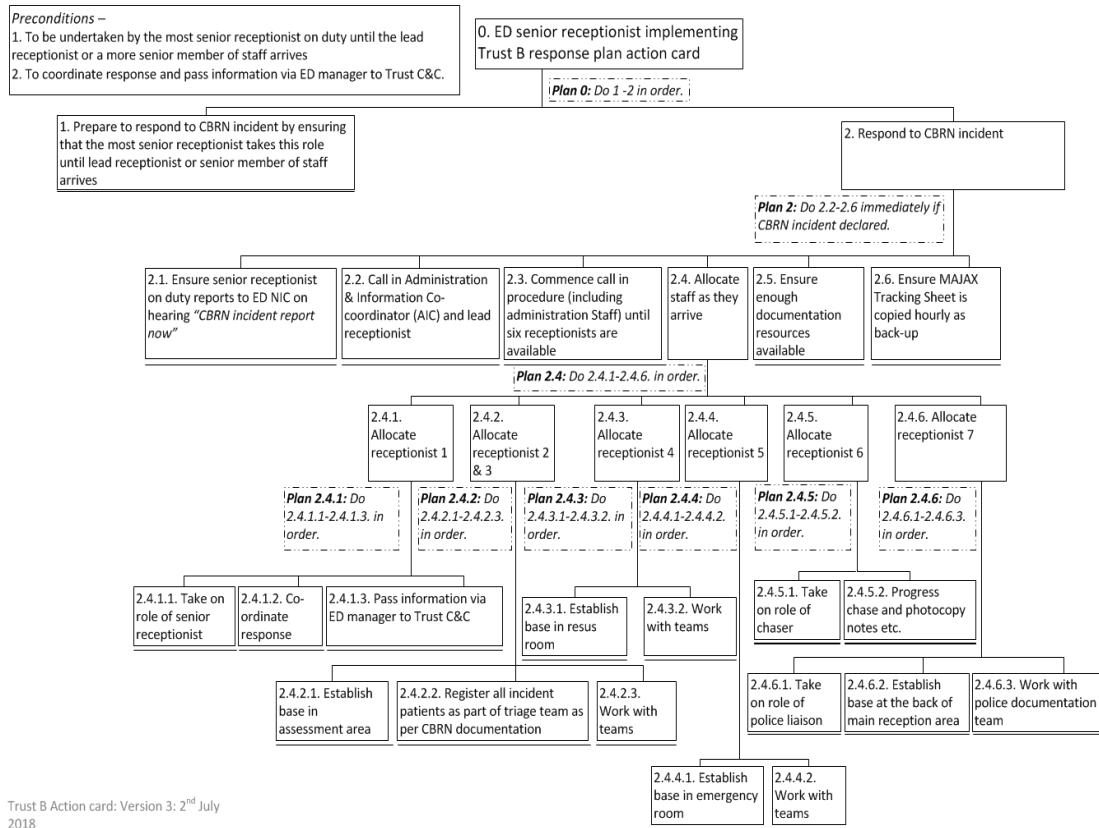


Trust B: Action card: Version 3: 5th July 2018.

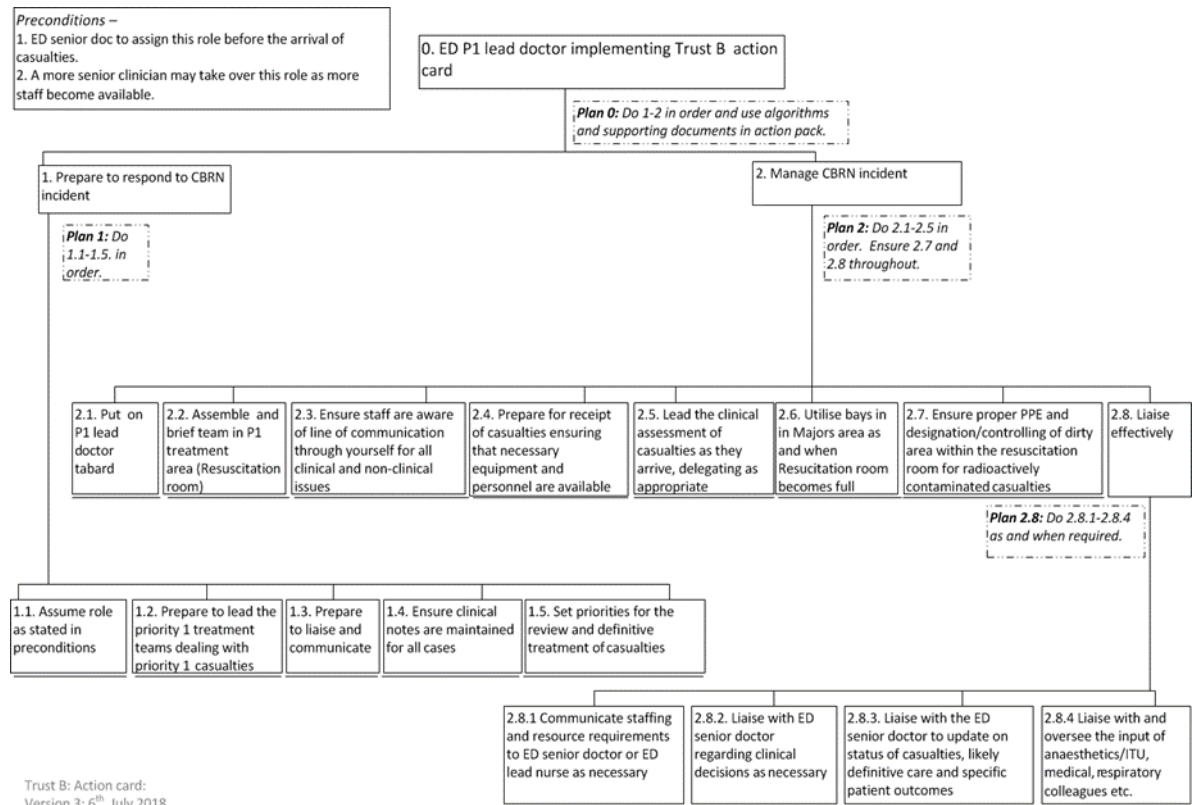
A33 7: Loggist



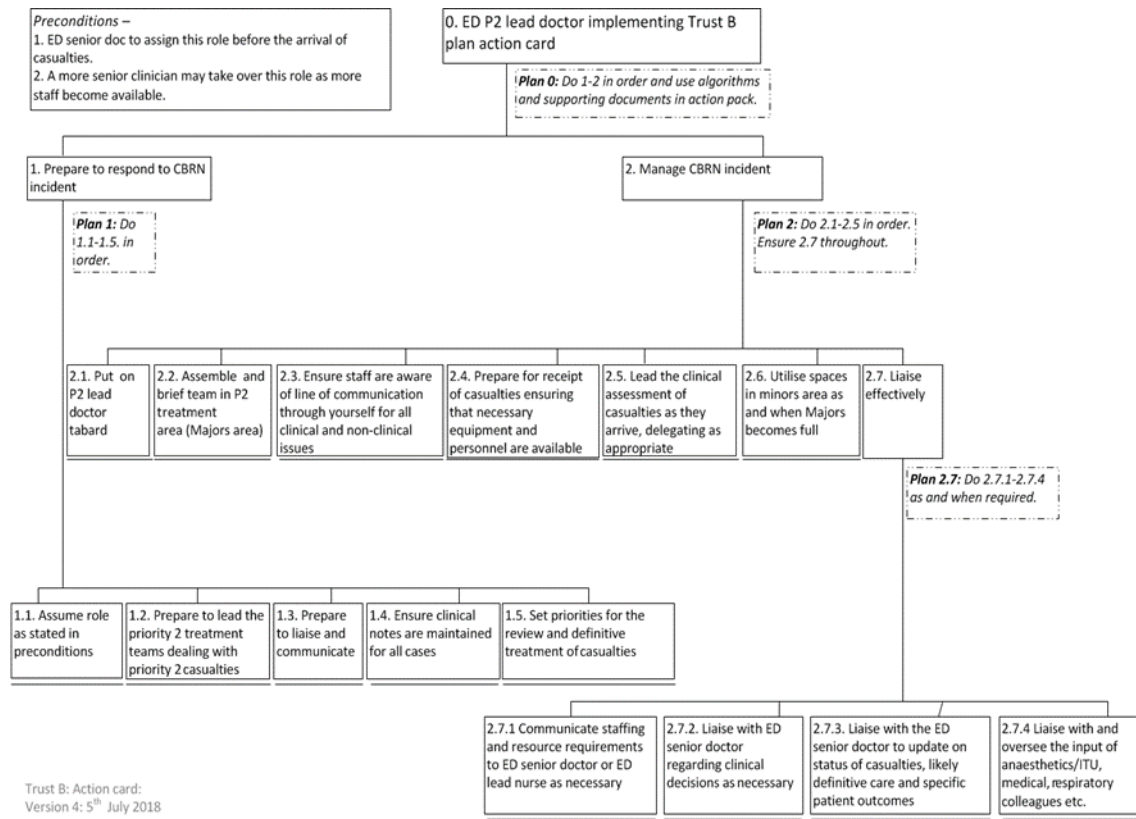
A33 8: Porter



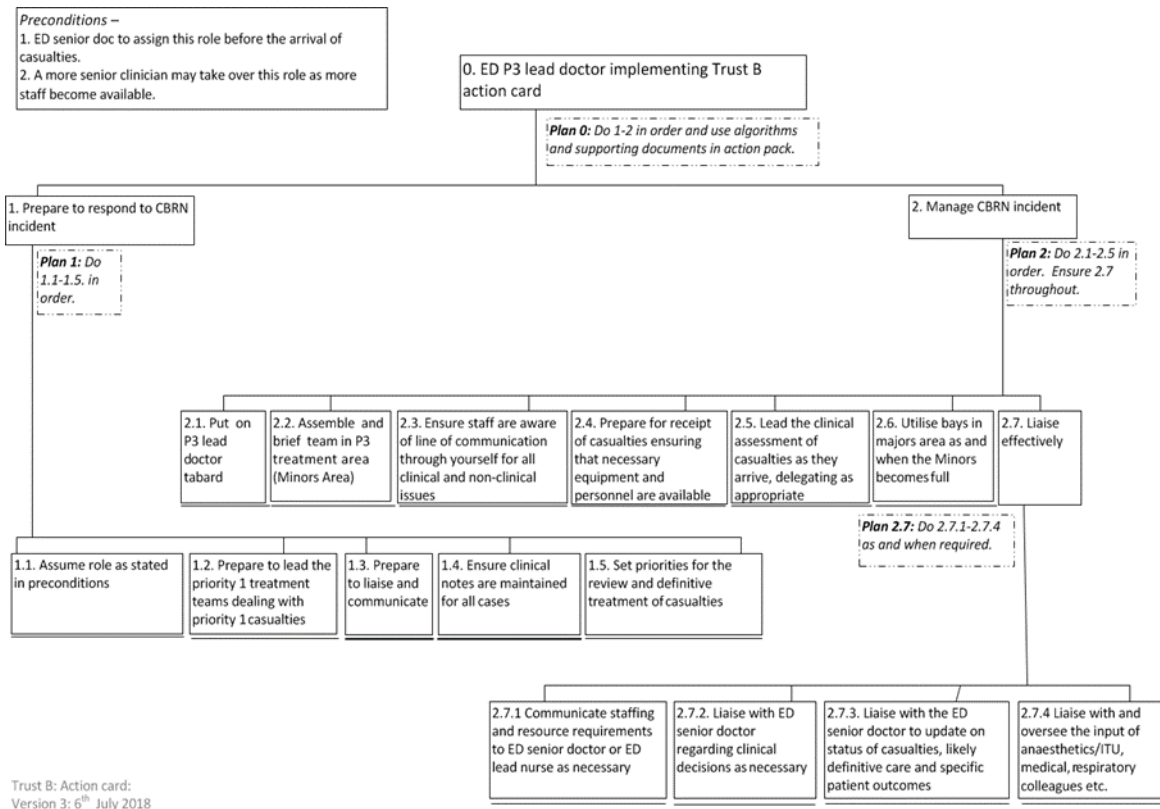
A33 9: Senior receptionist



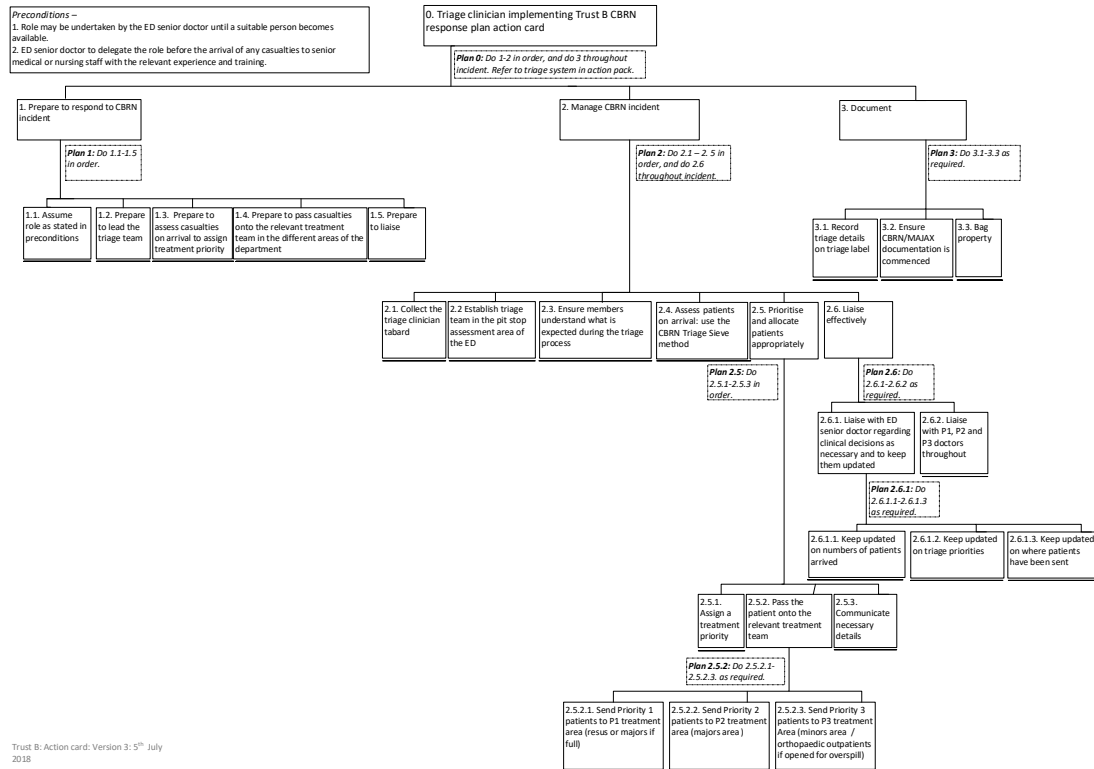
A33 10: P1 Lead doctor



A33 11: P2 lead doctor



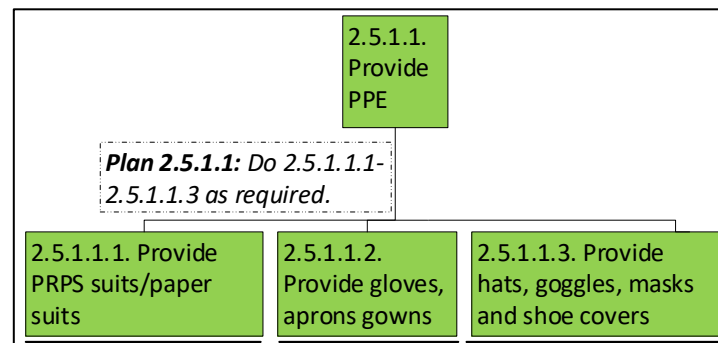
A33 12: P3 lead doctor



A33 13: Triage clinician

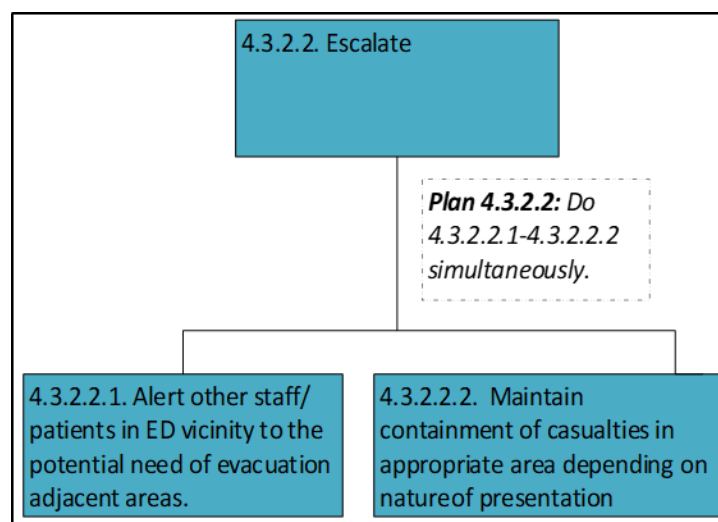
Vol 2: Appendix 34. Trust B: WAI Analysis of HTAs

1. The implementation of **PPE** was core to both the General Organisational Responsibilities and individual first receiver action cards. For example, PPE was a part of preparing the infrastructure and equipment in Trust Bs general organisational responsibilities as shown in A34 1. The implementation of PPE was mentioned on one action card (P1 lead doctor).



A34 1: PPE theme in GOR (Trust B)

3. The theme of **escalation** (A34 2) was organisational escalation whereby the department would share information of the event as a means of limiting the spread of the contaminant.



A34 2: Organisational escalation on the general organisational responsibilities HTA (Trust B)

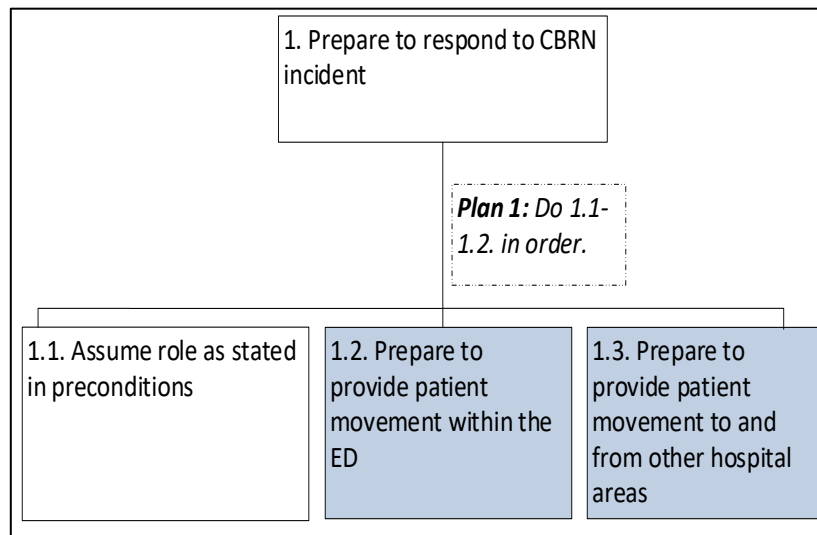
4. The **management** of a CBRN event was demonstrated through key tasks such as *“Prepare for incident”, “Respond to incident”, and “Initiate recovery”* being superordinate tasks on the GOR HTA.

5. **Document** incident was a superordinate task on Trust B’s General Organisational Responsibilities and consisted of subordinate tasks such as *“Document samples during deliberate release or for other forensic considerations”* (subordinate task 5.2.).

6. To **liaise and communicate** was crucial in GOR actions in Trust Bs CBRN plan.

All first receiver action cards included the theme of liaise and communicate.

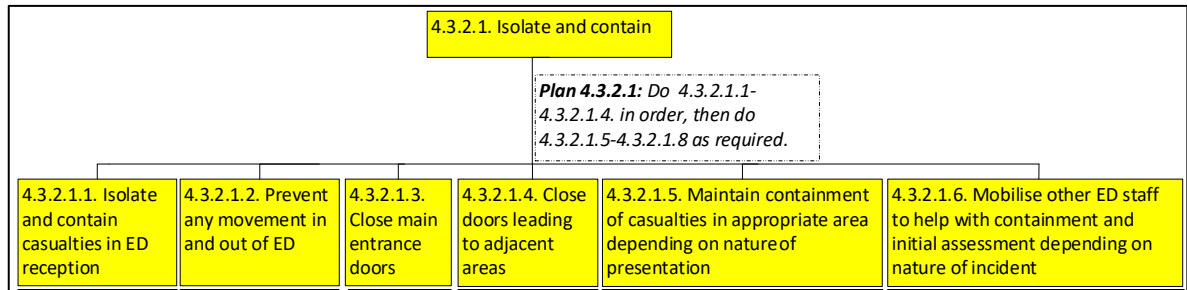
7. The theme of **capacity** was associated with the flow of patients during a CBRN event *“Deal with existing patients in ED and move out as necessary”* (subordinate task 4.1.5.2.). To assist with **patient flow** was a task expected from porters (A34 3):



A34 3: Patient flow theme illustrated on porter action card HTA (Trust B)

8. The theme of **protect staff** emerged as a subordinate task during the recovery phase of the CBRN response: *“Ensure counselling is available and can be confidentially arranged at the request of any member of staff”* (subordinate task 6.2.5).

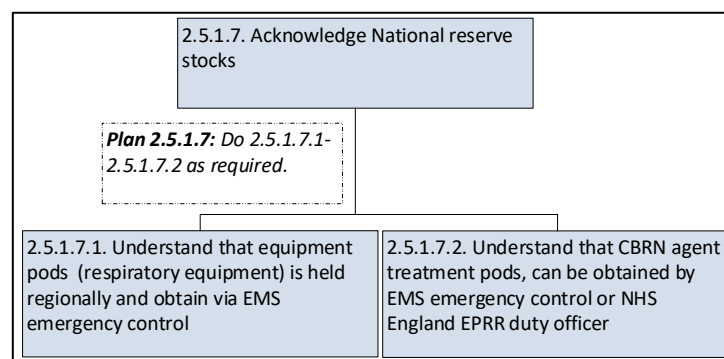
9. To **isolate and contain** was pivotal in the General Organisational Responsibilities of Trust B (A34 4, p. 139).



A34 4: Extract General Organisational Responsibilities illustrating isolate and contain (Trust B)

To isolate and contain was demonstrated in the porter action card through the subordinate task of *“Do not undertake further planned cleaning for the duration of the CBRN incident”* (subordinate task 2.5.) as a means of containing the contaminant.

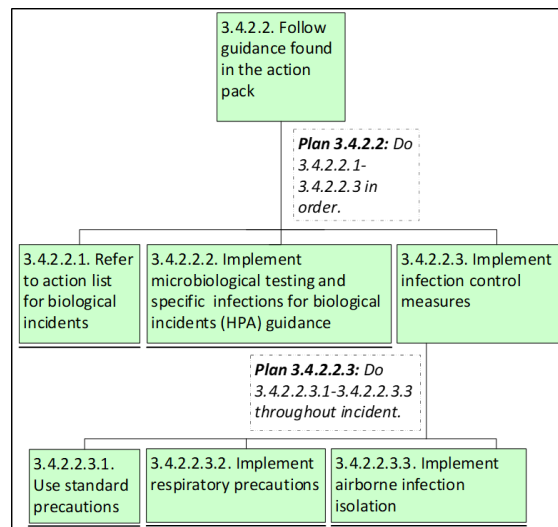
10. The GOR HTA demonstrated the theme of **provide/access equipment/stock** by showing knowledge of where stock and equipment would be accessible as shown in A34 5:



A34 5: Illustration of Provide/access equipment/stock on General Organisational Responsibilities HTA (Trust B)

11. Adhering to **guidance** was a part of the General Organisational Responsibilities

A34 6:



A34 6: Guidance theme illustrated on general organisational responsibilities (Trust B)

Guidance was also a part of the senior doctor's action card through carrying out subordinate tasks such as: *"Liaise with the ED lead nurse to ensure call in of ED staff using MAJAX contact details and PRPS suit training log"* (subordinate task 1.3.2.).

12. To **clinically assess/triage** was illustrated on the GOR representation of the CBRN plan. To clinically assess/triage was also crucial to the role of the triage clinician, the decontamination triage officer.

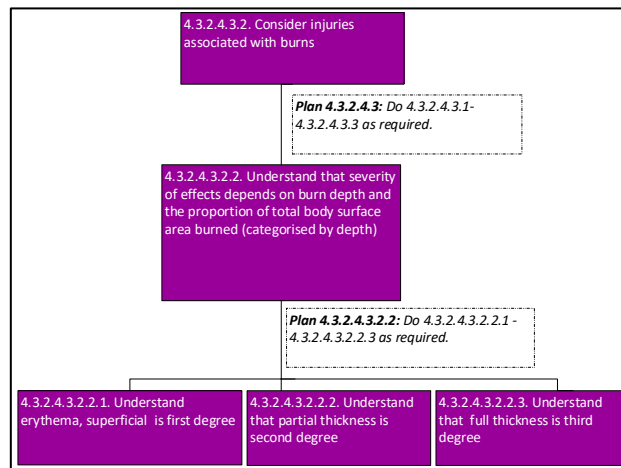
13. To **manage staff** was exemplified on the GOR HTA through tasks such as *"Ensure team consists of decon lead who is positioned at clean side of MDU and controls decon processes (supervise control board)"*.

14. The theme of **teams** was prevalent across action cards, for example, subordinate tasks for the *"Command and Control"* team were clearly stated.

15. The **notification of casualties'** theme encompassed the varying patient presentations of CBRN events such as *"Respond to alarm raised by senior ED nurse/Dr, self-presenters or suspicious patient (s) presentation (step 1,2,3) in the ED"* (subordinate task 3.1.2.).

GOR specific themes (validation)

16. Clinical knowledge of potential CBRN presentations was evident in the General Organisational Responsibilities for Trust B as shown in A34 7:



A34 7: Clinical knowledge theme illustrated on general organisational responsibilities HTA (Trust B)

17. To **detect/identify** the contaminant was a part of the General Organisational Responsibilities.

18. To **respond** was demonstrated through subordinate tasks such as *“Plan to achieve a rapid, co-ordinated, and organised response”* (subordinate task 1.1.5.).

19. The theme of **incident type** was defined by having distinct response plans through subordinate tasks such as: *“Advance warning given, decision made by on-call ED consultant to activate Trust Major Incident Plan (MAJAX), Trust CBRN, both or neither”* (subordinate task 3.2.2.).

20. Incident knowledge consisted of subordinate tasks such as *“Consider planning beyond immediate response”* (subordinate task 2.1.1.6) and *“Understand overview of subsequent actions”* (subordinate task 4.1.).

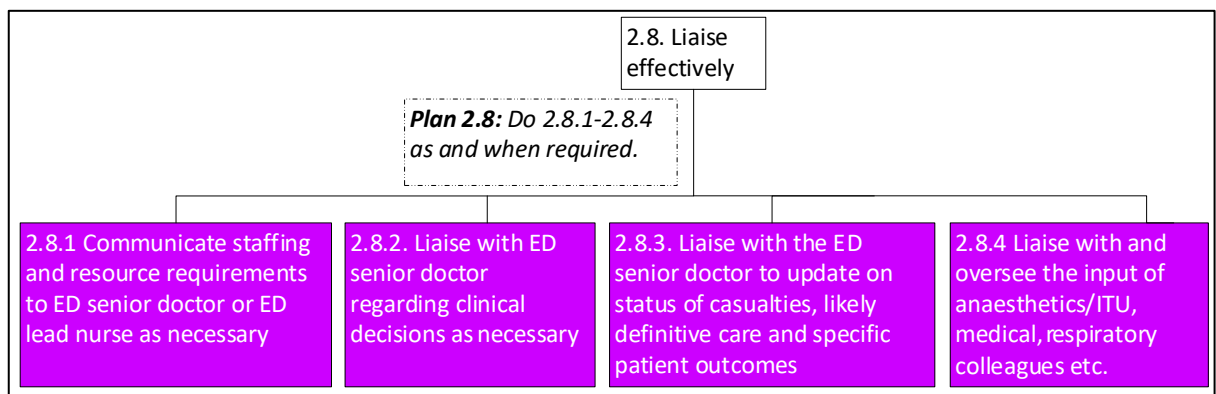
Action card specific themes (validation)

16. The theme of **time** was specific to the board control operator role (Vol 2: Appendix 33, A33 4, p. 127) who was expected to implement subordinate tasks such as *“Prepare for decon teams to be timed and monitored”* (subordinate task 1.4.).

17. To **support/assist** was a theme associated with the action cards of admin staff through subordinate tasks such as *“Provide administrative support to the ED CBRN senior team”* (subordinate task 2.1.1.).

18. The theme of **shadow** was specific to the loggist role.

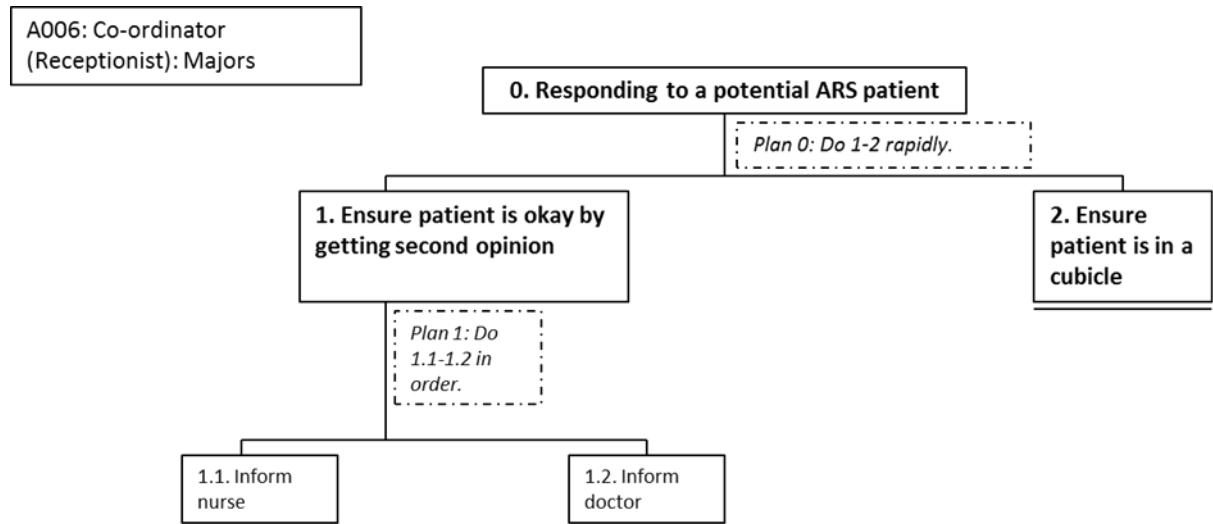
19. The theme of **clinical escalation** on Trust B action cards, was associated with communicating the clinical needs of the presentation with a senior member of the ED team or another speciality. This theme was evident on the action cards of the NIC, triage clinician, and P1 (A34 8), P2, and P3 doctors.

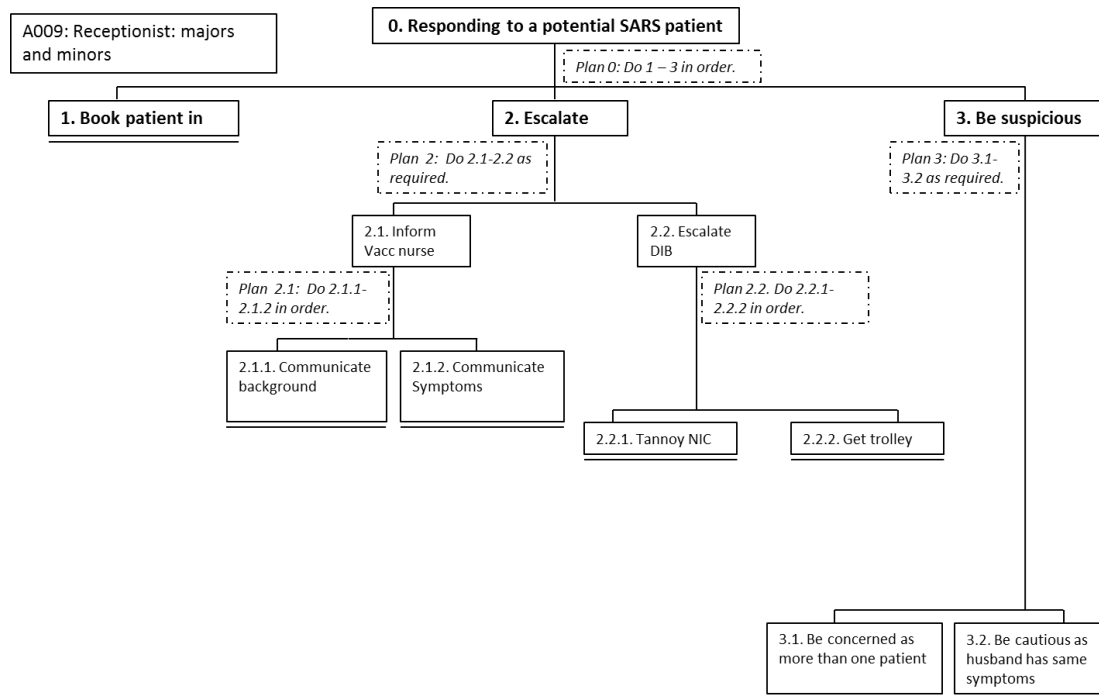


A34 8: Clinical escalation theme exemplified on P1 doctor action card (Trust B)

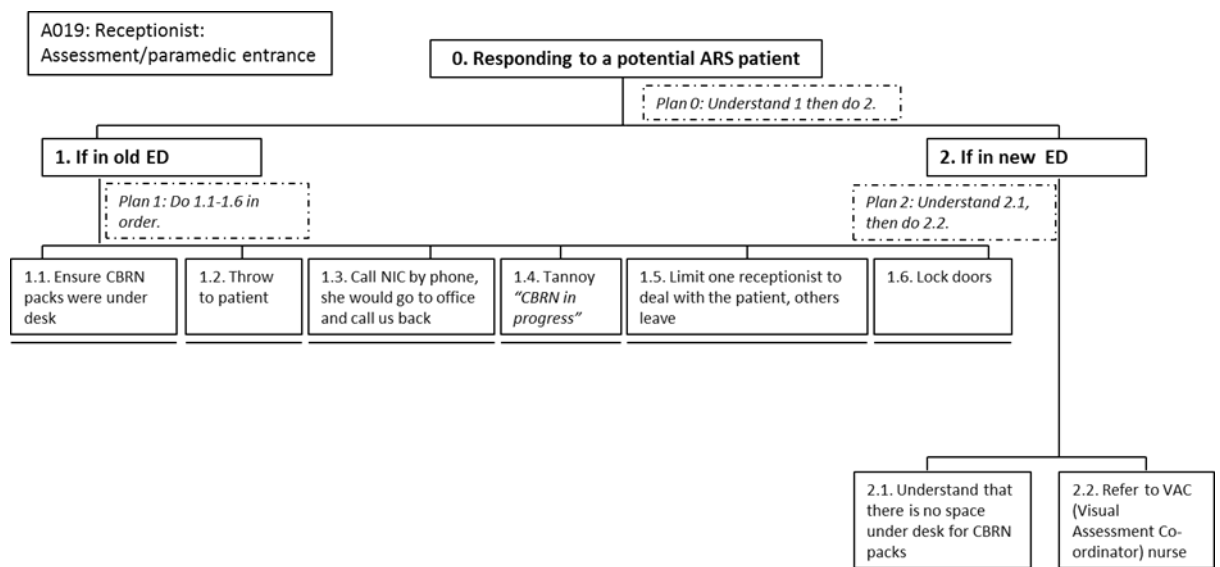
20. As well as providing and accessing relevant equipment. Porters at Trust B were also required to **check** that the equipment was intact through tasks such as *“check ED oxygen store to ensure 10 cylinders are available”* (subordinate task 2.2.2.).

