



FOAM & Education Newsletter

November 2020
Volume #3



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!

Your 20-21 Education Committee
Walid Malki
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Critical Care Update: Low Tidal Volumes in ED Saves Lives

Fournier's Gangrene Review



November FOAM Highlights

Podcast of The Month:
emDOCs Podcast – High-Risk Airway Management

Blog Post of The Month:
Rebel EM: Spontaneous Coronary Artery Dissection (SCAD)

Procedure of The Month:
Loop Drainage for Abscess Management

Critical Care Update: Low Tidal Volumes in ED Saves Lives

Bottom line: Starting with low tidal volumes (< 8mL/kg IBW) on vent in the ED is associated with lower mortality and overall better outcomes

Who: 4,174 patients in 8 Canadian EDs

Outcomes studied: primary outcome was hospital mortality. Secondary outcomes included development of ARDS, hospital length of stay, and total hospital costs.

Also, check out "Manage Vent like a pro – Cheat Sheet" by Scott Weingart

Source: Lung-Protective Ventilation and Associated Outcomes and Costs Among Patients Receiving Invasive Mechanical Ventilation in the Emergency Department. Chest. 2020 Sep 20 [https://journal.chestnet.org/article/S0012-3692\(20\)34522-0/pdf](https://journal.chestnet.org/article/S0012-3692(20)34522-0/pdf)

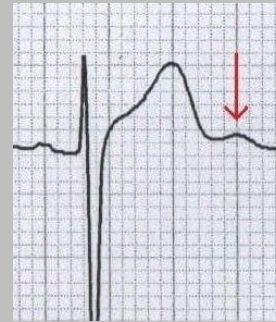
Attending Pearls: U waves by Dr Richardson

- U wave is a small upright deflection immediately following the T wave, usually 1-2mm (25% T wave height). Best seen in Leads V2-V3. Caused by prolong repolarization or mechanical forces on ventricle

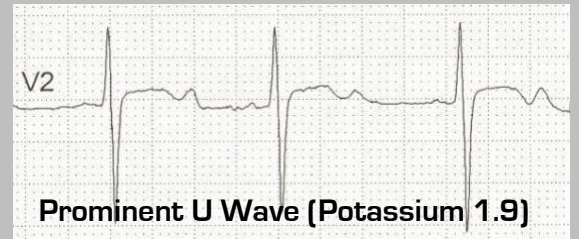
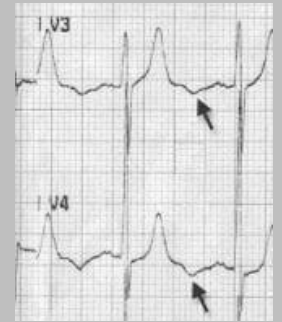
- **Abnormal prominent U waves** are seen: bradycardia, hypokalemia, hypothermia, hypoCa, hypoMg, increase ICP, digoxin toxicity

- **Inverted U-waves** can be seen in hyperthyroidism, CAD, HTN, valvular disease, congenital cardiac disease. In the right setting, U waves could be indicative of ischemia

Normal U Wave



Unstable angina



Review of Fournier's gangrene

- 80% are polymicrobial, usually skin and pelvic commensals
- Presentation can range from hours to weeks, mean interval 5 days between onset & presentation
- Risk factors: DM, chronic alcohol use, HIV, recent trauma or surgery, IVDU
- LRINEC score cannot exclude necrotizing soft tissue infection (NSTI); sensitivity 68-80% in ED population
- Fournier's Gangrene Severity Score highly sensitive for bad outcomes
- Consider POCUS for NSTI
- Empiric Abx: Penem or Zosyn + Vancomycin + Clindamycin (for toxin-forming bacteria)

Source: Auerbach, J., Bornstein, K., Ramzy, M., Cabrera, J., Montrief, T., & Long, B. (2020). Fournier Gangrene in the Emergency Department: Diagnostic Dilemmas, Treatments and Current Perspectives. Open Access Emergency Medicine, Volume 12, 353–364. <https://doi.org/10.2147/OAEM.S238699>

POCUS for NSTI

Look for subcutaneous thickening, subcutaneous air, fascial fluid

POCUS for NSTI has reasonably good sensitivity (88%) & specificity (93%)

Check out Core Ultrasound for more