



FOAM & Education Newsletter October 2021 Volume 13



Welcome to Rez's #FOAM Newsletter

This is a monthly newsletter brought to you by the Education Committee with the latest in the EM and FOAMed world, ranging from trials, news, and pearls. We will also share the best podcasts & blog posts recently published in FOAM.

If you have an interesting image or EKG to share, let us know!

Your 21-22 Education Committee:

Lola Reingold (chair)

Walid Malki

Colton Weisner

Jake Cihla

Yalan Vu

Will Noel

Omar Ahmed



OCTOBER UPDATES:

PODCAST OF THE MONTH:

RebelEM: [Decadron for Pharyngitis](#)

BLOGPOST OF THE MONTH:

EMCrit: [External Ventricular Drains](#)

PROCEDURE OF THE MONTH:

EMRAP: [Mandible Reduction](#)

Nephrostomy Tube Pearls - by Lola

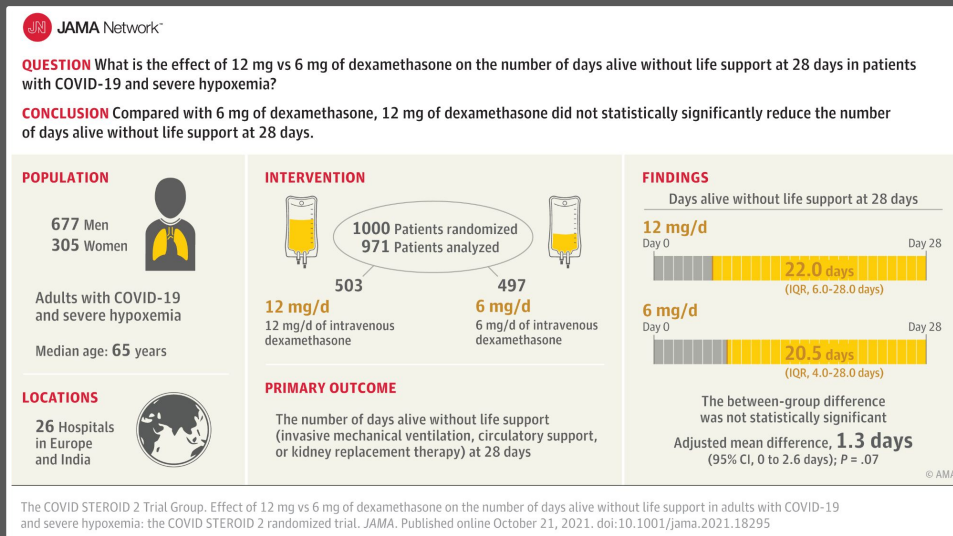
- Most tubes are placed to address an obstruction
- Patients are given strict care instructions, but long-term adherence can be poor, leading to complications
- **Acute** complications are rare and usually procedural; pleural injury, bleeding requiring transfusion, or acute sepsis from existing infection
- **Chronic** complications (obstruction, infection, dislodgment) occur in up to 45% of patients
- Simple obstructions can be managed in the ED, using sterile technique to **gently** draw and flush the tube with saline to dislodge particulates
 - STOP if there is significant resistance to prevent tissue trauma
- Infections should be treated as **complicated UTIs**
 - 50% of infections are polymicrobial
 - If the patient is clearly septic, coverage for MRSA and pseudomonas is appropriate, as is imaging for abscess or mechanical obstruction
- Never get a urine sample from the existing collection bag; always collect from the tube itself using sterile technique, and **label samples** so lab can compare clean-catch vs tube specimens

Halloween Research Quick Hits - by Lola

- Leung et al: the risk of anaphylactic reactions from peanuts and unknown nuts rises during Halloween and Easter, at least in Canadian children. Of pediatric cases that presented to the ED, the mean age was 5.4 years and the majority (62.2%) were male.
- Zhang & Khan; around Halloween, these authors found an increase in the relative risk of three injury patterns: accidental falls in females aged 21-40, injury inflicted by others in males aged 11-40, and self-injury in males aged 21-40.
- Staples et al; An American study analyzing decades of data found that the relative risk of pedestrian fatalities increase on Halloween; the highest increase was seen in 4-8 year old children, with a 10-fold increase in risk on Halloween.

Critical Care Update: The COVID STEROID 2 Trial - by Walid

TLDR: For sicker COVID PNA patients, may consider 12mg/day instead of 6mg/day of dexamethasone.



Authors' conclusions: "Among patients with COVID-19 and severe hypoxemia, 12 mg/d of dexamethasone compared with 6 mg/d of dexamethasone did not result in statistically significantly more days alive without life support at 28 days. However, the trial may have been underpowered to identify a significant difference."

Dr Farkas (Internet Book of Critical Care): COVID STEROID-2 isn't strong enough evidence to change practice. But 5% lower mortality with 12 mg dexamethasone (vs 6 mg) is huge - with $p=0.09$ (barely failed to meet statistical significance).

If using dex monotherapy, 12 mg is now a sensible dose for sicker patients. Dexamethasone 6 mg/day alone is likely suboptimal for most patients with severe COVID pneumonia. Dexamethasone 12 mg/day may provide a reasonable intensity of immunomodulation. Higher doses of dex appear to be safe (may carry an increased risk of stress ulceration, potentially arguing for broader use of stress ulcer prophylaxis).