21. Make decisions was an action expected from Trust B senior doctors.

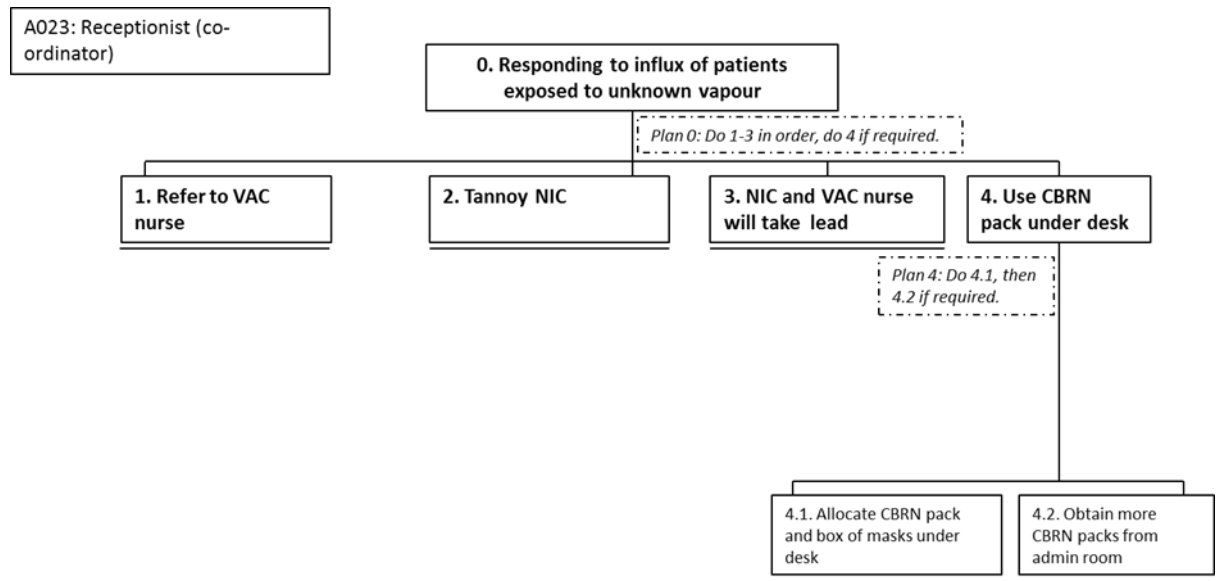
Vol 2: Appendix 35. Trust A: Receptionist WAD HTAs**A35 1: A006: Receptionist HTA**



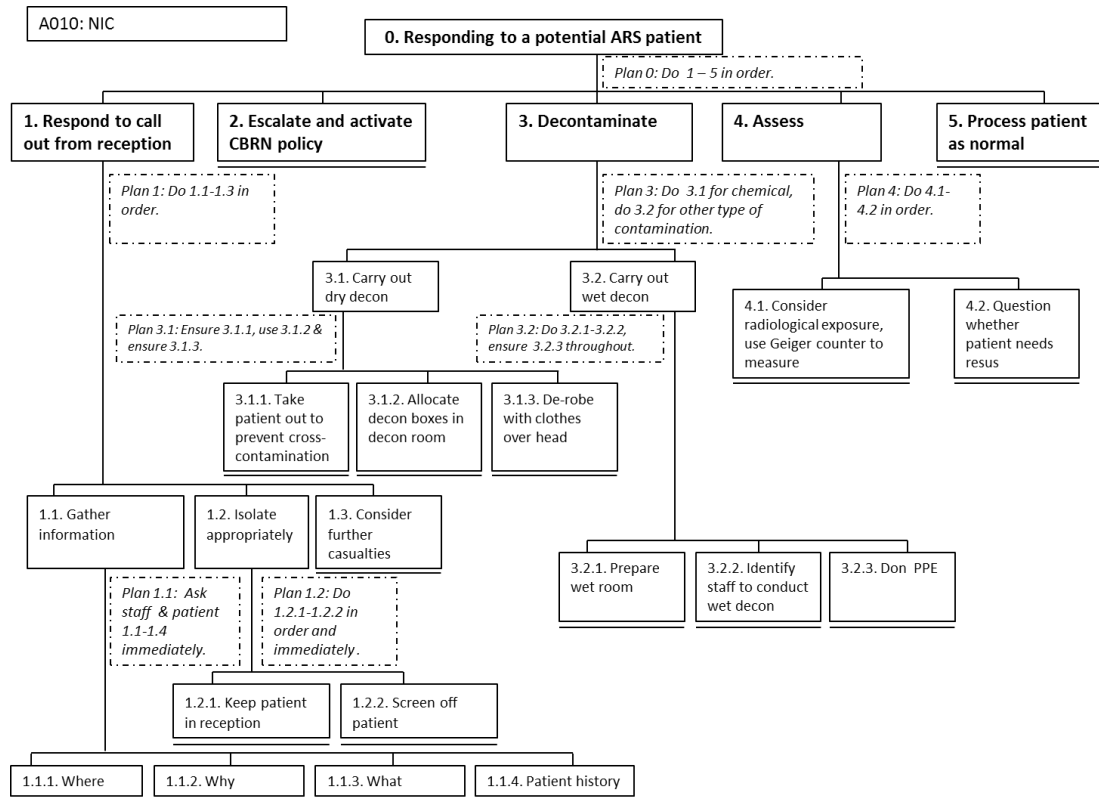
A35 2: A009: Receptionist HTA



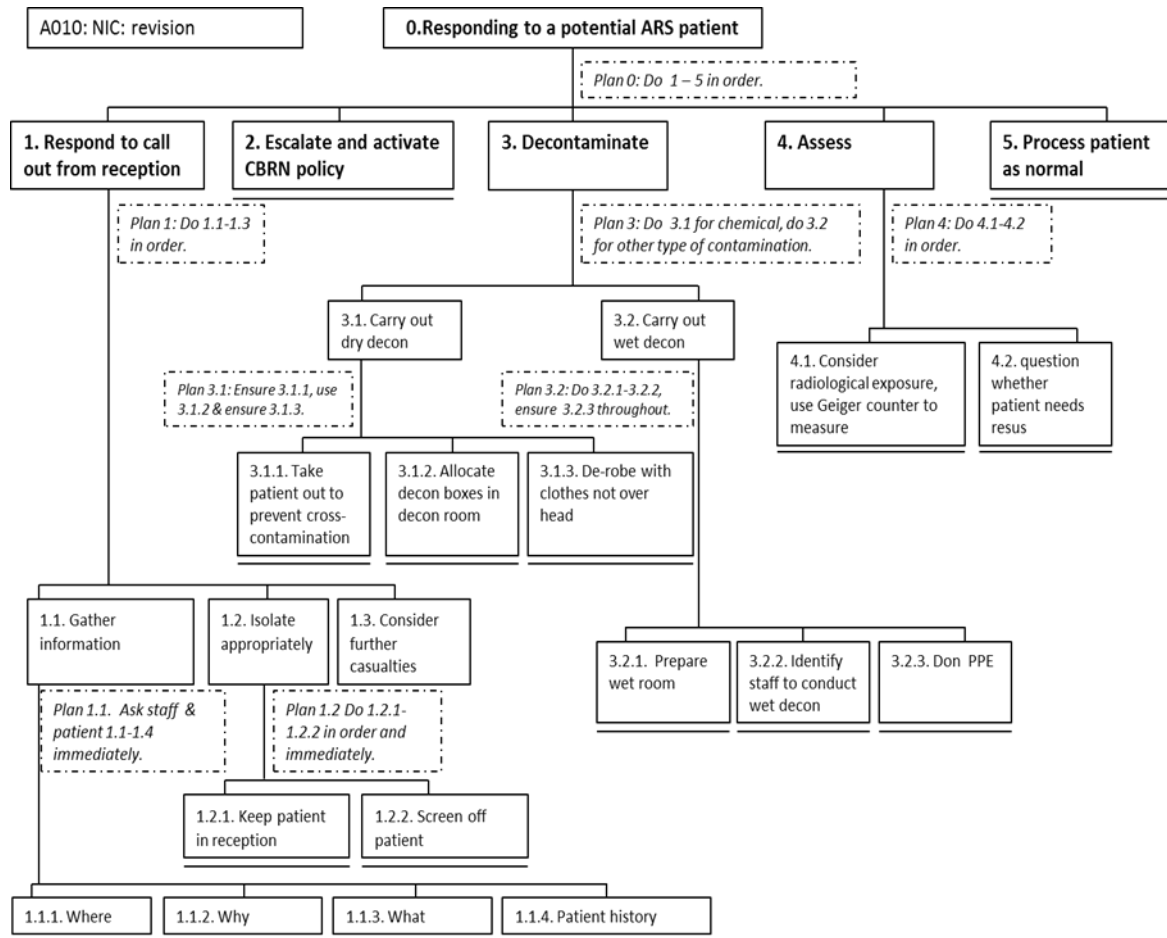
A35 3: A019: Receptionist HTA

**A35 4: A023 Receptionist HTA**

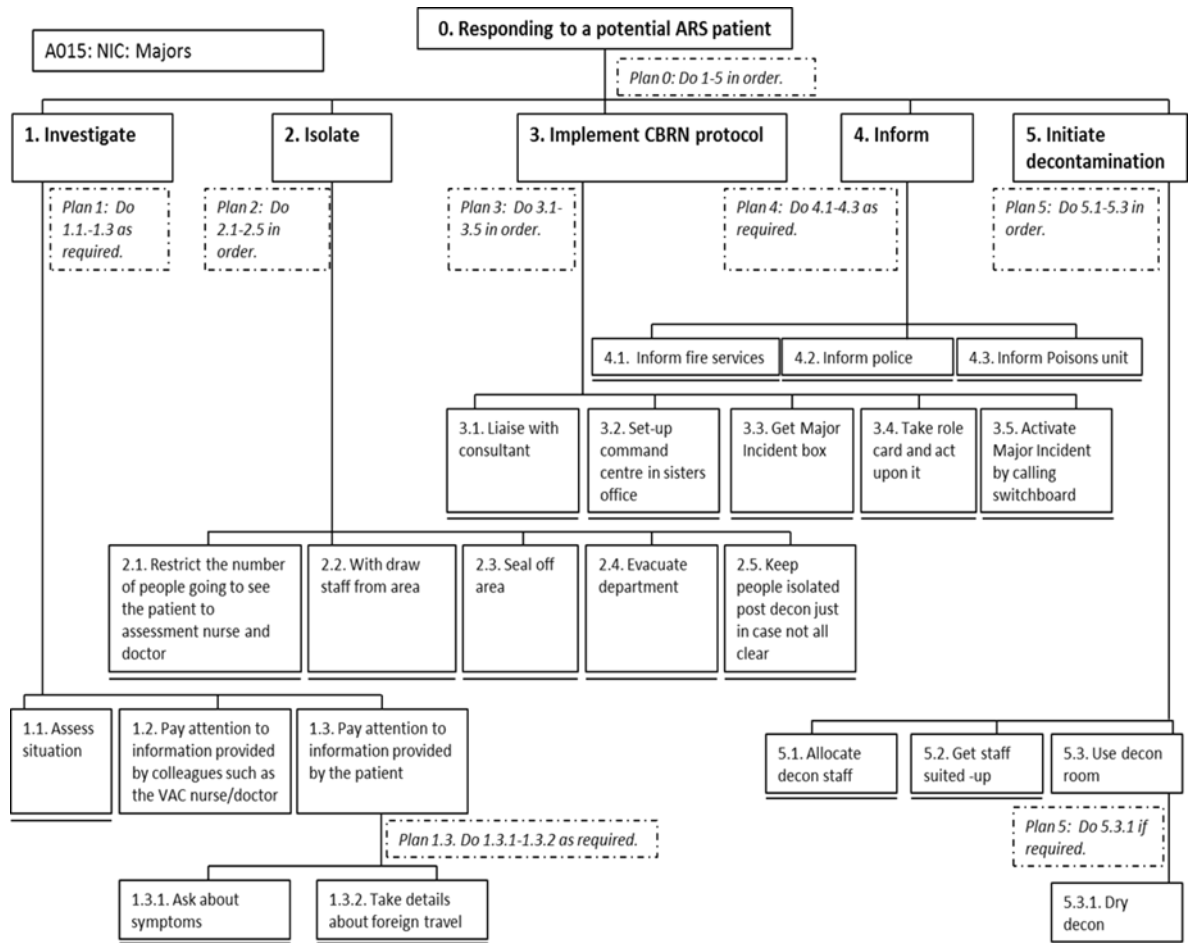
Vol 2: Appendix 36. Trust A: NICs WAD HTAs

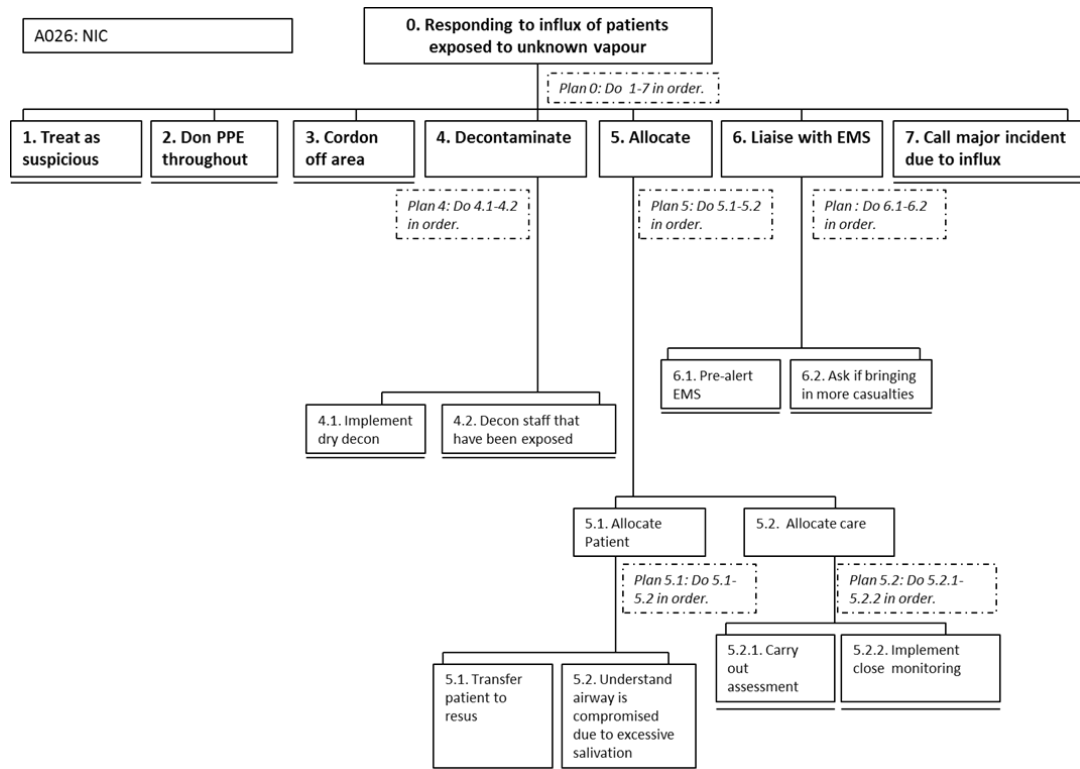


A36 1: A010: NIC HTA

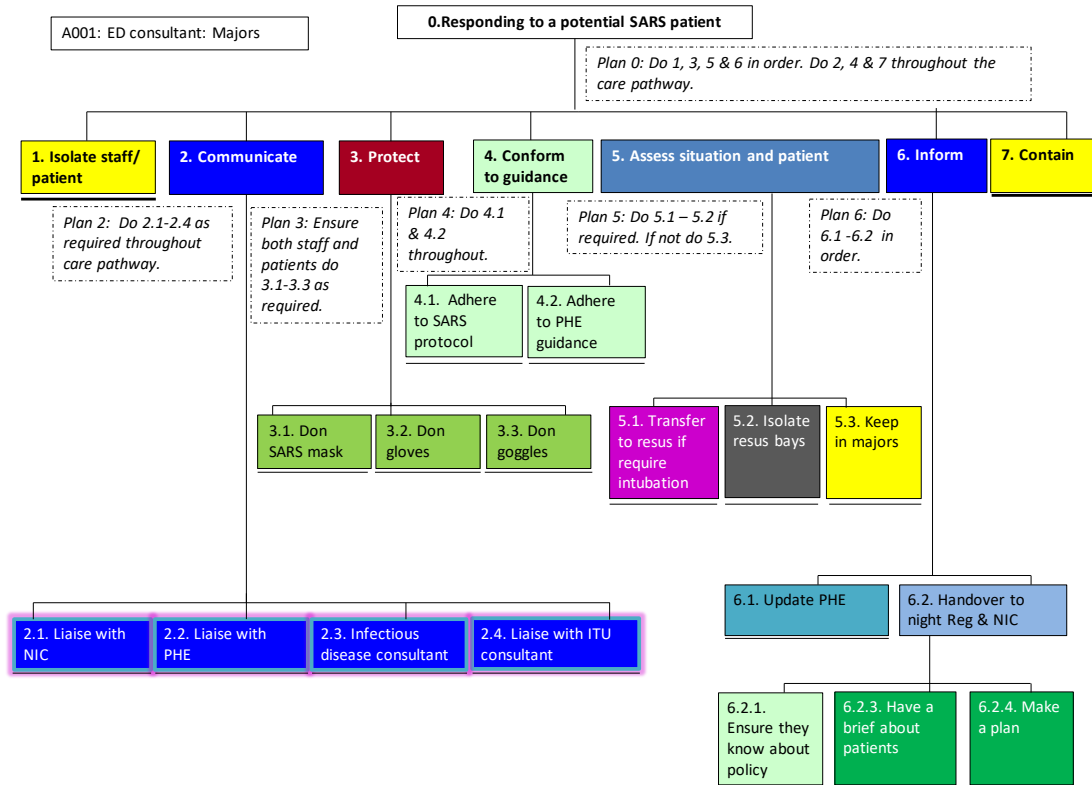


A36 2: A010: NIC HTA (revision)

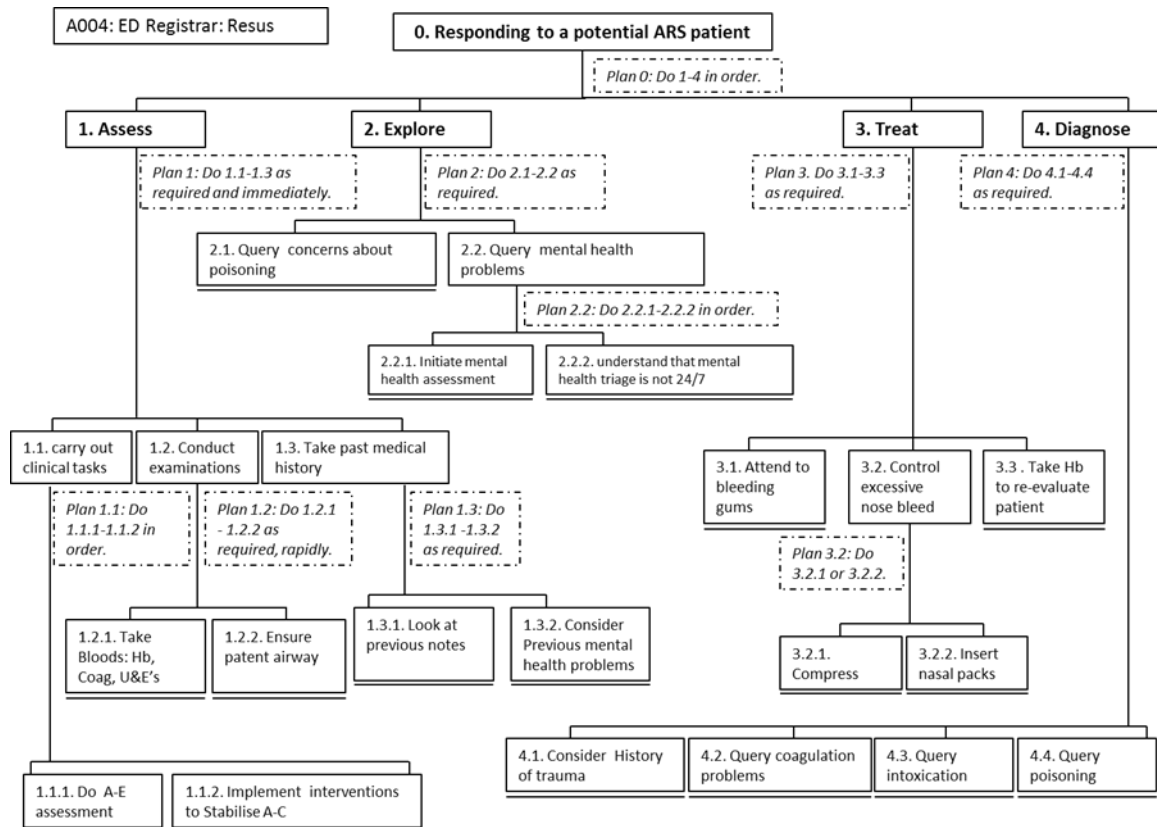
**A36 3: A015: NIC HTA**

**A36 4: A026: NIC HTA**

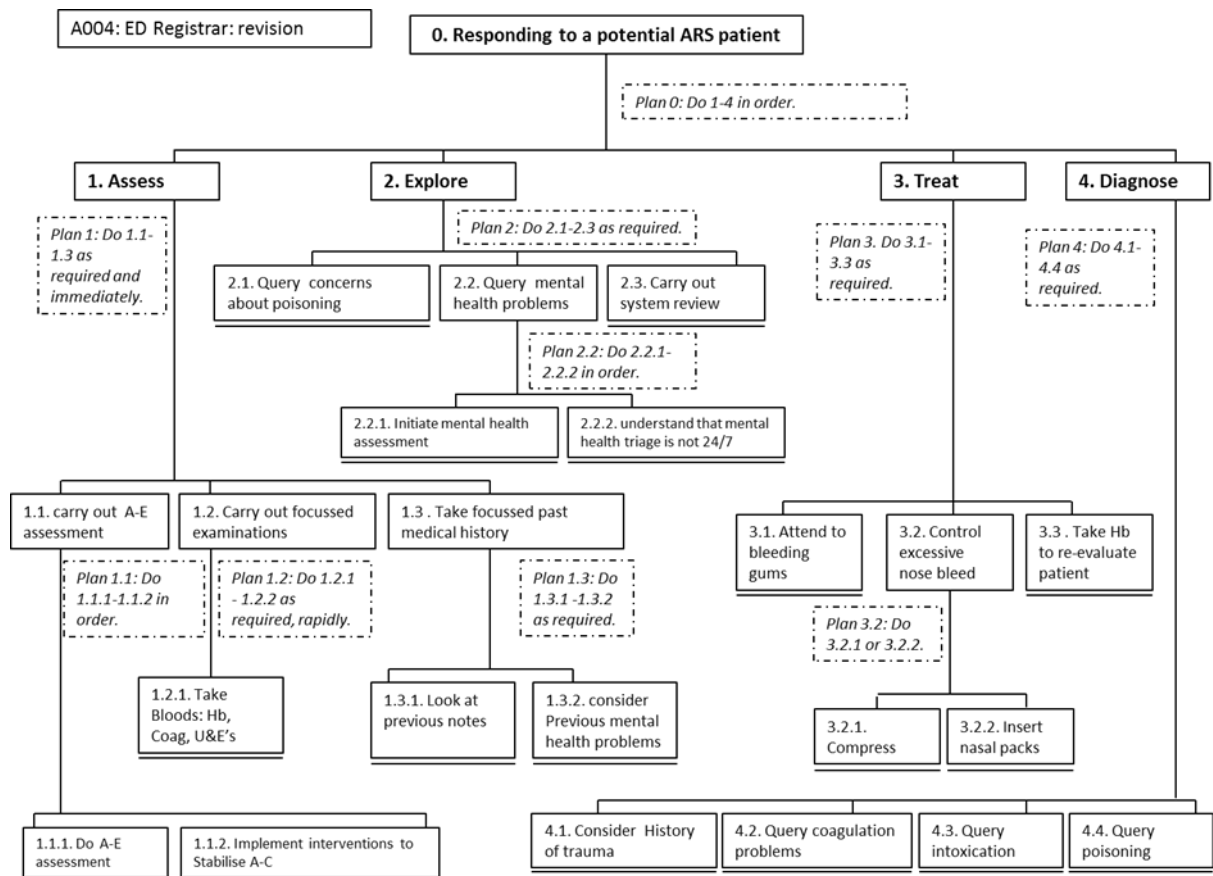
Vol 2: Appendix 37. Trust A: Doctors WAD HTAs



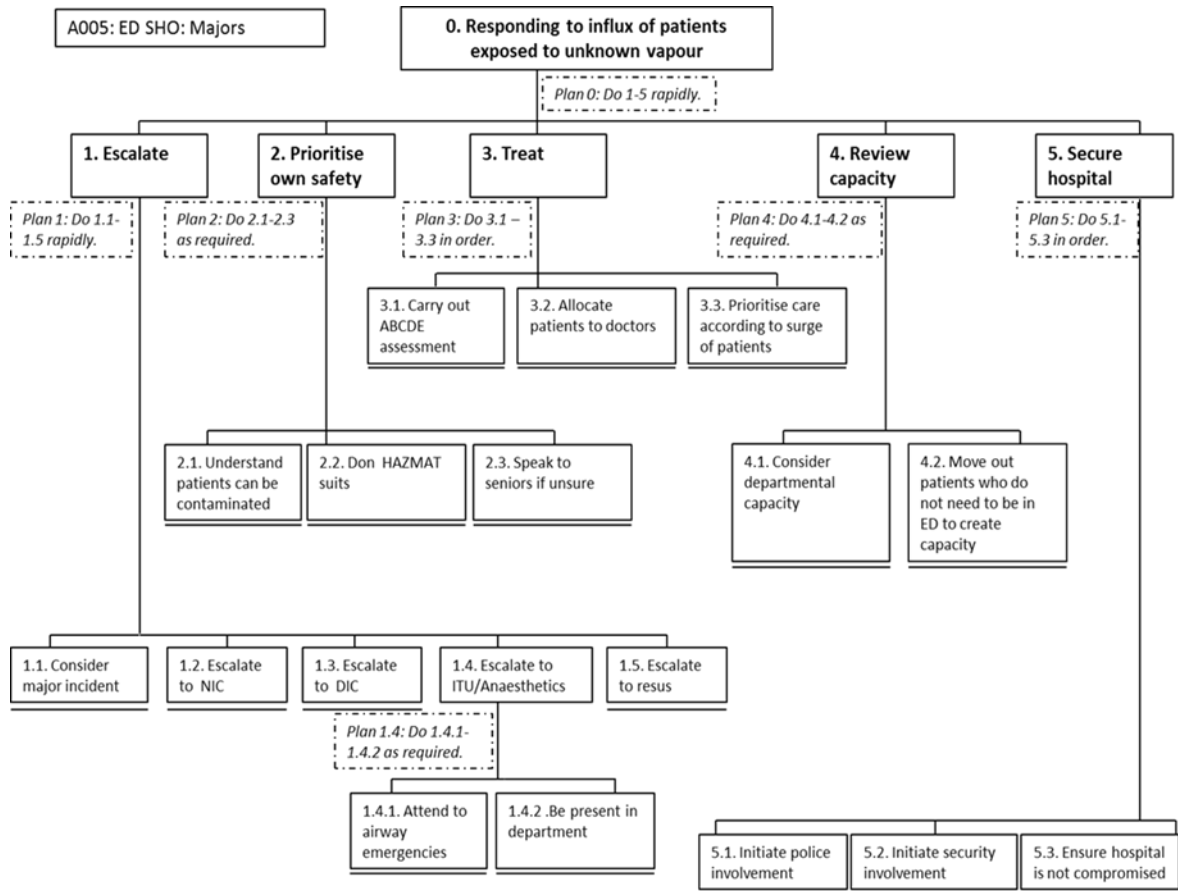
A37 1: A001: Consultant HTA

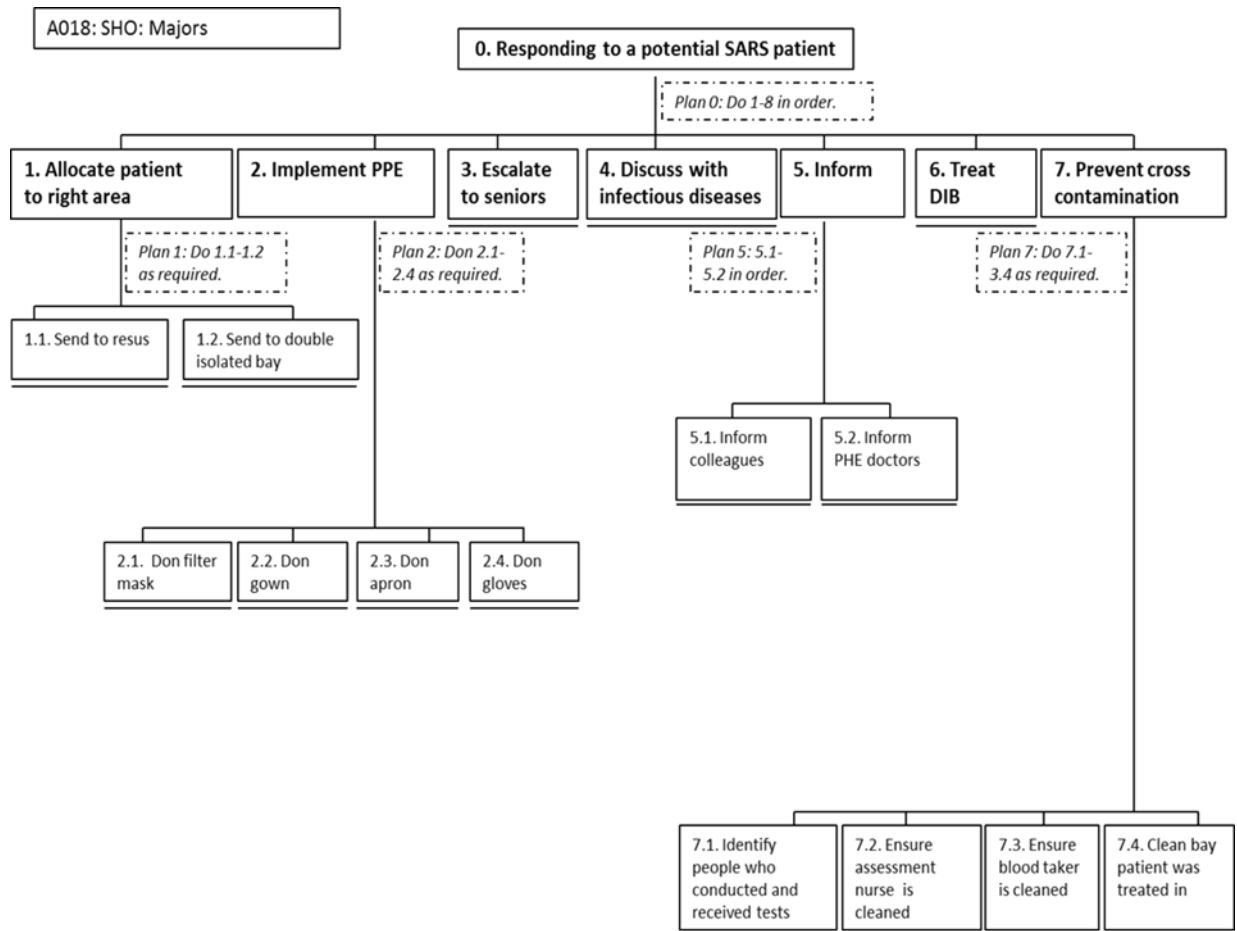


A37 2: A004 Registrar HTA: Version 1

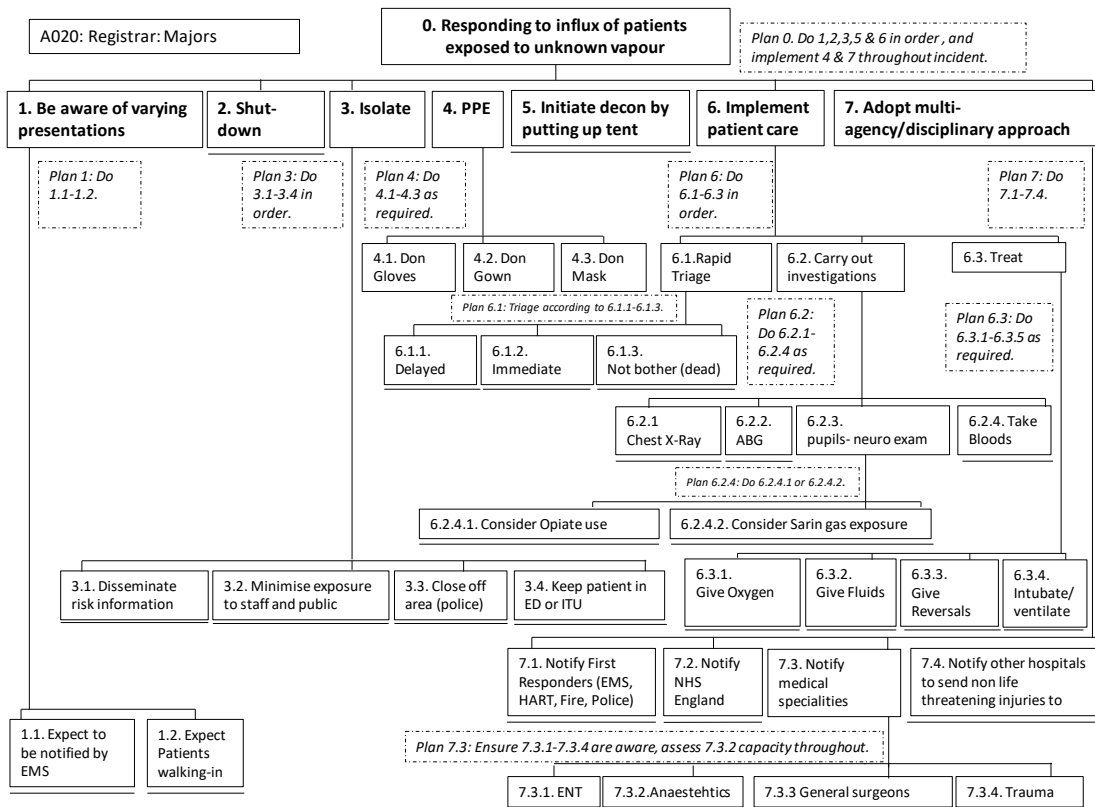


A37 3: A004 Registrar HTA (revision)

