
	NHS GG&C Diagnostics Division North Glasgow Sector, Haematology MAJOR INCIDENT PROCEDURE STOBHILL ACH			MAI-STO-BTS-001
				Revision - 6
				Active Date – 16/11/2020
Author	Lindsay Thomson	Authorised By	Arlene David	Page 1 of 6

Stobhill ACH Major Haemorrhage Policy Guidance for Staff



STOBHILL MAJOR HAEMORRHAGE PROTOCOL

TO AVOID CONFUSION ALLOCATE ONE PERSON TO LIAISE WITH SWITCHBOARD AND BLOOD BANK

SEND

ACH LAB 9am-5pm Mon-Fri

- FBC
- Coagulation Screen
- Biochemistry
- X match sample (if required)

Request forms for **all** requests

OUT OF HOURS

All samples and product request forms to go to porter security desk (product request forms can be scanned and sent to the email address **GRI.Bloodbank@ggc.scot.nhs.uk** Emergency taxi to be called by clinical staff as ACH lab closed

Designated Clinical person must:

1. Call **Switchboard** on ext **2222**
 - State there is a Major Haemorrhage
 - Give Exact Location **including Hospital**
 - Give contact Extension Number
2. Call **GRI Blood Bank** on Ext **29603, 29604 or 29607** with (In core hours GRI will inform Stobhill ACH lab)
 - Patient Details (minimum data set i.e. Full Name, D.O.B, Gender, and CHI number)
 - Exact location and contact details **including Hospital**
 - Exact blood component requirements

Switchboard will inform:

- Duty Haematologist (on call for GRI) - who will contact clinical area
- GRI Blood Bank (**Page 13291**) - prioritise blood availability and arrange urgent transport to Stobhill via taxi.
- Stobhill porter (**Page 11212** or contact via **Security on Ext 11821 / mobile 07816 998 031**) who will report to clinical area to transport samples.

Collection of blood products

- Mon – Fri 9am-5pm** - products to be delivered directly to laboratory by taxi driver. Lab staff will phone clinical area when available
- Out of hours** - taxi driver should deliver to porter security desk (at GEMS out of hours/Minors door) and porter will deliver directly to clinical area.

ACH LAB BMS 9am5pm Mon-Fri)

- Ask clinical area to Scan request form to).

GRI.Bloodbank@ggc.scot.nhs.uk

Call ext 1000 ask for **EMERGENCY taxi** to transport sample(s) to GRI.

Red Cells Requirements - aim to keep Hb > 80g/L

Current Group & Save in GRI Blood Bank		No current Group & Save in GRI Blood Bank	
O Negatives	Immediate 4 O Negative in Stobhill blood fridge	O Negatives	Immediate 4 O Negative in Stobhill blood fridge
Further O Negatives	Approx. 45 minutes	Further O Negatives	Approx. 45 minutes
Group Specific	Approx. 45 minutes	Group Specific	Approx. 90 minutes
Fully Crossmatched	Approx. 90 minutes	Fully Crossmatched	Approx. 120 minutes

Blood Product Requirements

The first issue of FFP and Platelets can be made without Haematologist involvement

Product	Target	Delivery Time
Platelets	maintain >75 x10 ⁹ /L	Approx. 45 minutes
FFP	maintain PT & APTT ratio < 1.5	Approx. 60 minutes
Cryo	maintain fibrinogen >1g/L	Approx. 60 minutes


Stobhill Major Haemorrhage Protocol - Review Date November 2022

Stobhill ACH

Stobhill Ambulatory Care Hospital has been designed for the treatment of patients requiring day case procedures/overnight stays. These patients have been identified as at low risk of bleeding, as there is no blood bank support on site. It is however recognised that major haemorrhages have the potential to happen, and the following guidelines have been developed in the event of a major haemorrhage.

As Stobhill ACH has no blood bank, all blood banking services are run from Glasgow Royal Infirmary, and in view of this the Major Haemorrhage Policy for the Stobhill ACH ties in with that of GRI (with appropriate changes).

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1. What constitutes a Major Haemorrhage Situation?

This is most easily defined in retrospect when a patient has bled ≥ 1 blood volume (4-5 litres) and/or received >6-10 units CRC transfusion within a short period of time (e.g. 12 hours). Identifying a major haemorrhage situation prospectively can be more difficult, but will usually be heralded by one or more of the following:

- Measured blood loss (e.g. peri-operatively) of >2.5litres
- Peri-operative transfusion of >6 units CRC
- Bleeding rate of >100-150ml/min
- Significant peri-operative bleeding which is unlikely to be controlled surgically (i.e. 'non-surgical' bleeding)

Classification of an on-going bleeding episode as a 'Major Haemorrhage' can only be called by the medical staff directly attending the patient.

