Wrightington, Wigan and Leigh Teaching Hospitals
NHS Foundation Trust

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| **STANDARD OPERATING PROCEDURE:** | **MAJOR HAEMORRHAGE** |
| **SOP NO:** | **TW10-041 SOP 5** |
| **VERSION NO:** | **3** |
| **DATE THIS VERSION APPROVED:** | **November 2022** |
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| **AUTHOR(S)** (JOB TITLE) | **Hospital Transfusion Team** |
| **DIVISION/DIRECTORATE** | **Medicine/Specialist Services** |
| **LINKS TO OTHER POLICIES, SOP'S, STRATEGIES ETC:** | **TW10-041 BLOOD TRANSFUSION POLICY** |
| **CONSULTED WITH** | **Thrombosis Committee** |

| | | |
|---|---|---|
| **Date(s) previous version(s) approved** (if known**):** | **Policy Version: 1**<br>**Policy Version: 2** | **Date: October 2012**<br>**Date: July 2016** |
| **DATE OF NEXT REVIEW:** | **December 2025** | |
| **Manager responsible for review** (Job title**)** | **Consultant Haematologist in charge of Blood Transfusion** | |

The WWL Way

# 1. GUIDANCE FOR MAJOR HAEMORRHAGE

**1.1. Definition: Suspect Major Haemorrhage if any of below:**

**1.1.1.** Loss of one blood volume within a 24-hour period.
OR
**1.1.2.** 50% blood volume loss within 3 hours.
OR
**1.1.3.** Loss of 150 ml/min of blood

**1.2.** Consider major haemorrhage if bleeding leads to a heart rate more than 110 beats/ min and/or systolic blood pressure less than 90 mmHg .

**1.3.** Priorities for treatment are:
- 1.3.1 Restoration of blood volume to maintain tissue perfusion and oxygenation
- 1.3.2 Achieving haemostasis by:
- 1.3.3 Treating any surgical, traumatic or obstetric source of bleeding
- 1.3.4 Correcting coagulopathy by judicious use of blood component therapy

**1.4.** It is imperative to recognize major blood loss early and institute effective action promptly if shock and its consequences are to be prevented

# 2. PROBLEMS

**2.1. Blood volume replacement.**

Aim for normal systolic pressures and pulse rate, a urine output of at least 0.5 - 1 ml/ kg / hour and haematocrit values of 0.32. The accuracy of the assessment of blood loss may be improved by the insertion of a central venous line. A urinary catheter will aid overall assessment of fluid status after the immediate crisis is controlled.

**2.2. Thrombocytopenia.**

Dilutional thrombocytopenia should be anticipated during massive blood replacement, particularly if there is also evidence of disseminated intravascular coagulation (DIC). Platelet counts should be maintained above 50 x $10^9$/l (see below).

**2.3. Coagulation factor depletion.**

This may be due to reduced levels in stored plasma reduced blood, dilutional effects and DIC. (See below for guide to ordering fresh frozen plasma).

**2.4. Hypocalcaemia.**

The citrate in anticoagulant fluids binds ionised calcium and potentially lowers plasma calcium levels. This is not usually a clinical problem because the healthy adult liver metabolises citrate very quickly. However, neonates and hypothermic patients are especially vulnerable to citrate toxicity. Where clinical and ECG evidence suggest hypocalcaemia, 5 ml of 10% calcium gluconate (less for children and neonates) should be given at 5-minute intervals IV until ECG is normal.

**2.5. Hypothermia.**

In order to maintain the patient's core temperature, give blood and other fluids through a blood warmer if large volumes are given at > 50 ml/kg/hour (approx 2 units within 1 hour). A warming blanket should also be used.

**2.6. Adult respiratory distress syndrome (ARDS).**

Prolonged hypotension and shock predispose to ARDS. It is more likely in patients with persistent congestive cardiac failure, sepsis, and those who are either under transfused or over transfused.

## 3. PRINCIPLES OF TRANSFUSION MANAGEMENT OF ACUTE BLOOD LOSS

**3.1.** Insert at least one large IV cannula (consider central venous line), obtain blood samples for blood group, cross match, FBC, coagulation tests and U+E's, then infuse crystalloid (e.g.: 0.9% saline) as rapidly as possible until an acceptable systolic blood pressure is restored.

