Emergency General Surgery in Deployed Locations

Part of the Joint Trauma System (JTS) Clinical Practice Guideline (CPG) Training Series
Purpose

This CPG provides guidance for the care of non-traumatic surgical patients in an austere setting to both the general surgeon and their commanders.

This presentation is based on the *JTS Emergency General Surgery in the Deployed Setting CPG, 01 Aug 2018 (ID:71)*. It is a high-level review. Please refer to the complete CPG for detailed instructions. Information contained in this presentation is only a guideline and not a substitute for clinical judgment.
Agenda

- Background/Summary
- Evaluation
- Decision Matrix
- Treatment
- Performance Improvement (PI) Monitoring
- References
- Appendices (N/A)
- Contributors
On battlefield, your mission is focused on short term surgical care of trauma patients.

- Short term holding capability
- Limited supplies

Unexpected non-traumatic surgical problems, however, can and do happen frequently in a deployed setting.

- Limited capabilities
- Limited specialty services
- Same supply and holding limitations
Evaluation

- History and physical examination is key
  - Minimal laboratory and radiologic capabilities

- A surgeon needs to determine if patients are either:
  - Emergent – Requiring immediate surgical care
    - Examples: bleeding, ischemic tissue, septic shock
  - Non-Emergent – requires care, but not immediately life threatening
    - Examples: localized inflammation, mild systemic symptoms

- Surgeons must make a decision on surgical care.
Decision Matrix

- Multi-factorial decision tree
- Communication between surgeon and command is critical.
- Risks and benefits need to be considered not just for the patient, but also must consider ongoing mission.
- Possible complications and long term management needs should be considered.
Treatment

- Best interest of the patient always considered, but if delayed treatment will not cause significant risk to mortality or substantial morbidity, transport to a higher level of care is generally the better option.

- If treatment rendered, damage control principles should be used.
  - Control contamination/bleeding
  - Delay anastomoses/definitive procedures until a higher level of care.
Broad spectrum antibiotics should be used.

- Ertapenem is typically carried in forward deployed surgical assets and is generally suitable for most infectious processes.
- Tailor antibiotics when able and available.

Minor procedures capable of being done in a clinic room in sub sterile conditions are generally safe in a forward setting, but purely elective procedures should be delayed.

If any doubt on stability of patients or transport capabilities, teleconsultation with higher level assets always appropriate.
PI Monitoring

Intent (Expected Outcomes)

- Initial treatment with antibiotics if infectious diagnosis (appendicitis, cholecystitis, abscess, diverticulitis).
- Emergency general surgery cases are done at Role 3 or Role 4; if done at Role 2, the indication to proceed with surgery rather than evacuate to higher level of care should be clearly documented.

Data Sources

- Patient Record
- Department of Defense Trauma Registry (DoDTR)
- Morbidity and Mortality Conference Reports
Performance/Adherence Measures

- Antibiotics are given for infectious diagnoses.
- Emergency general surgery cases are done at Role 3 or Role 4; if done at Role 2, the indication to proceed with surgery rather than evacuate to higher level of care is clearly documented.
References


Contributors

- Maj Andrew Hall, MD, USAF
- CDR Jacob Glaser, USN, MC
- Maj D. Marc Northern, USAF, MC
- Maj Zachary Englert, USAF, MC
- COL Jennifer Gurney, USA, MC
- Maj Matthew Pieper, USAF, MC
- Lt Col Bruce Lynch, USAF, MC
- Col (ret) Carl Freeman, USAF, MC
- Col Stacy Shackelford, USAF, MC
- CDR Matthew Hannon, USN, MC
- COL Mary Edwards, USA, MC
- CAPT Zsolt Stockinger, USN, MC

*Photos are part of the JTS image library unless otherwise noted.*