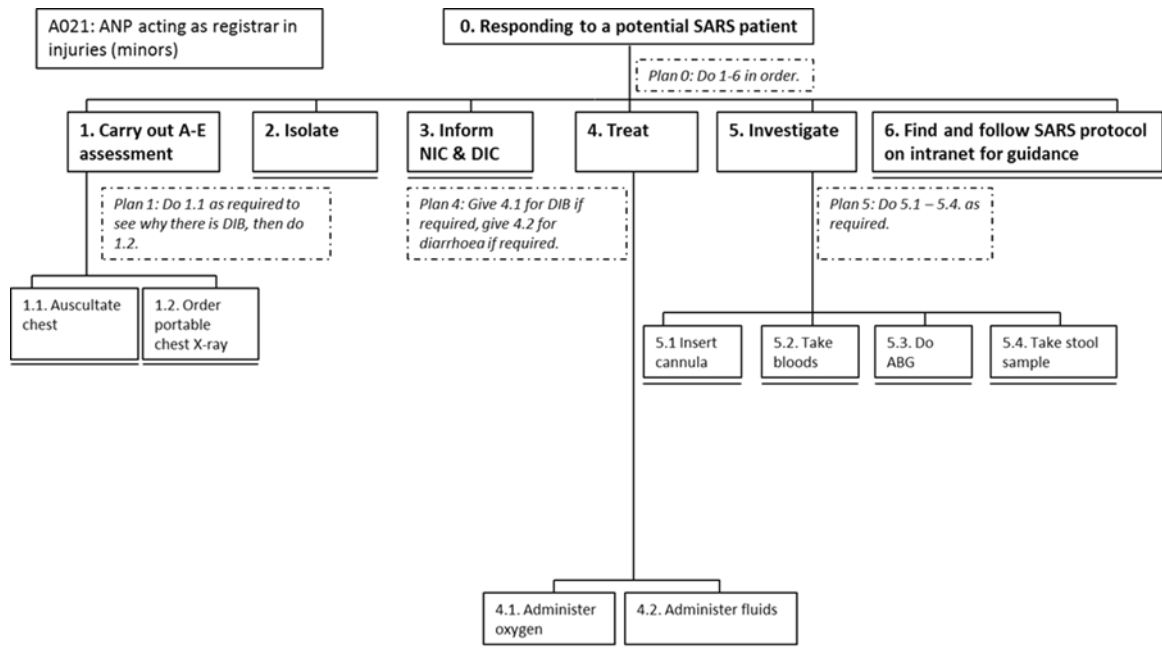
**A37 4: A005: SHO HTA**



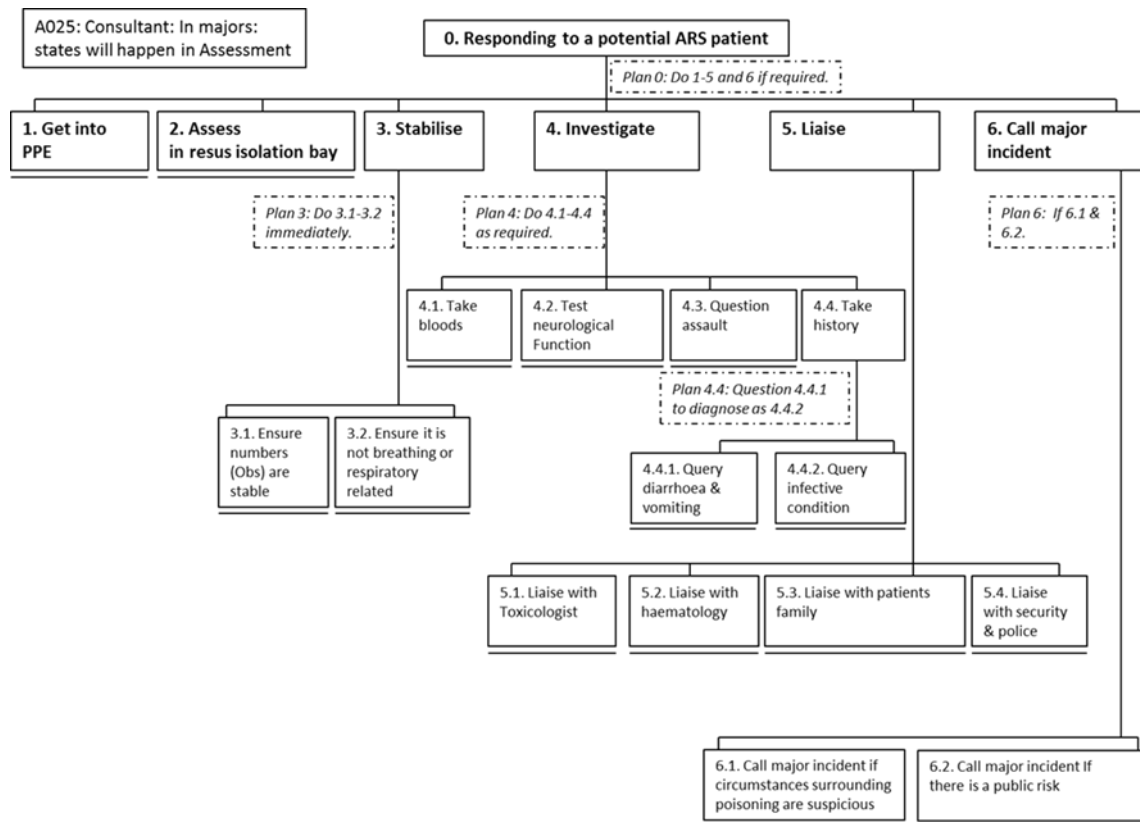
A37 5: A018: SHO HTA



A37 6: A020: Registrar HTA

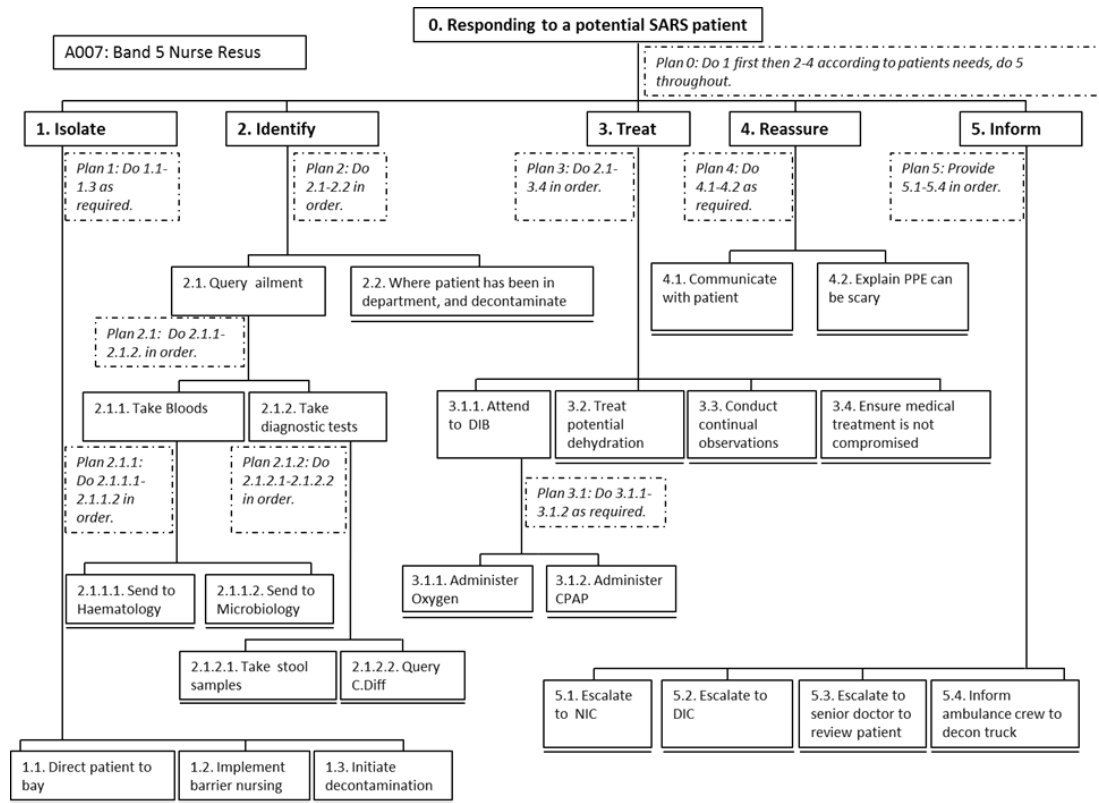


A37 7: A021: Band 7 ANP acting as registrar

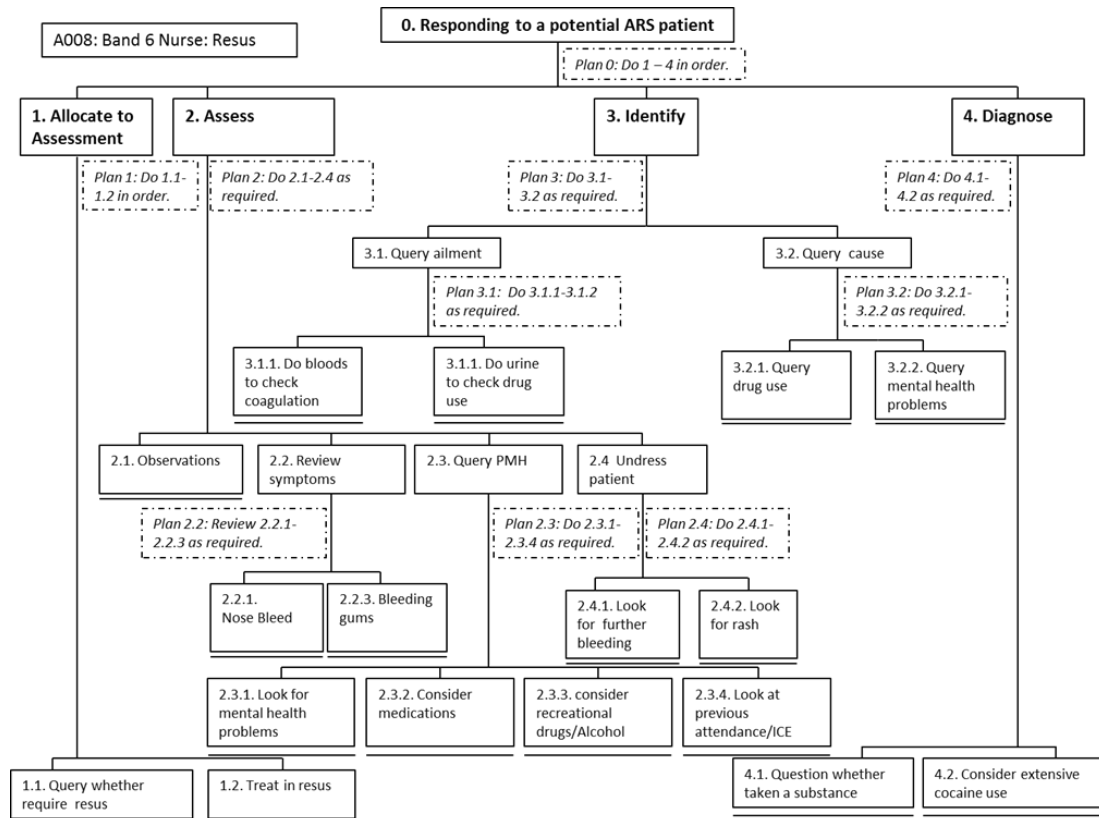


A37 8: A025: Consultant HTA

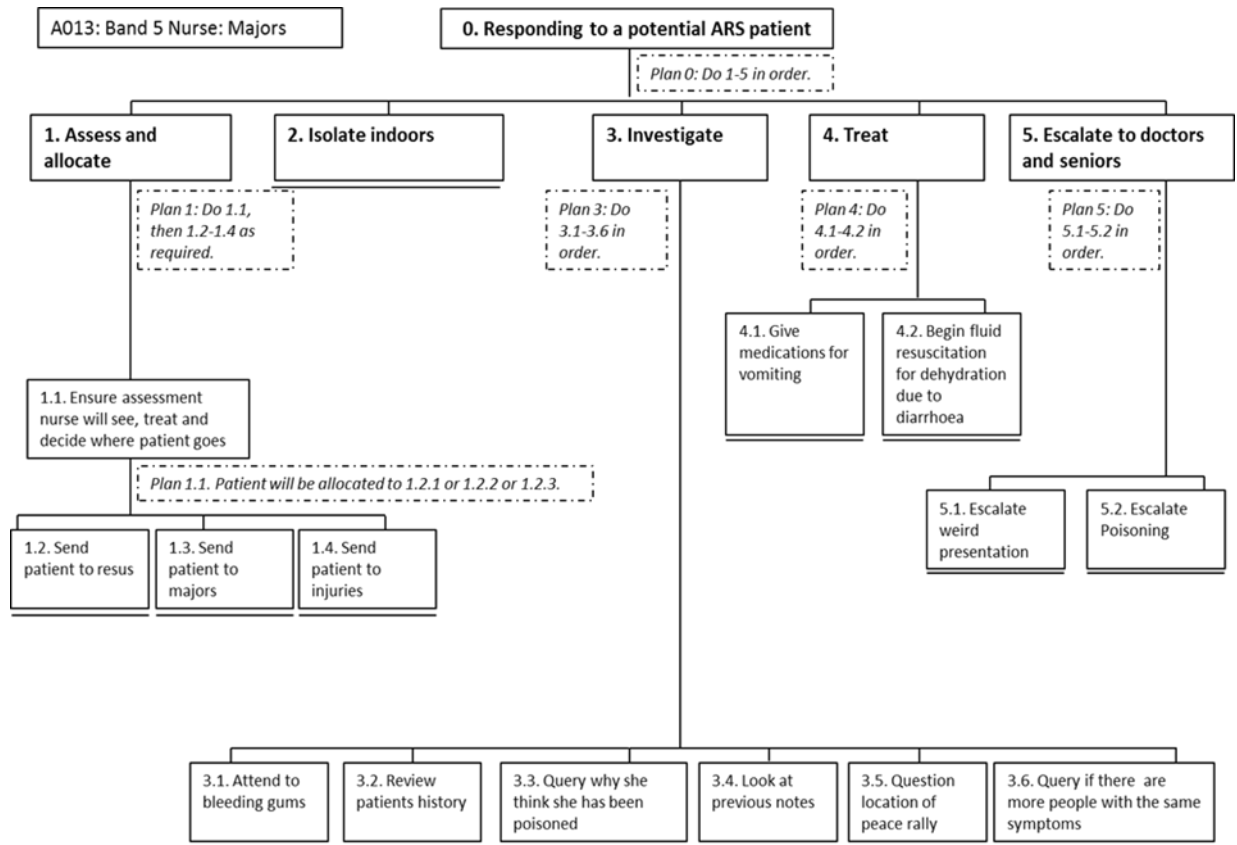
Vol 2: Appendix 38. Trust A: Nurses WAD HTAs



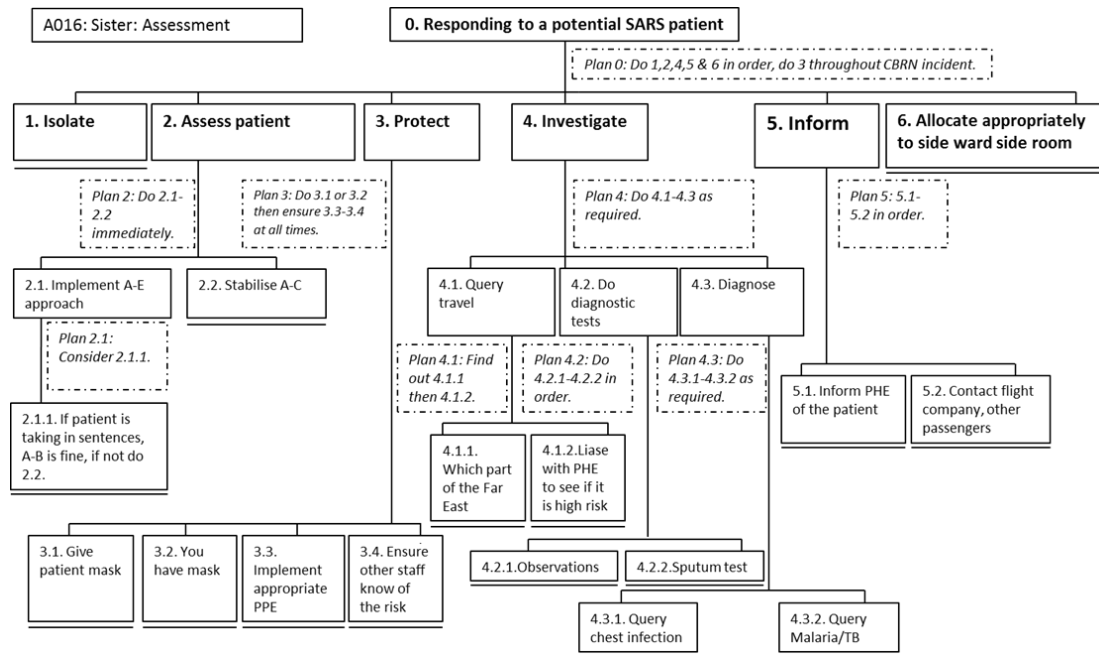
A38 1: A007: Band 5 nurse



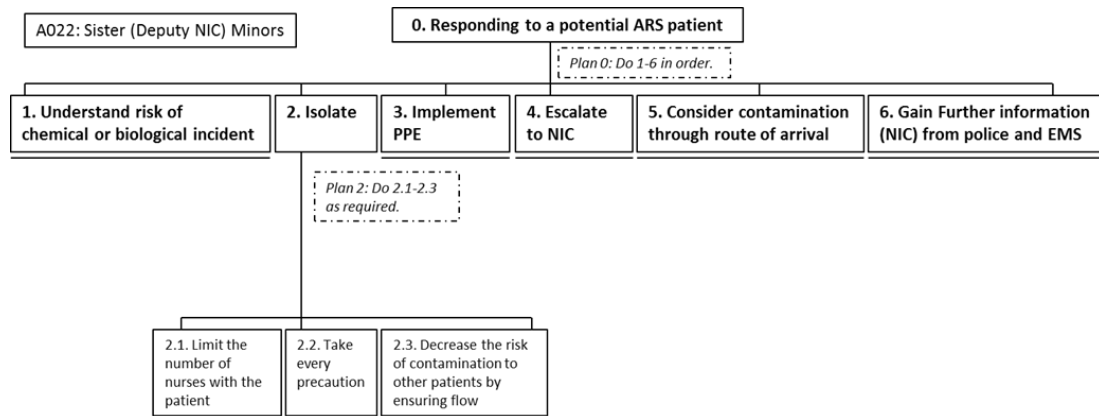
A38 2: A008: Band 6 nurse



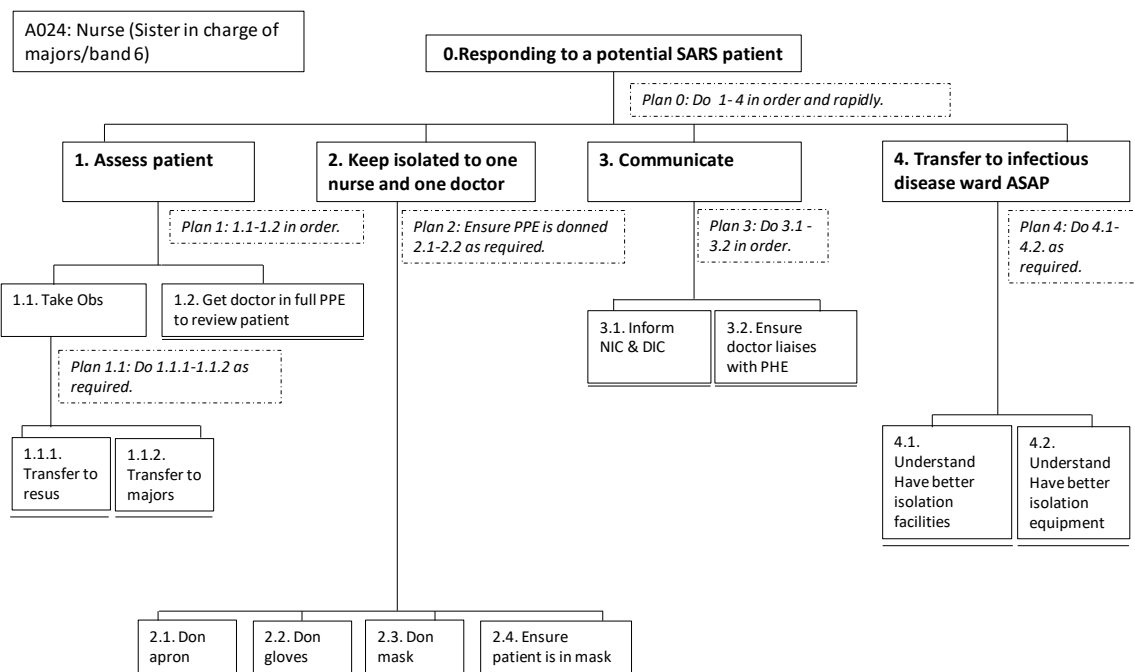
A38 3: A013: Band 5 nurse



A38 4: A016: Band 6 nurse

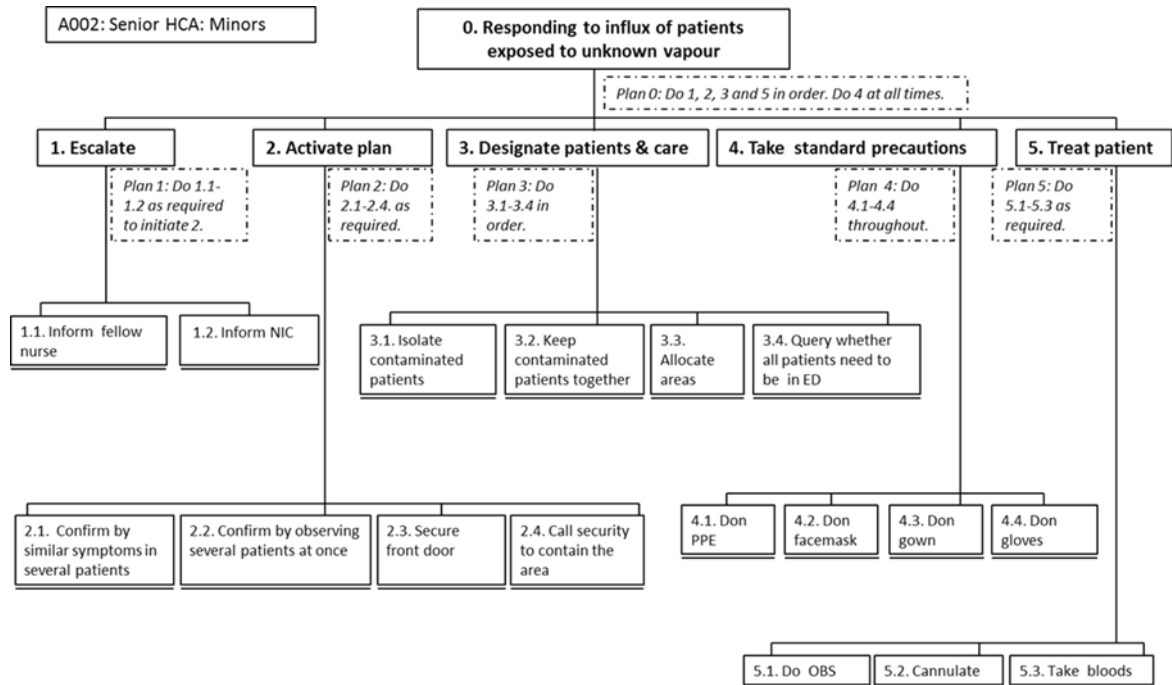


A38 5: A022: Band 6 nurse

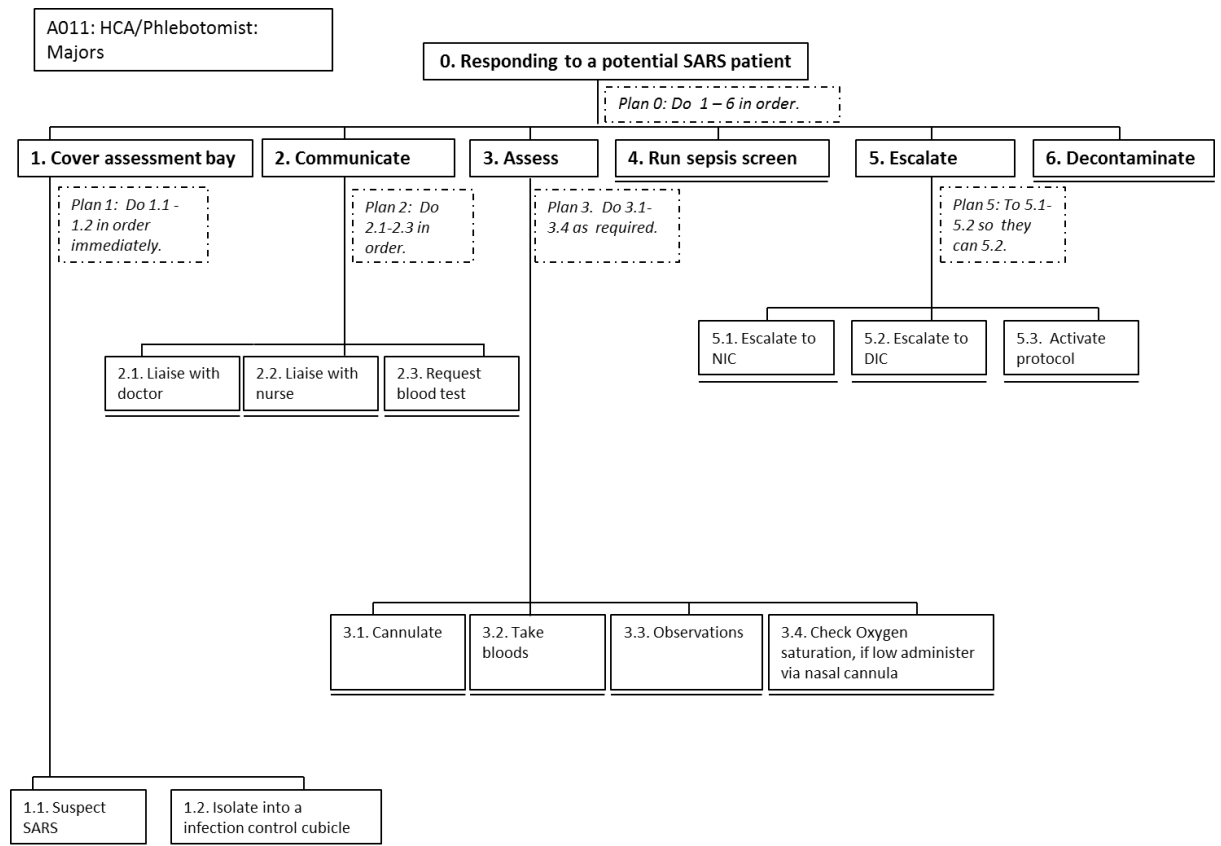


A38 6: A024: Band 6 nurse

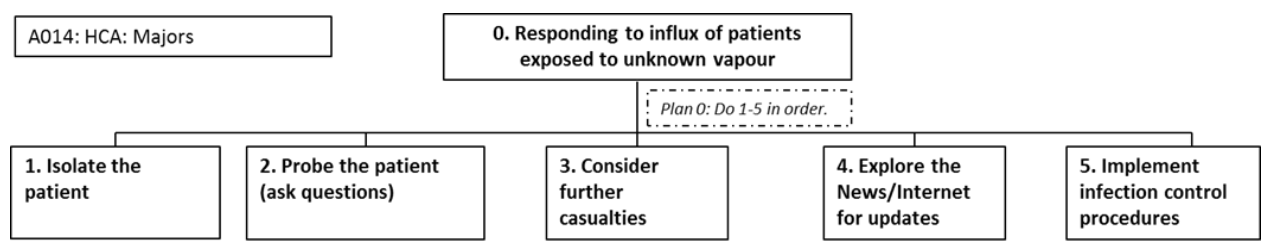
Vol 2: Appendix 39. Trust A: HCAs WAD HTAs



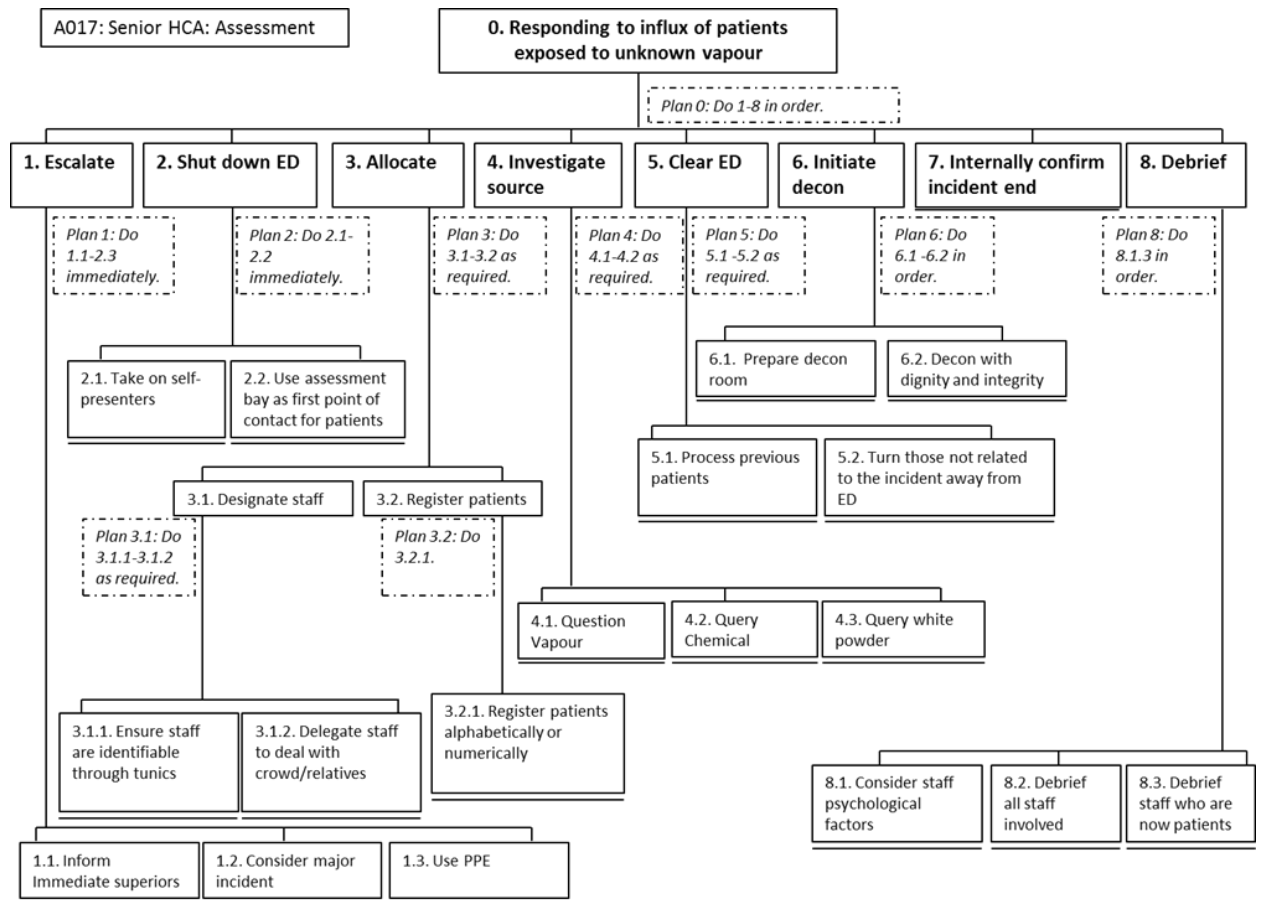
A39 1: A002: HCA



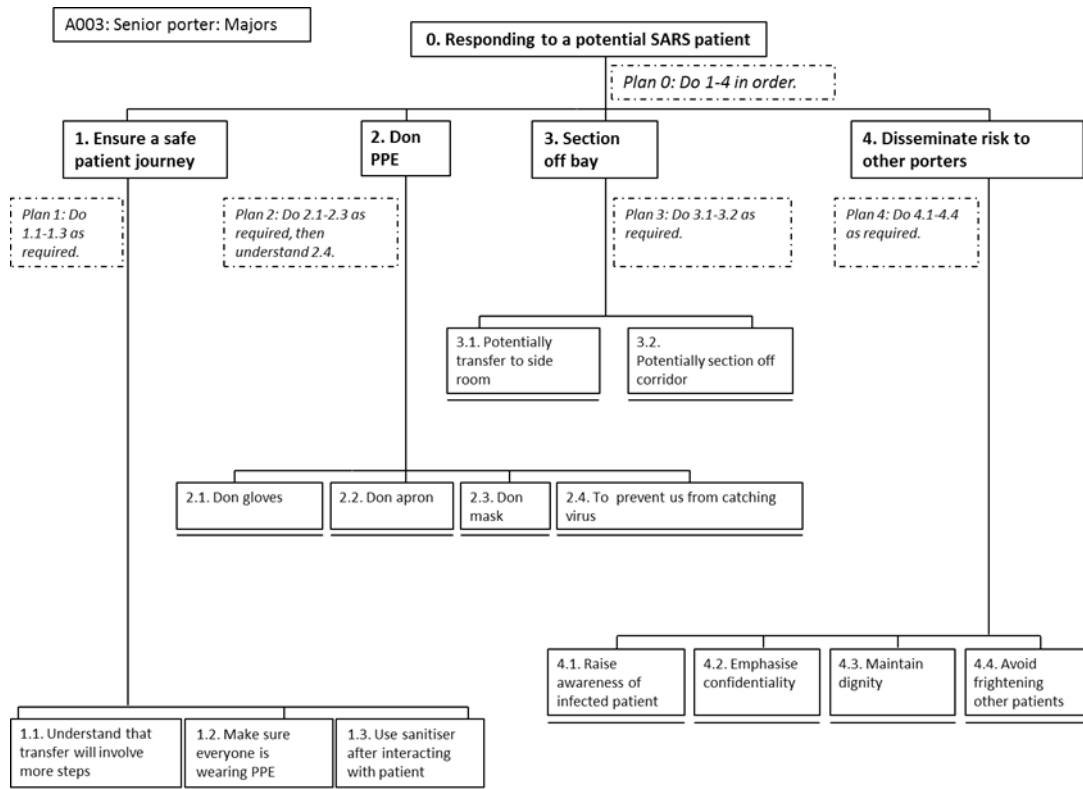
A39 2: A011: HCA



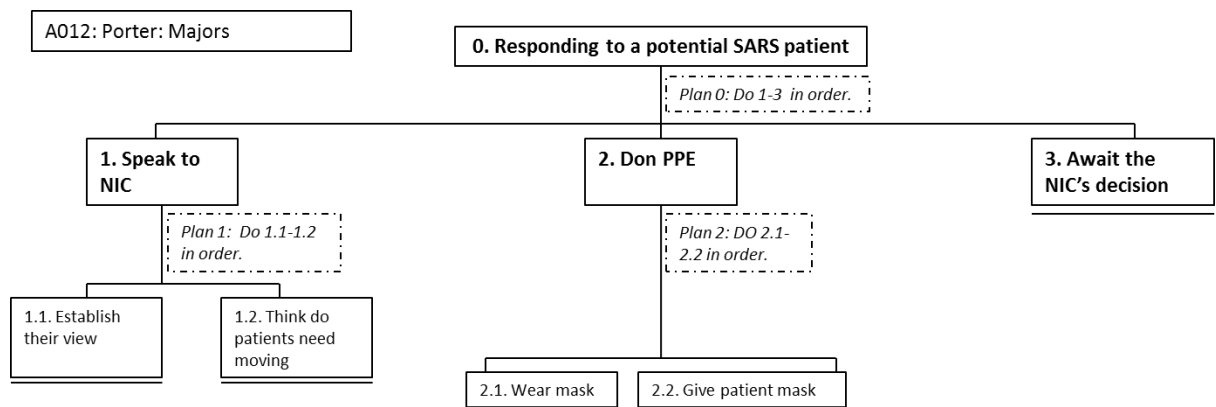
A39 3: A014: HCA

**A39 4: A017: HCA**

Vol 2: Appendix 40. Trust A: Porters WAD HTAs

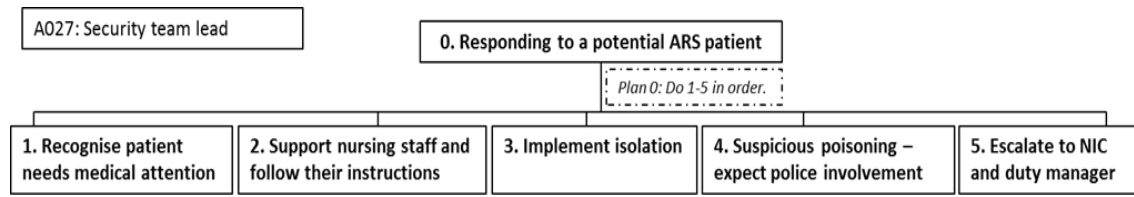


A40 1: A003 Porter

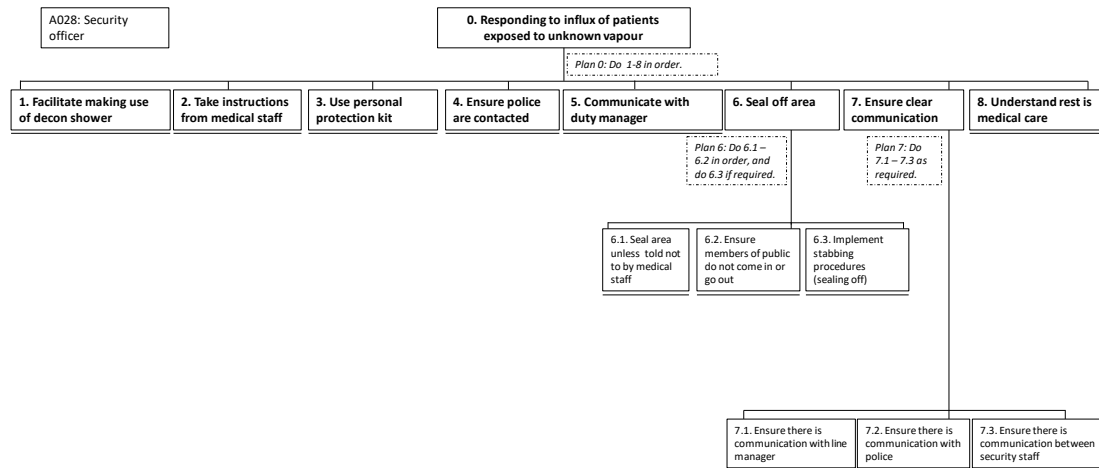


A40 2: A012: Porter

Vol 2: Appendix 41. Trust A: Security officer WAD HTAs

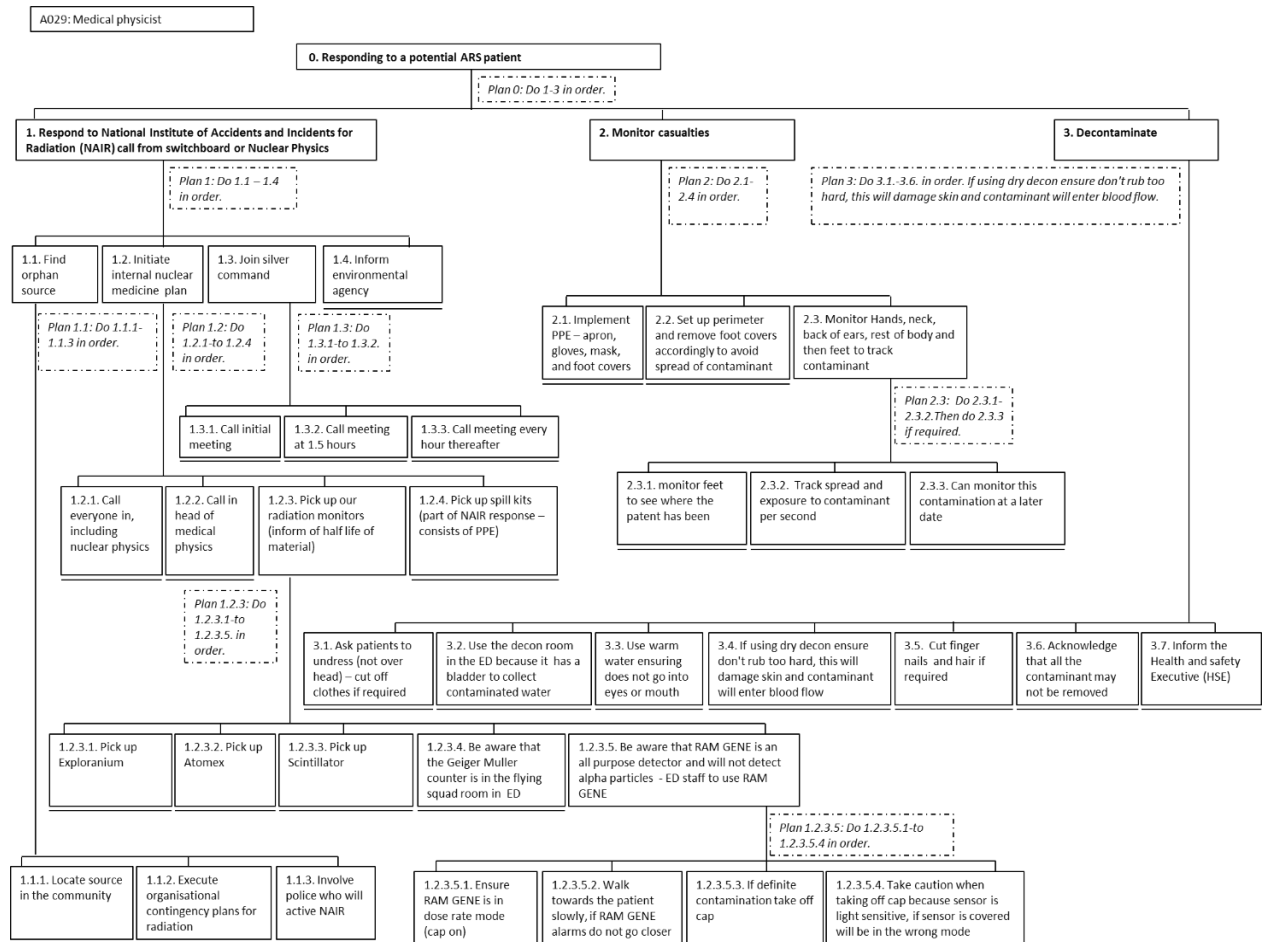


A41 1: A027: Security officer (lead)

