

Created: December 2017
Reviewed: June 2025
Revised: July 2025

Vascular Intervention

Purpose: To provide a guideline for the timing of vascular interventions for hemorrhage control

Definition: Confirmed blood pressure is defined as more than one reading.

Guidelines:

A. Vascular Emergency Criteria

i. Category A

1. Patients requiring a rapid response are those where blood transfusion has been initiated and there is a confirmed blood pressure < 90 mm Hg at any time prior to angioembolization in adults, or age-specific hypotension in children.
2. Must have an angioembolizable lesion
3. The procedure should begin within 60 minutes of Trauma Vascular Emergency activation
 - a. The response time is tracked from request to arterial puncture

ii. Category B

1. Angioembolization should be considered for those patients with an active arterial extravasation on CT or patients with a pseudoaneurysm (i.e., liver, spleen, other) who do not meet the Category A criteria
 - a. If intervention is deemed necessary, the timing of such is at the discretion of the surgeon.

B. For solid organ injuries, see also Management of Solid Organ Injuries Guideline

References:

- American College of Surgeons (ACS). (2022). *Resources for the Optimal Care of the Injured Patient*.
- ACS TQIP and OTA. (2014). *Best Practices in the Management of Orthopaedic Trauma*.
- Cullinane, Daniel C. MD; Schiller, Henry J. MD; Zielinski, Martin D. MD; Bilaniuk, Jaroslaw W. MD; Collier, Bryan R. DO; Como, John MD; Holevar, Michelle MD; Sabater, Enrique A. MD; Sems, S. Andrew MD; Vassy, W. Matthew MD; Wynne, Julie L. MD. Eastern Association for the Surgery of Trauma Practice Management Guidelines for Hemorrhage in Pelvic Fracture—Update and Systematic Review. *The Journal of Trauma: Injury, Infection, and Critical Care* 71(6):p 1850-1868, December 2011. | DOI: 10.1097/TA.0b013e31823dca9a