Patients suffering a major haemorrhage can deteriorate rapidly, thus early recognition of a major haemorrhage situation is essential to allow notification and mobilisation of appropriate services (e.g. additional senior surgical and anaesthetic support, haematology and blood bank support, radiology/imaging requirements, portering support for blood specimens and blood & products for transfusion).

2. Principles of Management of Major Haemorrhage

The key principles are:

- Recognise a major haemorrhage situation and activate Protocol (**call 2222**)
- Restore circulating volume (avoiding sustained hypotension)
- Initiate i.v. tranexamic acid regimen (1g bolus followed by 1g over 8 hours) for major trauma patients, and consider in other patients as a general haemostatic measure.
- Arrest bleeding
- Identify key team member to liaise with blood bank and haematology medical staff
- Maintain Hb > 80g/L
- Maintain Platelets >50-75 x 10⁹/L
- Maintain PT (INR) and APTT ratio <1.5 x Normal (i.e. PT<17s, APTT<50s)
- Maintain Fibrinogen >1g/L
- Monitor FBC and coagulation status regularly
- Avoid DIC, by treating potential underlying triggers

While the onsite anaesthetist (or surgeon) will co-ordinate management at the bed side (or in theatre), haematology medical staff may advise upon, and facilitate provision of, appropriate blood and blood product requirements (and investigations) as the situation unfolds


3. Stocks of Emergency O Neg Blood

ACH Laboratory 1st Floor ACH 4 units

4. Communication

As soon as the clinician feels he/she is dealing with a major haemorrhage, activate major haemorrhage protocol by calling 2222 and state '**major haemorrhage, exact location, including hospital and contact telephone number**'.

Then contact GRI blood bank on **Ext 29603 / 29604 / 29607** giving patient details and initial blood and blood product requirements and their urgency

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Following activation of the protocol, Haematology medical staff will contact the clinical area. Once appraised of the clinical situation he/she can advise on further blood tests and blood product requirements. Haematologist will also liaise with blood bank BMS (technical staff) to ensure appropriate products are in stock or ordered from SNBTS.

5. Time required to process requests and supply blood and products

N.B. There is no blood bank on site. Communication with blood bank/haematology staff regarding requirements/predicted requirements at the earliest opportunity is therefore essential

It usually takes longer than expected to prepare and deliver blood and products to an emergency situation. This is particularly true out of hours when portering and blood bank staff are at a minimum. It is therefore important to think ahead and give support services staff as much warning as possible. Please note:


- Matched CRC takes approx 30 mins once a sample has reached the lab. If CRC required more urgently please request group specific CRC (or Group O Neg CRC if blood group unknown)
- After transfusion of 10 units CRC, if the patient is known to have no red cell allo-antibodies, it is now accepted practice to supply unmatched group specific CRC if blood still required urgently.
- FFP and Cryoprecipitate will require thawing (20 mins) in Blood bank before transport to ACH.
- Platelet may need to be ordered from SNBTS at Gartnavel General Hospital by GRI blood bank
- Even in a patient with normal baseline parameters (FBC and Coag), they are likely to require FFP after 2 litre blood loss and platelets after 3 litres loss. In patients with abnormal baseline parameters or developing DIC, such factors may be required earlier in the scenario.
- Cryoprecipitate should only be required when FFP has failed to keep the Fibrinogen >1g/L
- Monitoring is made easier by availability of regular FBC and Coagulation results.

6. Transport of specimens, request forms and blood/products

Small delays are sometimes inevitable. However always consider the following: Think ahead, predicting likely requirements

6a. Emergency transport of specimens from ACH to GRI

- For blood products clinical team phone GRI blood bank on **ext 29603 / 29604 / 29607** requesting products and scan and e-mail form to **GRI.Bloodbank@ggc.scot.nhs.uk**
- In core hours - Monday to Friday 9am to 5pm, ALL samples and request forms to go to ACH lab, FBC/Coag can be processed on site. . The BMS in ACH lab will arrange for emergency transport of crossmatch sample to GRI Blood Bank
- Out of hours -ALL samples will be collected by security/porter and taken to Security office. Clinical staff must phone emergency taxi via switchboard and arrange for driver to collect samples from Security office at GEMS/Minors entrance. Blood or blood product request form should be scanned and e-mailed
to GRI.Bloodbank@ggc.scot.nhs.uk

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6b. Emergency transport of products from GRI to ACH

- GRI blood bank phone for emergency taxi who will respond within 10 mins.
- GRI staff let security guard know to expect products out of hours – **Ext 11821 or Mobile 07816 998 031** and phone clinical area when products have left GRI.
- Taxi driver takes products to ACH :
 - In core hours Monday – Friday 9am-5pm driver to be instructed to deliver transport box containing requested blood and/or blood products to ACH lab
 - Out of hours driver to be instructed to deliver products to security office at GEMS/Minors entrance. The security desk porter will immediately deliver the transport box to the clinical area.

N.B. Activation of Major Haemorrhage Protocol will ensure clinical and lab staff are aware of situation and can prioritise.