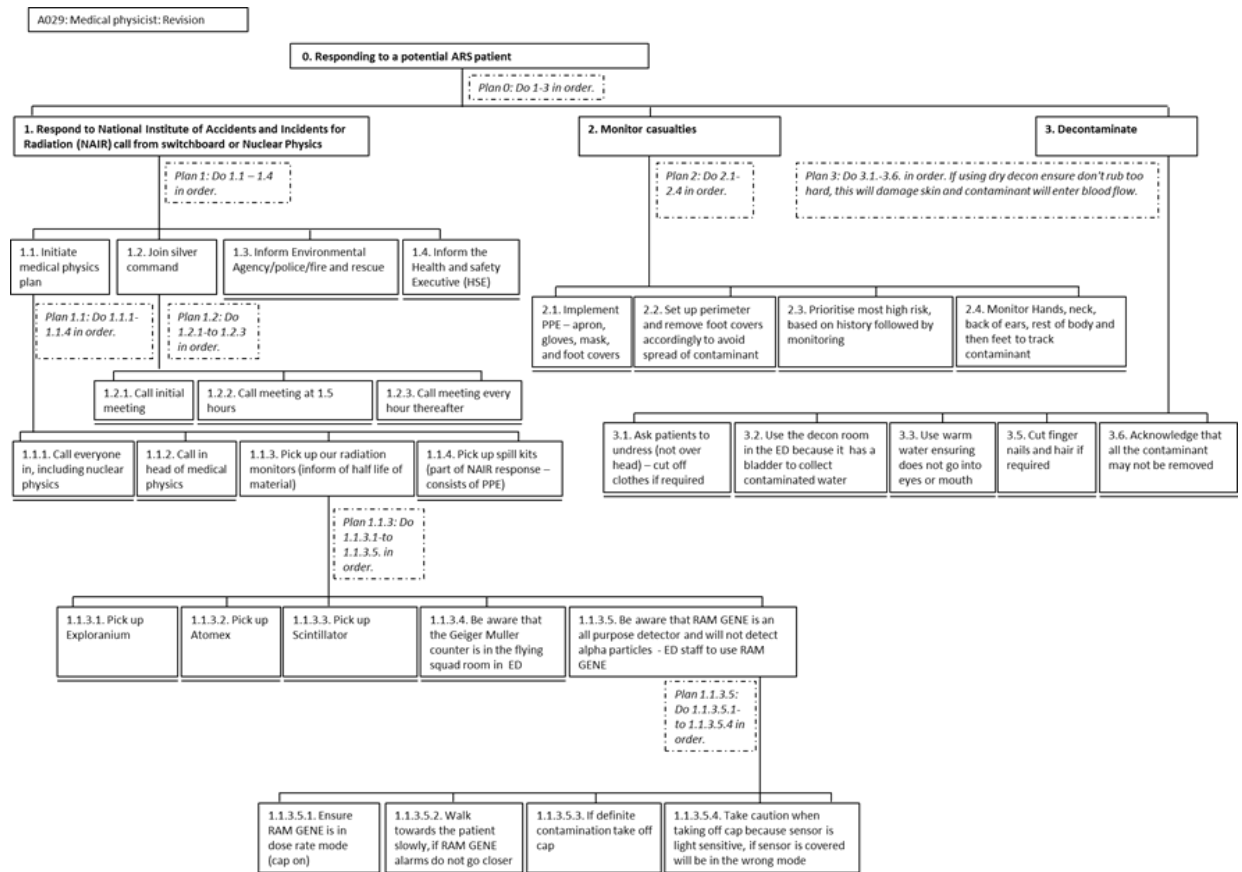


A41 2: A028: Security officer

Vol 2: Appendix 42. Trust A: Medical physicist WAD HTA



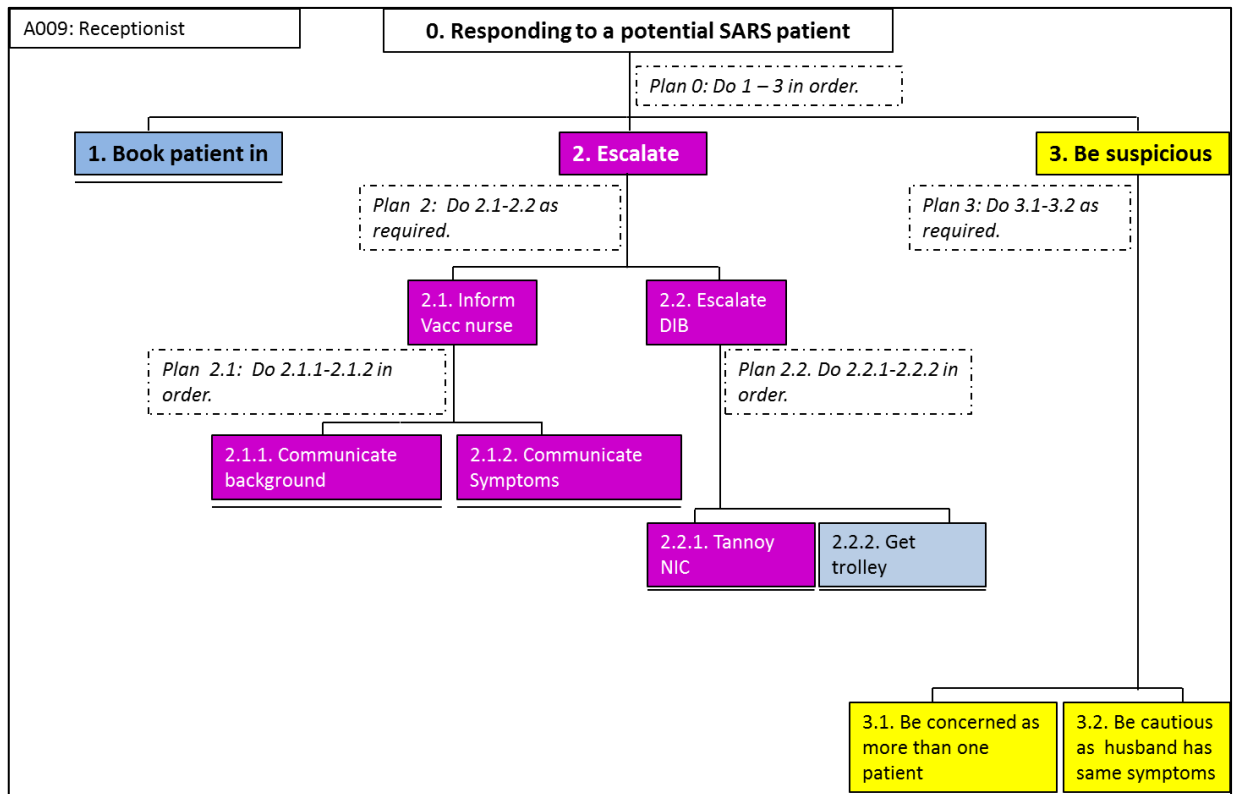
A42 1: Medical physicist (version 1)



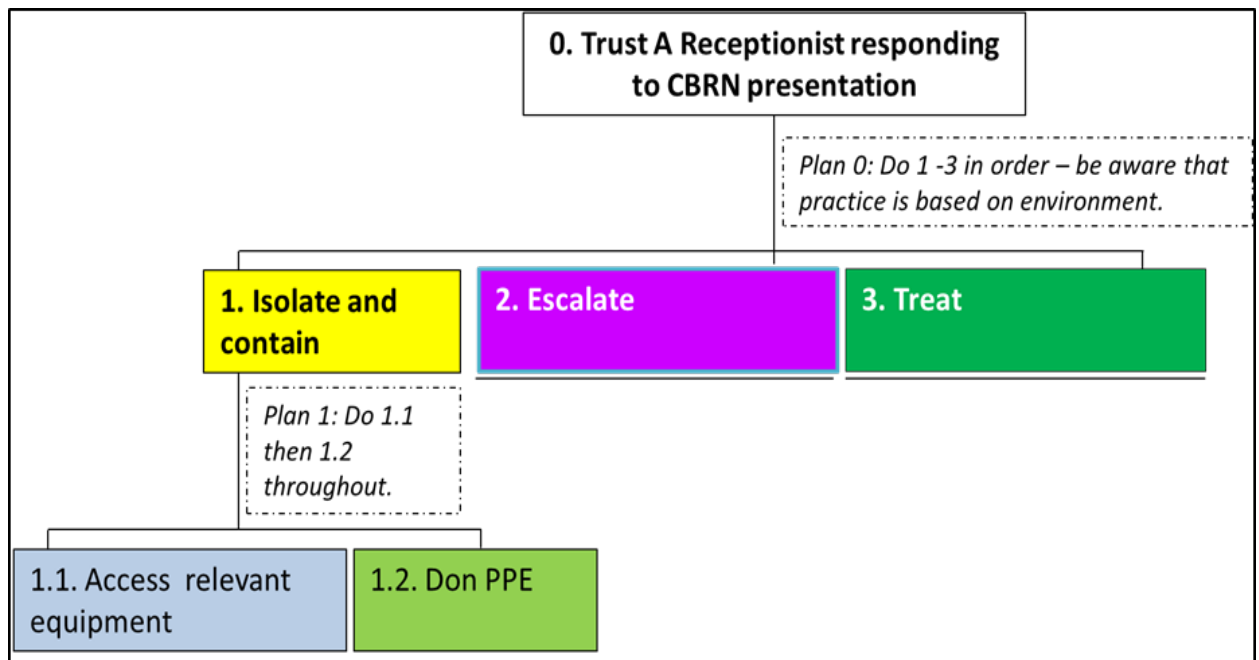
A42 2: A029: Medical physicist (revision)

Vol 2: Appendix 43. Trust A: WAD additional results

Receptionists

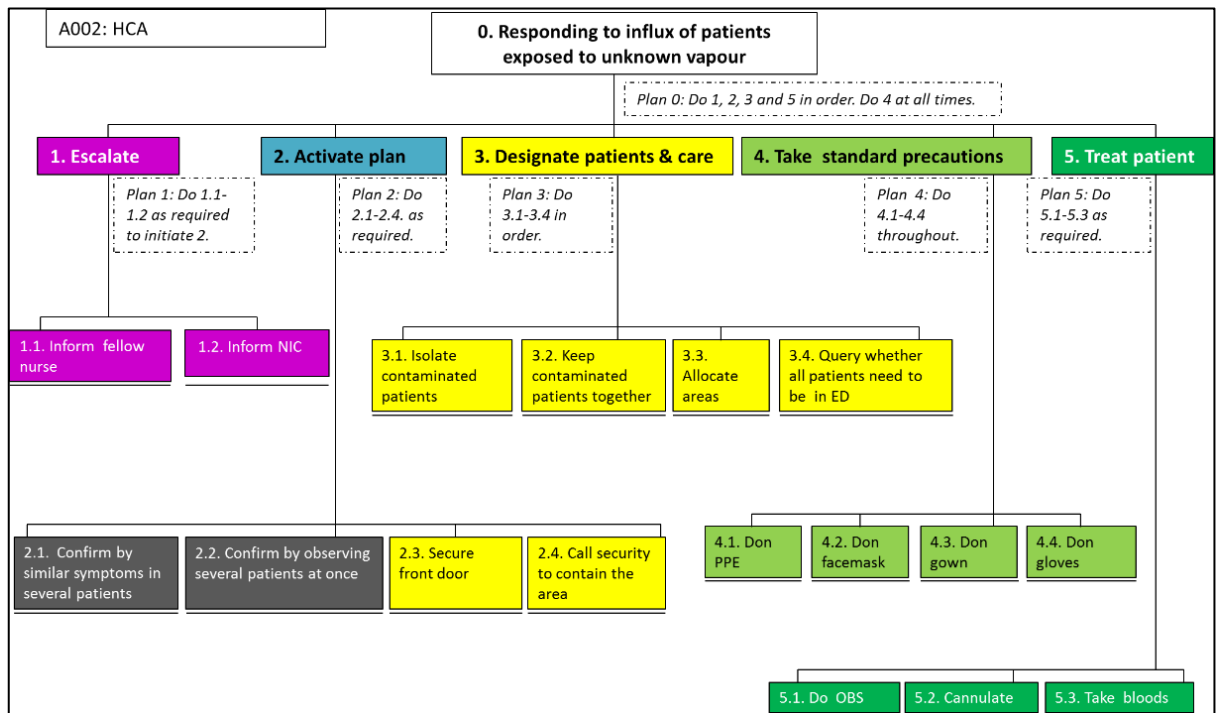


A43 1: HTA representation of Trust A receptionist responding to ARS presentation

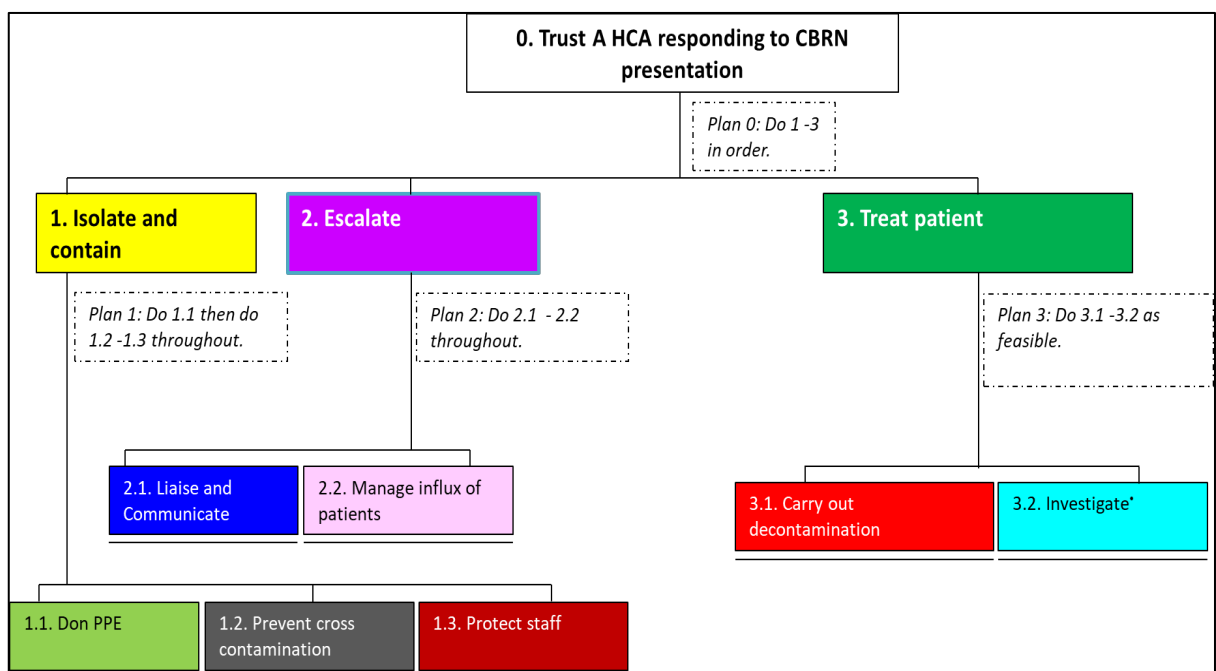


A43 2: Trust A receptionist group synthesis

HCAS

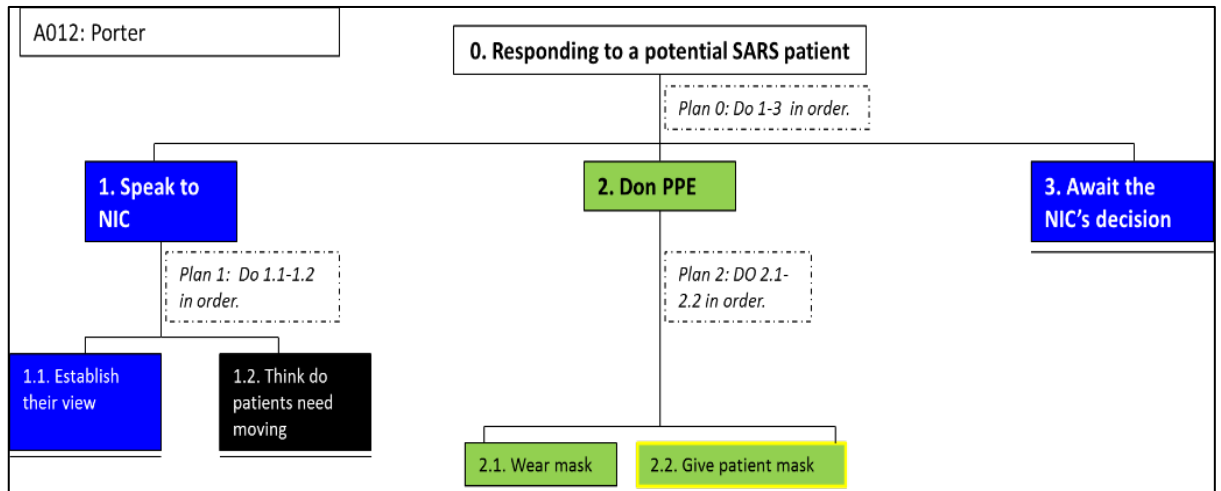


A43 3: HTA representation of Trust A HCA responding to a Sarin presentation

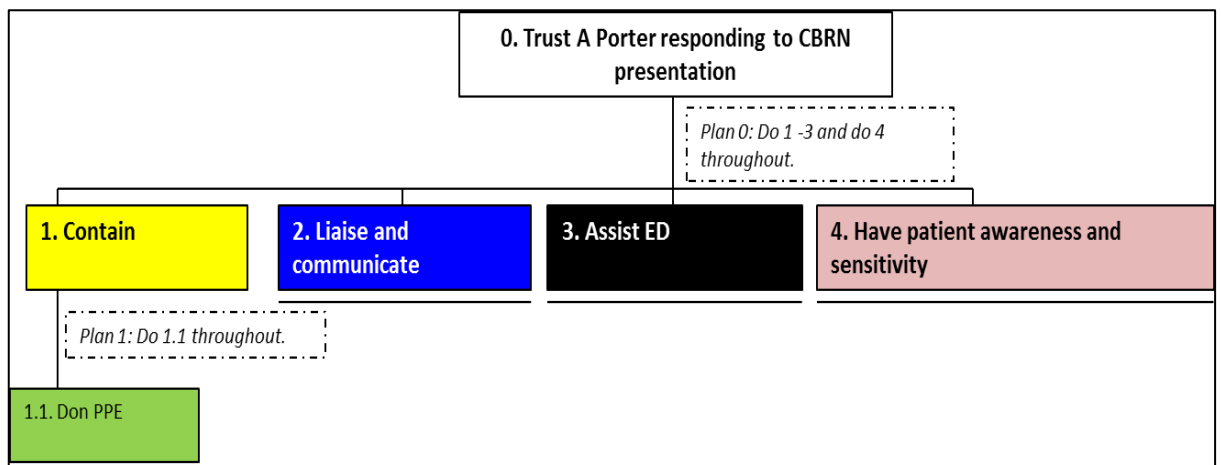


A43 4: HTA representation of Trust A HCA responding to a Sarin presentation

Porters

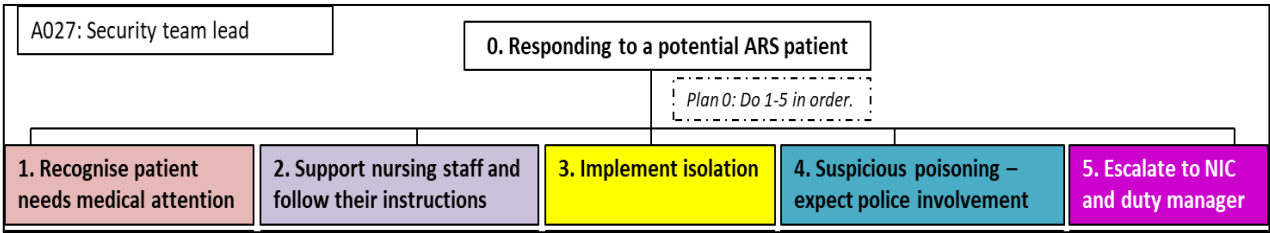


A43 5: HTA representation of Trust A Porter responding to a SARS presentation

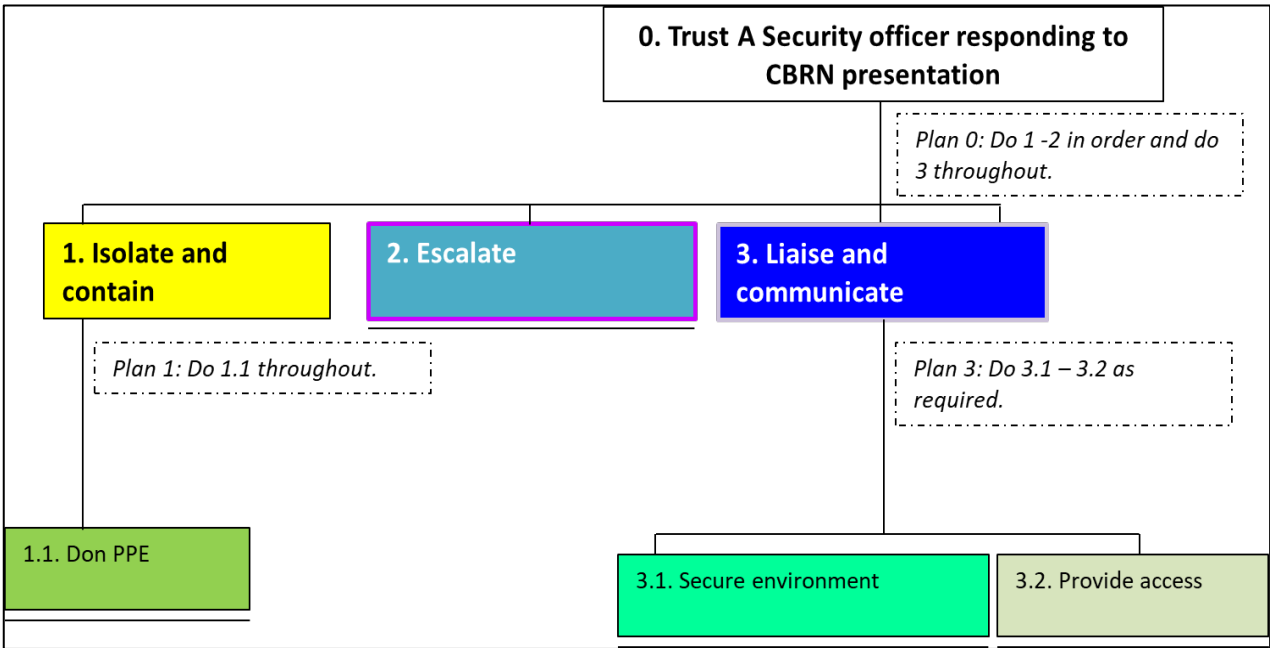


A43 6: Trust A Porters group specific WAD HTA

Security officers

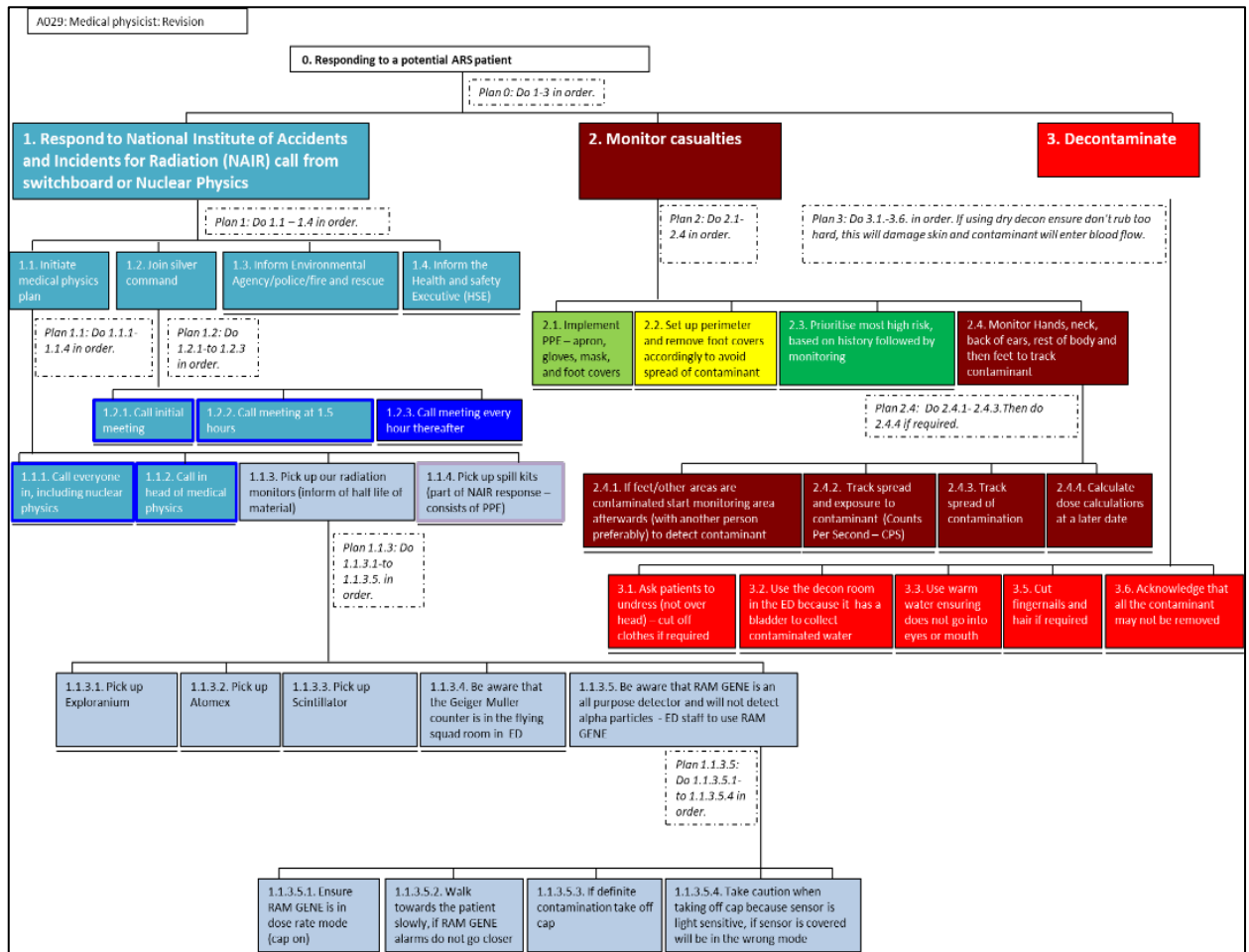


A43 7: HTA representation of Trust A security officer responding to an ARS presentation

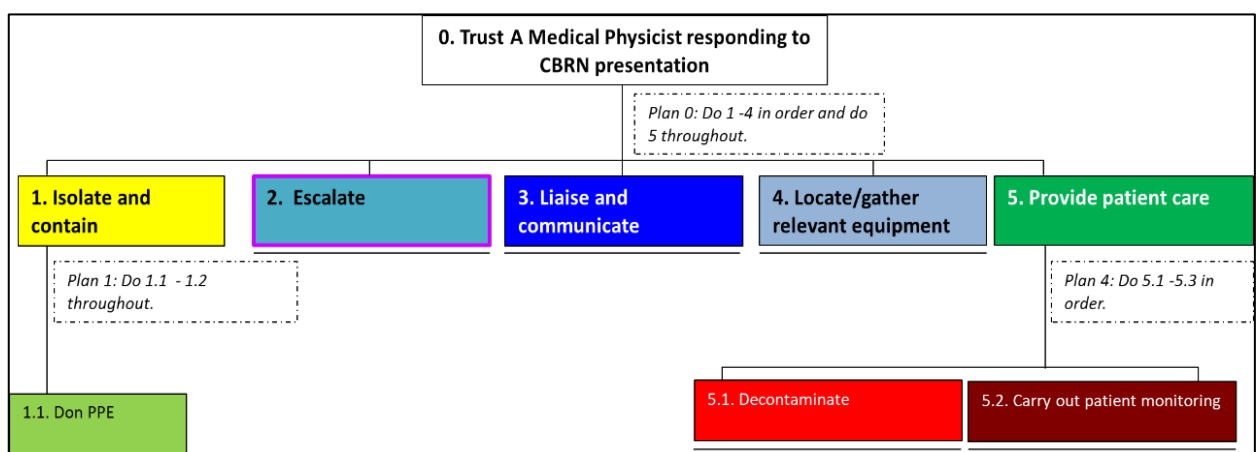


A43 8: Trust A security officers group synthesis

Medical physicist



A43 9: HTA representation of Trust A medical physicist responding to an ARS presentation

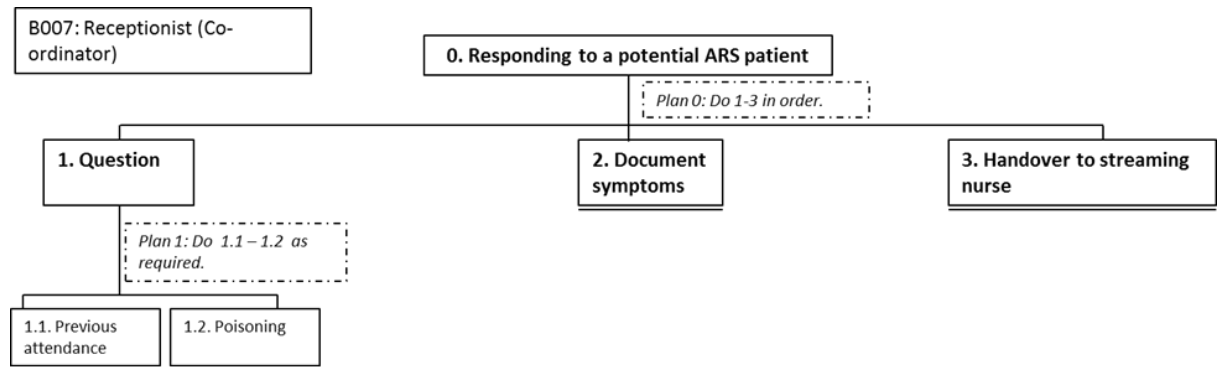


A43 10: Trust A medical physicist synthesis

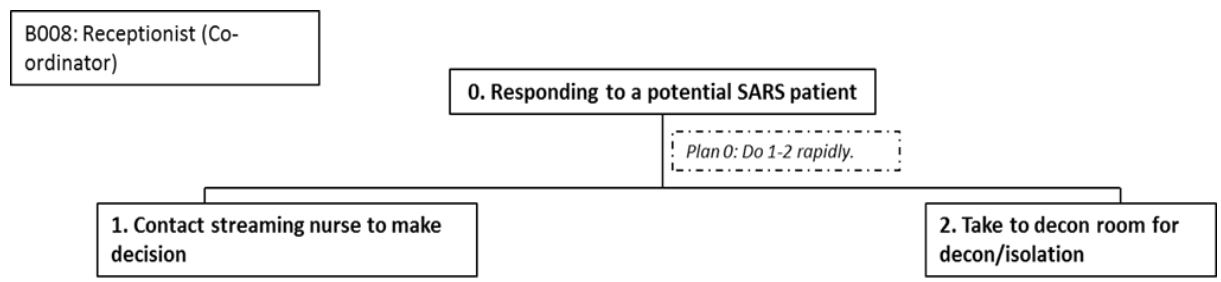
Vol 2: Appendix 44. Trust A: Synthesis of WAD

Trust A								
Participant	Scenario card			Common themes				
	C	B	R	Isolate and Contain	Liaise & Communicate	Escalate	Implement PPE	Treat
A001				✓	✓	✗	✓	✓
A002				✓	✗	✓	✓	✓
A003				✓	✗	✗	✓	✗
A004				✗	✗	✗	✗	✓
A005				✓	✓	✓	✓	✓
A006				✓	✗	✓	✗	✗
A007				✓	✓	✓	✓	✓
A008				✗	✗	✗	✗	✓
A009				✓	✗	✓	✗	✓
A010				✓	✗	✓	✗	✓
A011				✗	✓	✓	✗	✗
A012				✓	✓	✗	✓	✗
A013				✓	✗	✓	✗	✓
A014				✓	✗	✗	✗	✗
A015				✓	✓	✓	✓	✗
A016				✓	✓	✓	✓	✓
A017				✓	✓	✓	✗	✗
A018				✓	✓	✓	✓	✓
A019				✓	✓	✓	✓	✗
A020				✓	✓	✓	✓	✓
A021				✓	✓	✓	✗	✓
A022				✓	✓	✓	✓	✗
A023				✗	✓	✓	✓	✗
A024				✓	✓	✗	✓	✓
A025				✗	✓	✓	✓	✓
A026				✓	✓	✓	✓	✗
A027				✓	✓	✓	✗	✗
A028				✓	✓	✓	✓	✗
A029				✓	✓	✗	✓	✗

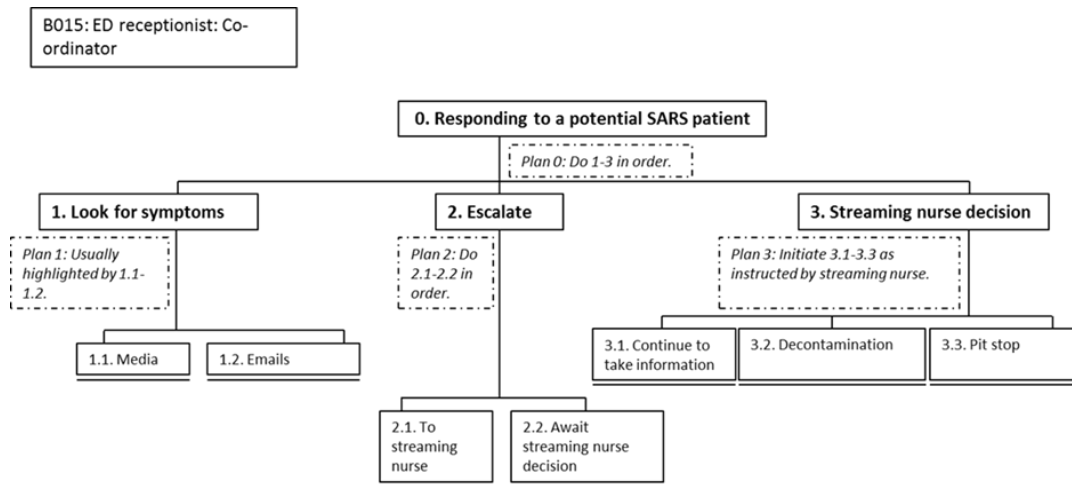
Vol 2: Appendix 45. Trust B: Receptionists WAD HTA



