A Prospective, Multi-institutional Evaluation of Cholecystostomy for Acute Calculous Cholecystitis

Nathaniel Poulin MD, FACS
Eric A. Toschlog MD, FACS, FCCM
Background

- Acute calculous cholecystitis is commonly encountered in emergency general surgery practices
- An aging and infirm population present challenges to emergent surgical procedures
- Limited access, increasing age and acuity have lead to increased utilization of cholecystostomy
Background

• Current literature is constrained
  – Small, retrospective studies
  – Prolonged study periods
  – Single institution experience

• No evidence basis
  – Indications for cholecystostomy
  – Indications for interval cholecystectomy
  – Timing of cholecystectomy
  – Duration of cholecystostomy
  – Factors leading to planned non-operative management
Background

• Patients discharged after index admission with cholecystostomy
  – 30-50% readmission rate in 3 months
    • Recurrent symptoms
    • Tube-related complications
  – 25-65% go on to cholecystectomy

• Patients without plans for surgery
  – Tube removal?
  – Recurrence?
Hypothesis

• In the emergency general surgery population
  – Wide variability in cholecystostomy
    • Indications
    • Subsequent cholecystectomy
    • Tube management
    • Complications

• A prospective, multi-institutional, longitudinal, descriptive study is necessary to define practice and design prospective trials
Methods

• Prospective, observational, descriptive study
• Inclusion criteria
  – Acute calculous cholecystitis
  – Treated with cholecystostomy
• Exclusion criteria
  – Age less than 18 years
  – Acalculous cholecystitis
  – Biliary of pancreatic malignancy
  – Biliary tract obstruction
  – Pancreatitis
Variables

- Demographics
- Disease severity
  - Tokyo criteria, physiologic data, lab data
- Comorbid conditions
- ASA class
- Indication
  - Chronic ill, acute ill, delay presentation, ect
- Management plan
  - at discharge, and follow up visits
- Previous biliary events
- Clinical time course
  - Duration of symptoms, LOS, # of interventions, time to surgery or tube removal
- Readmissions/Recurrence
- Cholecystectomy
  - LC, OC, Conversion
- Complications
- Outcomes
Data Collection and Analysis

• Data collected by individual participating institutions using data tool
• EAST/AAST multicenter online data collection tool
• Data combined and analyzed by principal institution
Progress/Needs

Need
• IRB approval
  – Design Consent
  – Considering quality of life survey
• Purchas online data collection tool

Have
• Have determined funding or EAST/AAST data tool
• Research nurse to assist with coordinating other sites
• Statistical support
Goals/Timeline

• IRB finalized by March 1
• Enrolling patients by July 1