**3.1.1.** Contact key personnel : clinician in charge, Consultant anaesthetist, Blood transfusion biomedical scientist, Consultant Haematologist.

**3.1.2.** Restore circulating fluid volume to correct hypoperfusion. If less than 20 % of blood volume has been lost (i.e., up to 1 litre in an adult), replace with crystalloid. If more than 20% of blood volume has been lost (i.e., more than 1 litre in an adult) replace with crystalloid and colloid (Haemacel or Gelofusine) until red cells are available.

**3.1.3.** Achieve surgical control of bleeding.

**3.1.4.** Maintain adequate blood oxygen transport capacity.

**3.1.5.** Request early coagulation screen (INR, APTT, FDP's, fibrinogen). The results may help to guide blood component therapy should bleeding persist after attempted surgical haemostasis.

**3.2.** A successful outcome requires prompt action and good communication between specialties, diagnostic laboratories, hospital laboratory staff and the Blood service. Blood component support takes time to organize.

**3.3.** Early consultation with senior surgical, anaesthetic and haematology colleagues is essential and the importance of good communication in this situation cannot be overemphasised.

**3.4.** Accurate documentation of blood components given and the reason for transfusion is necessary in order to enable audit of outcome and satisfy legal requirement for full traceability

**3.5.** The hospital blood bank should be informed of potential massive transfusion situation at the earliest possible opportunity.

## 4. GUIDE TO ORDERING BLOOD COMPONENTS

### 4.1. Red cells

**4.1.1.** The degree of urgency for transfusion should be accurately conveyed to the blood bank.

**4.1.2.** Routine procedures for blood grouping, antibody screening and compatibility testing should be followed as far as practicable unless it is obvious that major haemorrhage is likely.

**4.1.3.** In emergencies, give group ABO RhD group specific blood if it is possible to wait for emergency blood grouping. In extreme emergencies, where delay would lead to death of patient, group O blood should be supplied.

**4.1.4.** RhD negative and Kell negative blood should always be given to women of childbearing age.

**4.1.5.** Consider O RhD Positive blood for males over 18 and women of non-childbearing potential (age over 50 years) were suitable.

**4.2.** For such extreme emergencies, **Group O Rh D Negative Blood** is kept in the blood fridges:

| | |
|---|---|
| Path lab Blood Bank, RAEI, level 3 | 4 units 2 Paediatric Units |
| Leigh Path lab (Next to Phlebotomy) | 4 units |
| Wrightington Pathology Lab | 4 units |

**Group O Rh D Positive Blood if appropriate will be issued by Blood Bank**

**4.3.** ABO and RhD matched units can be issued following completion of emergency grouping. As soon as time permits, an antibody screen will be performed on the patient's pre-transfusion sample.

**4.4.** Red cell transfusion is likely to be required when 30% to 40% blood volume is lost, whilst over 40% blood volume loss is immediately life threatening. Transfusion is rarely indicated when Hb >100 g/L and almost always indicated when Hb <80 g/L.

**4.5. Platelet concentrates.**

**4.5.1.** Platelet concentrates (2 doses) are indicated for continuous non-surgical bleeding when platelet counts are below 50 x $10^9$/l or falling towards that value. This should be anticipated when approximately 2 blood volumes have been replaced by plasma poor red cells. These should be ordered through the blood bank during working hours or through the BMS on call at other times.

**4.5.2.** The platelets come from the Manchester Blood Centre, so there will be a delay of at least 1 hour before they are available.

**4.6. Fresh frozen plasma (FFP) and cryoprecipitate**

Red cell replacement is likely to be in the form of plasma poor red cells in which coagulation factor activity is negligible; under these circumstances, coagulation factor deficiency is the primary cause of coagulopathy.

4.6.1 FFP (12 – 15 ml/kg equivalent to 4 units for adults) should be considered after one blood volume has been lost, particularly where there is microvascular bleeding with laboratory results that show abnormal coagulation (eg: PT ratio > 1.5, APTT > 1.5), or if there is evidence of DIC (abnormal INR, APTT, fibrinogen <1.5g/dl, D-Dimer > 192). Allow 30 minutes thawing time.

4.6.2 Cryoprecipitate (Dose is 1 pooled pack per 33 kg body weight standard dose for adult = 2 pooled packs (5 units in each pack) should be considered when fibrinogen level fall below 1.5g/l, particularly if there is microvascular bleeding or evidence of DIC.

