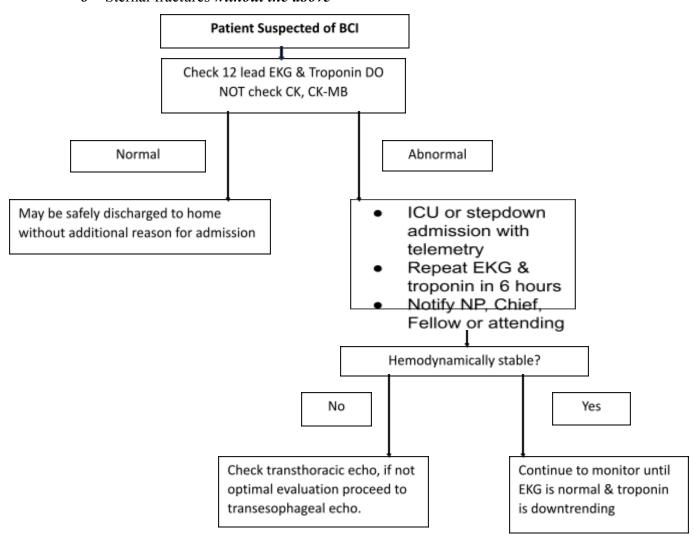


Blunt Cardiac Injury (BCI) Guideline

Patients at high risk for BCI:

- Blunt chest trauma AND at least one of the following:
 - o Complaints of chest pain (not related to rib fractures)
 - o Hemodynamically unstable patients unresponsive to resuscitation
 - o Arrhythmia with than sinus tachycardia
- Patients NOT requiring screening:
 - o Sternal fractures without the above



Special Considerations in BCI

1. Underlying cardiac disease

Patients with known underlying coronary artery diseae and BCI, use of CT or MRI coronary angiography may be able to distinguish between structural and acute myocardial infarction

2. Use of Swan Ganz Catheters

In setting of unclear etiology of post trauma hypotension, use of pulmonary artery catheters my provide useful information and is considered safe in BCI

3. Operative Intervention

Elderly patients with BCI are safe to proceed with surgery with appropriate monitoring. Patients with new arrhythmia are safe to proceed to the operative suite.

References

- 1. Biffl WL, Moore FA, Moore EE, et al. Cardiac enzymes are irrelevant in the patient with suspected myocardial contusion. Am J Surg. 1993;168(6):523–7. discussion 527-8
- 2. Swaanenburg J, Klaase J, DeJongste M, et al. Troponin I, troponin T, CKMB-activity and CKMB- mass as markers for detection of myocardial contusion in patients who experienced blunt trauma. Clin Chim Acta. 1998;272:171–81.
- 3. Bertinchant JP, Polge A, Mohty D, et al. Evaluation of incidence, clinical significance, and prognostic value of circulating cardiac troponin I and T elevation in hemodynamically stable patients with suspected myocardial contusions after blunt chest trauma. J Trauma. 2000;48(5):924–31.
- 4. Sheikh M, Ben-Nakhi A, Shukkur AM, et al. Accuracy of 64-multidetector- row computed tomography in the diagnosis of coronary artery disease. Med Princ Pract. 2009;18:323Y328.
- 5. Rajan G, Zellweger R. Cardiac troponin I as a predictor of arrhythmia and ventricular dysfunction in trauma patients with myocardial contusion. J Trauma. 2004;57:801Y808