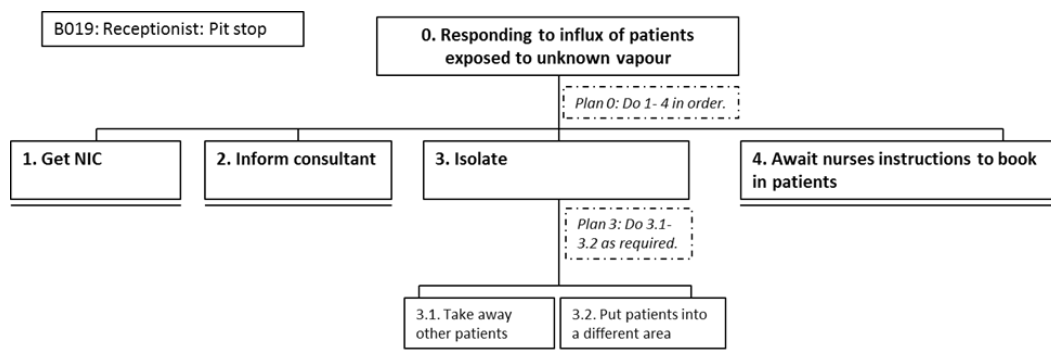
A45 1: B007: Receptionist



A45 2: B008: Receptionist

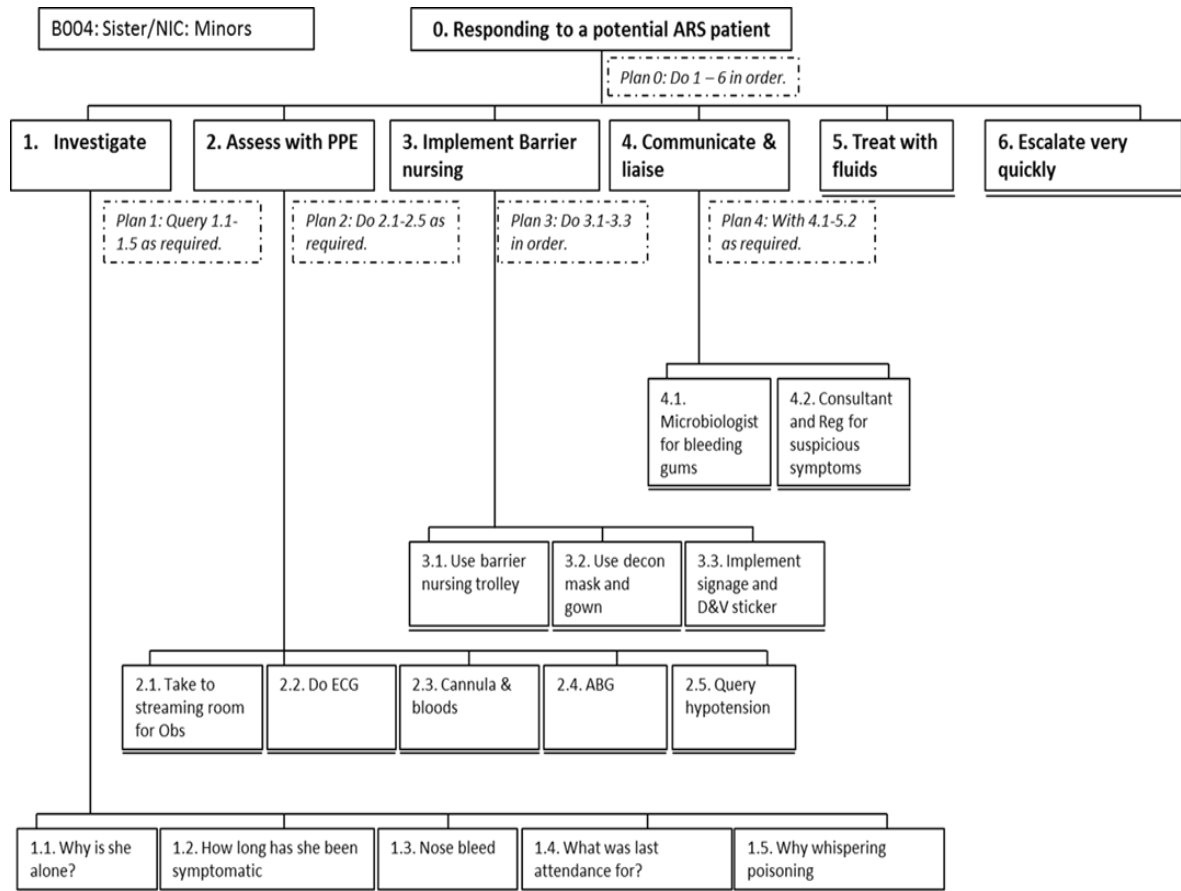


A45 3: B015: Receptionist

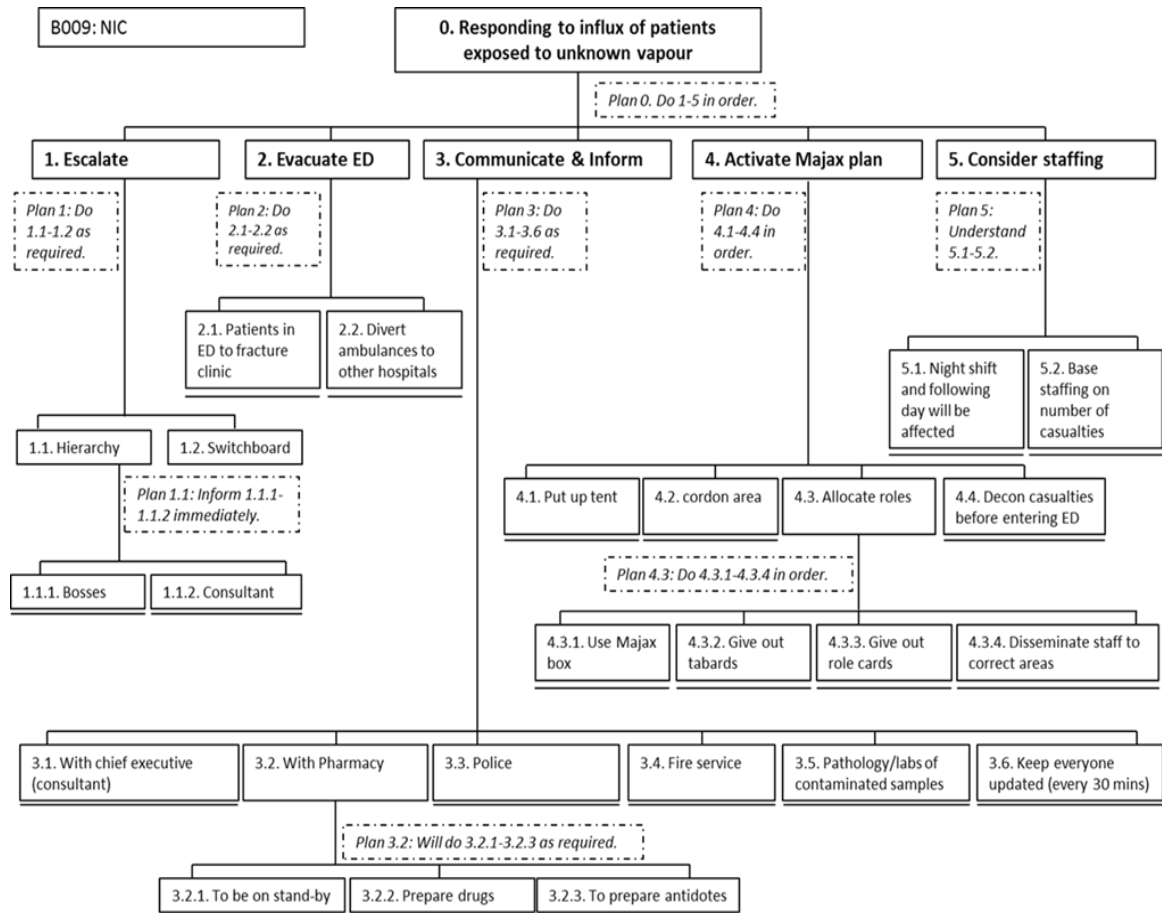


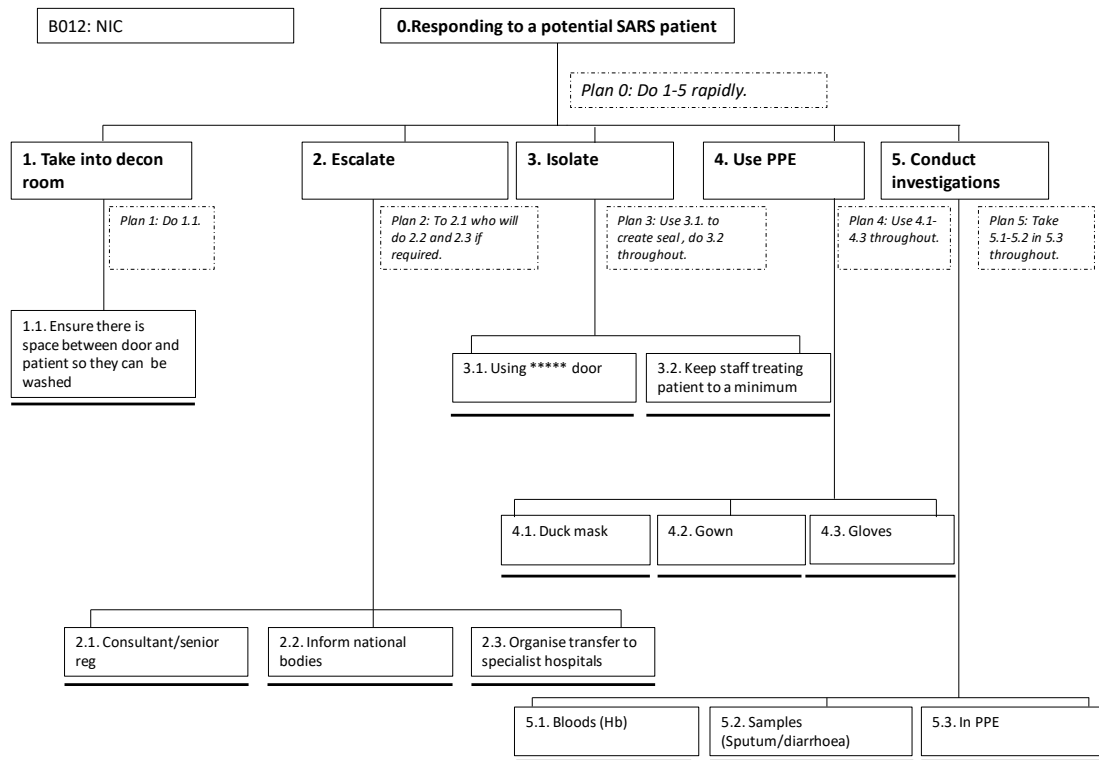
A45 4: B019: Receptionist

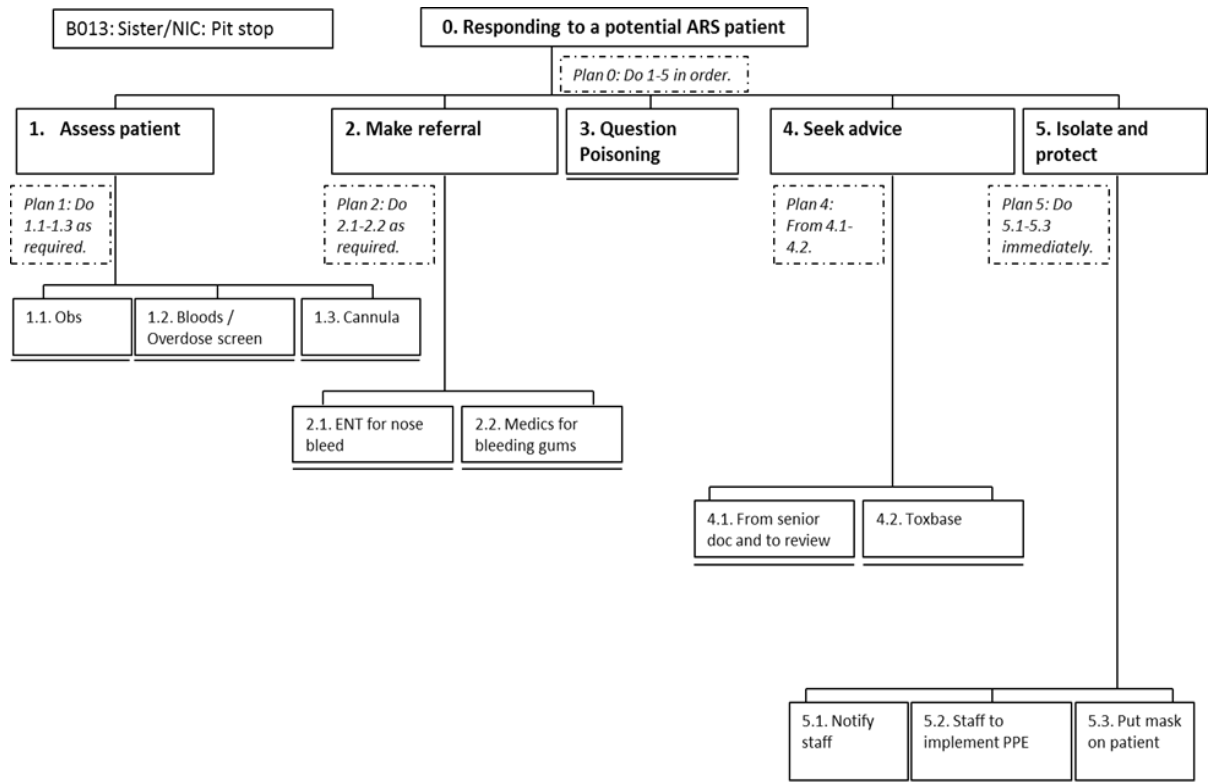
Vol 2: Appendix 46. Trust B: NIC WAD HTA



A46 1: B004 ED NIC WAD HTA

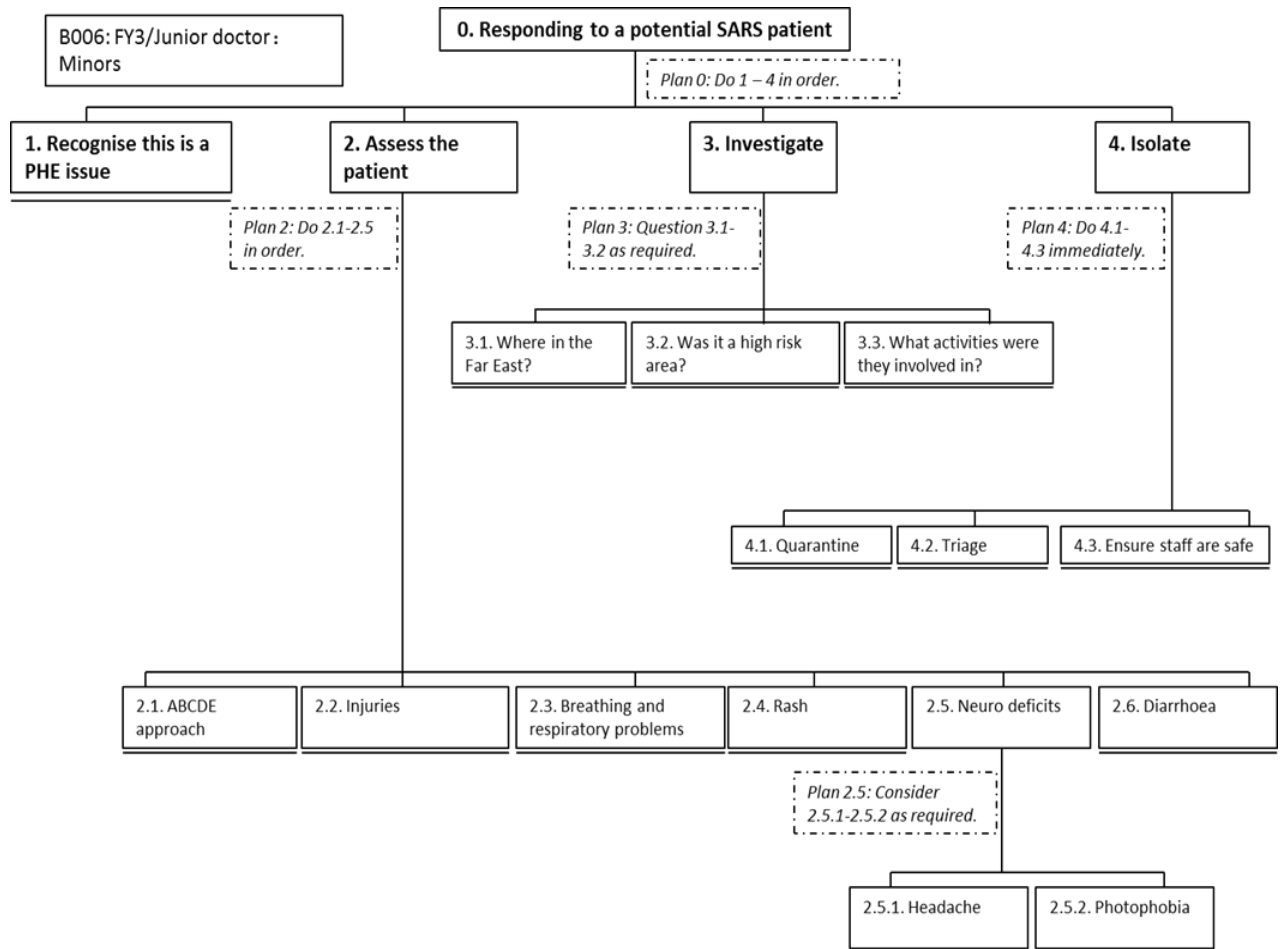
**A46 2: B009 NIC WAD HTA**

**A46 3: B012: NIC**

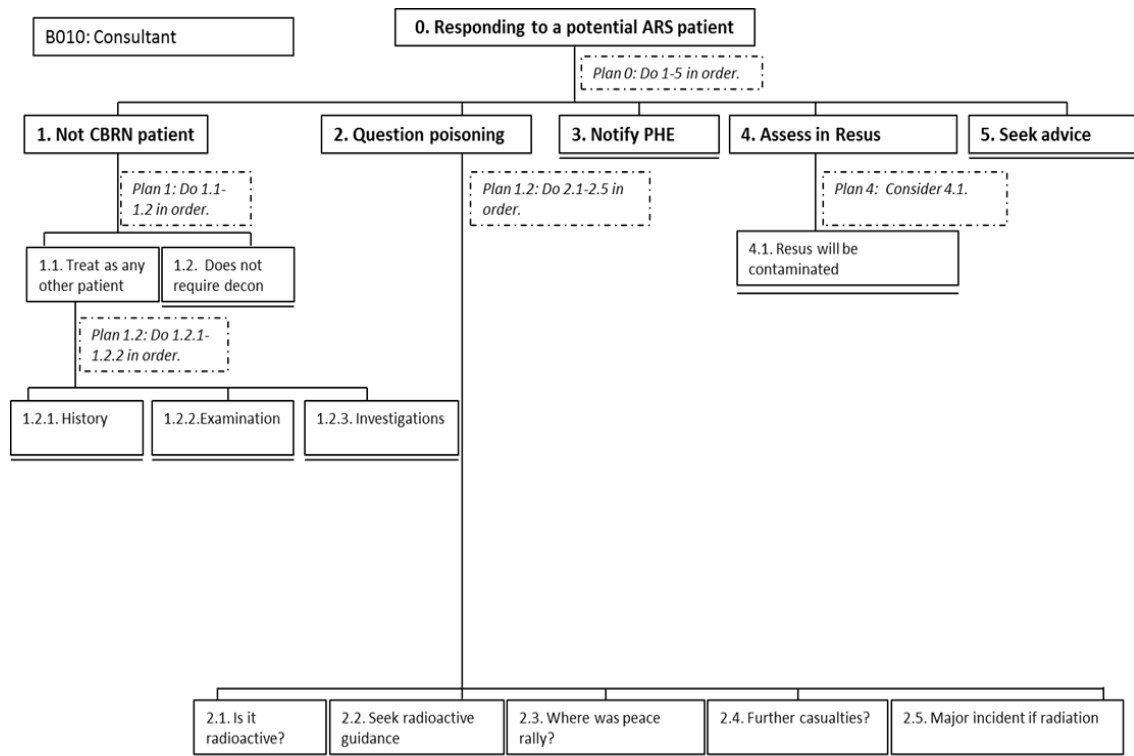


A46 4: B013: NIC

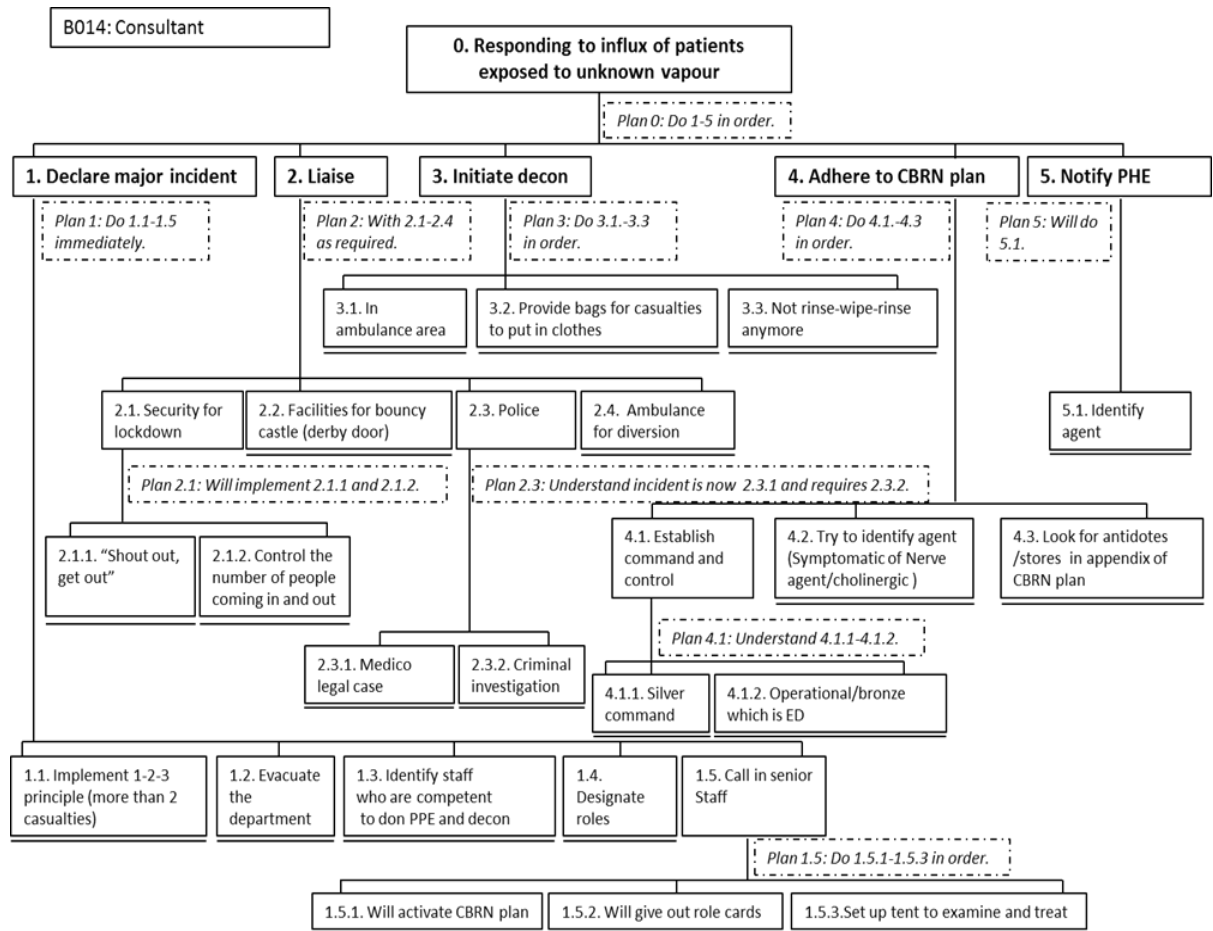
Vol 2: Appendix 47. Trust B: Doctors WAD HTAs



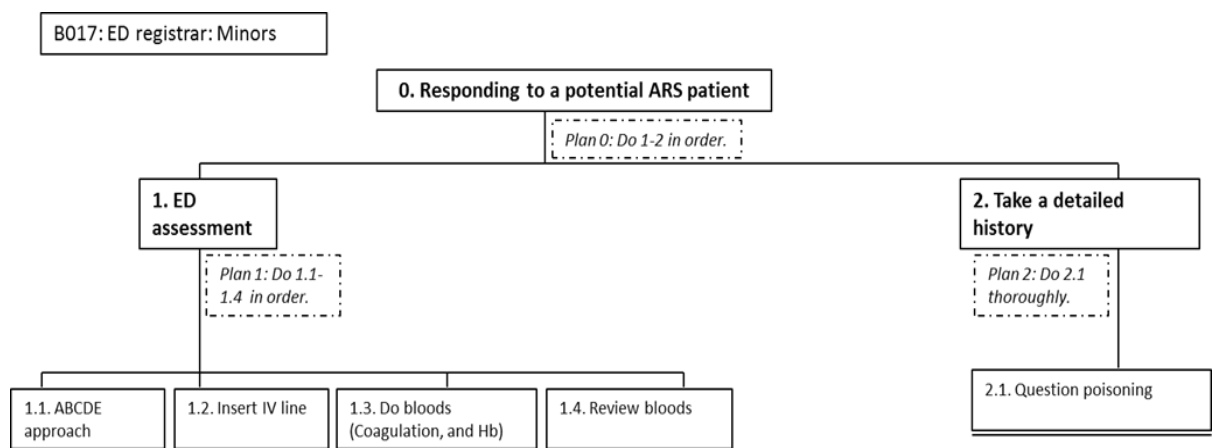
A47 1: B006: FY3 WAD HTA



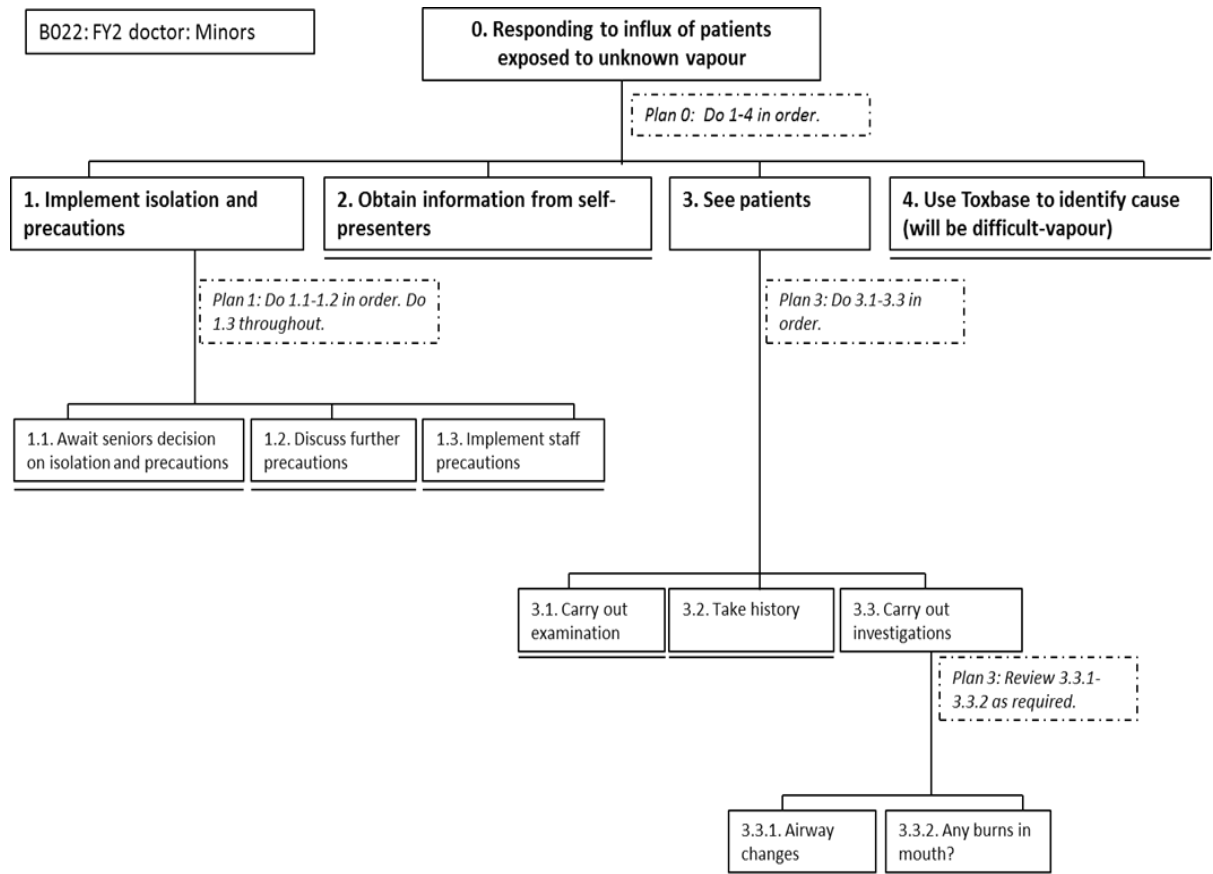
A47 2: B010: Consultant WAD HTA

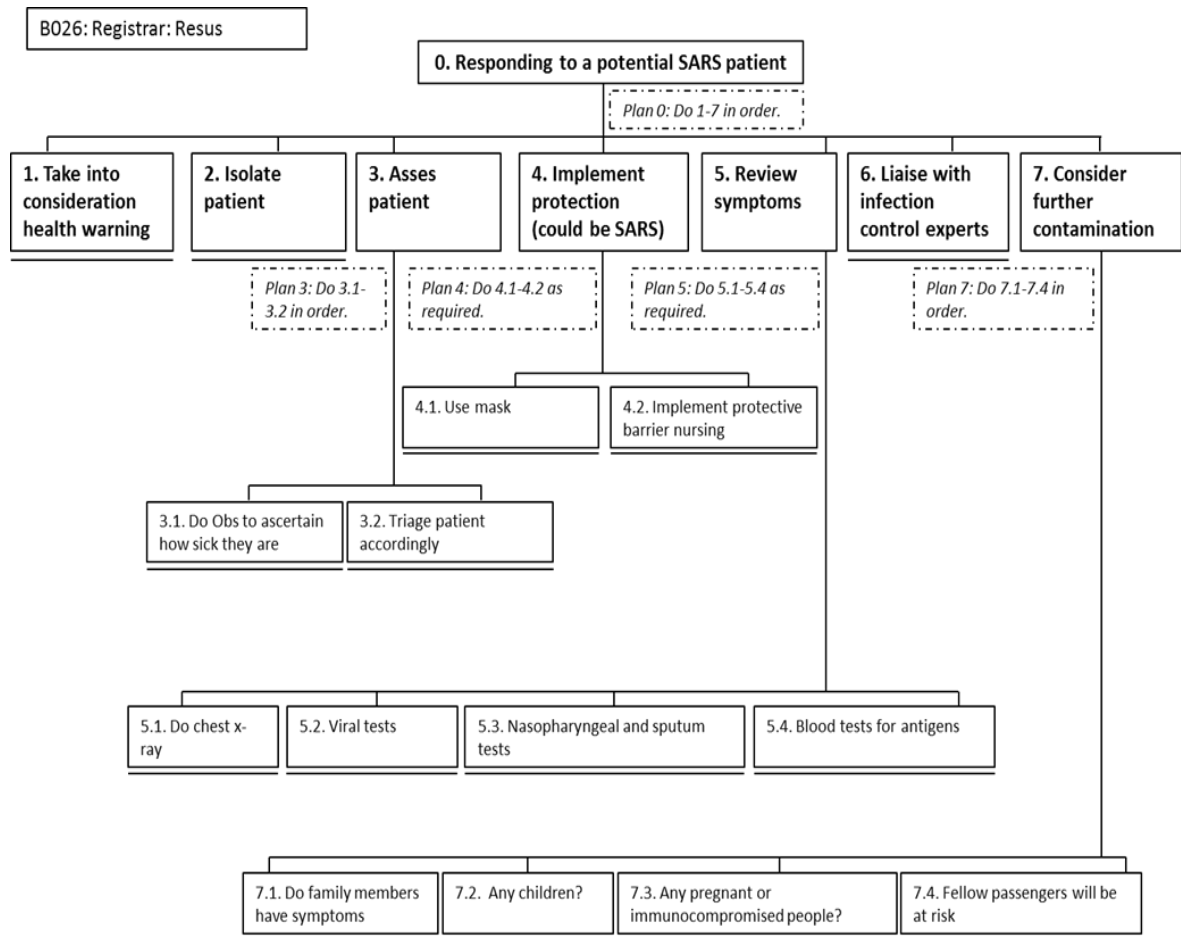


A47 3: B014: Consultant WAD HTA



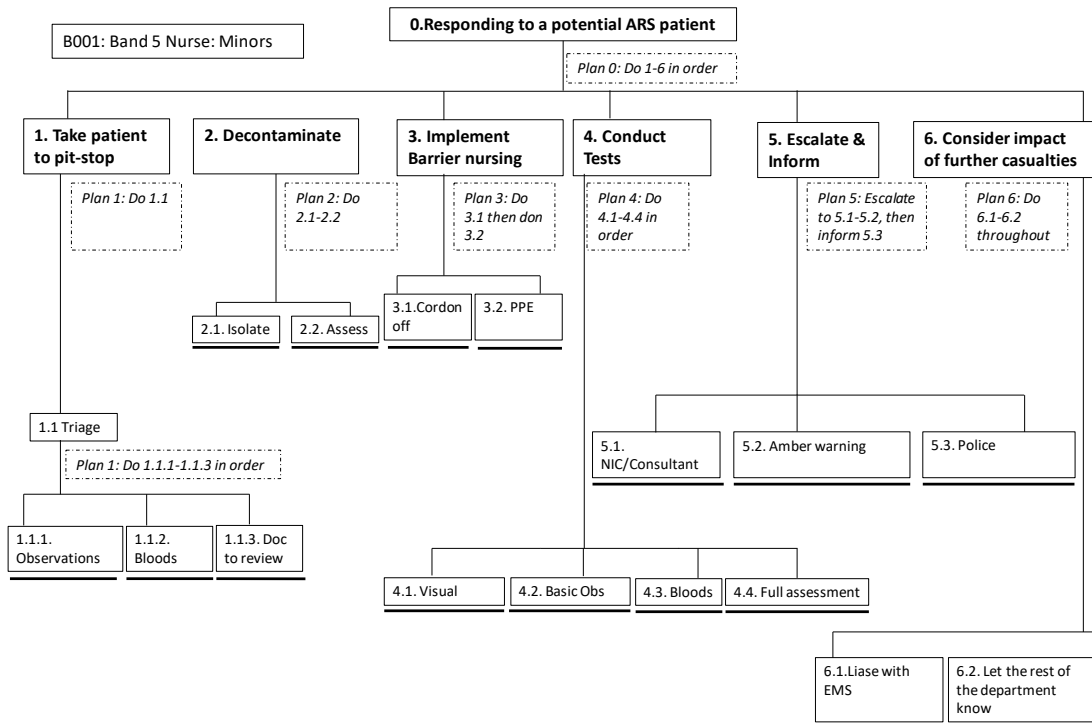
A47 4: B017: Registrar WAD HTA

**A47 5: B022: FY2 Doctor**

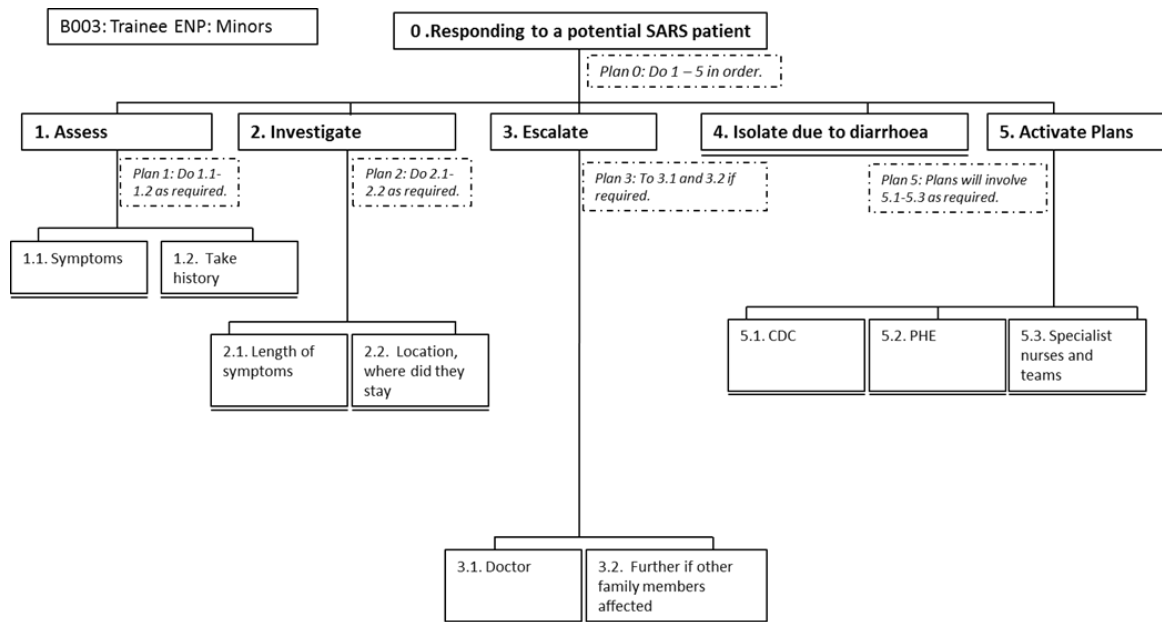


A47 6: B026: Registrar WAD HTA

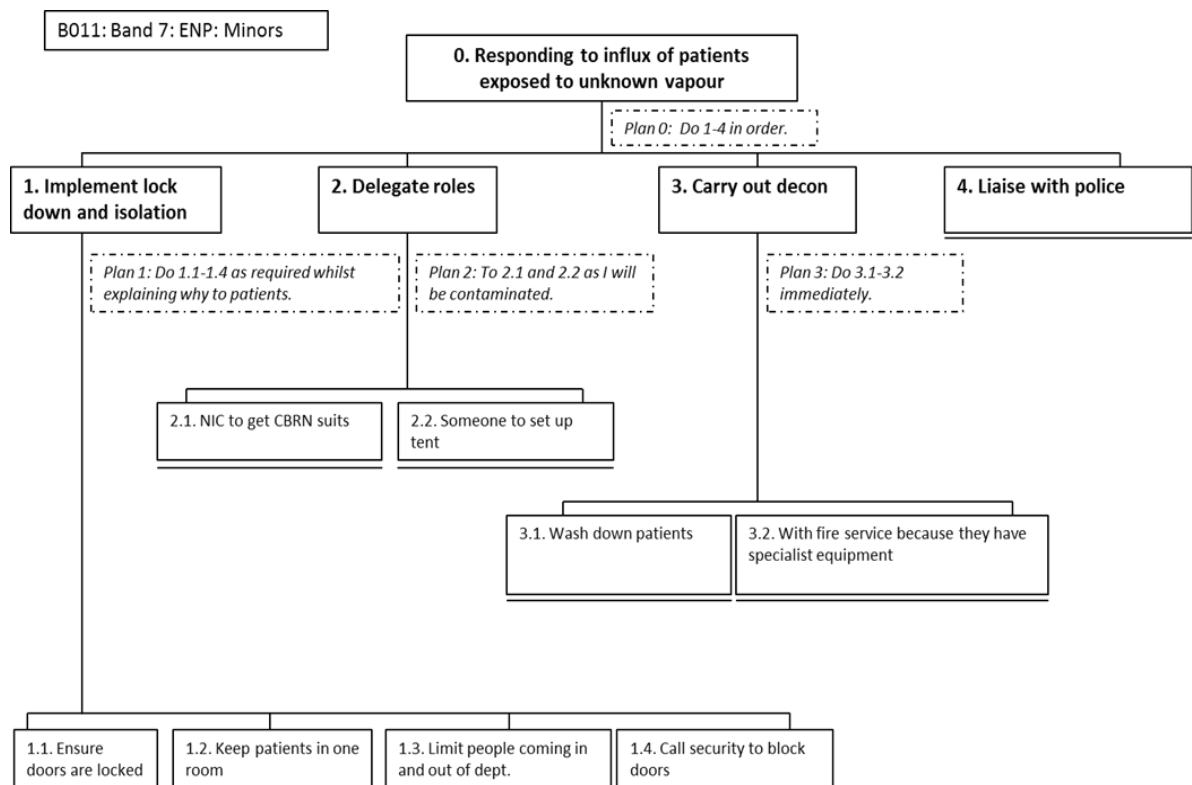
Vol 2: Appendix 48. Trust B: Nurses WAD HTAs



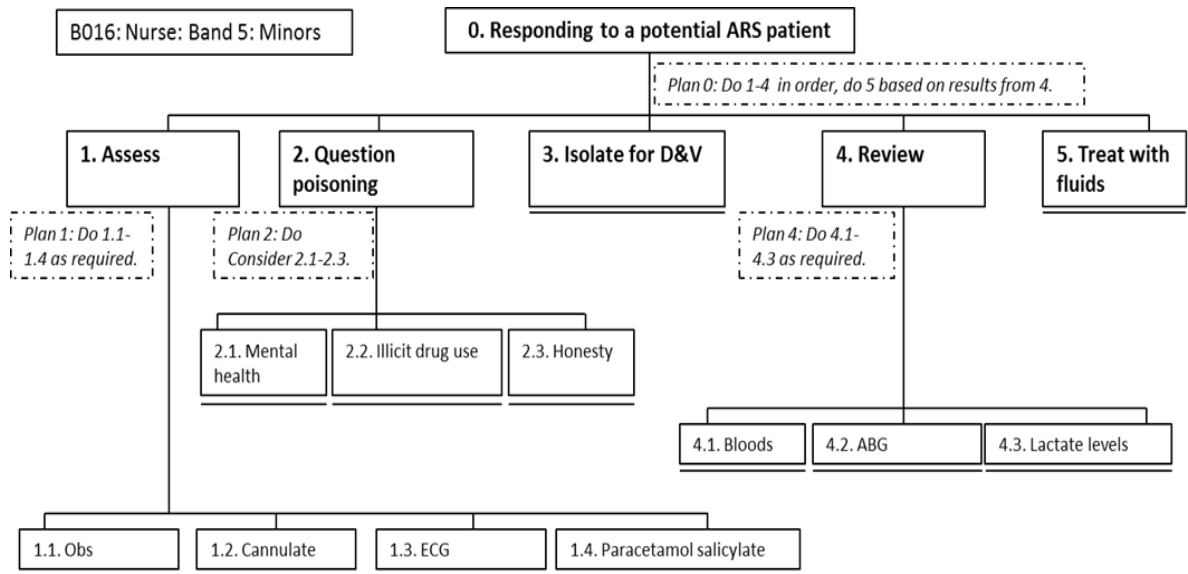
A48 1: Band 5 nurse WAD HTA



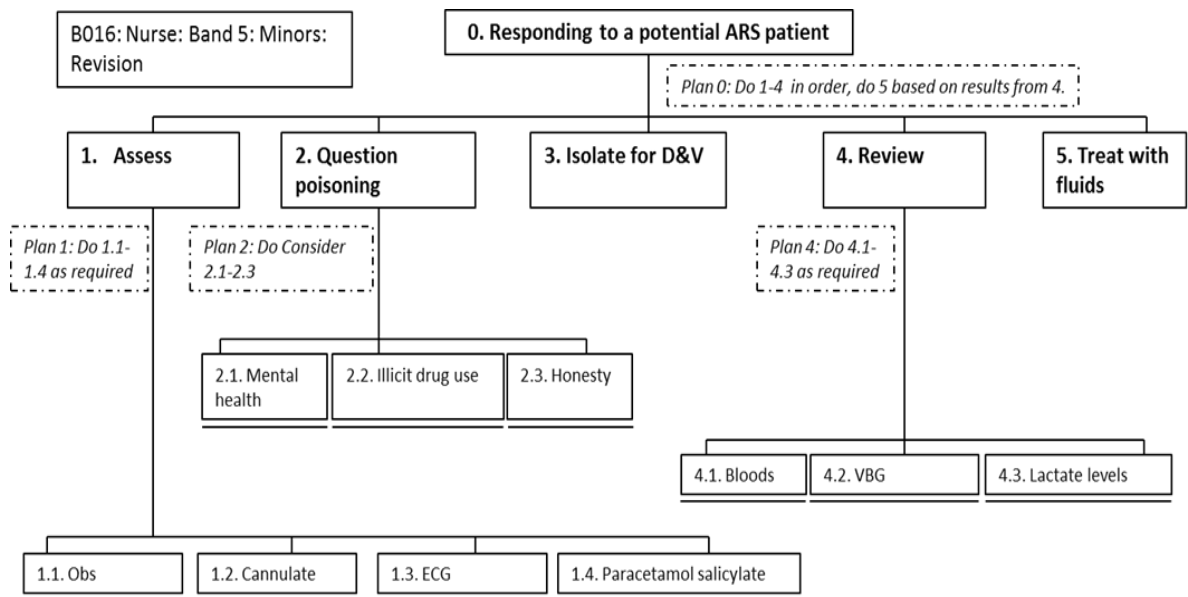
A48 2: B003: Band 6 trainee ENP HTA



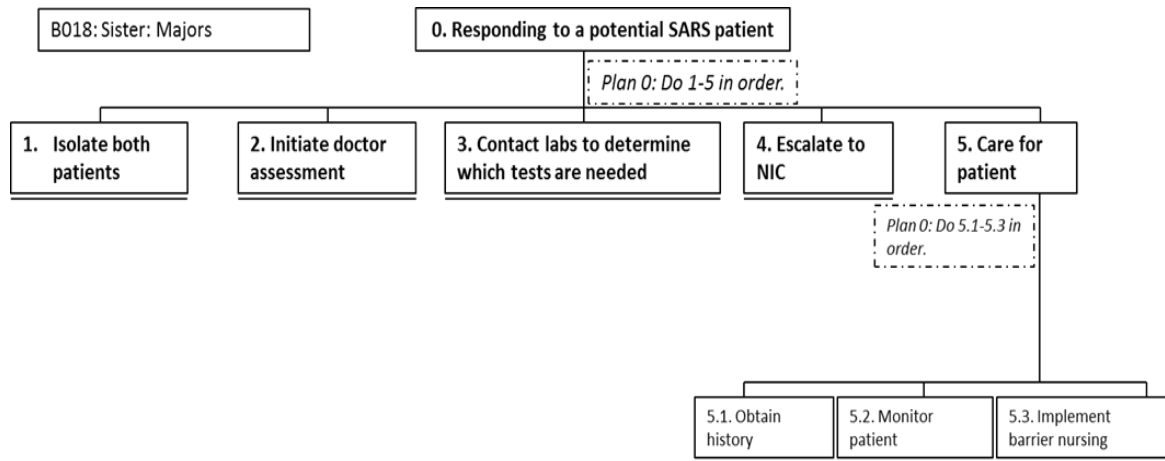
A48 3: B011: Band 7 ENP WAD HTA



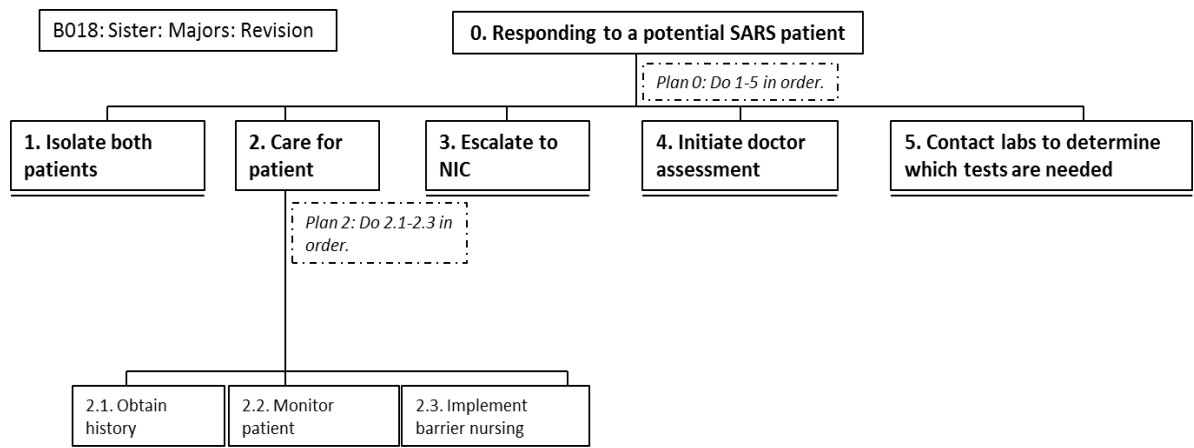
A48 4: B016: Band 5 nurse WAD HTA (version 1)