No facility to do this for 23hour bedded unit once ACH shut for the night. 999 ambulance should be called for major haemorrhage out of hours (Emergency O negative units in blood fridge in ACH lab – access may be required via security guard)

7. Notes for clinical staff

- Recognise a major haemorrhage situation and activate Protocol (call 2222)
- Consider use of O Neg Emergency blood (located in blood fridge in ACH laboratory)
- Identify key individual on the team to liaise with blood bank and Haematology medical staff
- Early communication with blood bank is essential, as is subsequent regular communication with Haematology medical staff
- Think ahead, predicting likely blood/product requirements
- Monitor FBC and Coagulation status
- Consider transfer to Acute Hospital as soon as clinically possible (will involve liaison with relevant clinical teams).

8. Notes for Haematology Medical staff

- Establish details of clinical situation by early communication with medical staff, usually an anaesthetist, attending the patient. Review available FBC and Coagulation data and request further specimens as appropriate
- Do not delay unnecessarily the release of blood or products, pending availability of lab results or receipt of a request form.
- Think ahead! Establish availability of likely blood/product requirements in GRI blood bank. Instruct blood bank to order in appropriate volumes of platelets from SNBTS, if none in stock. Consider thawing FFP in advance, and storing in GRI blood bank fridge or Stobhill ACH blood fridge as appropriate.
- Establish regular liaison with clinical team attending the patient.
- Keep blood bank BMS staff updated on the clinical situation and likely further blood/product requirements.

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9. Notes for GRI Blood bank BMS staff

- When first informed of a major haemorrhage situation, clearly establish the immediate blood/product requirements from the attending team (e.g. number of CRC, urgency - ? group specific, FFP, platelets etc)
- Remind clinical staff that there are 4 O Negatives in ACH lab fridge, which can be removed via emergency access button
- Inform Stobhill ACH BMS of MH alert if in core hours
- Arrange for emergency Taxi to transport blood to ACH lab (in core hours) or Security desk at GEMS/Minor injuries entrance, out of hours. N.B Need to state “EMERGENCY transport of blood required” and that the taxi is required within 10 minutes.
- If delay in receiving crossmatch sample, consider sending additional emergency O Negative units.
- Highlight any likely delays or potential problems to haematology medical staff and clinical area.
- Think ahead! Establish availability of additional staff to assist in blood bank (e.g. other haematology BMS staff, extra staff available from home) – utilise Reception staff to answer and make phone calls. Assess stock levels of appropriate group red cells and platelets etc. and order from SNBTS as appropriate
- After transfusion of 10 units CRC (= issue of >12 units CRC, any further urgent CRC requirements should be met with group specific CRC issues (unless known allo-antibodies).
- Pre-thaw 4 units appropriate group FFP (Group AB if blood group unknown) if clinical team have requested.
- Maintain regular contact with Haematology medical staff

10. Notes for Stobhill haematology BMS

The Stobhill BMS has a **critical role in coordinating** the laboratory side of the MH protocol, and is responsible for keeping the GRI blood bank and clinical team informed about request/receipt of products and samples. Any problems must be discussed urgently with the GRI blood bank/Haematologist on call who will advise as appropriate and liaise with clinical team.

- Once MH activated, ensure forms for products received into the lab are e-mailed urgently to **GRI.Bloodbank@ggc.scot.nhs.uk** (this may require phoning clinical area if not received in lab promptly).
- If there is no current G+S sample in GRI lab, new sample required. This will be sent to ACH lab by clinical area. Stobhill BMS to phone for EMERGENCY taxi via switchboard (ext 1000). This may be done in advance of sample arriving in ACH lab.
- Inform GRI blood bank when taxi is leaving ACH with sample
- When products arrive in lab, phone clinical area to inform – if not required immediately book in red cells via Blood Track and phone clinical area. If FFP not immediately required use the emergency button to put into the fridge – DO NOT ATTEMPT TO SCAN VIA BLOODTRACK. FFP stored at 4oC can be used up to 24 hours after defrosting.
- Monitor O Neg blood – inform GRI blood bank when any removed so that they can send more to replace stock.
- Think ahead – anticipate difficulties and communicate appropriately.

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11. Notes for Security/Portering Staff

On activation of MHP alert Porter on **page 11212** or via Security on **Ext 11821 / mobile 07816 998 031**

- In core hours – Monday to Friday 9am to 5pm go to clinical area and take samples to ACH laboratory. Clinical area will alert you if further sample transport required.
- Out of Core hours – go to clinical area and take samples to Security room and await emergency taxi for transportation to GRI labs. GRI will also send blood and/or blood products in transport box to ACH in another taxi. As this taxi arrives you must sign paperwork to say you have received them and take immediately to clinical area. Continue to do this as required until the clinical area ‘stand down’ MHP.

Think ahead – if taxis not arriving in timely manner let clinical area and GRI blood bank know.