

Colorado Review of Anesthesia for SurgiCenters and Hospitals 2018

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Interactive Case Presentation:

44 year old man with a past medical history of spontaneous pneumothorax at age 18 presents to the emergency room with a necrotizing soft tissue infection of his chest wall. The patient rapidly develops septic shock and requires emergency surgical intervention. The anesthesiologist role in the resuscitation, mechanical ventilation, and hemodynamic monitoring is key to critically ill patient surviving. Necrotizing soft tissue infections are common deadly infections that require rapid intervention to improve survival

- Sepsis is defined as life-threatening organ dysfunction caused by dysregulated host response to infection
- Septic shock is a subset of sepsis with circulatory and cellular/metabolic dysfunction associated with high risk of mortality

Source Control Surgery

- Early diagnosis and surgical intervention improve mortality
- Intraoperative resuscitation
 - Laboratory data
 - Fluid responsiveness
 - Do devices help?

Fluid management with severe electrolyte disturbances

- Lactic acidemia
 - Goals of resuscitation
- Hypovolemic Hyponatremia
 - Sodium Correction in the critically ill
- Cardiogenic shock
 - Biomarkers, imaging, management
 - Careful management: fluids, mean arterial blood pressure, vasopressors

Bedside Anesthesia in the Intensive Care Unit

- When is a patient too sick to travel to the operating room?

Acute Respiratory Distress Syndrome

- Referral for Veno-venous ecmo?

1. Stevens, Dennis; Bryant Amy. Necrotizing Soft-Tissue Infections. N ENGL J MED 377;2353-65

2. Rhodes et al. Surviving Sepsis Campaign: International Guidelines for Management of Sepsis and Septic Shock: 2016. March 2017 Volume 45. Number 3. 486-552
3. Takauji S, Hayakawa M et al. Respiratory extracorporeal membrane oxygenation for severe sepsis and septic shock in adults: a propensity score analysis in a multicenter retrospective observational study. *Acute Med Surg.* 2017 Jul 17;4(4):408-417