4.6.3 It is preferable for major vessel bleeding to be stemmed surgically before attempting to correct haemostatic abnormalities

## 5. MANAGEMENT OF MAJOR HAEMORRHAGE FLOW CHARTS

The following pages contain the flow charts that should be used when a major haemorrhage occurs.

# Transfusion Management of Major Blood Loss in Adults

## Recognise Major Blood Loss - Major Haemorrhage

Haemorrhage resulting in clinical shock OR blood loss of >50% of circulating volume within 3 hours OR blood loss of >150ml/minute

## Call for help

**Consultant / Senior involvement is essential.**
Clinical Speciality to use local arrangements to contact emergency team.

**NB – Remember there will be at least 45 min transport delay for Euxton, Leigh and Wrightington**

**Blood Bank Number: 2145 for all sites always.**
**Tell Blood Bank Staff:**
- **"I want to activate the Major Haemorrhage Protocol"**
- **Your location**
- **Name of nominated clinical lead and contact number**
- **Patient information; Full Name, Hospital Number, DOB.**
- **Whether Emergency O Rh D negative blood products have been used and how many units?**

## Take bloods and send to lab: Correctly labelled: XM, FBC, PT, APTT, U+E, $Ca^{2+}$, fibrinogen, A(BG)

## STOP THE BLEEDING

**Haemorrhage Control:**
Direct pressure / tourniquet if appropriate.
Stabilise fractures.
Surgical intervention – consider damage control surgery.
Interventional radiology
Endoscopic techniques
Obstetric techniques

**Haemostatic Drugs:**
Tranexamic acid 1g bolus followed by 1g over 8 hrs.
Vitamin K and Prothrombin complex concentrates for warfarinised patients

**Use cell salvage if available and appropriate:**
Consider ratios of other components:
1 unit of red cells = c.250 mls salvaged blood

## ADMINISTER PACK 1
**4 units of Red Cells**
**2 units of Plasma**

**Location of Emergency Group O blood:**

**RAEI**
4 units Path Lab Blood Bank

**Wrightington**
4 units Ward/Dept Blood fridge foyer of pathology

**Leigh**
4 units Path lab

**Euxton**
3 units Hospital Blood Fridge

APTT – Activated partial thromboplastin time
PT- Prothrombin Time
FBC- Full blood count
U+E- Urea & Electrolytes
FFP- Fresh Frozen plasma
XM – Crossmatch
A(BG) – Arterial Blood Gas

**Aims for therapy**

| | |
|---|---|
| Aim for: | |
| Hb | 80-100 g/L |
| Platelets | >50 x $10^9$/l |
| PT ratio | < 1.5 |
| APTT ratio | <1.5 |
| Fibrinogen | >1.5g/l |
| $Ca^{2+}$ | >1 mmol/l |
| Temp | > 36°C |
| pH | > 7.35 (on ABG) |

Monitor for hyperkalaemia

## Reassess – Is there evidence of ongoing Major Haemorrhage?

Suspected continuing haemorrhage requiring further transfusion:

**Take repeat bloods and send to lab**:
FBC, PT, APTT, fibrinogen, U+E, $Ca^{2+}$ A(BG)

If fibrinogen <1.5g/l (<2g/l in obstetric haemorrhage) give 2 packs of cryoprecipitate (NB Cryoprecipitate takes 30mins to defrost)

If there is life threatening uncontrolled bleeding, despite all measures, discuss with Consultant Haematologist

**NO**

## Request PACK 2 (2145)
**"I am Requesting Pack 2 for (patients name)"**
**4 units of Red Cells**
**4 units of Plasma**
**1 unit of Platelets**
**ADMINISTER**

**YES**

## When patient is stable: STAND DOWN

Inform Blood Bank. Return unused components.
Complete documentation, including audit proforma.

Thromboprophylaxis should be considered when patient is stable

# Transfusion Management of Major Blood Loss in Children

## Recognise Major Blood Loss – Major Haemorrhage

Ongoing severe bleeding (overt / covert) and received 20ml/kg of red cells or 40ml/kg of any fluid for resuscitation in preceding hour. Signs of hypovolaemic shock and / or coagulopathy.

## Call for help

**Consultant / Senior involvement is essential.**
Clinical Speciality to use local arrangements to contact emergency team.

