Rap #46
Post: Cannabinoid hyperemesis treatment

Author: D. Evan Mulvihill   Reviewed by: Broc Schindler

I scored the above BEEM rating because:
Cannabinoid hyperemesis syndrome (CHS) is something that ED clinicians should be aware of, especially with the legalization of marijuana happening in many states. It’s important to have this as part of the differential, as missing this may result in an extensive and unnecessary workup. Many times we are using anti-emetics, analgesics and fluids as initial therapy. However we could start thinking about capsaicin as initial treatment in lieu of additional treatments and workup.

The educational pearls include:
- Avoid extensive workup if H&P is consistent with CHS.
- Pathophysiology hypothesis (TPRV1 receptor down regulation → increased SP level → nausea and vomiting).
- Capsaicin could be considered as first line treatment (Start with a quarter size on the abdomen, increase if tolerated).
- Marijuana cessation is the definitive treatment.

I chose the above EBM rating because:
Some areas are not provided (introduction, pathophysiology, therapy). The evidence listed is mainly expert opinion and case reports. There is also significant personal bias from the author.

Edited by Jake Binder, Andrew Hasebrook, Ryan Johnsen, Megan Elsenheimer, Dan Hogan, Alex Taylor, Jacy O’Keefe and Joe Walter
Post: **Eye glue mishap**  
Author: Clay Smith   Reviewed by: Ashley Jacobson

<table>
<thead>
<tr>
<th>BEEM Rater Scale</th>
<th>Score - choose only 1</th>
<th>Educational Utility</th>
<th>Score - choose only 1</th>
<th>EBM</th>
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<tbody>
<tr>
<td>Assuming that the results of this article are valid, how much does this article impact on EM clinical practice?</td>
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<td>Are there useful educational pearls in this article for residents?</td>
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<td>Is this article reflect evidence based medicine (EBM) and thus lack bias?</td>
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<tr>
<td>Useless information</td>
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<td>Low value: No valuable pearls</td>
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<td>Not EBM based, only expert opinion (and thus more biased)</td>
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<td>Not really interesting, not really new, changes nothing</td>
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<td>Interesting and new, but doesn't change practice</td>
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<td>Yes, but there are only a few (1-2) valuable or multiple (&gt;3) less-valuable educational pearls</td>
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<td>Minimally EBM based</td>
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<td>Interesting and new, has the potential to change practice</td>
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<td>New and important: this would probably change practice for some EPs</td>
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<td>Yes, there are several (&gt;3) valuable educational pearls, or a few (1-2) KEY educational pearls that every resident should know before graduating</td>
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<td>Mostly EBM based</td>
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<td>New and Important: this would change practice for most EPs</td>
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<td>This is a “must know” for EPs</td>
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<td>Yes, there are multiple KEY educational pearls that residents should know before graduating</td>
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<td>Yes exclusively EBM based (unbiased)</td>
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**Your Score**

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I scored the above BEEM rating because:

The information is definitely new and needed. Histoacryl, Dermabond, and other cyanoacrylates are routinely used in the Emergency Department for ease of wound closure and efficiency (e.g. may avoid need for local anesthetic, procedural sedation, etc). Knowing what to reach for when you inadvertently glue the eyelid shut is helpful, especially when most of the advice is based on expert opinion and case reviews.

**The educational pearls include:**

1. Histoacryl requires a full 90 seconds to give full wound closure.
2. Using Neomycin-Polymyxin B-Dexamethasone (Maxitrol) antibiotic drops for unintentional tissue adhesion can hasten removal of medical-grade tissue adhesives. This was achieved by soaking the area with the drops for 1 hour, gently rubbing the area for 1 minute, and repeating this for a total of 2 hours.

I chose the above EBM rating because:

This small exploratory study consisted of three testers and a total of 4 tests for each compound using a porcine model to mirror live human eyelid tissue. Despite the small group of testers, the literature review to assess all compounds was helpful to understand where the current recommendations are from. This will need to be replicated in larger scale animal model studies and eventually in live human subjects before it is widely adopted by the practice. It is interesting to note that the study only included Histoacryl and samples were provided by the manufacturer, B. Braun.