The optimal steroid dose for patients receiving tocilizumab or baricitinib remains unclear. Continue standard dose of 6 mg/day dexamethasone when constructing multi-agent immunomodulatory regimens.

For more: [Critical Care Reviews livestream](#)

Hypothermia & Out-of-Hospital Cardiac Arrest

Hypothermia versus normothermia after out-of-hospital cardiac arrest Dankiewicz J, Cronberg T, Lilja G, et al. N Engl J Med. 2021;384(24):2283-2294.

Why does this matter: Targeted temperature management continues to be part of post-ROSC OHCA protocols despite prior poor quality studies. This study is the largest to date and has a lower risk of bias than prior studies.

Study design: 1,861 patients enrolled, randomized 1:1 to targeted hypothermia or normothermia for 40 hours regardless of the initial rhythm. >80% had bystander CPR; 72% had an initial shockable rhythm = good prognostic indicators

THERAPEUTIC HYPOTHERMIA: End of an Era?

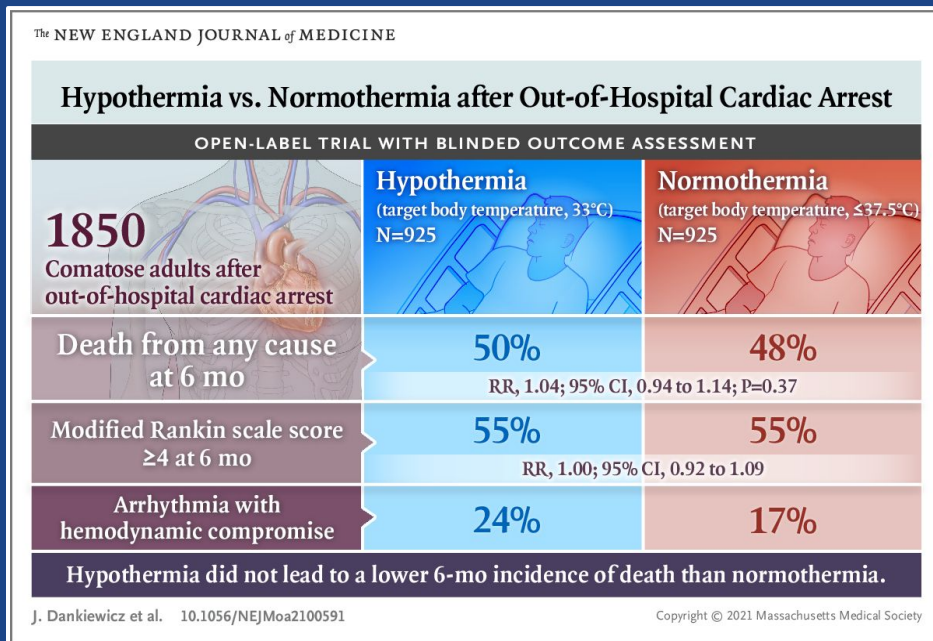
Six month survival: 50% for hypothermia vs 48% of the normothermia group

Neurological outcomes: Poor for 55% of hypothermia vs 55% of the normothermia

Subgroup analysis: Identical outcomes (initial shockable rhythm, early ROSC vs late ROSC, and a post-ROSC shock state)

Only difference: Higher incidence of arrhythmias in the hypothermia group.

Takeaway: Therapeutic hypothermia may soon be a thing of the past.



Further reading:

Nephrostomy tubes

- Yoo, M. J., Inman, B. L., Bridwell, R. E., Henderson, J. D., & Long, B. J. (2021). Approach to nephrostomy tubes in the emergency department. *The American Journal of Emergency Medicine*, 50, 592–596.

<https://doi.org/10.1016/j.ajem.2021.09.034>

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COVID steroid dosing

- The COVID STEROID 2 Trial Group. Effect of 12 mg vs 6 mg of Dexamethasone on the Number of Days Alive Without Life Support in Adults With COVID-19 and Severe Hypoxemia: The COVID STEROID 2 Randomized Trial. *JAMA*. Published online October 21, 2021. doi:10.1001/jama.2021.18295

Halloween

- Zhang, H., & Khan, A. (2020). Risk of preventable injuries associated with Halloween. *Public Health*, 189, 94–96. <https://doi.org/10.1016/j.puhe.2020.10.014>
- Leung, M., Clarke, A. E., Gabrielli, S., Morris, J., Gravel, J., Lim, R., ... Ben-Shoshan, M. (2020). Risk of peanut- And tree-nut-induced anaphylaxis during Halloween, Easter and other cultural holidays in Canadian children. *CMAJ*, 192(38), E1084–E1092. <https://doi.org/10.1503/cmaj.200034>
- Staples, J., Yip, C., & Redelmeier, D. (2019, January 1). Pedestrian Fatalities Associated With Halloween in the United States. *JAMA Pediatrics*, Vol. 173, pp. 100–101. <https://doi.org/10.1001/jamapediatrics.2018.3678>