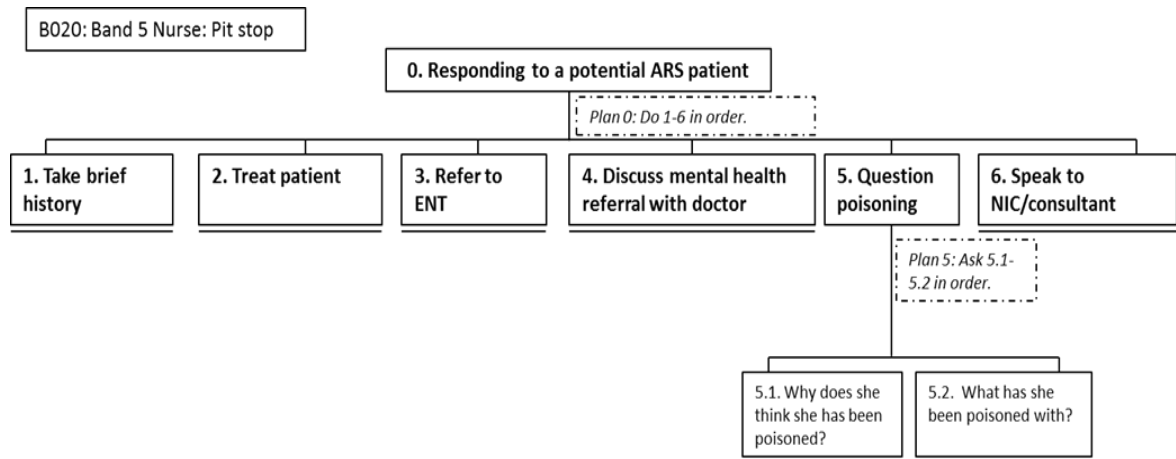
A48 5: B016: Band 5 nurse (revision)



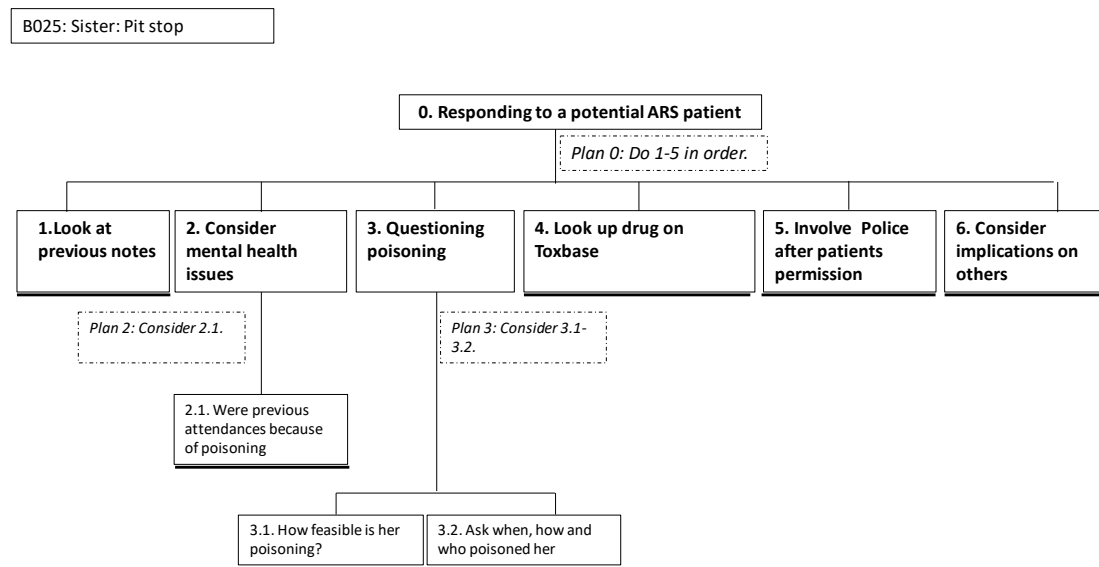
A48 6: B018: Band 6 sister WAD HTA (version 1)



A48 7: B018: Band 6 sister (revision)

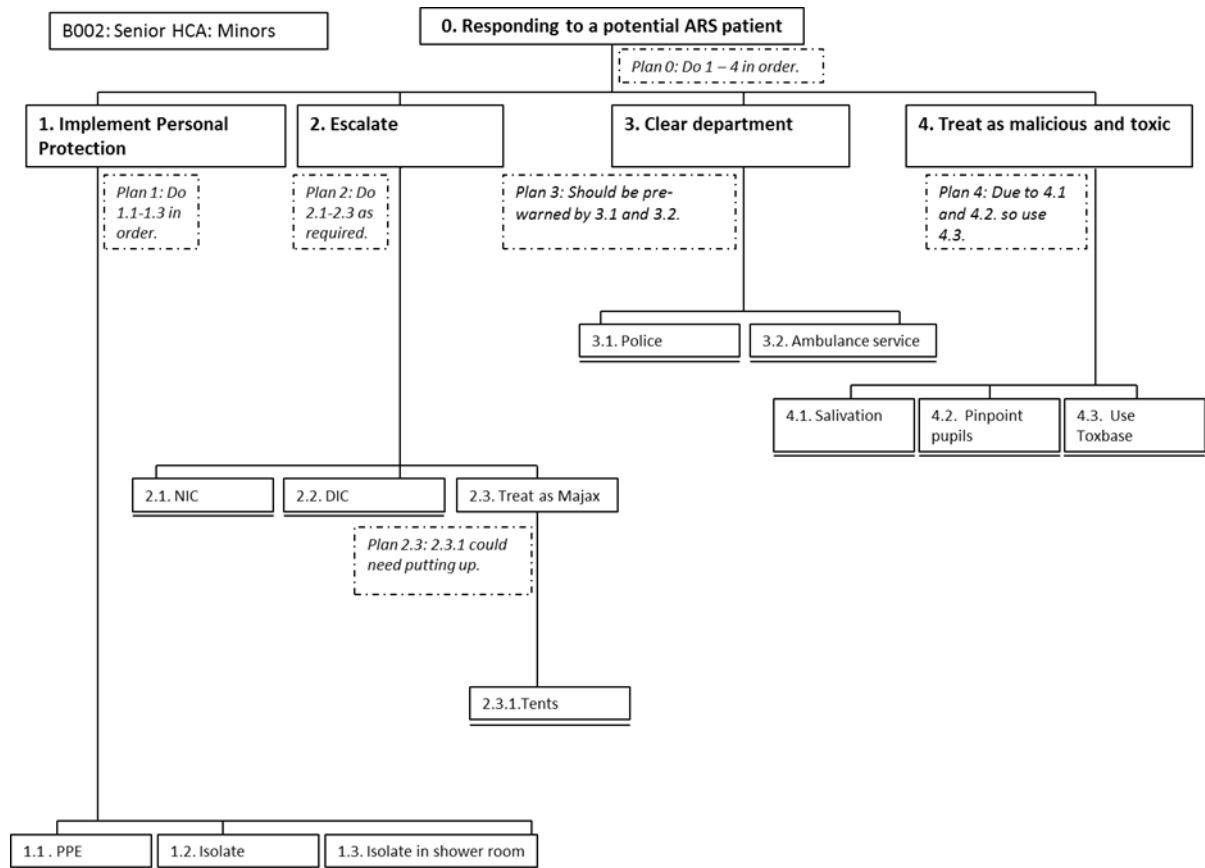


A48 8: B020: Band 5 nurse WAS HTA

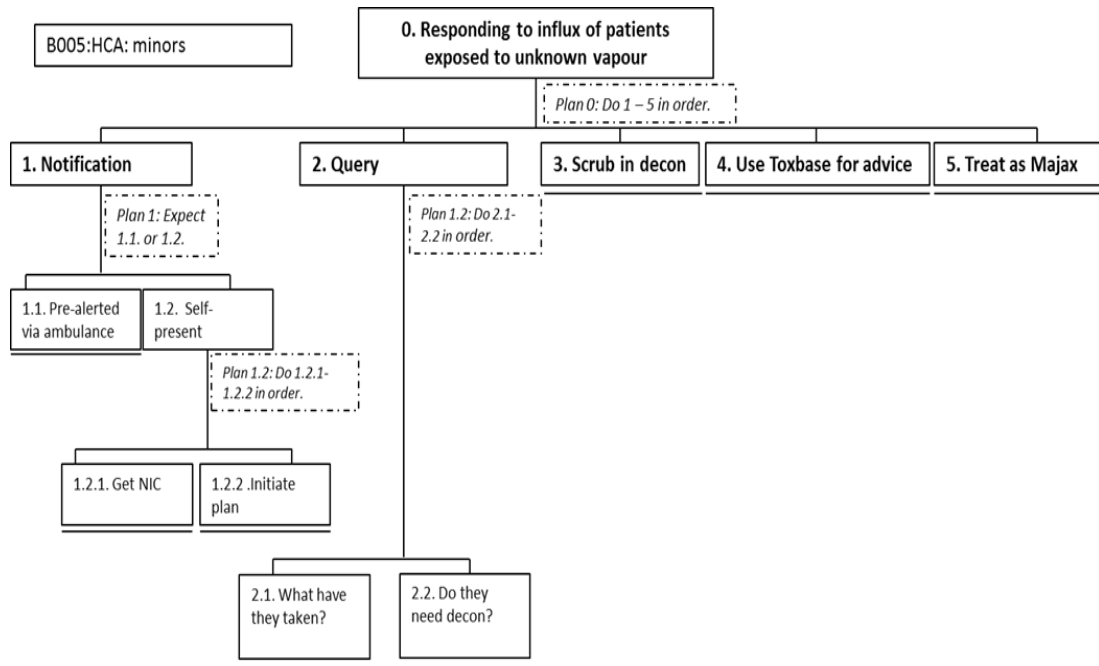


A48 9: Band 6 sister WAD HTA

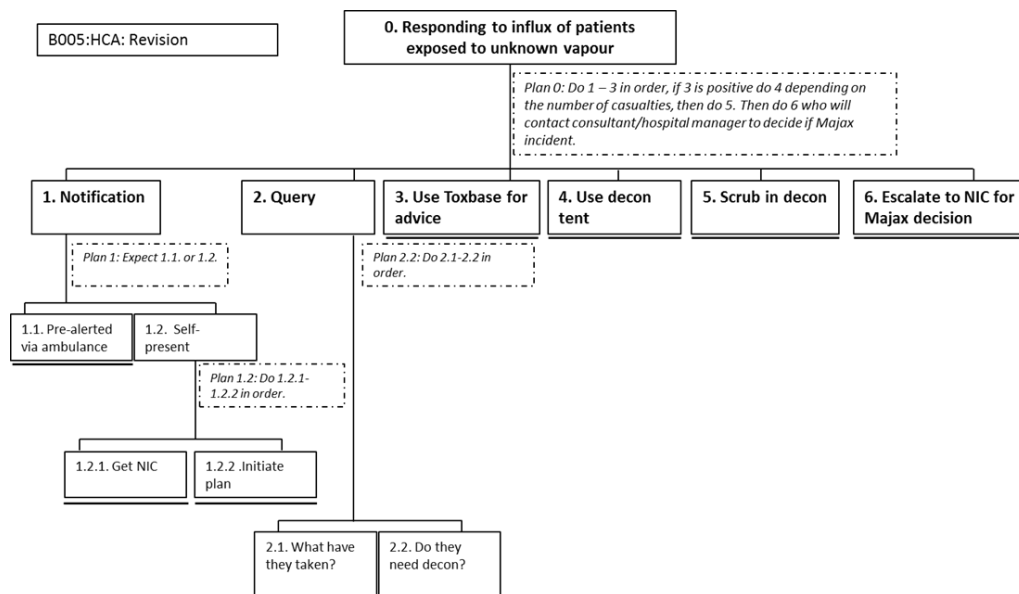
Vol 2: Appendix 49. Trust B: HCAs WAD HTAs



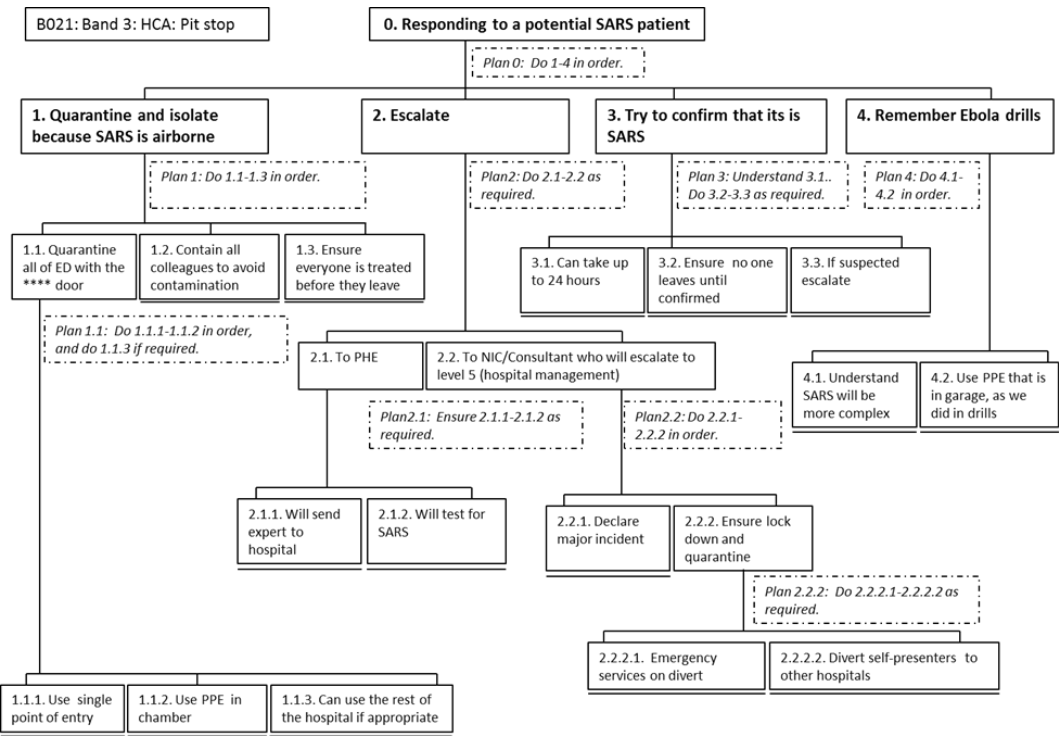
A49 1: B002: HCA WAD HTA



A49 2: B005: HCA WAD HTA (version 1)

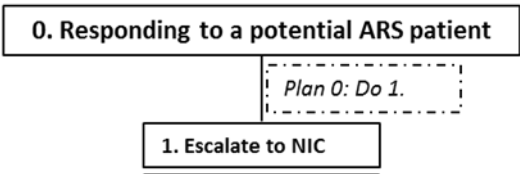


A49 3: B005: HCA WAD HTA (revision)

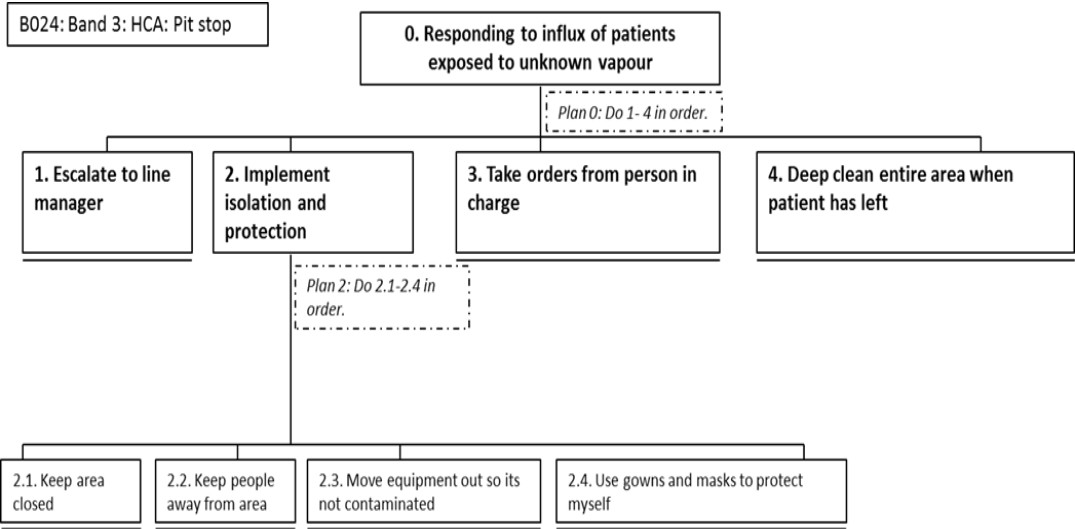


A49 4: B021: HCA WAD HTA

B023: Band 1 EDA: Minors

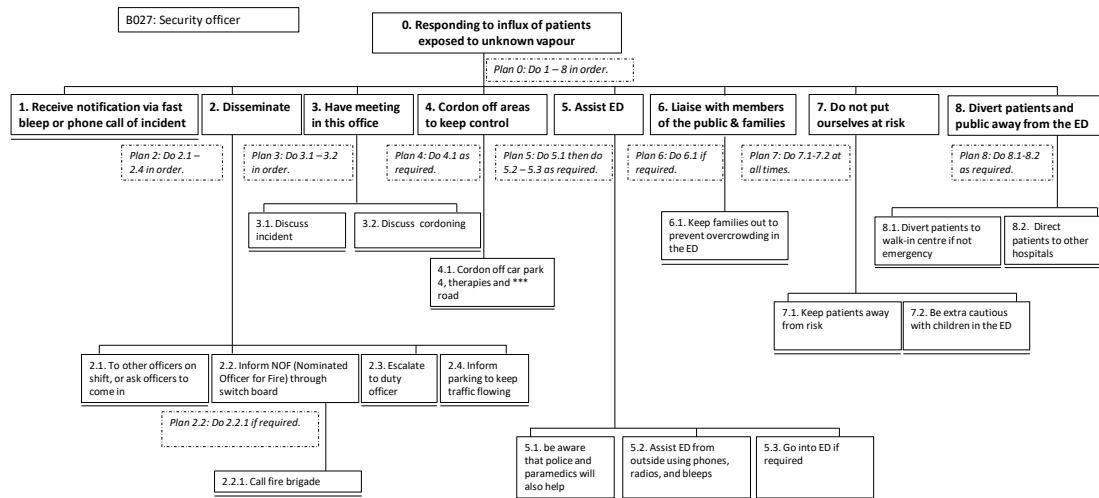


A49 5: B023: EDA WAD HTA

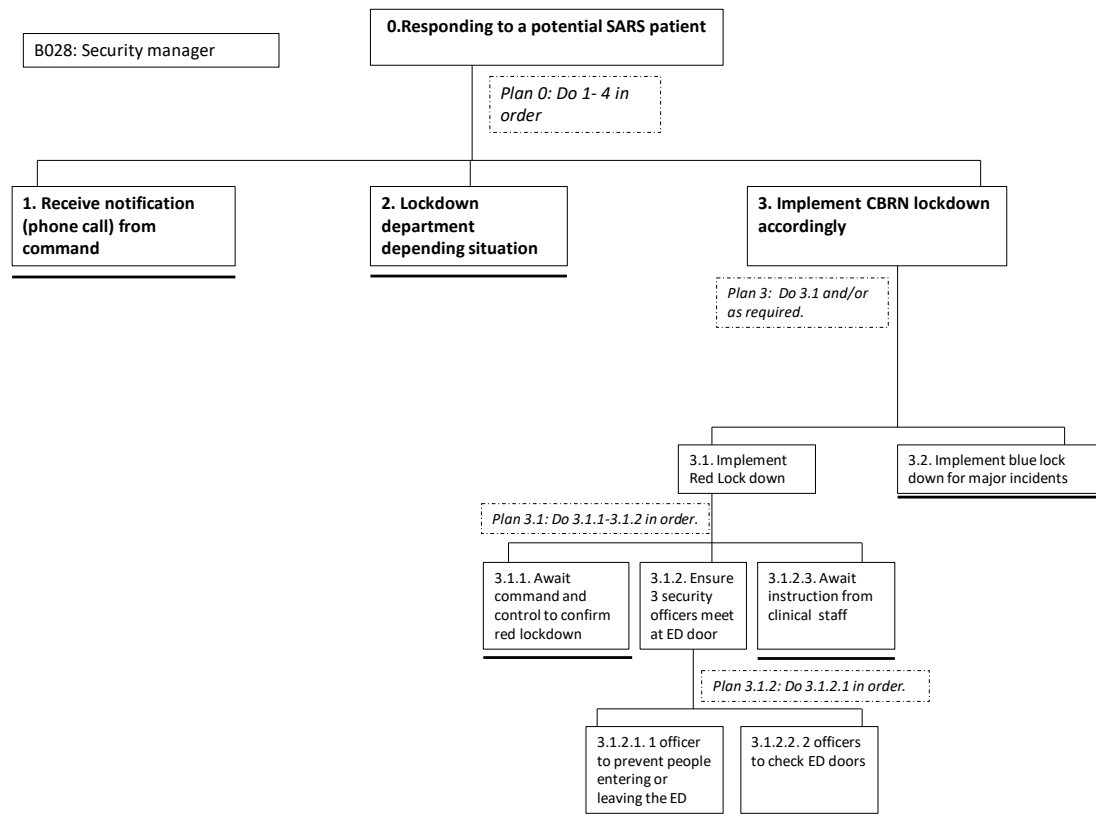


A49 6: B024: HCA WAD HTA

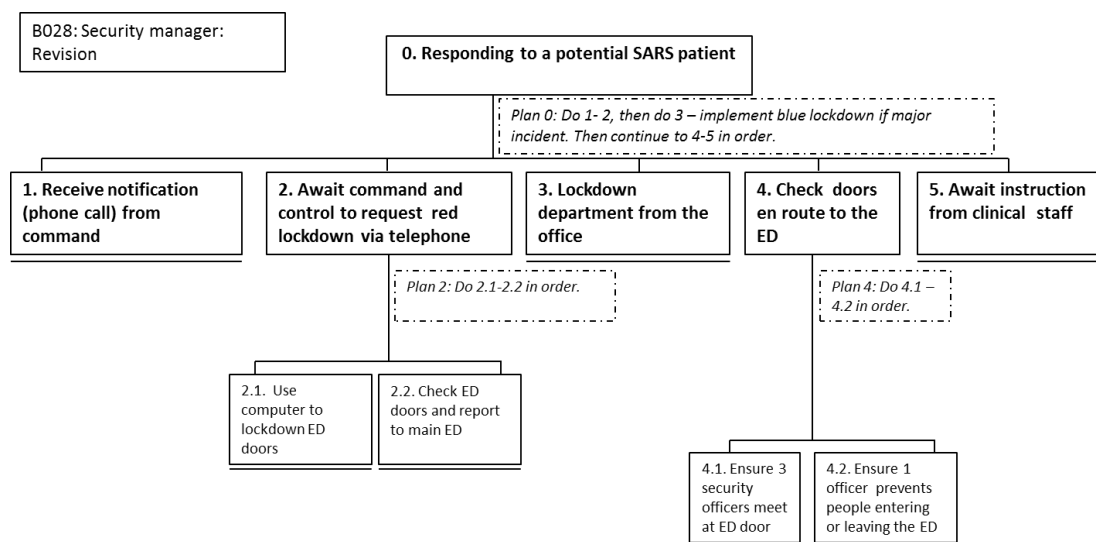
Vol 2: Appendix 50. Trust B: Security officers WAD HTAs



A50 1: B027: Security officer: WAD HTA

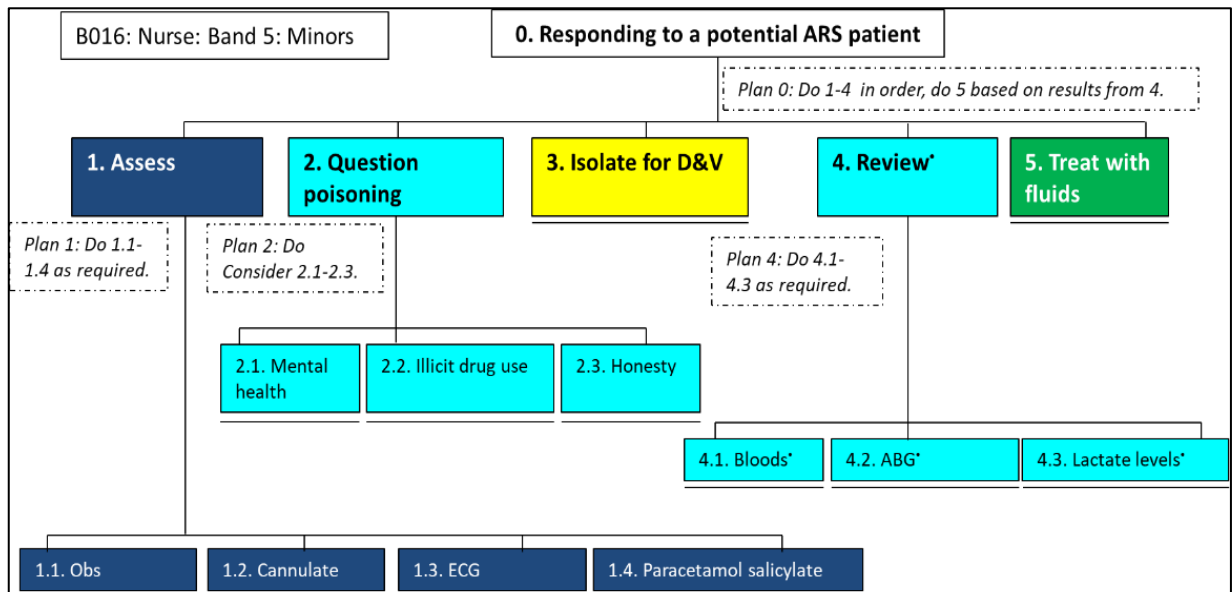


A50 2: Security manager WAD HTA (Version 1)

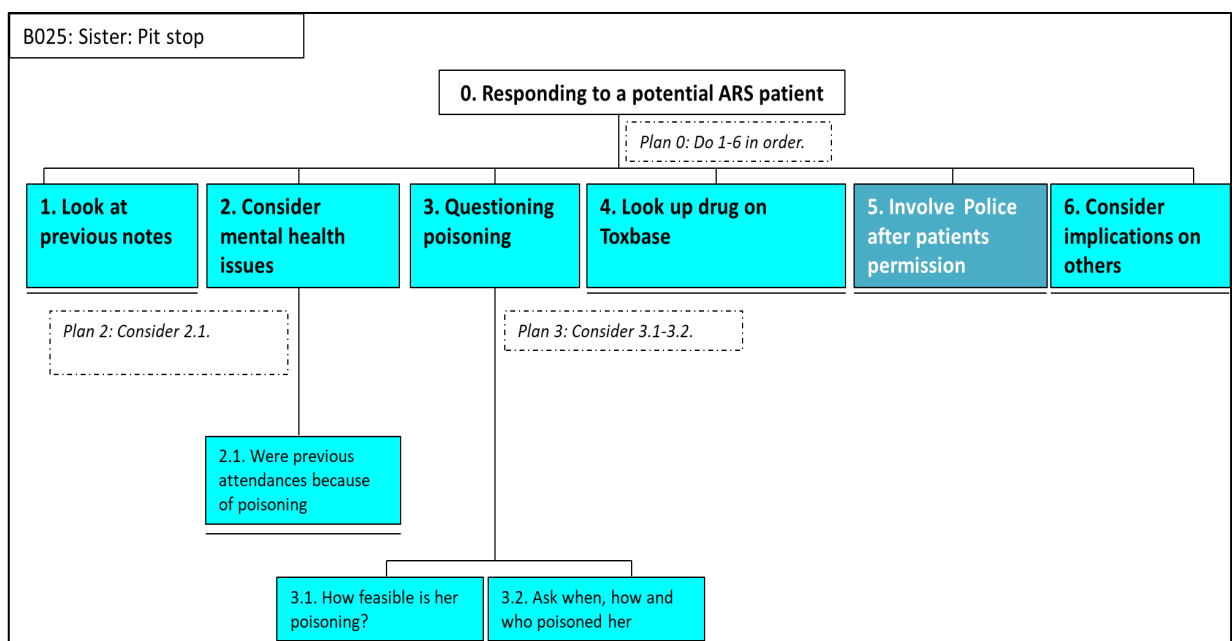


A50 3: B028: Security manager WAD HTA (revision)

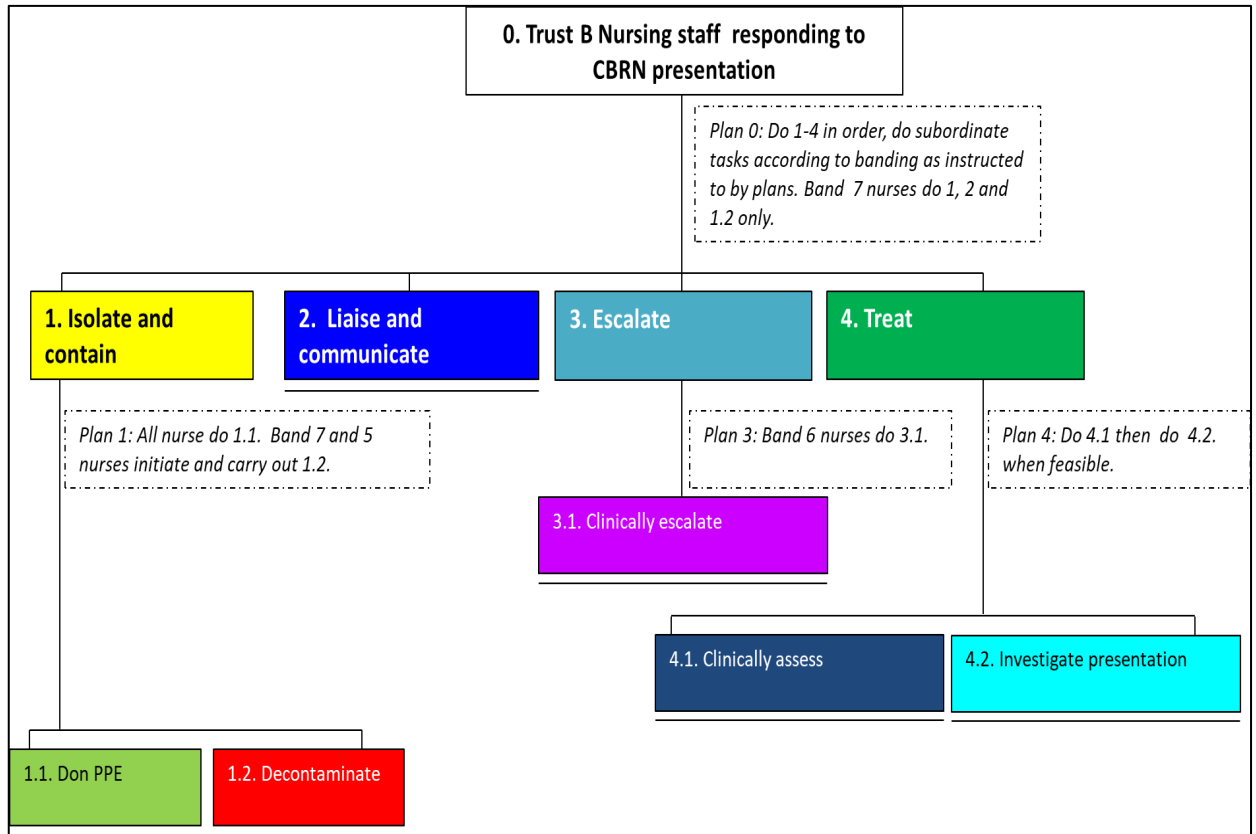
Vol 2: Appendix 51. Trust B: WAD additional results



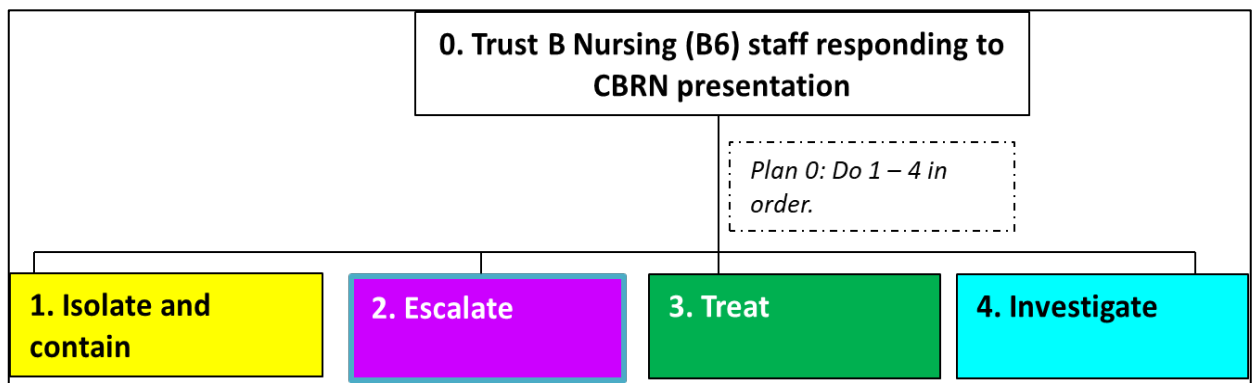
A51 1: HTA representation of Trust B band 5 nurse responding to ARS presentation



