

BLUNT ABDOMINAL TRAUMA

Original Release/Approval	18 Dec 2004	Note: This CPG requires an annual review.	
Reviewed:	Jun 2010	Approved:	30 Jun 2010
Supersedes:	Blunt Abdominal Trauma, 7 Nov 08		
<input type="checkbox"/> Minor Changes (or)	<input checked="" type="checkbox"/> <i>Changes are substantial and require a thorough reading of this CPG (or)</i>		
<input type="checkbox"/> Significant Changes			

1. Goal. To provide guidance on the management of combat casualties who sustain blunt abdominal trauma (BAT).

2. Background.

- a. Unlike penetrating abdominal injuries where the decision to operate is relatively straight forward, those combat casualties that sustain blunt abdominal trauma offer more of a diagnostic and clinical challenge. With the improvements in body armor, truncal injury has decreased despite increasingly more lethal weapon systems. With the advent of Improvised Explosive Devices (IEDs), however, more casualties are presenting with evidence of BAT. While CT scans are available to assist the provider in decision making at a Level III facility, providers at far forward surgical units must decide to operate based on physical and Focused Abdominal Sonography in Trauma (FAST) exams.
- b. It is incumbent on the senior surgeon at each facility to ensure the staff understands their resource limitations and the inherent limitations associated with the use of the FAST exam to diagnose a hemoperitoneum. For those patients with a positive FAST, exploratory laparotomy should be undertaken immediately. ***Rarely***, patients with a positive FAST and/or CT scan may be managed non-operatively if they are already at a Level III facility that can ensure adequate clinical follow-up and evaluation. ***DO NOT*** aeromedically evacuate patients out of the CENTCOM AOR who have a positive FAST exam and/or CT evidence of hemoperitoneum prior to completely assessing and controlling any and all ongoing intraabdominal hemorrhage. The benefits of non-operative management ***do not*** outweigh the risks of an in-flight hemorrhagic emergency with no potential for therapeutic surgical intervention.
- c. ***All grade III-V splenic injuries should undergo splenectomy due to the high failure rate of non-operative management with or without splenic embolization.*** Lacerated spleens of any grade with active hemorrhage encountered during laparotomy for any reason are best managed by splenectomy. In Level III facilities with Interventional Radiology capabilities, consideration may be given to embolization of grade 1/2 splenic injuries if the patient has NO other indication for exploratory laparotomy. These patients should be hemodynamically stable but with evidence of active bleeding or pseudoaneurysm and no evidence of hemoperitoneum on computed tomography. Ideally, these patients should be monitored in the MTF for up to 3 days prior to evacuation to another MTF. Additionally, the patient's history should be discussed between the referring and accepting surgeons prior to evacuation. This is based on a literature review showing 99-100% success rate of non-operative management for grade 1/2 splenic

Joint Theater Trauma System Clinical Practice Guideline

injuries. Angiography and embolization for blunt injuries of other visceral organs may be used as an adjunctive procedure and should be determined on a case by case basis.

- d. Nothing in this CPG or Appendix precludes the use of exploratory laparotomy for BAT when either the clinical or tactical situation warrants.

3. Recommendations. See appendix A

4. Responsibilities. It is the trauma team leader's responsibility to ensure familiarity and appropriate compliance with this CPG.

5. References.

¹ *Emergency War Surgery Handbook*

² Nonoperative management of Blunt Splenic Injury: A 5-year experience. Haan JM et al. J Trauma. 2005;58:492-498.

³ Correlation of Multidetector CT Findings with Splenic Arteriography and Surgery: Prospective Study in 392 patients. Marmery H et al. J Am Coll Surg. 2008;206:685-693.

⁴ CT Findings after Embolization for Blunt Splenic Trauma. Killeen KL et al. J Vasc Interv Radiol. 2001;12:209-214.

⁵ Observation for Nonoperative Management of the Spleen: How Long is Long Enough? McCray VW et al. J Trauma 2008;65:1354-1358.

⁶ Proximal Splenic Angioembolization Does Not Improve Outcomes in Treating Blunt Splenic Injuries Compared with Splenectomy: A Cohort Analysis. Duchesne JC et al. J Trauma 2008;65:1346-1353.

⁷ Angiographic Embolization for Liver Injuries: Low Mortality, High Morbidity. Mohr AM et al. J Trauma 2003;55:1077-1082.

⁸ Abdomen--Interventions for Solid Organ Injury. Holden A. Int J Care Injured 2008;39:1275-1289.

