

VASCULAR INJURY MANAGEMENT: TRAUMA AND HOSPITAL ACQUIRED - CHW PROCEDURE[®]

DOCUMENT SUMMARY/KEY POINTS

- This Procedure is to guide clinical staff for the management of vascular injuries resulting from trauma caused in hospital or out of hospital.
- This document is not for angiographic injuries or vascular injury after interventional radiology or cardiology: contact the proceduralist involved, or contact the interventional radiologist / cardiologist on-call.
- Urgent 'vascular' consultation is required.
- Ongoing blood loss requiring or anticipating 20ml/kg in 2hrs resulting from a vascular injury, activate the [Massive Transfusion Protocol](#) and "[Code Crimson](#)" to expedite transfer to theatre.
- For limb threatening ischaemia, book patient onto the Operating Emergency list and notify the Anaesthetist on-call.

This document reflects what is currently regarded as safe practice. However, as in any clinical situation, there may be factors which cannot be covered by a single set of guidelines. This document does not replace the need for the application of clinical judgement to each individual presentation.

Approved by:	SCHN Policy, Procedure and Guideline Committee	
Date Effective:	1 st January 2022	Review Period: 3 years
Team Leader:	Clinical Nurse Consultant	Area/Dept: Surgery Division CHW

CHANGE SUMMARY

- Westmead Hospital Vascular Surgeon on-call number changed from pager to switch board number 8890 5555
- Extreme blood Loss from vascular injury defined
- CHW cardiothoracic Surgeon on-call added to flow chart

READ ACKNOWLEDGEMENT

- Read Acknowledge Only – Emergency Medical staff, PICU Medical staff, Orthopaedic Surgeons, Trauma Surgeons, Cardiothoracic surgeons, Plastic Surgeons, Vascular Surgeons, Transplant Surgeons, General Surgeons and Switch staff.

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Vascular Injury

Note: This procedure is not for angiographic injuries or vascular injury after interventional radiology or cardiology: contact the proceduralist involved, or contact the Interventional Radiologist / Cardiologist on-call.

Clinical Presentation

There are 2 types of vascular injuries:

1. Traumatic (out of Hospital acquired)

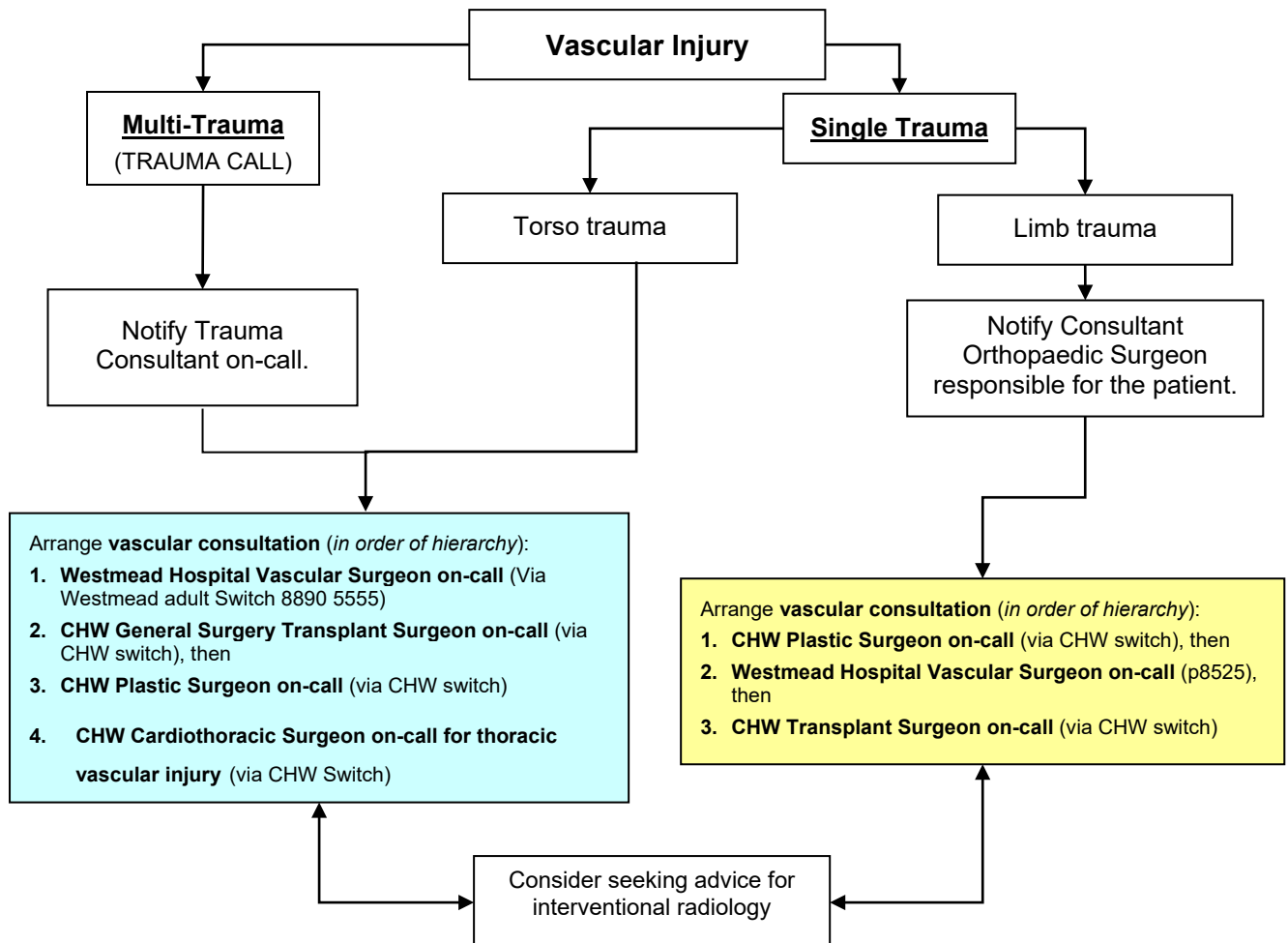
- Patient with bleeding or impaired circulation, due to a traumatic vascular injury and who is admitted to CHW via the Emergency Department.