A51 2: HTA representation of Trust B band 6 nurse responding to ARS presentation

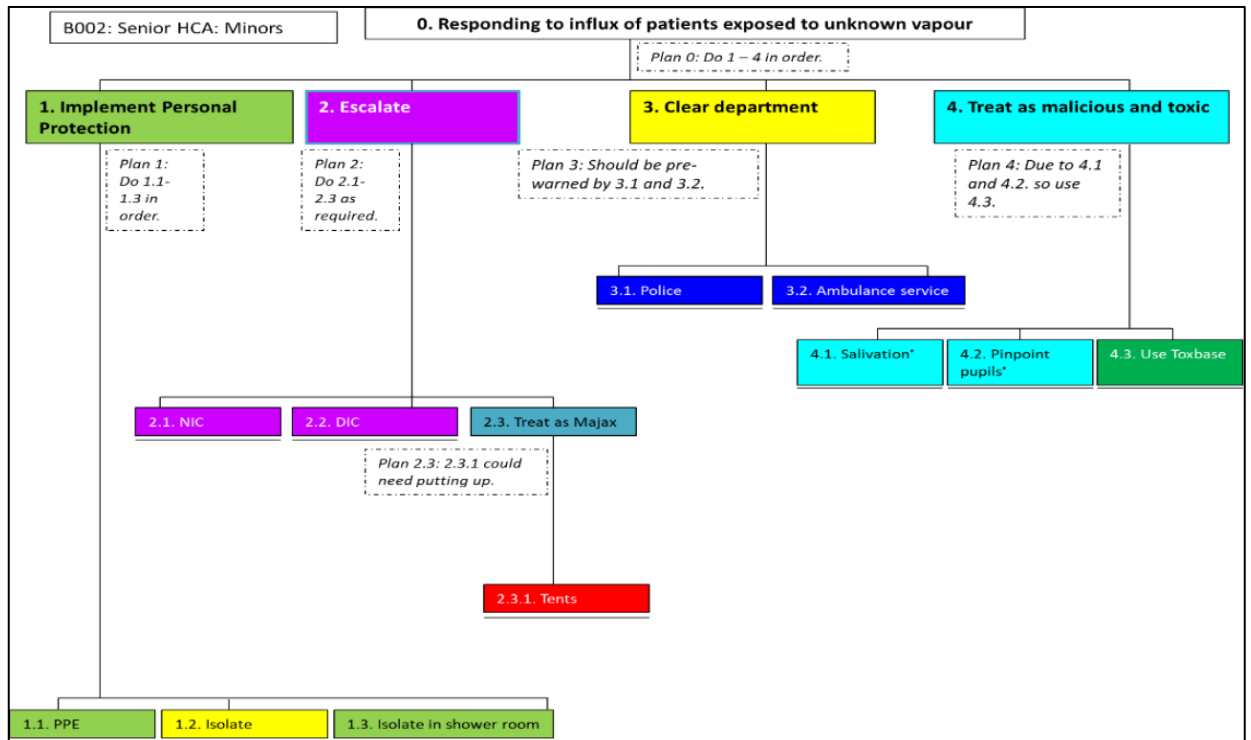


A51 3: Trust B nurses' group specific WAD HTA

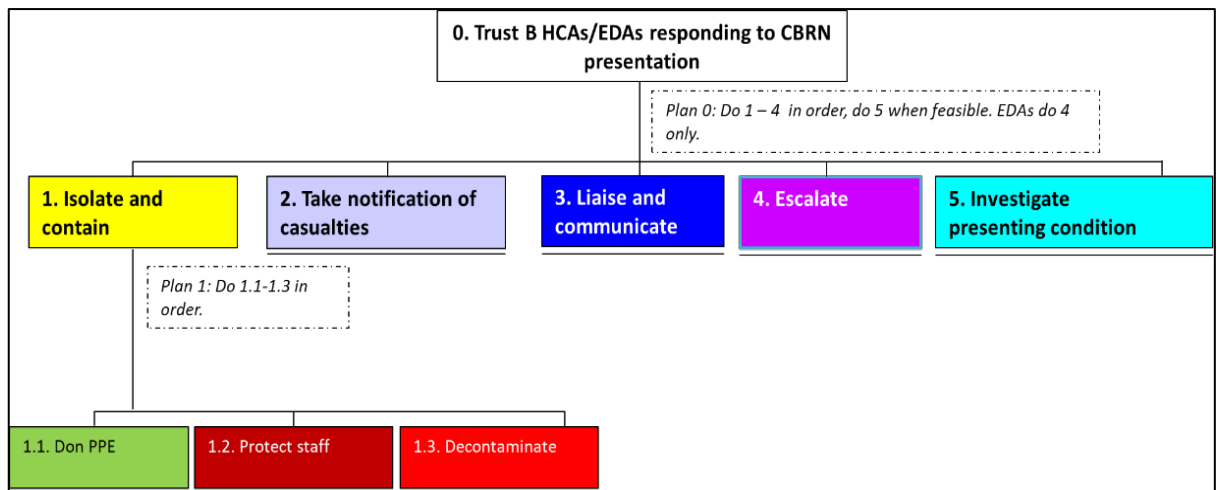


A51 4: Trust B band 6 group synthesis

HCAs

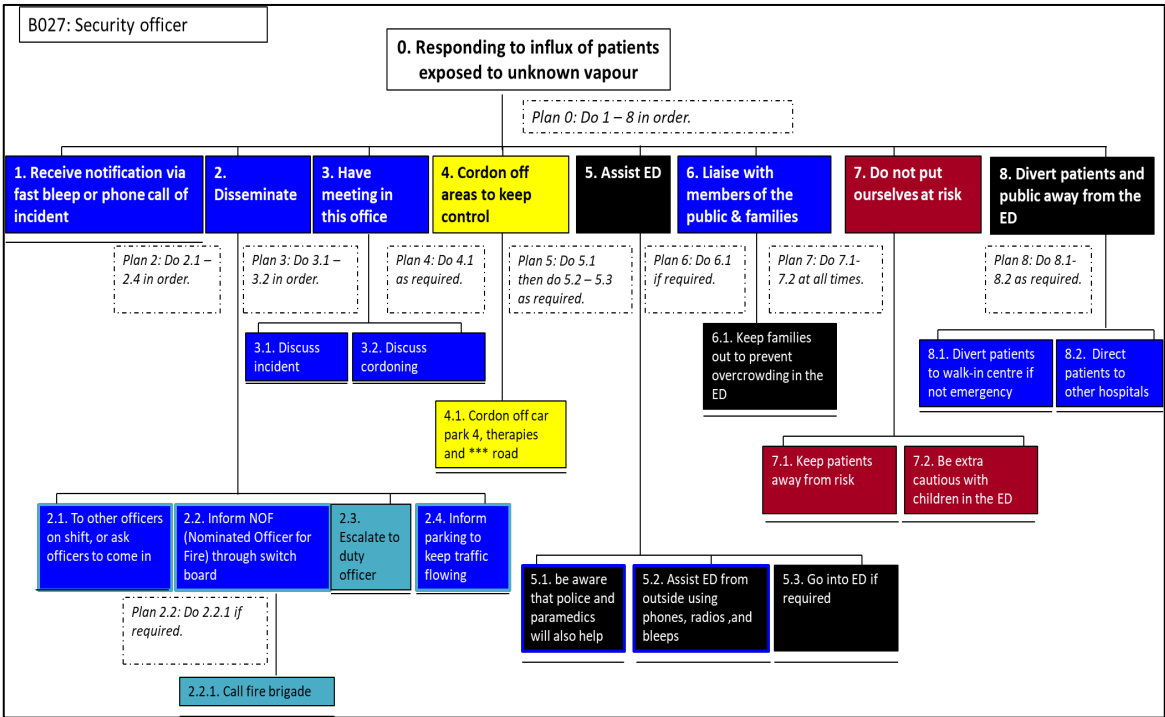


A51 5: HTA representation of Trust B HCA responding to a Sarin presentation

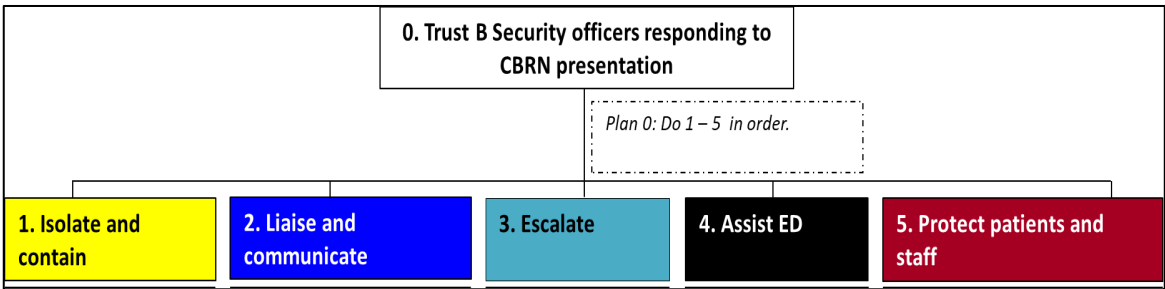


A51 6: Trust B HCAs group specific WAD HTA

Security officers



A51 7: HTA representation of Trust B security officer responding to a Sarin presentation



A51 8: Trust B security officers’ group synthesis

Vol 2: Appendix 52. Trust B: Synthesis of WAD

Trust B								
Participant	Scenario card			Common themes				
	C	B	R	Isolate and Contain	Liaise & Communicate	Escalate	Decontaminate	Investigate
B001				✓	✓	✓	✓	✗
B002				✓	✓	✓	✗	✓
B003				✓	✗	✓	✗	✓
B004				✓	✓	✓	✗	✓
B005				✗	✗	✓	✓	✓
B006				✓	✗	✓	✗	✓
B007				✗	✓	✗	✗	✓
B008				✓	✓	✗	✓	✗
B009				✓	✓	✓	✓	✗
B010				✓	✓	✓	✓	✓
B011				✓	✓	✗	✓	✗
B012				✓	✗	✓	✓	✓
B013				✓	✓	✓	✓	✓
B014				✓	✓	✓	✓	✗
B015				✗	✓	✓	✓	✓
B016				✓	✗	✗	✗	✓
B017				✗	✗	✗	✗	✓
B018				✓	✗	✓	✗	✓
B019				✓	✓	✓	✗	✗
B020				✓	✓	✓	✓	✗
B021				✓	✗	✓	✗	✓
B022				✓	✓	✗	✗	✓
B023				✗	✗	✓	✗	✗
B024				✓	✓	✓	✓	✗
B025				✗	✗	✓	✗	✓
B026				✓	✓	✗	✗	✓
B027				✓	✓	✓	✗	✓
B028				✓	✓	✗	✗	✗

Vol 2: Appendix 53. Trust A: Similarities between WAI action cards and WAD responses.

First receiver	Common WAI and WAD themes
ED Reception staff	Contain, escalate (clinical and organisational), access relevant equipment, PPE
ED nurse in charge	Recognise event occurring, manage, isolate and contain, liaise, organisational escalation, protect, decontamination, manage staff
ED doctor in charge	Take lead, liaise and communicate, follow guidelines, escalate (organisational/clinical), diagnose, treat
Decon nurse team leader (<i>Band 6</i>)	Liaise and communicate, Implement PPE
Triage/Disrobing nurse (<i>Band 6</i>) (dry decontamination)	PPE, liaise and communicate, isolate and contain, protect
Triage/Disrobing nurse (wet decontamination) (<i>Band 6</i>)	Liaise and communicate, isolate and contain, PPE
Unqualified (HCA)	Decontaminate, PPE
Timing board nurse?	PPE, liaise and communicate
Exit nurse (<i>Band 5</i> and HCA)	Liaise and communicate
Assessment doctor (doctors)	Escalate (organisational), liaise, treat, clinically assess
PPE buddy donning Powered Respirator Suit (PRPS) (<i>HCA</i>)	Liaise and communicate, don PPE, prevent cross contamination, protect staff
PPE buddy doffing PRPS suit (<i>HCA</i>)	Liaise and communicate, prevent cross contamination, protect staff
PPE buddy (enhanced biological precautions) (<i>Band 5</i>)	PPE, protect, isolate and contain, don PPE
PPE buddy strict biological precautions (<i>Band 5</i>)	Isolate and contain, PPE (all tasks), protect
Porter	Assist, liaise and communicate
Security officer	PPE, provide access, secure, escalate (organisational)
Medical physicist	Liaise and communicate, PPE, equipment, isolate and contain

Vol 2: Appendix 54. Trust A: Differences between WAI action cards and WAD responses.

First receiver	WAI differences	WAD differences
ED Reception staff	Document	Treat
ED nurse in charge	Document	Treat/provide patient care, PPE.
ED doctor in charge	Document	Isolate and contain, PPE, protect staff, prevent cross contamination, investigate
Decon nurse team leader (B6)	Document, decontaminate, equipment, manage staff	Escalate, <i>investigate/*</i> , diagnose, treat,
Triage/Disrobing nurse (dry decontamination)	Document, clinically asses/triage, identify/detect, manage staff, access/provide equipment, team, decontaminate	Escalate (organisational/clinical), investigate/* treat, diagnose, treat, investigate/*
Triage/Disrobing nurse (wet decontamination)	Document, access/provide equipment, manage casualties, decontaminate, team, clinically asses/triage, identify/detect	Protect staff, escalate (organisational and clinical), diagnose, treat, investigate/*
Unqualified (HCA)	Document, communicate, access/provide equipment, time	Isolate and contain, prevent cross contamination, manage influx of casualties, liaise and communicate, escalate (organisational/clinical), treat, investigate/*
Timing board nurse	Document, access/provide equipment, manage staff, time, assist	Isolate and contain, protect (staff), Escalate (organisational/clinical), treat, investigate/*
Exit nurse	Document, access/provide relevant equipment, identify/detect, clinically asses/triage	Isolate and contain, PPE, protect (staff), treat, escalate (organisational/clinical), investigate/*
Assessment doctor	Document, access relevant equipment	Take lead, take notification of casualties, isolate and contain, don PPE, protect, capacity, diagnose, guidance, diagnose, patient care/treat, investigate/*
PPE buddy donning Powered Respirator Suit (PRPS)	Initiate recover from CBRN incident, assist, check, access/provide relevant equipment	Escalate (clinical/organisational), manage influx of patients, treat, decontamination, investigate/*
PPE buddy doffing PRPS suit	Document	Isolate and contain, don PPE, manage influx of patients, treat, carry out decontamination, escalate (clinical/organisational), investigate/*
PPE buddy (enhanced biological precautions)	-	Escalate (clinical/organisational), investigate/*
PPE buddy strict biological precautions	Communicate	Escalate (clinical/organisational), treat, investigate/*
Porter	Document	Isolate and contain, don PPE, have patient awareness and sensitivity
Security officer	Document	Manage
Medical physicist	Document, advise, protect (self/staff/environment)	Escalate (clinical/organisational), patient care/treatment, decontaminate, monitoring

Vol 2: Appendix 55. Trust B: Similarities between WAI action cards and WAD responses.

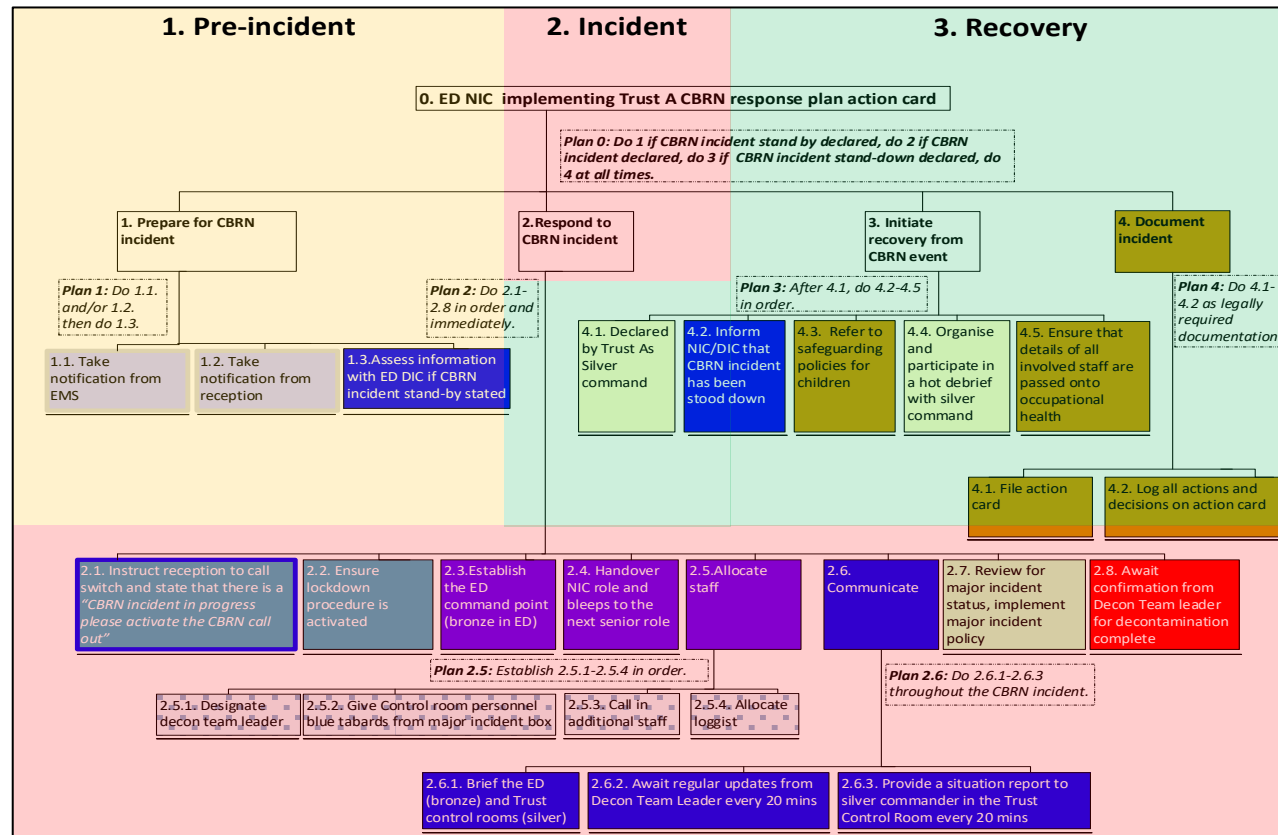
First receiver^{*#}	Common WAI and WAD themes
Senior doctor	Manage incident, liaise and communicate, make decisions
Lead nurse	Manage incident, liaise and communicate, Escalate (clinical and organisational)
Admin staff	Liaise and communicate
Board control operator (Band 5 nurse)	Liaise and communicate
Decontamination lead (Band 6 or 7)	Liaise and communicate, manage incident, decontaminate, protect (staff) (B7)
Decontamination Triage officer (Band 5 nurse)	Liaise and communicate, clinically assess, decontaminate.
Loggist (Admin staff)	Liaise and communicate, document
Porter	Did not interview
Senior receptionist	Liaise and communicate
P1 lead doctor (Allocation based on time of day/mostly senior – doctors HTA used)	Lead/manage incident, liaise and communicate, clinically assess, and PPE
P2 lead doctor (Allocation based on time of day/mostly senior – doctors HTA used)	Lead/manage, liaise and communicate, and clinically assess
P3 lead doctor (Allocation based on time of day/mostly senior – doctors HTA used)	Lead/manage, liaise and communicate, and clinically assess
Triage clinician (Doctors HTA used)	Manage incident, clinically assess, liaise and communicate

*No action card for security officers # No specific action cards for HCAs

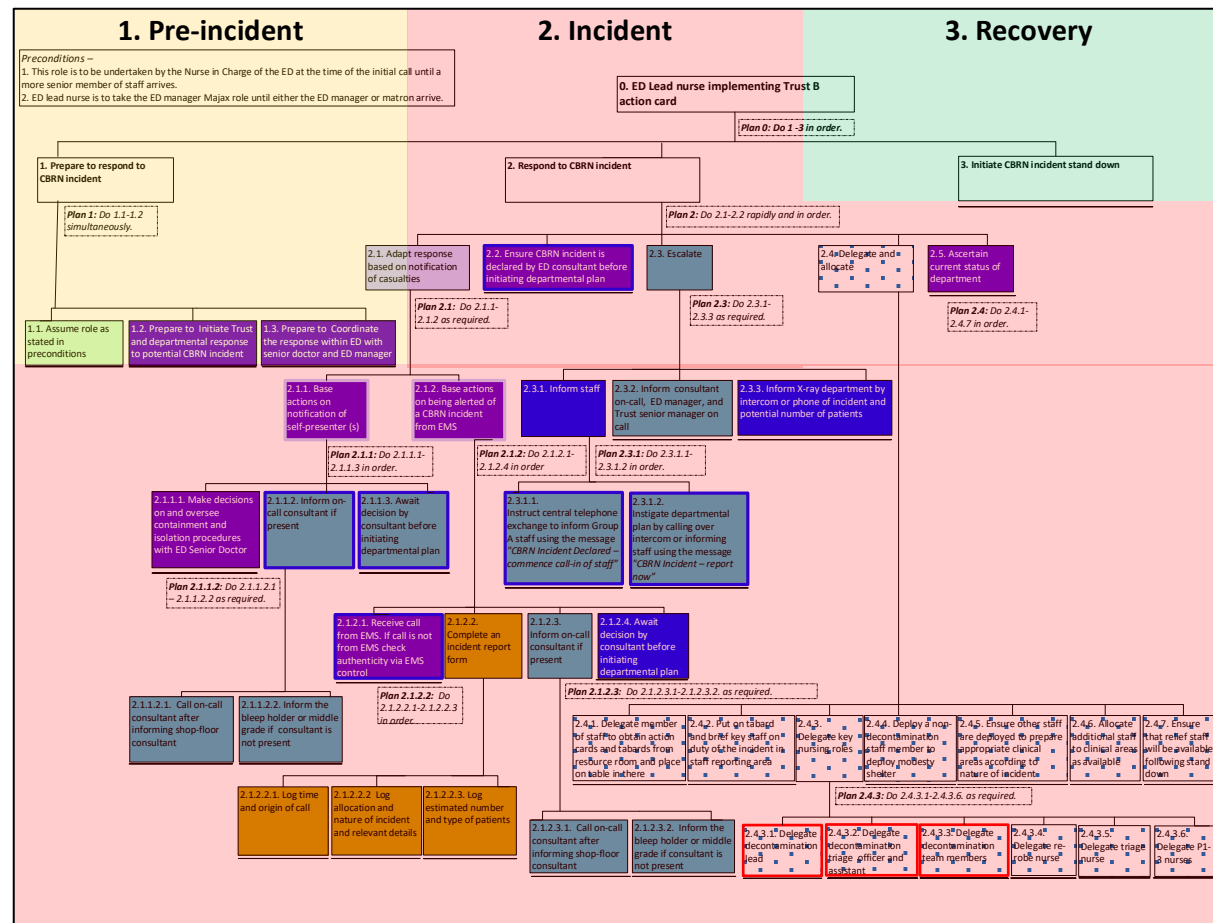
Vol 2: Appendix 56. Trust B: Differences between WAI action cards and WAD responses.

First receiver*#	WAI differences	WAD differences
Senior doctor	-	Recognise event occurring, manage staff, isolate and contain, secure department, prevent cross contamination, have incident knowledge, escalate (organisational), follow guidance, establish teams, provide equipment, decontaminate, investigate (presentation), detect/identify agent, clinically assess, treat.
Lead nurse	Document, manage staff	Isolate and contain, protect (staff), don PPE, decontamination, clinically assess, treat, investigate presenting condition.
Admin staff	Support	Clinically escalate, isolate and contain, guidance, patient flow, investigate presentation, consider decontamination, document.
Board control operator	Protect (team), time, document, manage incident	Isolate and contain, don PPE, decontaminate, escalate (organisational and clinical), treat, clinically assess, investigate presentation
Decontamination lead	Document, organise equipment	(B7) Isolate and contain, don PPE, assess and treat, investigate presenting condition (B6) Isolate and contain, escalate (clinical/organisational) treat, investigate (presentation)
Decontamination Triage officer	Support, protect (staff), manage incident, monitor	Isolate and contain, don PPE, escalate (organisational/clinical), treat, clinically assess, investigate presentation
Loggist	Document	Clinically escalate, isolate and contain, follow guidance, patient flow, investigate presentation, decontamination, document
Porter		Did not interview
Senior receptionist	Manage staff, document.	Clinically escalate, isolate and contain, follow guidance, patient flow, investigate presentation, consider decontamination, document.
P1 lead doctor	Document	Isolate and contain, PPE, make decisions, protect (staff), escalate (organisational and clinical), treat, investigate (presentation and symptoms).
P2 lead doctor	Document	Isolate and contain, PPE, make decisions, protect (staff) escalate (organisational/clinical), treat, investigate (symptoms and presenting condition).
P3 lead doctor	Document	Isolate and contain, PPE, make decisions, protect (staff) escalate (organisational/clinical), treat, investigate (symptoms and presenting condition).
Triage clinician	Document	PPE, make decisions, protect (staff), escalate (organisational/clinical) investigate (symptoms and presenting condition), treat.
Security	No security action card	Isolate and contain, liaise and communicate, escalate (organisational), assist ED, protect patients and staff

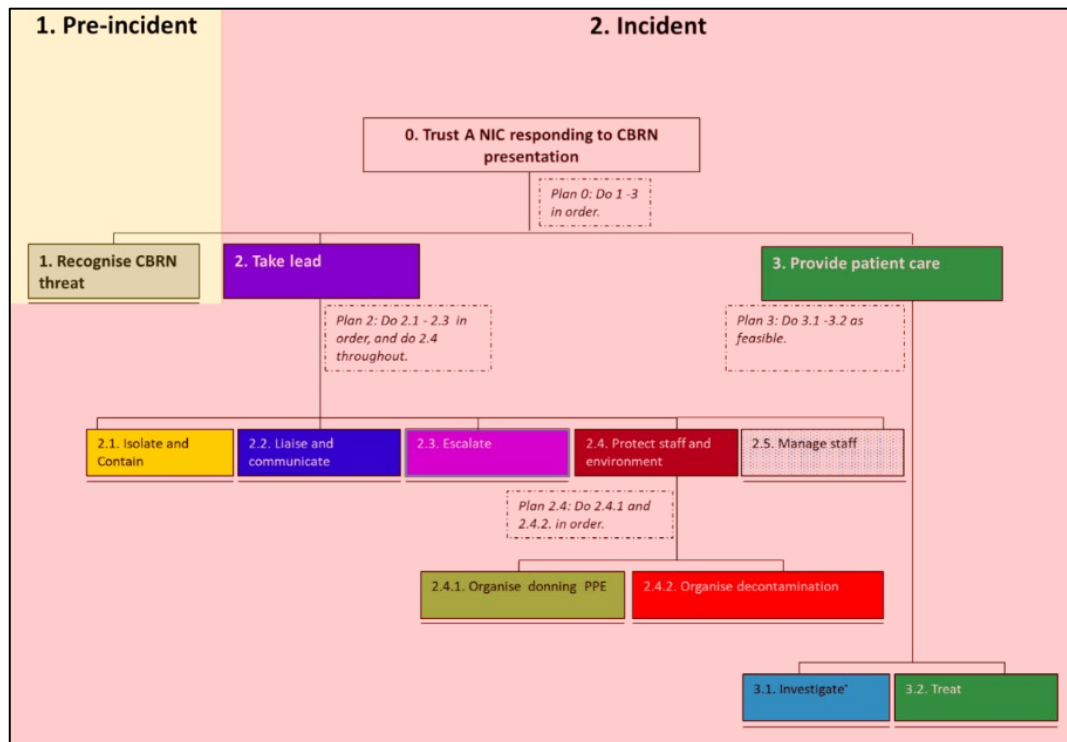
Vol 2: Appendix 57. Comparing WAD across NICs



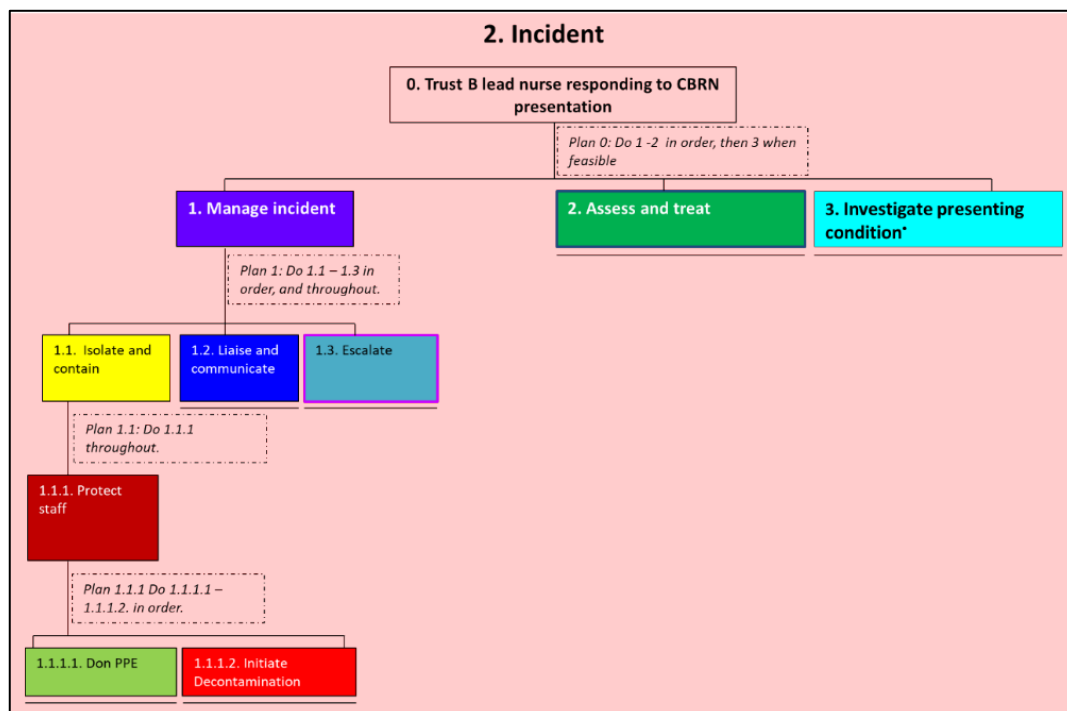
A57 1: Trust A: NIC action card



A57 2: Trust B Lead nurse

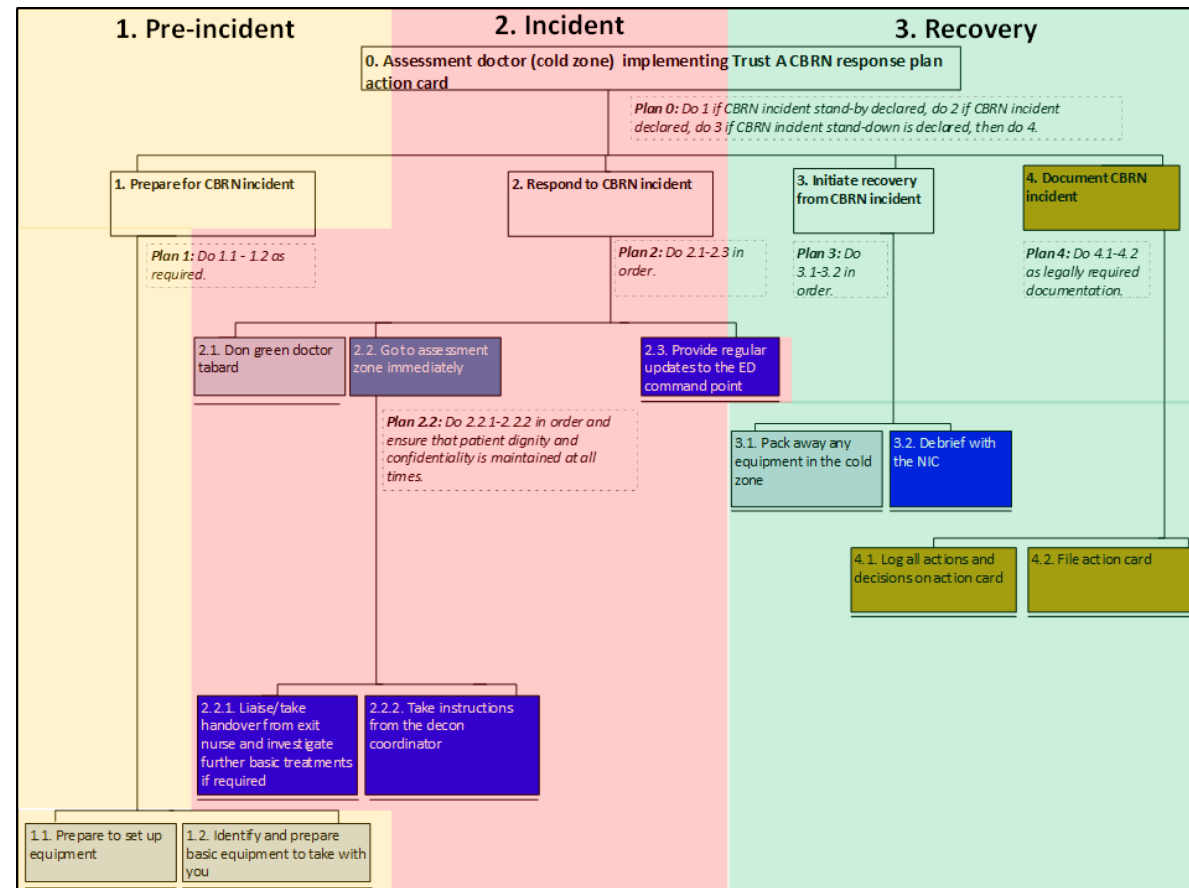


A57 3: Trust A: NIC responding to a CBRN event

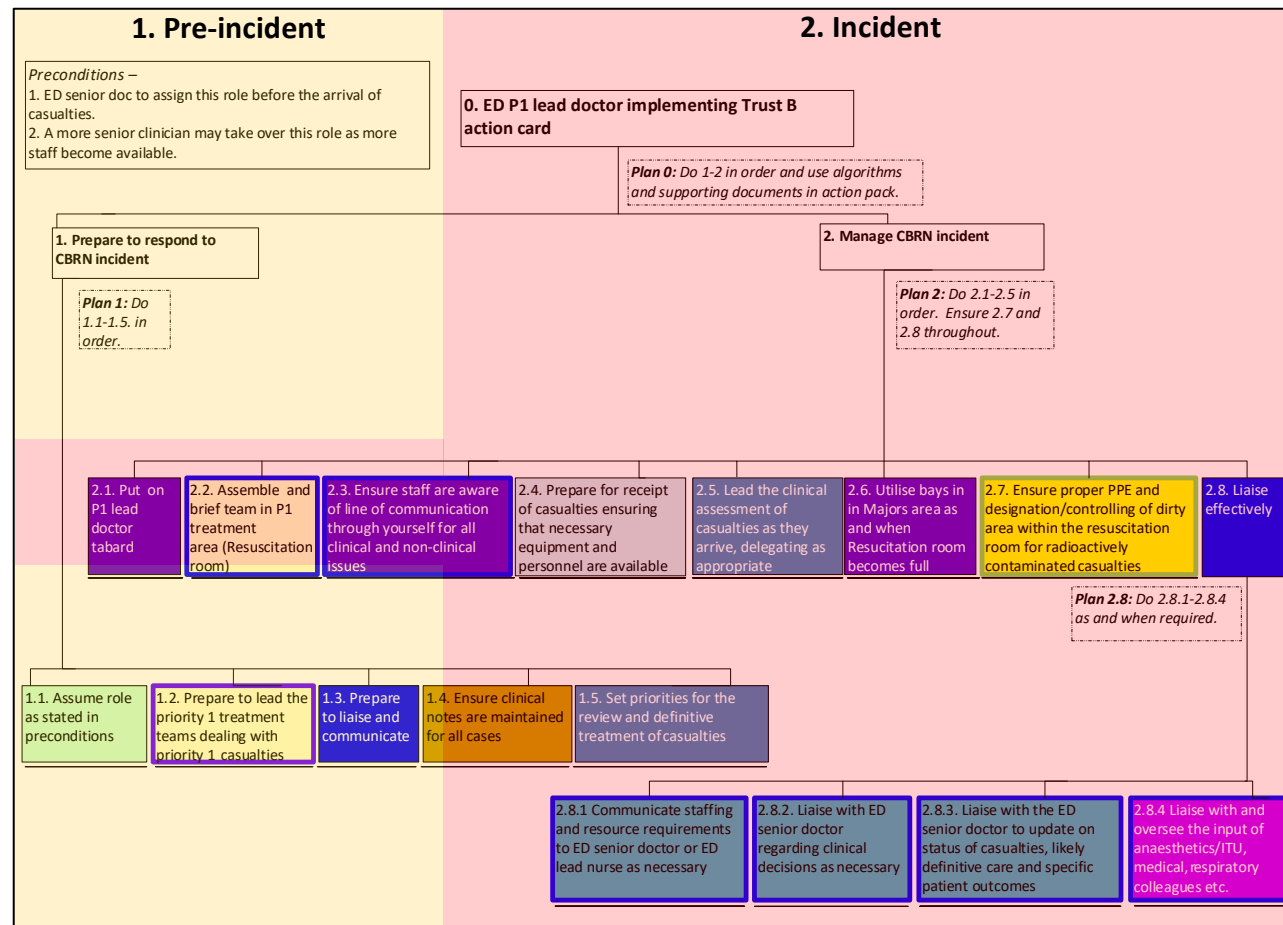


A57 4: Trust B lead nurses responding to as CBRN event

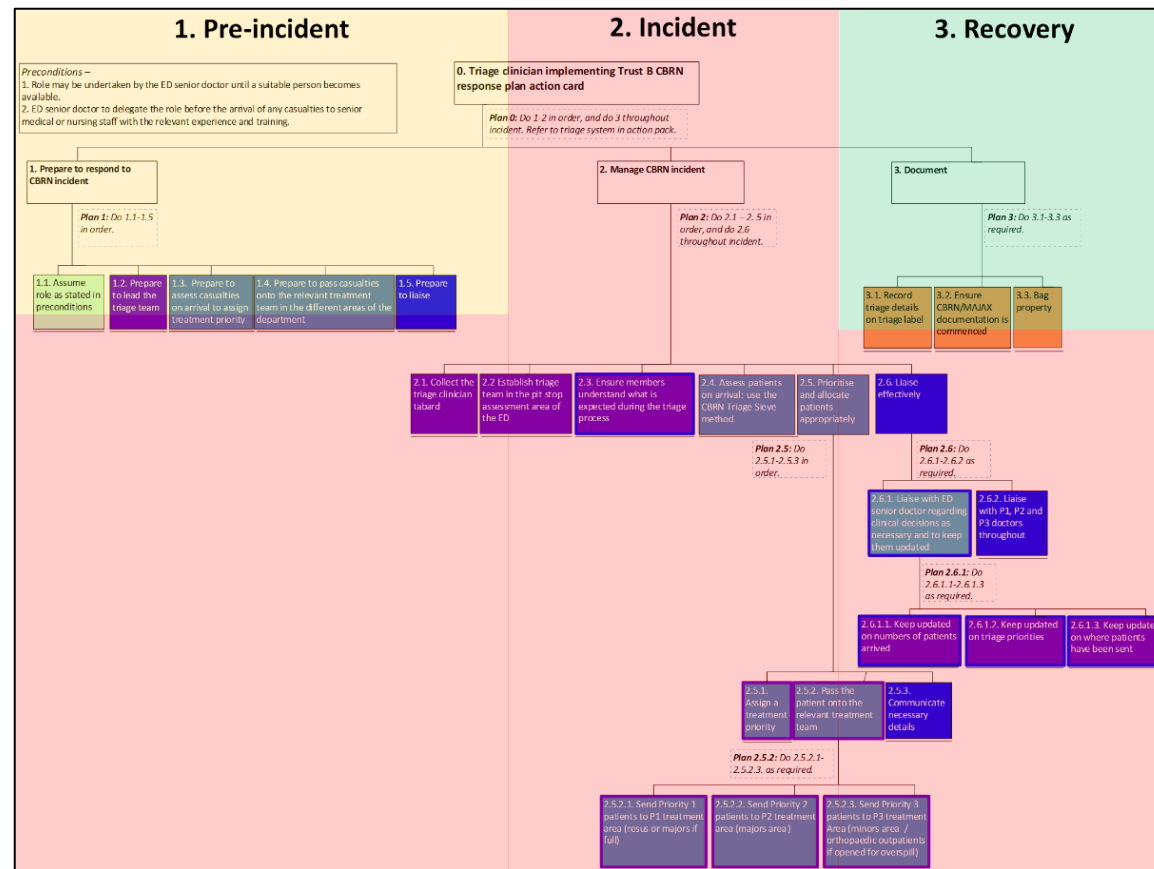
Vol 2: Appendix 58. Comparing WAD across doctors