*Edited by Jake Binder, Andrew Hasebrook, Ryan Johnsen, Megan Elsenheimer, Dan Hogan, Alex Taylor, Jacy O’Keefe and Joe Walter*
**Post:** Recovery trial  
**Author:** Justin Morgenstern    **Reviewed by:** McKinzy Butler

I scored the above BEEM rating because:

In the context of a new disease that we have such little information about, there was a significant reduction in 28 day mortality with use of dexamethasone. Now the utility to us in the emergency department is maybe less so than inpatient medicine however in critically ill COVID patients, or really any COVID+ patient requiring oxygen supplementation, we should consider giving dexamethasone in the ED in addition to the usual supportive treatment. The best response occurred in the most sick patients who were later in the disease course.

**The educational pearls include:**

Low dose dexamethasone (6mg) qday for up to 10 days significantly reduced 28- day mortality in COVID patients who were mechanically ventilated, on ECMO, or requiring supplemental oxygen at the time of randomization. Also- reduction in length of hospital stay, and time to needing invasive ventilation for those who were not on it. It should not be given to COVID patients who are not on oxygen. There was no significant difference, and could potentially be harmful if given during viral replication phases.

I chose the above EBM rating because:

This reviews a pre-print manuscript that has not yet been peer reviewed. Although randomized, this is not a blinded study which introduces risk of bias. There is also a component of selection bias because it was up to provider discretion to decide if a patient was not eligible for the study. With the COVID time crunch, there is no way this could have been a perfect study. Blinding would help clarify some of the details, different doses etc., but for the time being I think this is certainly enough information to change our practice until those studies can be performed.
Does NPO mean an empty stomach?

Post: Does NPO mean an empty stomach?

Author: Vivian Lei Reviewed by: Alexis Del Vecchio

I scored the above BEEM rating because:

This was a prospective observational study using a convenience sample of pediatric patients undergoing procedural sedation and analgesia in the pediatric ED. The study population was mostly ASA I and II, and most underwent reduction and lac repairs, around 75% with ketamine and 25% ketamine and propofol, with so it seems generalizable to most pediatric academic emergency departments where many residents train. Their conclusions show that despite meeting fasting guidelines, most pediatric patients undergoing procedural sedation in the ED did not have an empty stomach, yet they recorded no aspiration events. This lends credence to ACEP’s Clinical Policy on Procedural Sedation, which states “Do not delay procedural sedation in adults or pediatrics in the ED based on fasting time”. This is interesting, but does not change my practice as I have not considered NPO status when sedating patients with Ketamine for procedural sedation in the ED.

The educational pearls include:

- Parents and children may not reliably recall when their last PO intake was, as the authors note that time perception in stressful situations has been shown in previous studies to be poor.
- ASA guidelines were developed for elective surgeries, and may not apply to our patient population in the ED.
- If a patient needs procedural sedation, do not let recent PO intake dissuade you from performing the procedure. In this study, no patients had aspiration events.

I chose the above EBM rating because:

I think this was a rigorous EBM study. Although this was a prospective study and even though they used a convenience sample, the population is generalizable to many academic pediatric emergency departments, and likely community ED’s as well. All scans were reviewed by three independent physicians, with a Kappa of 0.75, which is excellent.

Edited by Jake Binder, Andrew Hasebrook, Ryan Johnsen, Megan Elsenheimer, Dan Hogan, Alex Taylor, Jacy O’Keefe and Joe Walter
Post: Microaggressions
Author: Melanie Molina et al. Reviewed by: Neha Raukar

I scored the above BEEM rating because:

Although not a clinical study, this article does explore microaggressions, “subtle, stunning, often automatic, and non-verbal exchanges which are “put downs” of women or minorities of blacks” Understanding this topic, recognizing the behaviors, and then addressing them is critical to the delivery of optimal patient care.

The educational pearls include:

The practice of medicine includes more than what is read in a textbook. Emergency medicine, being especially team based, requires that all members of the team understand each other’s roles and value opinions. The quality of healthcare delivered is dependent on a good working relationship between physicians and nurses, despite gender similarities or racial differences.

I chose the above EBM rating because:

This article went through numerous studies where there is evidence of microaggressions from female nurses to female physicians when compared to male physicians and between racial groups. This is a nice review of the different forms of microaggression encountered in nearly every possible interaction between physicians and nurses.

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