Maine Medical Center
MaineHealth

Surgical Emergencies: A Night On Call

Bruce Chung

July 10, 2021

Disclosures

- No Disclosures

Panelists




Dr. Joseph Caruso – Franklin Memorial Hospital

Dr. Jonathon Dreifus – Maine Medical Center

Dr. Laura Withers – Maine Medical Center

Dr. Rodney Lahren – Northern Lights Health System

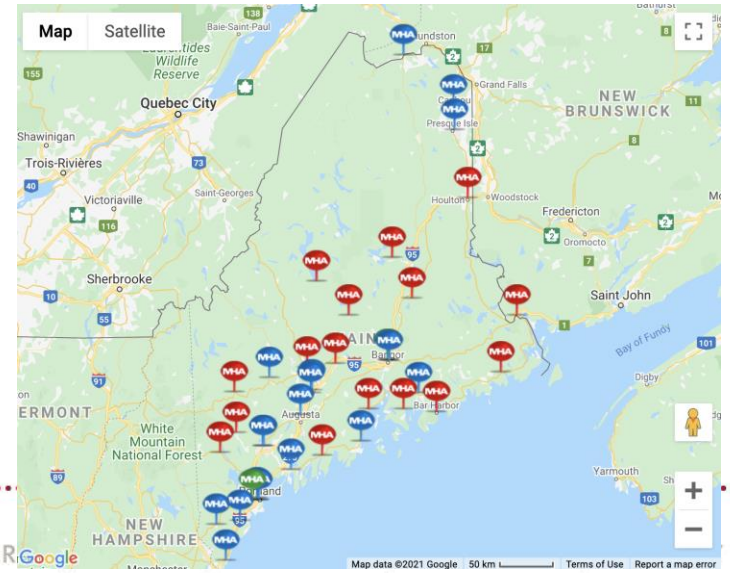
Dr. Amy Tan – Blue Hill Memorial Hospital

Maine Demographics

- Maine is the oldest state in the nation
  - Median Age 45yo (New Hampshire 43yo)
  - Percent Population over 65: 20.6% (Florida 20.5%)
- Maine is the most rural state in the nation – 61.3%

- Medicare Expenditures per Capita: 11th at $9,531 (Alaska $11,064)
- Medicaid Expenditures per Capita: 18th at $6,551 (North Dakota $10,392)

- 36 Hospitals in Maine
  - 33 acute non-profit hospitals
  - 2 private psychiatric hospitals
  - 1 rehab facility
  - 16 Critical Access Hospitals



- Poll: Practice Setting
  - A. Large Hospital Urban
  - B. Small Hospital Urban
  - C. Large Hospital Rural
  - D. Small Hospital Rural
  - E. Critical Access Hospital

Scenario #1

- Pt is a 53yo male with epigastric abdominal pain over past 6 hours and worsening. No significant past medical history, but does smoke and consume alcohol daily. Pt's vital signs are HR 120, BP 130/76, 98% RA.

- On physical exam, there is slight abdominal distension, diffuse abdominal pain with rebound/guarding. Labs significant for WBC 15. CT scan shows free air and specks of air and fluid with wall thickening of the proximal duodenum, concerning for duodenal perforation.

- Poll: How many people would be comfortable taking care of this patient at their own institution? How many would transfer to a higher institution?

Scenario #1: Perforated Duodenal Ulcer

- What aspects of a patient with a perforated duodenal ulcer would make you uncomfortable?
- Does operative approach make a difference in practice setting? Open vs laparoscopic?
- Does the estimated length of stay affect decision making?
- Does size of the patient or BMI play any role? If patient has significant comorbidities or prior abdominal surgeries?
- If the patient is unstable with hypotension, would your management change? Keep or transfer?

Scenario #2

- Pt is a 76yo male, c/o chest pain and epigastric pain. Pt has history of MI s/p PCI with DES 6 months ago and is on Plavix and aspirin. Workup today is negative for acute MI. Pt's vital signs are stable, with HR 80s, BP 140s/80s. Physical exam with RUQ pain with Murphy's sign. Labs significant for WBC 13, normal LFTs. RUQ US was performed and shows cholelithiasis, with gallbladder wall thickening and pericholecystic fluid.

- Poll: How many people would be able to take the patient to the OR at their institution?
  - A. No problem.
  - B. Yes, but if stable, during daylight hours in the next 12-24hrs.
  - C. Blame Anesthesia! They won't let me take this patient to the OR because of his heart history.

Scenario #2: Gallbladder Disease

- What if the LFTs are elevated?
  - ERCP? How many institutions have advanced GI?
  - Lap chole with IOC +/- CBD exploration? Availability of intra-op fluoroscopy? Laparoscopic CBD exploration?
- How does BMI play a part?
- Any challenges with anesthesia?
- Any limitations dealing with Plavix? What if patient is anticoagulated with coumadin? DOAC?

Scenario #3

- Pt is a 41yo female who was involved in an MVC when another car rear-ended the car and the car ran off the road and hit a tree on the driver's side at high speed. Pt initially presented with left sided chest pain, and left lower leg deformity.

- Vital signs initially stable with HR 100, BP 120/70, 96% on RA, GCS 14. Physical exam with left chest pain and left lower leg deformity, and seatbelt sign. CT scans and xrays were performed showed left sided rib fractures, grade 4 splenic laceration with active extravasation, and comminuted left tib/fib fracture. The ED provider was initiating transfer when patient's vital signs suddenly became unstable and was hypotensive with SBPs 70s despite fluid resuscitation.

- Poll: How many people are comfortable taking out a spleen?

Scenario #3: Splenic Injury

- What is the blood product situation at your institution?
  - pRBCs?
  - FFP?
  - Platelets?

- How quickly can you mobilize an operating room? Is Anesthesia in house? Is the OR team in house? What is their response time?

- Who is comfortable with damage control surgery?

- What if helicopter transport is unavailable, or weather conditions delay transport?

Hodge Podge

- Patient with incarcerated hiatal hernia with possible gastric volvulus
  - Stable vs Unstable?

- Patient with extensive surgical history, with large ventral hernia with attempted repair with mesh in the past. Now with SBO within the hernia with stranding and fluid and elevated lactate.
  - Stable vs Unstable?
  - One stage vs two stage?
  - Transfer/Keep?

- Patient in septic shock from necrotizing fasciitis of lower extremity
  - How many people are comfortable debriding or amputation?

- Patient with perforated sigmoid diverticulitis
  - Small amount of free air vs large amount?
  - Hinchey class IV?
  - Morbidly obese?

Conclusion

- Specific practice settings presents unique challenges

- There are many advantages and disadvantages of working in Maine
  - Rural state and distances from hospitals can affect care

  - 33 Acute Care Hospitals
    - » Texas – 565 Acute Care Hospitals
    - » Opportunity to work closely together
    - » Communication and stronger interfacing to help creatively solve the above challenges

- Any changes you would like to see in the system? Regionalization? Improved specialty care in rural settings?