



erlanger

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# Blunt Splenic Trauma Inpatient Practice Management Guideline

## 1. Process/Procedure Description

Blunt Splenic Trauma Inpatient Management Guidelines

## 2. Who Should Read This Process/Procedure?

NEEDS COMPLETED

## 3. Process/Procedure

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| Step: | Process Instructions/Description:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| A.    | <p>Introduction</p> <p>There can be many causes of hypotension in blunt trauma that must be considered in the formulation of an appropriate treatment plan. In the case of splenic trauma, careful analysis of certain CT scan characteristics of the injured spleen real-time by the treating clinician is necessary in determining if the spleen is indeed a likely cause of hypotension. Additionally, unique to the natural history of the injured spleen relative to other solid organs is the formation of pseudoaneurysm(s) that can lead to delayed bleeding even in the most innocuous splenic injury. A pseudoaneurysm (PA) in this context is defined as an abnormal contrast enhancement, as compared to normal parenchymal vessels, completely contained within the parenchyma of the spleen. PAs can occur acutely on the initial CT or develop over 24 to 48 hours. This unique propensity of PA formation is why every splenic injury deserves a follow up scan. Active extravasation in reference to splenic trauma means that intravenous contrast is escaping from the parenchyma of the spleen indicating potentially life-threatening hemorrhage. With these considerations in mind, the following conditions</p> |

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|    | dictate the management of blunt splenic trauma.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| B. | Guidelines                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|    | <ol style="list-style-type: none"> <li>1. Hemodynamically unstable patients with splenic injury and evidence of contrast extravasation or PA on CT scan should undergo emergent laparotomy.</li> <li>2. Hemodynamically stable patients with free intraperitoneal contrast need emergent laparotomy or in select cases of unequivocal hemodynamic stability, emergent interventional radiology for splenic embolization.</li> <li>3. Hemodynamically stable patients with grade III, IV or V injuries, sub-capsular splenic hematomas or PA should be considered for arteriogram and angiographic embolization. Grade IV or V injuries should also be admitted to the ICU.</li> <li>4. Hemodynamically stable grade I-III injuries may be admitted to the floor if ICU care is not necessary for other injuries.</li> <li>5. A follow up CT scan with IV contrast should be performed within 24 to 48 hours of admission on <b>ALL</b> blunt splenic trauma (order should specify the solid organ injury protocol).</li> <li>6. Patients with PA or other evidence of progression of splenic injury detected on follow up CT imaging should be considered for arteriogram and angioembolization.</li> <li>7. Patients 55 years and older are at increased risk for failure of nonoperative management and require more vigilant ICU monitoring and may best served with lower thresholds for arteriography and splenectomy.</li> </ol> |
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## References:

- 1) Eastern Association for Trauma Practice Management Guidelines. [www.east.org/education/practice-management-guidelines/splenic-injury-blunt-selective-nonoperative-management-of](http://www.east.org/education/practice-management-guidelines/splenic-injury-blunt-selective-nonoperative-management-of). J Trauma. 73(5): S294-S300, November 2012.
- 2) Weinberg JA, Magnotti LJ, Croce MA, Edwards NM, Fabian TC. The utility of serial computed tomography imaging of blunt splenic injury: still worth a second look? J Trauma. 2007;62:1143-1148.
- 2) Western Trauma Association Algorithms. [www.westerntrauma.org/algorithms/AdultBluntSplenicTraumaNotes/Introduction.html](http://www.westerntrauma.org/algorithms/AdultBluntSplenicTraumaNotes/Introduction.html)

## Attachments

## Approval Signatures

| Step Description                      | Approver                                          | Date    |
|---------------------------------------|---------------------------------------------------|---------|
| VP Approval                           | Jessica Holladay: VP & ACNO<br>Surg & Trauma Svcs | 08/2025 |
| Trauma Services Committee<br>Approval | Stephanie Spain: Trauma Prgm<br>Mgr Adult         | 08/2025 |
|                                       | Stephanie Spain: Trauma Prgm<br>Mgr Adult         | 08/2025 |

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## Applicability

Erlanger Health - Baroness

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