

Management of Massive Transfusion Guidelines

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1. Introduction

This guideline is to be followed for the management of all patients undergoing a massive blood transfusion.

2. Scope

All clinical and laboratory staff managing a patient with a massive blood transfusion.

This document is intended to be used in conjunction with "The Northwest Regional Toolkit for the Management of Massive Haemorrhage."

3. Clinical activation of the guidelines

The Massive Haemorrhage guidelines will be activated for a patient requiring a massive blood transfusion. This can be defined as patients with:

- 1 Blood Volume loss per 24 hours
- Or > 50% blood volume loss in 3 hours
- Or ongoing blood losses > 150mls per hour

(Definition from The British Committee for Standards in Haematology)

The transfusion laboratory will not issue Major Haemorrhage Packs (MHP) for the *anticipation* of a massive haemorrhage for a patient in whom there is currently no active major bleeding as defined above. The only exception to this is in cases of *ruptured* abdominal aortic aneurysms who are to undergo surgery imminently, in which case one MHP may be ordered by a consultant only.

Where there is an anticipation of MHPs being required, and it is possible the Massive Haemorrhage Guidelines will be activated, it is advisable to alert the laboratory to this possibility at the earliest opportunity. This enables resources to be put in place in the laboratory to facilitate timely and expeditious issue of MHPs should the need then subsequently arise.

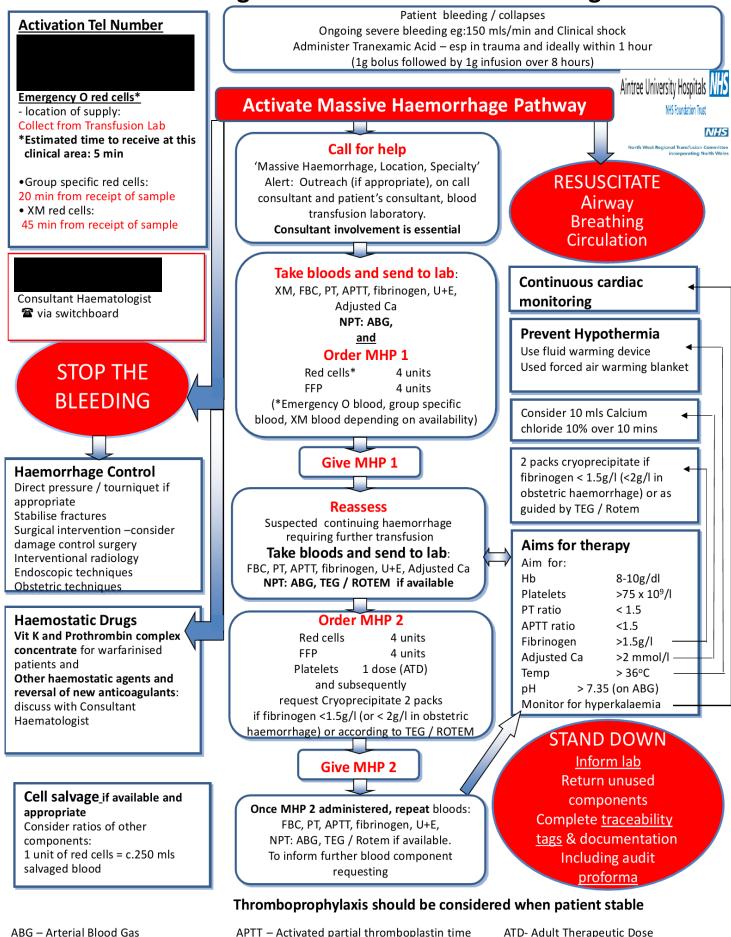
3.1. Documents for Use at The Walton Centre:

- Transfusion Management of Massive Haemorrhage in Adults
- Laboratory Algorithm
- "Seven Steps For Successful Coordination Of Massive Haemorrhage: Walton Centre / Aintree"
- Transfusion Management of Massive Haemorrhage in children (See Appendix 1)

4. References

"The Northwest Regional Toolkit for the Management of Massive Haemorrhage."

Transfusion Management of Massive Haemorrhage in Adults



APTT – Activated partial thromboplastin time MHP – Massive Haemorrhage Pack XM - Crossmatch

FFP- Fresh Frozen plasma

PT- Prothrombin Time

ATD- Adult Therapeutic Dose NPT – Near Patient Testing

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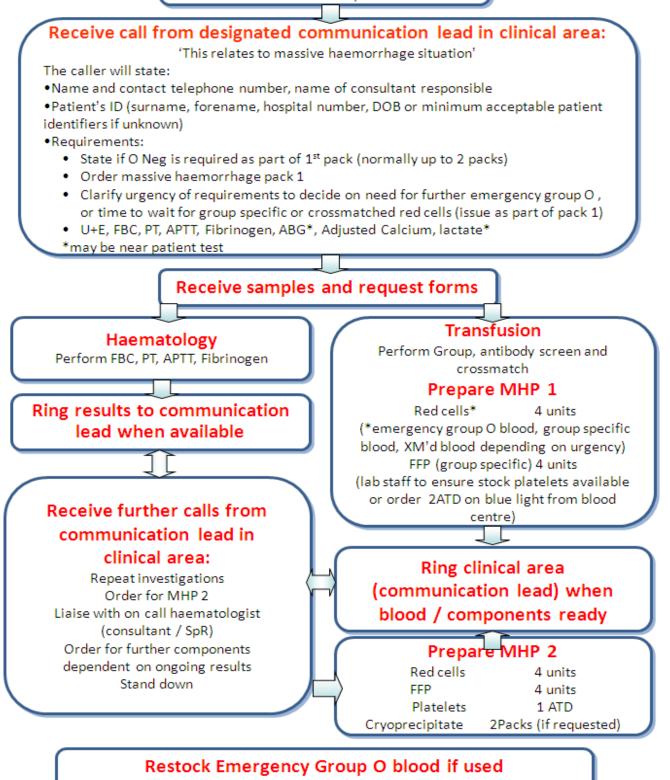
Laboratory Management of Massive Haemorrhage

