



Electronic Trauma Resuscitation Documentation and Decision Support Using T6 Health Systems Mobile Application: A Combat Trauma Center Pilot Program

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Disclaimer



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This study has been conducted in a manner approved by the Medical Research and Materiel Command.



Background



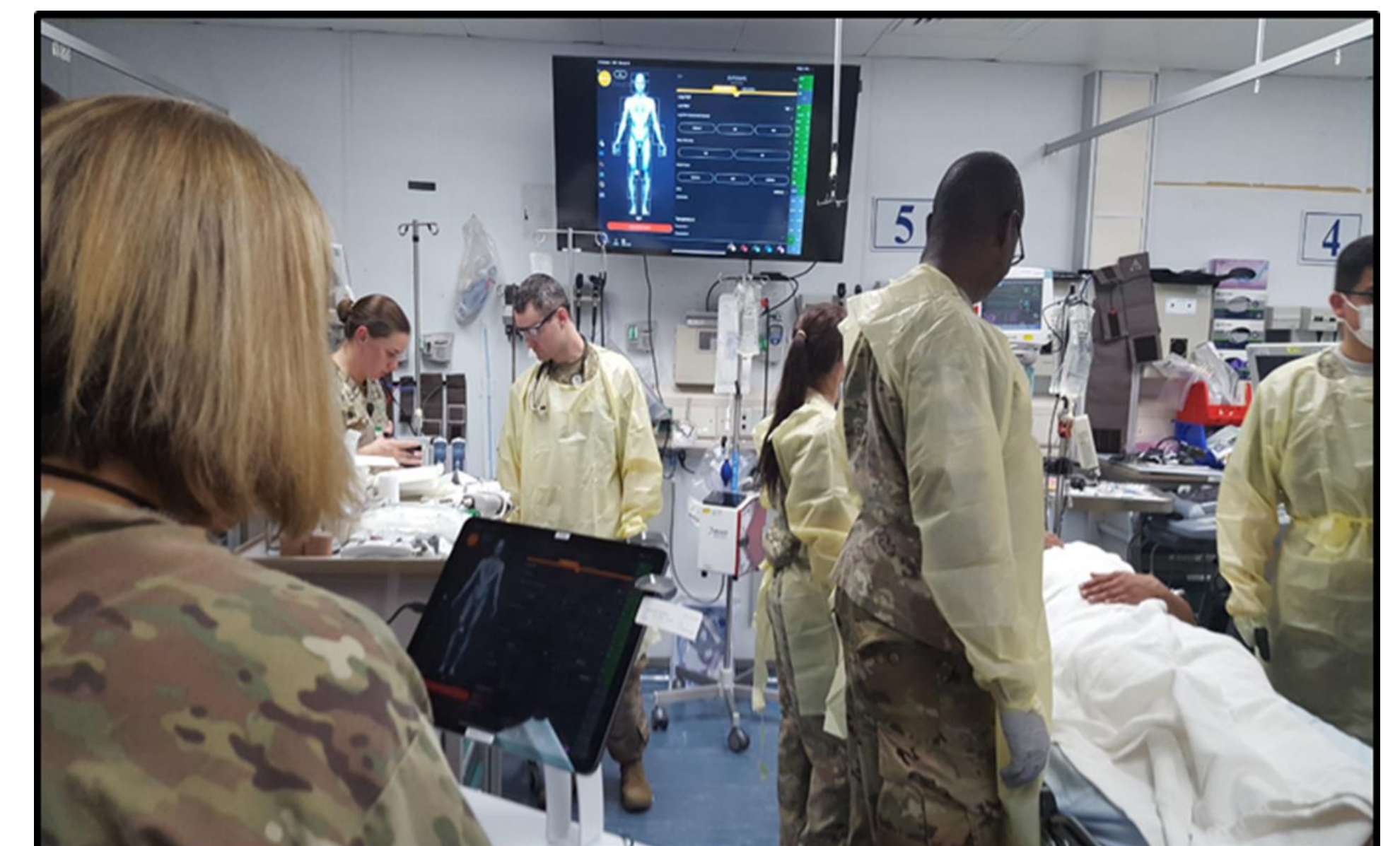
