

Stable Patient with Blunt Trauma

Key Recommendations

1. Patients with a major trauma mechanism who are stable and present with only minor injury should undergo whole body CT (WBCT-S).
2. Non-contrast CT examinations of the chest, abdomen and pelvis are considered inadequate, unless there is a history of allergy to iodinated contrast and other imaging modalities are not available.

a) *Whole Body CT for Trauma – Stable Patient (WBCT-S)*

Patients with high-energy mechanisms of injury should generally undergo whole body CT (WBCT) imaging with intravascular contrast but without oral contrast (see **Appendix A** for discussion of evidence and best practices for *Routine Whole Body CT, Intravenous Contrasts, and Oral Contrasts*). Arch-to-COW CT angiography is optional but is strongly encouraged as part of standard WBCT if there are clinical indicators (see **Appendix A** for discussion of evidence on *Arch-to-COW CT Angiography* and **Appendix B** for a list of indicators for non-contrast CT of the head). WBCT-S identifies a number of important occult injuries which, critical or not, require diagnosis in order to assure optimal decision-making. While bedside imaging (radiography or ultrasound) declares pertinent positives and negatives that are essential to time-critical decision-making, WBCT provides the complete picture required to determine appropriate management, disposition, and follow-up.

Common important occult injuries not easily identified without WBCT include: intracranial hemorrhage, blunt cervical vascular injury, facial fractures, spinal fractures, rib fractures, pneumothoraces, blunt aortic injury, abdominal visceral injury and retroperitoneal hemorrhage. All of these can occur with high energy mechanisms in patients who appear to have only minor injuries.

Stable trauma patients undergoing WBCT do not routinely require the presence of a physician-led trauma team while the CT is being completed, although the standard monitoring requirement remains (See **Appendix C** for a list of triggers for ordering the “Standard Trauma Imaging CT Protocol”).

Since CT imaging requires the patient to be removed from a monitored environment, minimizing the time between when the patient leaves the ED to imaging and when he/she returns to ED is essential for patient safety.

The target completion time for WBCT-S is 30 min. door-to-door (from the time the patient departs the ED until he/she returns to ED).

The appropriate technical and reporting specifications for standard WBCT in trauma are described in **Appendix D** and **Appendix E**. See **Table 2** for a summary of WBCT protocols for stable blunt trauma patients, compared with protocols for WBCT in unstable patients.

b) Bedside Imaging for the Stable Patient

In general, radiographs are not recommended in stable patients where CT imaging is available, with the exception of pelvic XR. For suspected or confirmed pelvic ring fracture, plain film XR provides valuable diagnostic information that can inform clinical decision-making.