2. Other (in Hospital acquired)

- Patient with bleeding or impaired circulation, due to an intra-operative vascular injury **OR**
- Patient with bleeding or impaired circulation recognised post-operatively which may be attributed to a vascular injury.

The following procedure should be activated in either of these situations.

Management Flowchart



Note: where there is:

- Ongoing blood loss requiring or anticipating 20ml/kg in 2hrs– activate [Massive Transfusion Protocol](#) and [Code Crimson](#).
- Limb threatening ischaemia, book patient onto Emergency Operating List and notify anaesthetist.

Procedure

Note:

For all multi-trauma injuries, consult Trauma Surgeon on-call for management coordination.

1. Once a vascular injury is recognised or suspected, notify immediately:
 - **Trauma Consultant on-call** for multi-trauma or torso trauma.
 - **Consultant Orthopaedic Surgeon** for limb trauma.
2. For *multi-trauma* or *torso trauma*, arrange an urgent 'vascular' consultation. The hierarchy of vascular consult on-call for management of vascular injuries is*:
 - i. **Westmead Hospital Vascular Surgeon on-call** (Via Westmead adult Switch 8890 5555)
 - ii. **CHW General Surgery Transplant Surgeon on-call** (via CHW Switch)
 - iii. **CHW Plastic Surgeon on-call** (via CHW Switch)
 - iv. **CHW Cardiothoracic Surgeon on-call for thoracic vascular injury** (via CHW Switch)
3. For *limb trauma*, arrange an urgent 'vascular' consultation. The hierarchy of vascular consult on-call for management of vascular injuries is*:
 - i. **CHW Plastic Surgeon on-call** (via CHW Switch)
 - ii. **Westmead Hospital Vascular Surgeon on-call** (Via Westmead adult Switch 8890 5555)
 - iii. **CHW General Surgery Transplant Surgeon on-call** (via CHW Switch)
4. Consider seeking advice from the vascular consultant on the need for interventional radiology. Angiography or enhanced Doppler ultrasonography may be of benefit in identifying the site of bleeding or occlusion. If indicated notify the Interventional Radiologist on-call as soon as possible.
5. In cases of limb threatening ischaemia, book the patient onto the Operating Suite Emergency List and notify the Anaesthetist on-call of the potential vascular emergency.
6. In cases where there has been ongoing blood loss requiring or anticipating 20ml/kg in 2hrs resulting from a vascular injury, activate the [Massive Transfusion Protocol](#) and "[Code Crimson](#)" to expedite transfer to theatre.

* The hierarchy is necessary because not all Surgeons on these rosters are credentialed for vascular injuries in children.

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