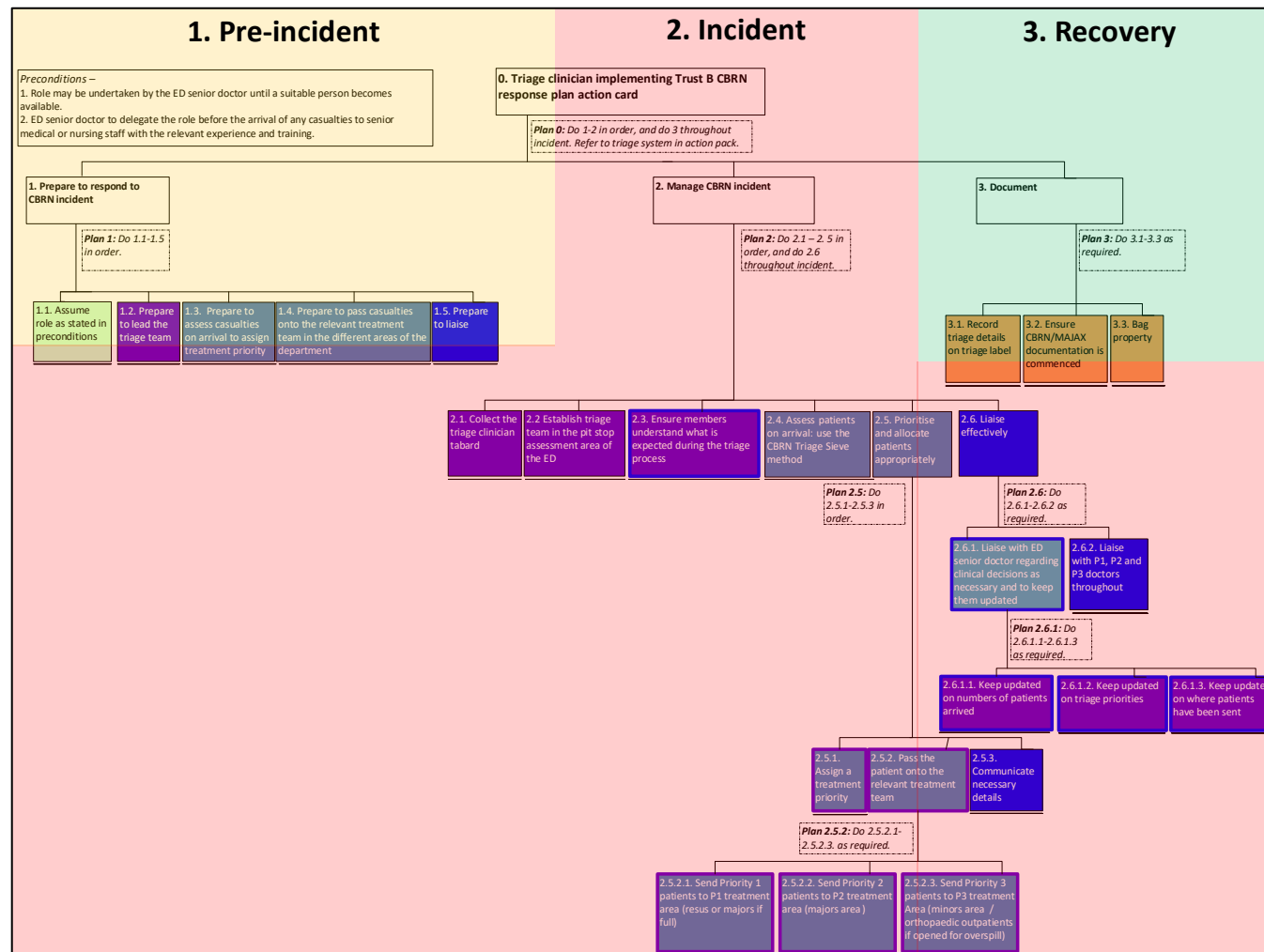
A58 1: Trust A: Assessment doctor action card



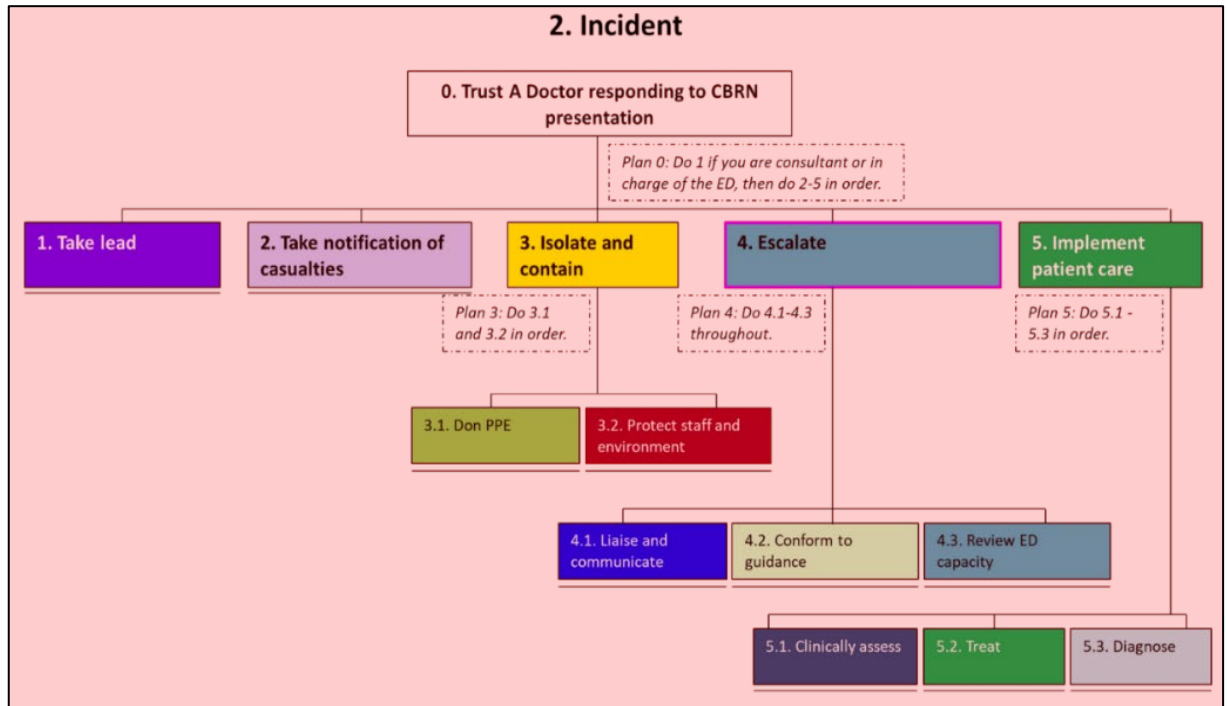
A58 2: Trust B: P1 doctor response to CBRN event



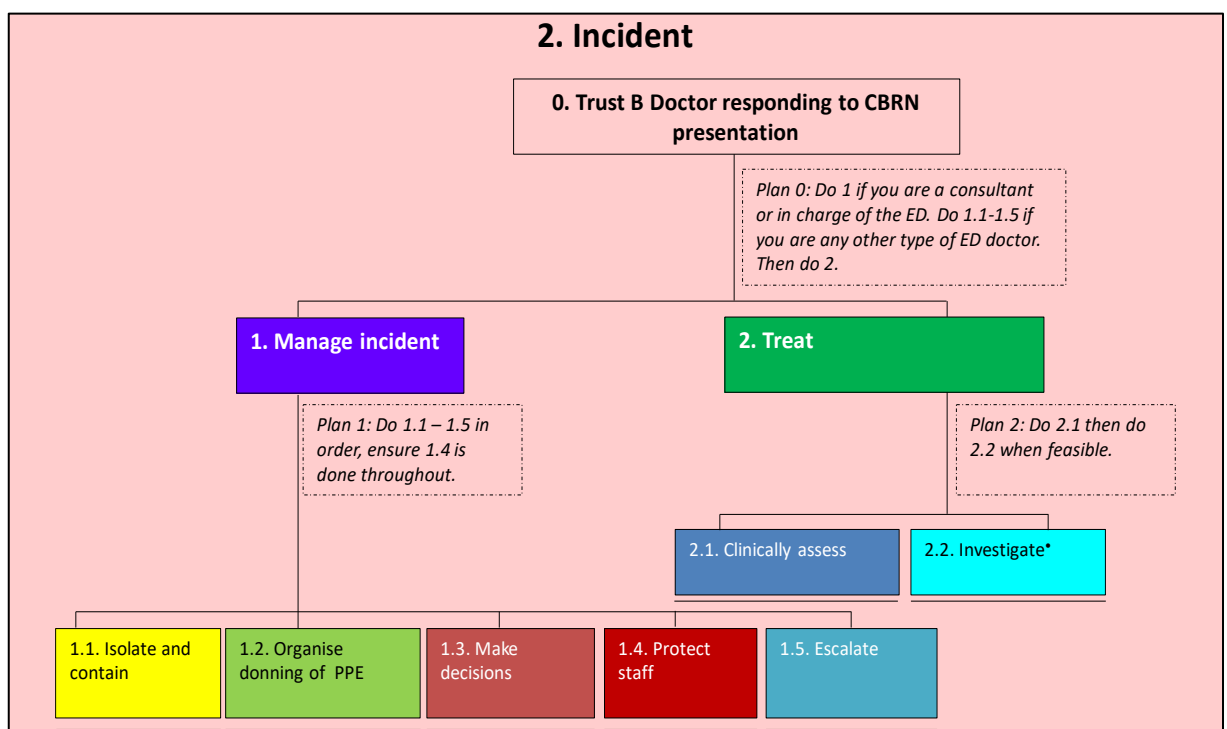
A58 3: Trust B: Triage clinician response to CBRN event



A58 4: Trust B: Triage clinician response to CBRN event

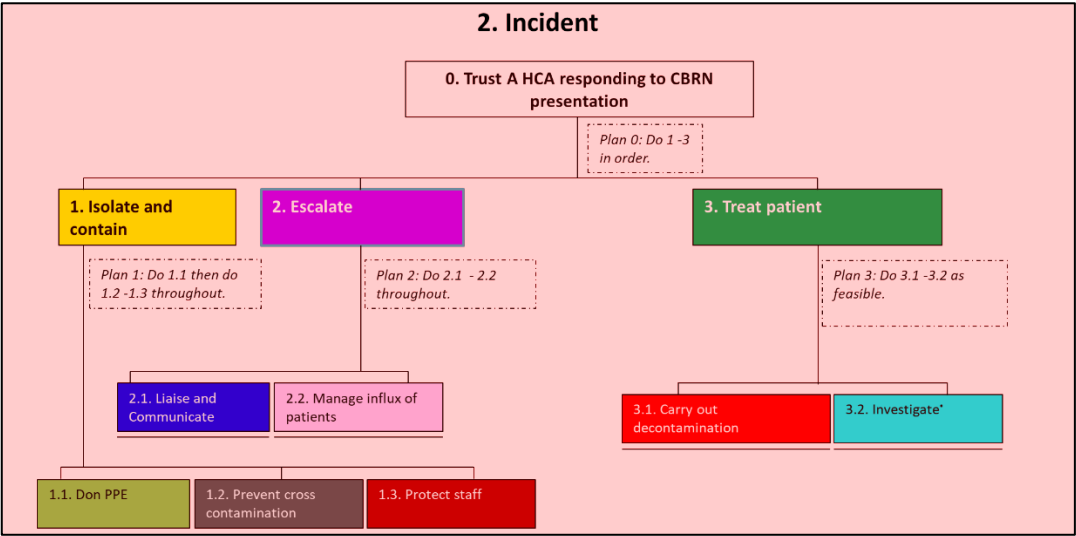


A58 5: Trust A: Doctor response to CBRN event

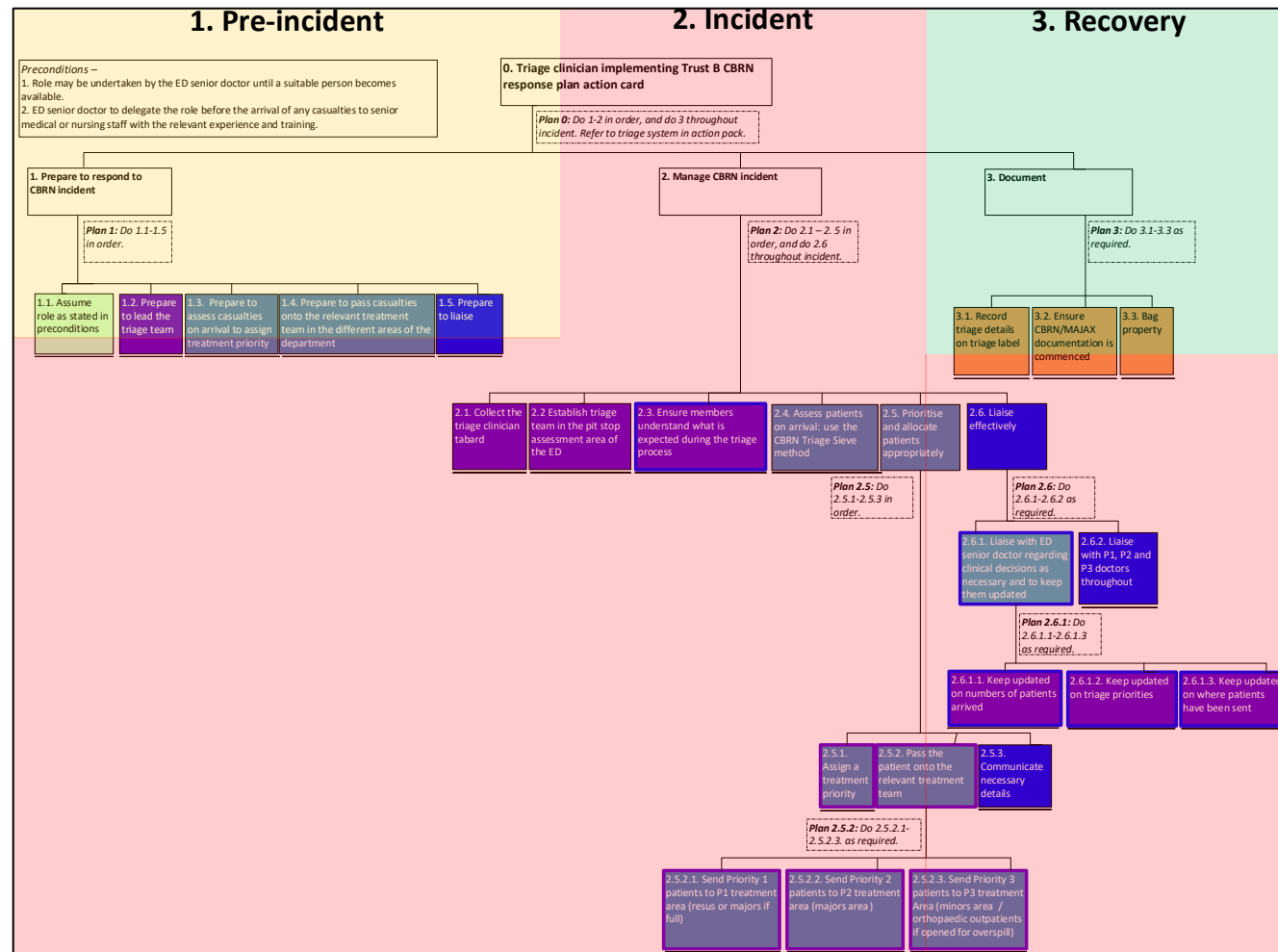


A58 6: Trust B: Doctor responding to a CBRN event

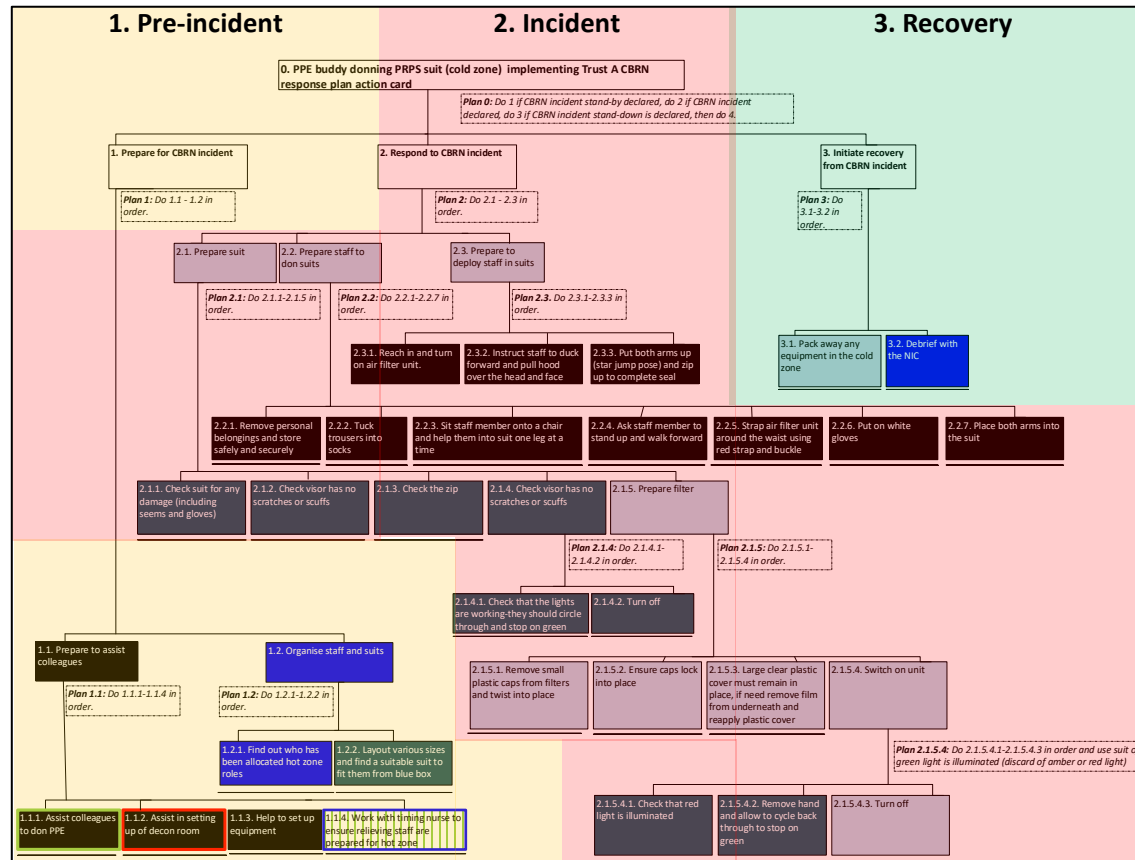
Vol 2: Appendix 59. Comparing WAD across HCAs



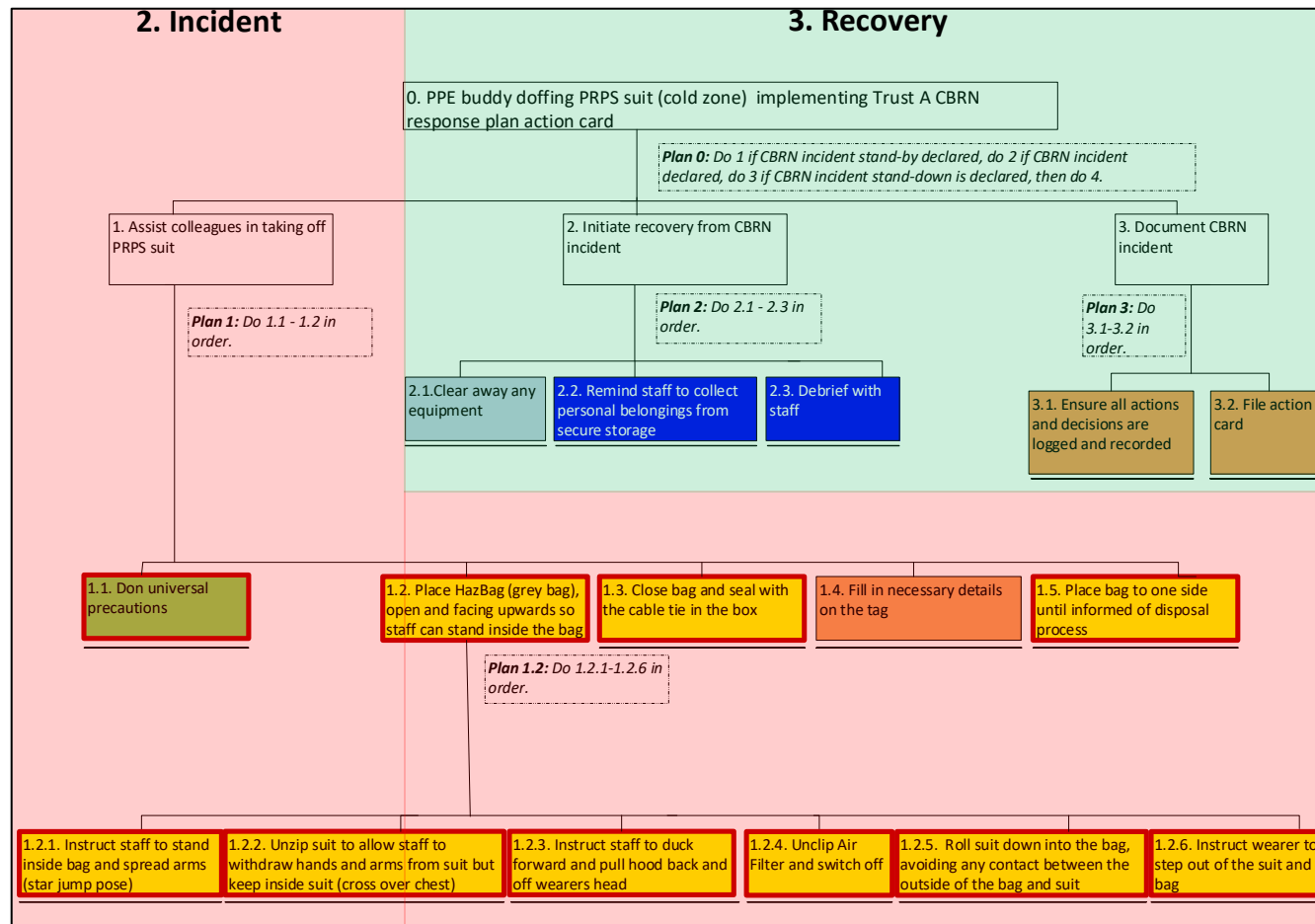
A59 1: Trust A: HCA responding to a CBRN event



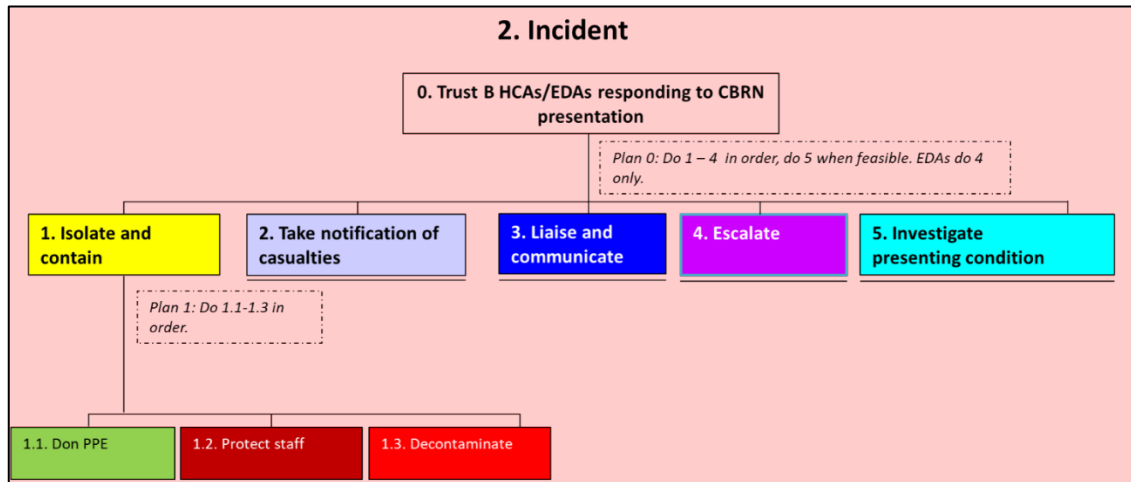
A59 2: Trust A: HCA action card



A59 3: Trust A: PPE buddy donning PRPS suit (HCA)

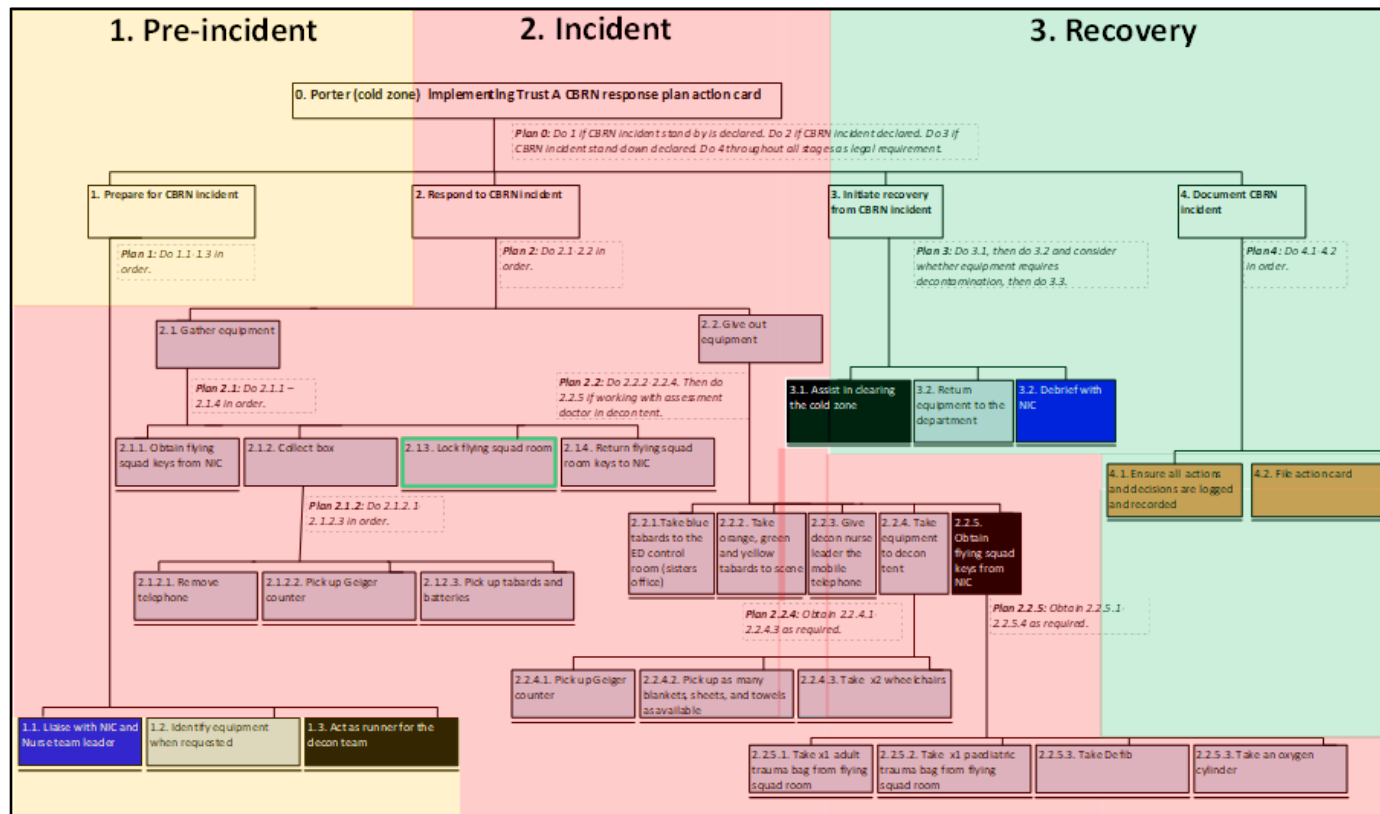


A59 4: Trust A: PPE buddy doffing PRPS suit (HCA)

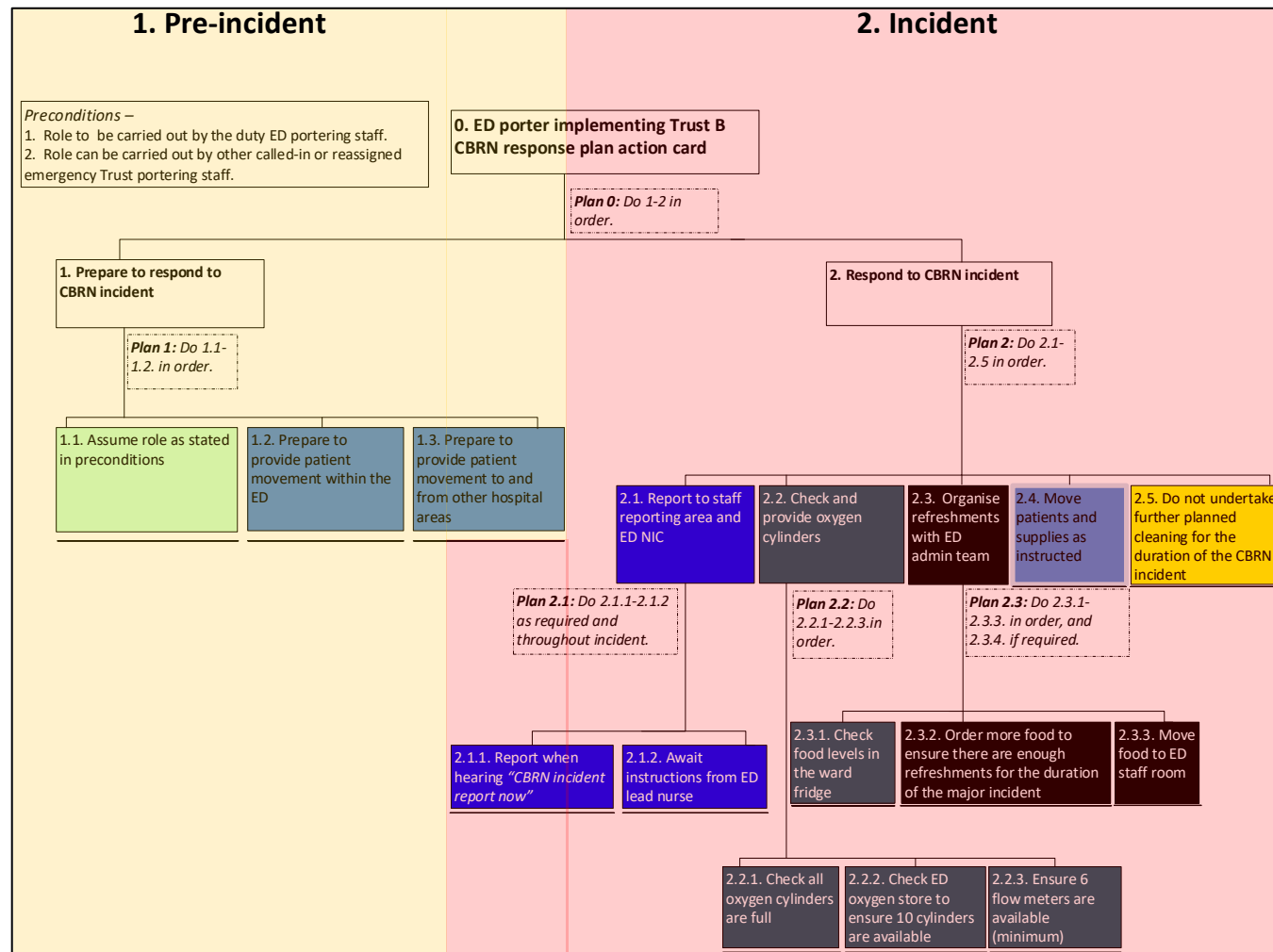


A59 5: Trust B: HCA responding to a CBRN event

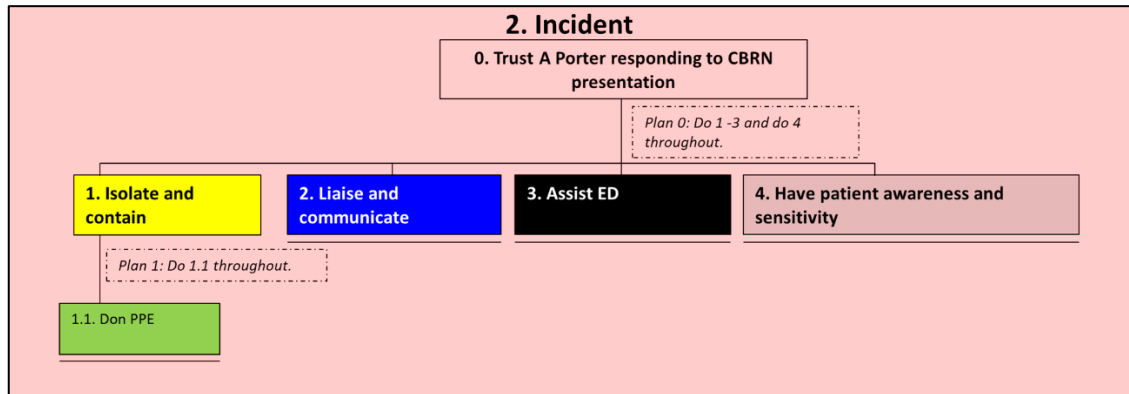
Vol 2: Appendix 60. Comparing WAD across Porters



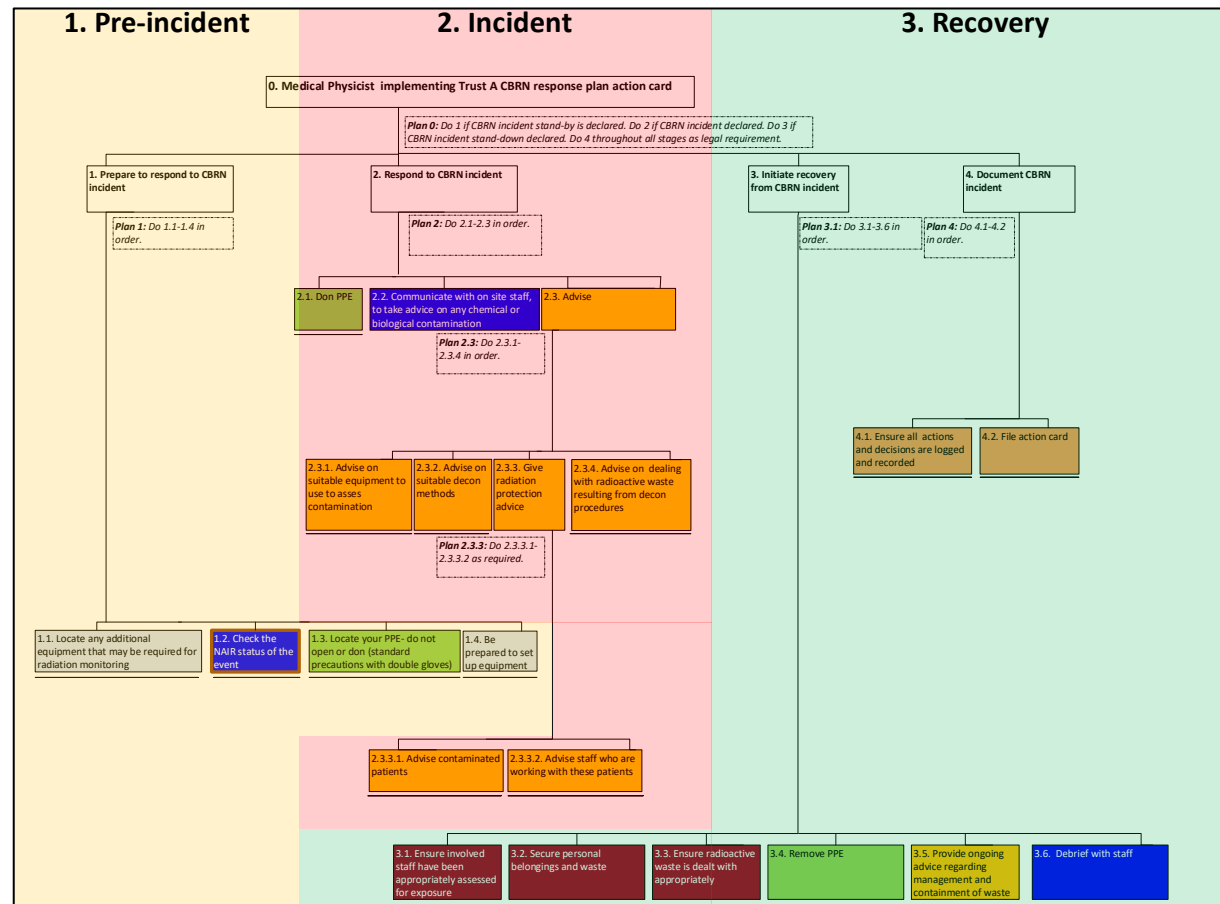
A60 1: Trust A: Porter action card



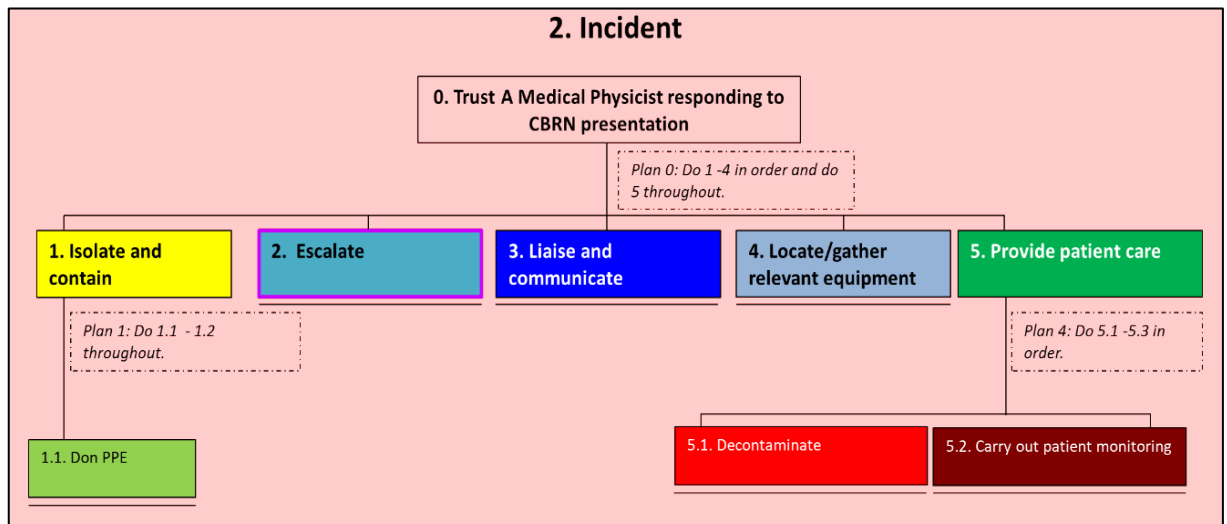
A60 2: Trust B: Porter action card

**A60 3: Trust A porter's response to CBRN event**

Vol 2: Appendix 61. WAI vs WAD for the medical physicist



A61 1: Trust A: Medical physicist action card



A61 2: Trust A: Medical physicist response to CBRN event