**Blood Bank Number: 2145 for all sites at all times.**
**Tell Blood Bank Staff:**
- **"I want to activate the Major Haemorrhage Protocol"**
- **Your location**
- **Name of nominated clinical lead and contact number**
- **Patient information; Full Name, Hospital Number, DOB.**
- **Whether Emergency O Rh D negative blood products have been used and how many units**

## Take bloods and send to lab: Correctly labelled XM, FBC, PT, APTT, U+E, $Ca^{2+}$, fibrinogen, (A)BG

## STOP THE BLEEDING

**Haemorrhage Control:**
Direct pressure / tourniquet if appropriate.
Stabilise fractures.

Surgical intervention – consider damage control surgery.
Interventional radiology
Endoscopic techniques

**Haemostatic Drugs:**
Tranexamic acid 15mg/kg bolus over 10mins (max 1.0g) and 2mg/kg/hr infusion (max 125mg/hr until bleeding controlled).

Vitamin K and Prothrombin complex concentrate for warfarinised patients

## Urgent Blood Products required

**Order minimum of 40 ml/kg blood and tell Blood Bank how urgently you need blood:**
Immediately (use Emergency O Rh D Negative blood),
within 15 mins (Group specific uncross-matched) or within 45 mins (Cross-matched blood).

**If major trauma / massive transfusion gives:**
- **20ml/kg Methylene blue treated FFP**
- **10 ml/kg Platelets (give paediatric platelets if patient is less than 10 kg)**

**NB FFP takes 30 mins to defrost, Platelets take up to 90 mins to arrive on site at Wigan**

### Aims for therapy

| | |
|---|---|
| Aim for: | |
| Hb | 80-100g/L |
| Platelets | >50 x $10^9$/l |
| PT ratio | < 1.5 |
| APTT ratio | <1.5 |
| Fibrinogen | >1.5g/l |
| Ionised Ca2+ | >1.0 mmol/l |
| Temp | > 36oC |
| pH | > 7.35 (on (A)BG) |
| pH | > 7.25 (capillary BG) |

Monitor for hyperkalaemia

## Reassess

Suspected continuing haemorrhage requiring further transfusion

**Take repeat bloods and send to lab:**
FBC, PT, APTT, fibrinogen, U+E, A(BG), $Ca^{2+}$

If fibrinogen <1.5g/l give 10ml/kg cryoprecipitate (methylene blue treated if patient is less than 5kg).
NB Cryoprecipitate takes 30mins to defrost.

**Location of Emergency O Rh D Negative blood:**

**RAEI**
2 adult units Path lab Blood Fridge room
2 paediatric units Path Blood Fridge room

**(Neonates - paediatric units are available)**

## When patient is stable: STAND DOWN

Inform Blood Bank. Return unused components.
Complete documentation, including audit proforma.

→ Thromboprophylaxis should be considered when patient is stable

APTT – Activated partial thromboplastin time
PT- Prothrombin Time
FBC- Full blood count
U+E- Urea & Electrolytes
FFP- Fresh Frozen plasma
XM – Crossmatch
A(BG) – Arterial Blood Gas

# Laboratory Management of Major Blood Loss

**Transfusion receives Call.**
**"I want to initiate the Major Haemorrhage Protocol"**

**Details Recorded:**
- Location of the patient
- Name of nominated clinical lead and contact number
- Patients information ; Full name, Hospital Number, DOB.
- Whether Emergency O Rh D negative Blood products have been used and how may
- If needed clarify X-Match sample and request form have been sent.

## ISSUE PACK 1: 4 Red Cells and 2 FFP

| | | |
|---|---|---|
| **Red cells needed:** | **No Group** | Issue Emergency O Rh D Negative/Positive red cells and replace used units ASAP |
| | **Group** | Issue group specific units or electronic issue. If antibody Positive issue antigen Negative blood and make clinician aware. |
| **FFP needed:** | **No Group** | Defrost Group AB / A units for the patient |
| | **Group** | Defrost group specific |

**Ring clinical lead when blood components are ready**

**Order Platelets needed for pack 2:** Order group A Positive HT- units form NHSBT on "**Blue Light**".

## Check current blood / blood product stocks

Order more blood/ blood products if required. If more products are required ASAP order via "**Blue Light**"