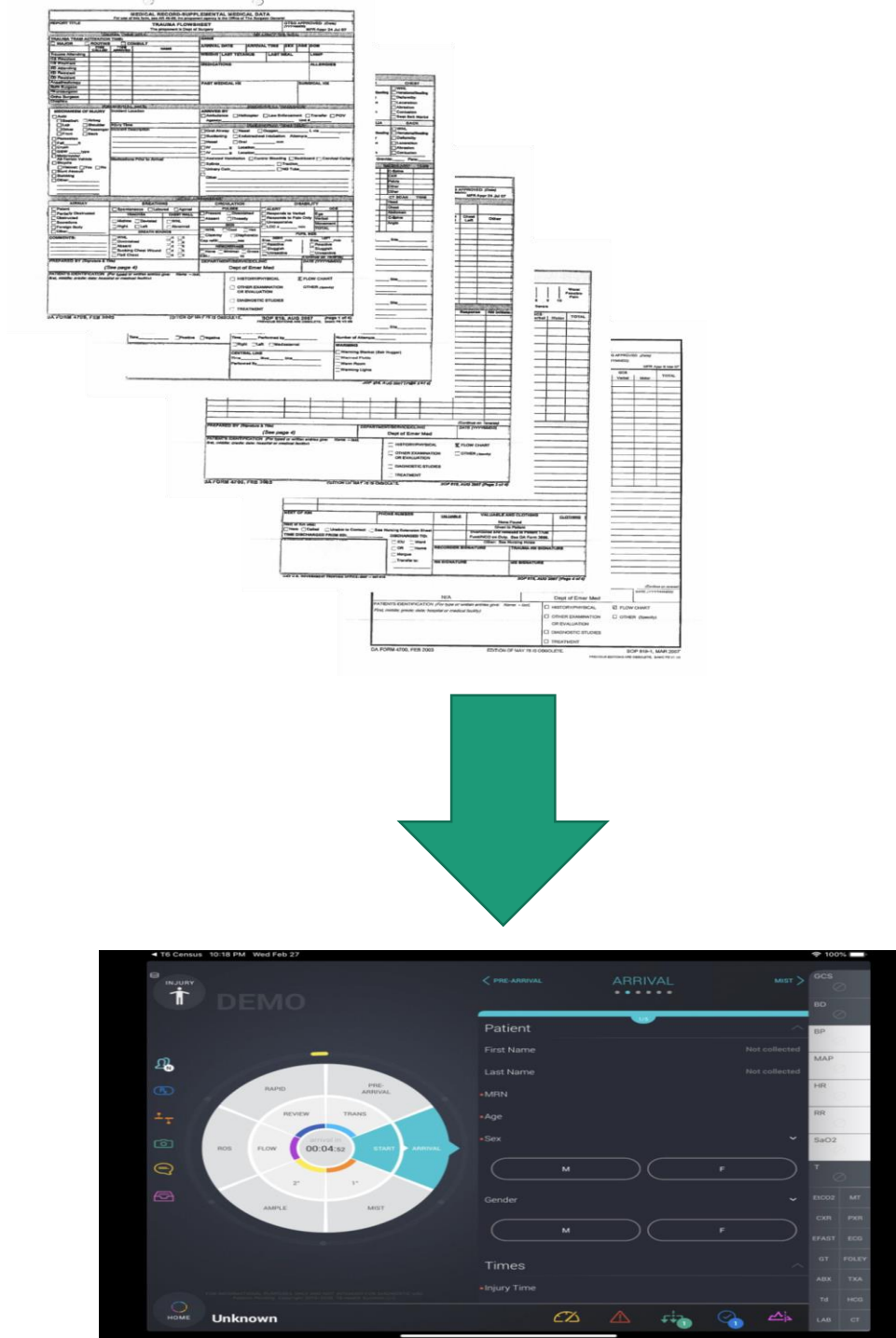
- Trauma resuscitation events are recorded and documented on a handwritten 5-page form in real time in the ED.
- The document must be scanned later and uploaded in electronic health record (EHR) to become part of the patient record.
- Multiple problems – illegible handwriting, lost forms, delayed availability
- Deployed setting – hectic combat environment, multiple transports to different levels of care



