



FOAM & Education Newsletter

October 2020
Volume #2



Welcome to Rez's #FOAM Newsletter

This is a monthly newsletter brought to you by the Education Committee with the latest in the EM & FOAMed world, ranging from trials, news and pearls. We will also share with you the best podcasts & blog posts recently published in FOAM. If you have an interest in contributing or sharing interesting images or EKGs, let us know!



Critical Care Update: Early Norepinephrine in Septic Shock

POCUS Update: BLUE Protocol in Dyspneic Patients



October FOAM Highlights

Podcast of The Month:
Hidden Brain: The Fee-for-Service Monster

Blog Post of The Month:
EM Cases: DKA Recognition and ED Management

Procedure of The Month:
EMRAP: Lateral Canthotomy

Your 20-21 Education Committee

Walid Malki

Jon Reid

Lola Reingold

TJ Stolz

Yalan Vu

Critical Care Update: Timing of norepinephrine initiation in patients with septic shock
Bottom Line: Early initiation (within 1-6 hours) of norepinephrine in septic shock was associated with decreased short-term mortality, reduced time to achieve target MAP, & lower volume of IV fluid administered.

How: Systematic review & meta-analysis of 5 studies with 929 patients comparing early vs late norepinephrine initiation for patients with septic shock.

Who: Patients with septic shock: sepsis + persisting hypotension requiring vasopressors to maintain MAP ≥ 65 mmHg & lactate > 2 despite adequate volume resuscitation.

Limitations: no standard definition of "early" (defined as 1-6 hours). Follow up trial ongoing [CLOVERS](#)

Note: You do not need a CVC to start pressors – you need a good proximal large bore IV

Source: [Timing of norepinephrine initiation in patients with septic shock: a systematic review and meta-analysis](#). Crit Care. 2020 Aug 6;24(1):488. doi: 10.1186/s13054-020-03204-x.

POCUS: BLUE Protocol for Dyspneic Patients ([Link to 5 Minute Song](#))

- This month we showcase the often overlooked, **point-of-care lung ultrasound**. Air is the natural enemy to ultrasonic waves, so it's counterintuitive that lung US (LUS) could yield useful information. But LUS is easy to learn, quick to perform & found to be **more sensitive than chest x-ray in detecting pneumonia: (LUS: 0.98 vs. CXR 0.67) and pleural effusions* (LUS: 0.94 vs. CXR: 0.52)**. The challenge in LUS is understanding what you're looking for. The **Bedside Lung Ultrasound in Emergency Protocol (or BLUE Protocol)** provides a streamlined approach to assessing patients with undifferentiated respiratory distress utilizing LUS.

- Take home points:

1. More sensitive than CXR in detecting pneumonia and pleural effusions
2. Follow (and practice) BLUE protocol when assessing your next dyspneic patient

Emphysematous Pyelonephritis: ED presentation, Evaluation & Management (emDocs)

- Characterized by gas forming bacteria ($>90\%$ E. coli & Klebsiella) causing severe necrotizing infection
- Approximately **25% mortality rate**
- Signs & Symptoms: Pyuria (78%), Fever (75%), abdominal/flank pain (70%), N/V alongside septic shock
- Risk Factors: **DM, immunocompromised, female sex**
- Imaging: CT with IV contrast. KUB & US may help with early recognition
- Early resuscitation is key: fluids, antibiotics & **urology** consult for possible percutaneous drainage or surgery for possible nephrectomy in severe cases

Social EM: Frequency & predictors of 30-day readmission after a hospitalization for generalized convulsive status epilepticus (GCSE).

Bottom Line: Low-income zip code, low SES, LOS >7 d, comorbidities, and Medicare/aid were all positively associated with 30-day readmission following GCSE.

Goal: Determine risk factors associated with readmission following GCSE.

Why: 17.3% readmission rate within 30 days of discharge.

How: 2014 Nationwide Readmission Database; n=14,562 adults with index admission for GCSE.

Other Findings: Inverse associations included age 45+ and higher SES. Cause for readmissions most often for seizures ($>50\%$), sepsis (7.6%), & cerebrovascular disease (4.1%).

Source: Fahwan, M., Lekoubou, A., Bishu, K. G., & Oviagele, B. (2020). Frequency and predictors of 30-day readmission after an index hospitalization for generalized convulsive status epilepticus: A nationwide study. *Frontiers in Behavioral Neuroscience*, 14. <https://doi.org/10.1016/j.fbeh.2020.107252>