Massive Haemorrhage Pathway Activated

Transfusion receives Call

'Massive Haemorrhage, Location, Specialty'

On standby



Complete traceability audit trail

v1 2012

Seven Steps for Successful Coordination in Massive Haemorrhage: Aintree

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

Phone and request Outreach (if applicable). Call consultant responsible for care of patient (if out-of-hours on call cons)

2. Allocate team roles

- i. Team leader
- ii. Communication lead– dedicated person for communication with other teams, especially the transfusion laboratory and support services
- iii. Sample taker / investigation organiser / documenter
- iv. Transporter HCA, or other transfusion-trained member of team from clinical area)

3. Complete request forms / take blood samples, label samples correctly / recheck labelling

U+E, FBC, Crossmatch, PT, APTT, Fibrinogen, ABG, Calcium, lactate

Form should be an addressograph (preferable) otherwise handwritten with 4 identifiers (full name, DOB, hosp/NHS No) **Sample**: Pink EDTA tube **must be handwritten**, (full name, DOB, hosp/NHS No) if emergency unknown patient then 2 identifiers are accepted (e.g. 'unknown 006785').

4. Request blood / blood components

Team leader should decide on use of:

i. Emergency O Neg (immediate)

O neg blood available from transfusion laboratory (5 mins). 2 units O neg blood available in Recovery Fridge

- ii. Group specific 20 mins from receipt of sample
- iii. Full Crossmatch 45 mins from receipt of sample

Communication lead to contact laboratory:

Hotline: 🖀 **Market and States** out-of-hours if no response on hotline

and inform the BMS of the following:

- i. Your name, location and ext number
- ii. 'this relates to the massive haemorrhage situation'
- iii. The patient's details: ideally surname, forename, hospital number, DOB (if unknown casualty: the hospital number and the unknown person number)
- iv. Whether O Neg will be required and how many units (usually 2)
- v. Order massive haemorrhage pack(s)
- vi. Contact lab if blood has been transferred with patient from another Trust (transferred blood must be sent in a box to the laboratory at Aintree prior to use) or patient is being transferred to another Trust

5. The clinical / laboratory interface

- i. Communication lead to arrange for transport of samples / request form to the laboratory
- ii. BMS to ring communication lead with results of urgent investigations
- iii. BMS to ring communication lead when blood / blood components are ready
- iv. Communication lead to arrange to collect blood and blood components from the laboratory

Designate HCA or other suitable staff member to transport samples to the laboratory.

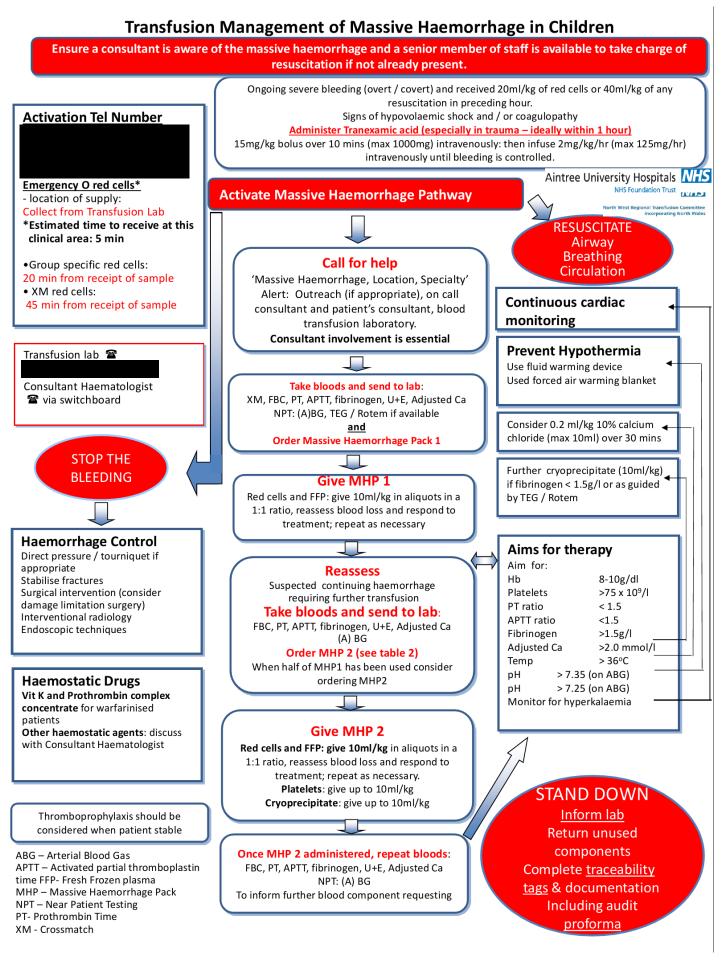
The HCA must alert laboratory reception staff of the urgency of the request when delivered.

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

7. Ensure documentation is complete

- i. Clinical area: monitoring of vital signs, timings of blood samples and communications (lab and cons haematologist), transfusion documentation in patient casenote record, return traceability information to laboratory.
- ii. Laboratory: keep record of communications / telephone requests in patient laboratory record

Appendix 1 - Transfusion Management of Massive Haemorrhage in children



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