## If Pack 2 is requested ISSUE: 4 Red Cells, 4 FFP and 1 does of platelets

| | | |
|---|---|---|
| **Red cells needed:** | **No Group** | Issue Emergency O Rh D Negative/Positive red cells and replace used units ASAP |
| | **Group** | Issue group specific units or electronic issue. If antibody Positive issue antigen Negative blood and make clinician aware. |
| **FFP needed:** | **No Group** | Defrost Group AB / A units for the patient |
| | **Group** | Defrost group specific |
| **Platelets needed:** | | Issue Group a Positive HT- unit |

**Ring clinical lead when blood components are ready**

**Order Platelets needed for pack 2:** Order group A Positive HT- units form NHSBT on "**Blue Light**".

**Please note from this point forward Pack 2 will be repeated until stood down.**

## If bleeding continues – Advice clinical lead to liaise with Haematology Consultant

– If life threatening uncontrolled bleeding despite all measures laboratory staff can advise clinical lead to discuss with Consultant Haematologist.

## Once stand down notification has been received

Ensure all satellite fridges contain a full stock of Emergency O Rh Negative Blood. Sort out any returned, unused blood products

## 6. SEVEN STEPS FOR SUCCESSFUL COORDINATION IN MASSIVE HAEMORRHAGE

**6.1.** Recognise trigger and activate pathway for management of massive haemorrhage; assemble the emergency response team

**6.2.** Allocate team roles

6.2.1 Team leader

6.2.2 Communication lead – dedicated person for communication with other teams, especially the transfusion laboratory and support services

6.2.3 Sample taker / investigation organiser / documenter

6.2.4 Transporter - member of team from clinical area.

**6.3.** Complete request forms / take blood samples, label samples correctly/recheck labelling U+E, FBC, Crossmatch, PT, APTT, Fibrinogen, A(BG), Calcium, lactate.

**6.4. Request blood PACK 1 from blood bank**

**6.5. Communication led to contact laboratory:**

Inform the BMS of the following:

6.5.1 Your name, location and ext. number

6.5.2 I want to initiate the Major Haemorrhage Protocol'

6.5.3 The patient's details: ideally surname, forename, hospital number, DOB and whether any Emergency O Rh D Neg has been used and how many units

6.5.4 Contact lab if blood has been transferred in with the patient from another Trust or patient is being transferred to another Trust.

**6.6. The clinical/laboratory interface**

6.6.1 Communication led to arrange for transport of samples/request form to the laboratory

6.6.2 BMS to ring communication lead with results of urgent investigations

6.6.3 BMS to ring communication lead when blood/blood components are ready

6.6.4 Communication led to arrange to collect blood and blood components from the laboratory.

**6.7. Communicate stand down of pathway** and let lab know which products have been used.

**6.8. Ensure documentation is complete**

6.8.1 Clinical area: monitoring of vital signs, timings of blood samples and communications, transfusion documentation in patient casenote record, return completed traceability labels/tags to laboratory, completion of audit proforma.

6.8.2 Laboratory: keep record of communications / telephone requests in patient laboratory record.

## 7. TRAINING AND EDUCATION

**7.1.** Relevant clinical areas need to be familiar with the protocol and ensure that staff understand where to find the protocol and be familiar with it. Regular training and drills also need to be performed within clinical specialities.

**7.2.** The clinical areas that need to have this in place include:

**7.2.1.** Medicine, especially Gastroenterology and Cardiac Catheter Lab

**7.2.2.** Surgery, especially Vascular and Theatres (Wrightington, Wigan & Leigh)

**7.2.3.** ICU / Anaesthetics

**7.2.4.** A&E

**7.2.5.** Maternity

**7.2.6.** Haematology / Blood Transfusion
**7.2.7.** Paediatrics

**7.3.** Training and education needs to be undertaken as part of local training.

## 8. DRILLS

**8.1.** A drill is to test the use of the protocol for major bleeding and to assess the local emergency system and modify local protocol.

**8.2.** Preparation for a drill:
**8.2.1.** Staff should be faced with the drill in a normal clinical area and be unprepared.