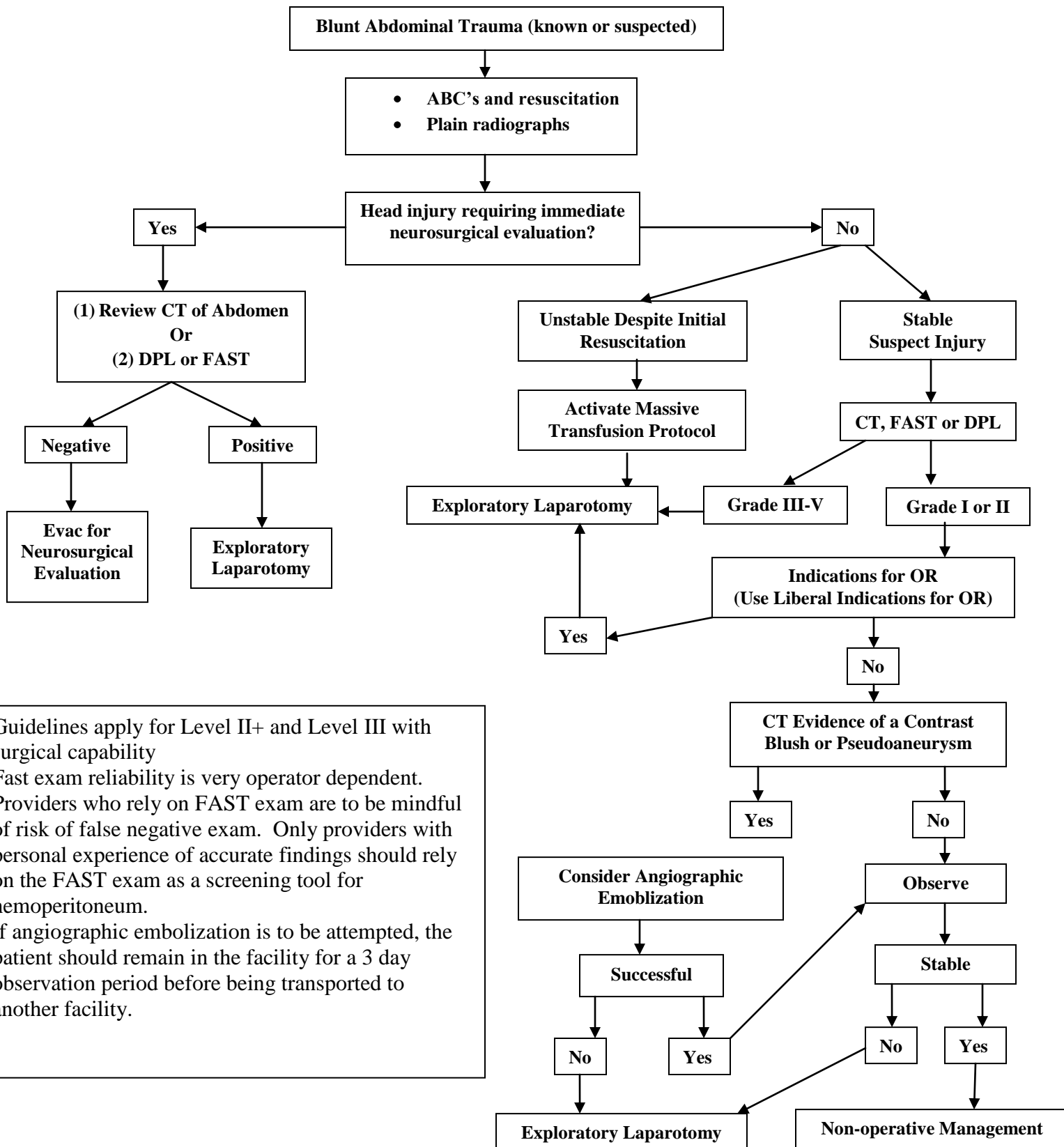
Approved by CENTCOM JTTS Director and Deputy
Director and CENTCOM SG

Opinions, interpretations, conclusions, and recommendations are those of the authors and are not necessarily endorsed by the Services or DoD

Guideline Only/Not a Substitute for Clinical Judgment
June 2010

Joint Theater Trauma System Clinical Practice Guideline

APPENDIX A



Guideline Only/Not a Substitute for Clinical Judgment

June 2010

APPENDIX B

ADDITIONAL INFORMATION REGARDING OFF-LABEL USES IN CPGs

A. Purpose.

The purpose of this Appendix is to ensure an understanding of DoD policy and practice regarding inclusion in CPGs of “off-label” uses of U.S. Food and Drug Administration (FDA)–approved products. This applies to off-label uses with patients who are armed forces members.

B. Background.

Unapproved (i.e., “off-label”) uses of FDA-approved products are extremely common in American medicine and are usually not subject to any special regulations. However, under Federal law, in some circumstances, unapproved uses of approved drugs are subject to FDA regulations governing “investigational new drugs.” These circumstances include such uses as part of clinical trials, and in the military context, command required, unapproved uses. Some command requested unapproved uses may also be subject to special regulations.

C. Additional Information Regarding Off-Label Uses in CPGs.

The inclusion in CPGs of off-label uses is not a clinical trial, nor is it a command request or requirement. Further, it does not imply that the Military Health System requires that use by DoD health care practitioners or considers it to be the “standard of care.” Rather, the inclusion in CPGs of off-label uses is to inform the clinical judgment of the responsible health care practitioner by providing information regarding potential risks and benefits of treatment alternatives. The decision is for the clinical judgment of the responsible health care practitioner within the practitioner-patient relationship.

D. Additional Procedures.

1. Balanced Discussion. Consistent with this purpose, CPG discussions of off-label uses specifically state that they are uses not approved by the FDA. Further, such discussions are balanced in the presentation of appropriate clinical study data, including any such data that suggest caution in the use of the product and specifically including any FDA-issued warnings.

2. Quality Assurance Monitoring. With respect to such off-label uses, DoD procedure is to maintain a regular system of quality assurance monitoring of outcomes and known potential adverse events. For this reason, the importance of accurate clinical records is underscored.

3. Information to Patients. Good clinical practice includes the provision of appropriate information to patients. Each CPG discussing an unusual off-label use will address the issue of information to patients. When practicable, consideration will be given to including in an appendix an appropriate information sheet for distribution to patients, whether before or after use of the product. Information to patients should address in plain language: a) that the use is not approved by the FDA; b) the reasons why a DoD health care practitioner would decide to use the product for this purpose; and c) the potential risks associated with such use.