FOR NON-TRAUMA PATIENTS

# ADULT MAJOR HAEMORRHAGE CALL SOP

**ACTIVATION CRITERIA**: (ANY of the below)
1. Overt or Suspected bleeding with a SBP below 90 mmHg OR
2. Haemodynamic instability due to blood loss OR
3. Bleeding more than 150mls/min

**ACTIVATION PROCESS**:
1. Call 2222 and state: Adult Major Haemorrhage Call on 'Location' at Royal London Hospital.
2. Call Blood Bank on **61108** to request blood packs. **Blood will NOT come automatically.**
3. Runner collects RBC from fridges. Porter collects FFP, Cryo and Plts from Blood Bank.

## BEFORE MHC TEAM ARRIVES

**LOCAL RESPONSE**
1. Reduce or stop obvious bleeding. Provide BLS/ILS/ALS.
2. Bring Resuscitation Trolley close to patient. Check suction. Do Obs every 5 min.
3. Ensure 360 access to the patient. Create space for MHC team.

## MHC TEAM ON SCENE

**ROLE ALLOCATION: (Go through the MHC arrival checklist.)**
Team Leader assigns Communication Lead, Vascular access, Runner, Assessor, and Scribe roles.
**Comms Lead** will coordinate the communication with the Runner, Porter and Blood Bank.
**Runner** collects RBC from fridges. **Porter** collects FFP, Cryo and Plts from Blood Bank.
**Assessor** will examine patient and communicate findings. (See Action cards for all roles)

**C-ABCDE ASSESSMENT** performed by **Assessor**
1. Compress external bleeding. Consider CELOX or Tourniquets (in MHC red trolley)
2. For surgery in the neck ->risk of airway obstruction. Senior anaesthetic and surgical help ASAP.
3. Consider Sengstaken-Blackmore tube placement in upper GI bleeding.
4. Intubate if airway is at risk. Anticipate poor views. Anticipate haemodynamic instability.
5. **Vasc. access role** to secure two wide-bore cannulas and/or RIC line and/or wide-bore CVC.
6. Consider IO needle in extremis as a temporising measure. Use pressure bag to give blood.
7. Collect baseline bloods: FBC, U&Es, Clotting, Fib, LFTs, 2 G&S, **VBG/ABG and ROTEM**

**VOLUME REPLACEMENT AND COAGULOPATHY MANAGEMENT**
1. Avoid infusing cold crystalloid.
2. Use group specific blood if G&S available. Otherwise, use emergency blood.
3. Do not delay transfusion to wait for G&S to be processed.
3. **Comms Lead** call **61108** to request **Pack A** (4FFP and 4RBC) ASAP.
4. Request **Pack B** (6RBCs, 6FFPs, 2Cryos, 1Plt) early if needed. It takes 30-45 min.
5. **Runner** collects **RBCs from hospital blood fridges. Porter collects FFPs, Cryo and Plts from the main blood transfusion lab** (pathology and pharmacy building-level 4).
6. Transfuse **warmed RBCs & FFPs on a ratio of 1:1. Target SBP= 80-90 mmHg.**
7. See "**Over-Anticoagulation**" Trust Guideline for specific anticoagulation reversal agents.
8. In complex cases, discuss management with Haematology SpR/Consultant.
9. Give all fluids via a fluid warming device. Use pressure bags if needed.
10. Consider specific therapies: Terlipressin.
11. Give 1 gram Tranexamic IV STAT. Avoid in upper GI Bleed.

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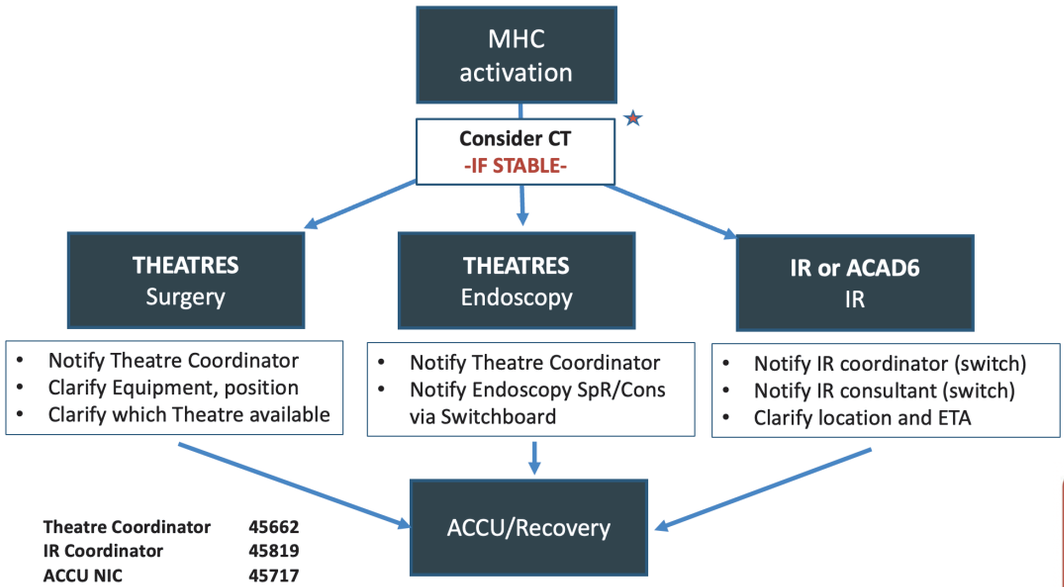
## ONGOING MANAGEMENT AND DEFINITIVE TREATMENT

1. TAG Consultant/ACCU/1220 SpRs should use ROTEM to guide further transfusion.
2. Team Leader, go through **BASTE algorithm regularly** with the entire team. **See below.**
3. **Start transfer preparations early.** CCOT, ODP, ACCU and Anaesthetic SpR to organise.
4. The general surgery SpR will be the primary surgical responder. They should **notify the oncall Vascular Consultant if surgical arrest of bleeding might be required**.
5. Call the oncall IR or Endoscopy Consultants via Switchboard if they are needed.
6. Clarify treatment destination, equipment, ETAs. Inform coordinators ASAP.
7. Go through the **transfer checklist** before departure.
8. **Handover** to Team Leader in new treatment area. **Stand down** MHC call at the end.

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|---|---|
| Theatre Coordinator | 45662 |
| IR Coordinator | 45819 |
| ACCU NIC | 45717 |

★ **Carefully consider the benefits/risks of transferring a potentially unstable patient to CT. This should be decided between senior ACCU/Surgical/Anaesthetic clinicians.**

SCAN ME!

FEEDBACK

## BASTE ALGORITHM

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|---|---|---|
| **B** | **Blood** | Think ahead. Order Pack B early.<br>Transfuse warmed RBCs and FFPs on a ratio of 1:1.<br>Target SBP= 80-90 mmHg.<br>Consider 1 g TXA. Avoid if Upper GI bleed.<br>Consider specific reversal agents. Speak to haematology. |
| **A** | **Acid-Base** | Repeat ABG<br>Use trend in pH, BE, and Lactate as markers of resuscitation.<br>Give Bicarbonate 8.4% if extreme acidosis or hyperkalemia. |
| **S** | **Strategy** | Clarify progress with team.<br>Clarify treatment destination, equipment, ETAs.<br>Share mental model and infos with team. |
| **T** | **Temperature** | Use a fluid warmer and Bair hugger.<br>Cover the patient to minimise heat loss. |
| **E** | **Electrolytes** | Monitor and Treat K and Ca regularly.<br>Ensure CaCl and Insulin Dextrose available. |

Stefan Sevastru 03/2023