**8.2.2.** Drills should not conflict with patient care.

**8.3.** The drill organiser should have informed the clinical leads in advance.

**8.4.** An example of a drill should be prepared by each clinical area.

**8.5.** Clinical lead informs staff to proceed to act according to protocol for a situation that involves urgent blood. The situation is assessed:
**8.5.1.** On the use of the protocol
**8.5.2.** Communications with the lab
**8.5.3.** The collection of blood
**8.5.4.** The reassessment made on results
**8.5.5.** The completion of documentation including audit proforma

**8.6.** Each clinical area must undertake at least 1 drill per year and include all relevant staff. Drills should be co-ordinated by the clinical lead plus senior nurse for that speciality.

## 9. AUDIT

Each event is recorded and a laboratory audit proforma completed. Participation in regional major haemorrhage audit. All incidents, where there are delays or problems, are to be investigated locally and reported to SHOT and MHRA.

## 10. HUMAN RIGHTS ACT

Implications of the Human Rights Act have been considered in the formulation of this policy and they have, where appropriate, been fully reflected in its wording.

## 11. ACCESSIBILITY STATEMENT

This document can be made available in a range of alternative formats e.g., large print, Braille and audiocd.
For more details, please contact the HR Department on 0194277(3766) or email equalityanddiversity@wwl.nhs.uk

## 12. REFERENCES

1. The transfusion of blood and blood components in an emergency: National Patient Safety Agency Rapid Response Report NPSA/2010/RRR017. October 2010 http://www.nrls.npsa.nhs.uk/resources/type/alerts/?entryid45=83659

2. Blood transfusion and the anaesthetist: management of massive haemorrhage. *Anaesthesia* 2010;95:1153-1161

3. Australian Patient Blood Management Guideline Module 1 Critical bleeding / massive transfusion 2010, currently in draft out to consultation

4. Management of bleeding following major trauma: an updated European Guideline *Critical Care* 2010,14:R52 Rossaint R et al

5. Johansson PI et al. Proactive administration of platelets and plasma for patients with a ruptured abdominal aortic aneurysm: evaluating a change in transfusion practice *Transfusion* 2007: 47; 593-8

6. *British Committee for Standards in Haematology* Guidelines on the management of massive Haemorrhage 2015 (British Journal of Haematology, 2015, 170, 788–803).

7. *Confidential Enquiries into Maternal and Child Health (CEMACH).* "Saving mothers" lives, reviewing maternal death to make motherhood safer - 2003-2005"

8. *Serious Hazards of Transfusion (SHOT) Scheme* SHOT has collected, analysed and reported on adverse reactions to transfusion and errors in the process of giving transfusions.

9. *Royal College of Obstetricians and Gynaecologists (RCOG).* The college issued in 2007 and updated in 2008 a document entitled *Blood transfusion in obstetric, further updated in 2015*

10. Green-*top guide 47: Blood transfusion in obstetrics*. Available at: *https://www.rcog.org.uk/en/guidelines-research-services/guidelines/gtg47/*

11. *Guidelines on Haematological Management of Major Haemorrhage BSH 2015*

**Appendix 1**

# TELEPHONE REQUEST-MAJOR HAEMORRHAGE

<table>
<tr><th>Patient Details</th><th colspan="2">Products</th></tr>
<tr><td rowspan="4">Hospital No._____<br>Surname: _____ Location: _____<br>Forename:_____ Group: _____<br>DOB: __/___/_____ Antibodies:_____<br>Clinical Details: _____<br>Lab no.: _____</td><td>Pack 1</td><td>4 Units Red Cells<br>2 Units FFP</td></tr>
<tr><td colspan="2">When issuing pack 1 order 1 dose of platelets via Blue light ready of Pack 2</td></tr>
<tr><td>Pack 2</td><td>4 units Red Cells<br>4 units FFP<br>1 Dose Platelets</td></tr>
<tr><td></td><td colspan="2"></td></tr>
<tr><th>Requester</th><th colspan="2">Any Special Requirements needed</th></tr>
<tr><td rowspan="2">Date: ___/____/_____ Time:_____<br>Dr & Grade: _____ Contact No: _____<br>Communication Lead (Caller): _____</td><td colspan="2"></td></tr>
<tr><td colspan="2">Laboratory<br>New Sample Required Y / N<br>BMS Informed Y / N / NA<br>Received by:<br>_____</td></tr>
</table>

Stand Down Given: Y / N Date: _____ Time: _____

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## Audit of Telephone Calls during incident

| Time | Information | Products Requested |
|---|---|---|
| _____ | _____ | _____ |
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| _____ | _____ | _____ |
| _____ | _____ | _____ |
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