Objectives/Methods



- Improve accessibility of trauma record by implementing a software that can:
 - Be used on a portable hand-held device
 - Assist with data visualization and real time tracking
 - Prompt clinical practice guideline compliance
 - Provide coding/grading of injuries relevant to the NTDB
 - Export record in searchable PDF that can be uploaded to HER
 - Sync with prehospital record for comprehensive record
- Conduct a head-to-head comparison of electronic documentation versus handwritten documentation to assess fidelity for:
 - time accuracy
 - data completeness
 - usability
 - faster access
 - success of record capture
 - efficiency of registry data point capture

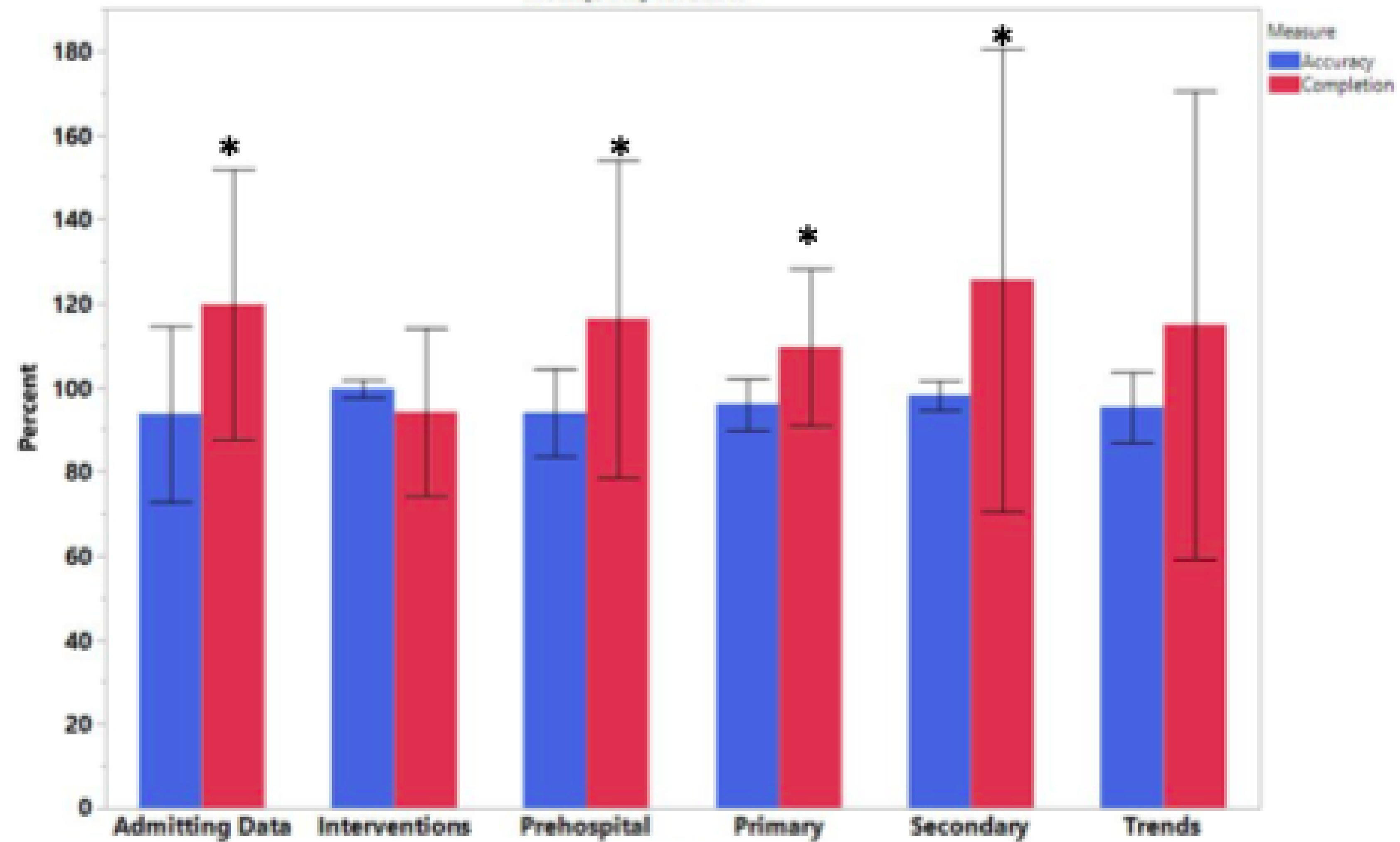




Results



- 90 Day Pilot:
March – May
2019
- 53 electronic
charts compared
to paper record





Conclusions



- Over 3 months of training and implementation, observed 13% increase in data capture with 96% accuracy
 - Difficult from a staffing standpoint due to double documentation
 - Assumption that written documentation is the “truth”
- Several other advantages of mobile digital technology:
 - Real-time sharing between clinicians
 - Searchable/exportable/uploadable data formats
 - Clinical process surveillance for continuous PI
 - Increase in patient safety with reduction of transcription errors
 - Just-in-Time Clinical Practice Guidelines (CPGs), checklists and predictive prognostic scores
- Next phase is to determine if the application:
 - conducts digital electronic health record upload and allows trauma registry data import through on-network trial
- Ultimate goal: find an application that can capture trauma patient data into one record throughout the continuum of combat care.