Weekly Calendar
2/13: Noon report: Yellow team (NRR)
2/14: Noon report: Blue team (NRR)
2/5: Grand rounds: Ricardo Balestra, MD: “Diagnostic Modalities in Interventional Pulmonology”
2/16: AHD: Adrenal/Pituitary ; Senior Prep: None
2/17: Noon report: Senior– H/O (GI conf room); Intern – Renal (NRR)

Syeda “No shoes, no problem” Ahmad is taking comfort to a new level

Anonymous Feedback
Our website has a section for anonymous feedback. Think of this like an electronic suggestion box that you can use at any time. The message will be sent directly to Dr. Warm, and is completely anonymous. If you have constructive feedback that you would like to share, please use this tool. The link is: http://www.med.uc.edu/intmed/residency/internal-medicine/residency-feedback
Clinic Corner

The American College of Gastroenterology recently updated their guidelines regarding the evaluation of abnormal liver tests. What do you need to know?

**Key points:**

1. Don’t call them liver enzymes or liver function tests. ALT, AST, alkaline phosphatase, and bilirubin are markers of liver injury, NOT liver function. Call them liver chemistries or liver tests. (Have you ever been called out for saying “transaminitis” to a hepatologist?)

2. Our labs “normal” values for AST and ALT might not be normal enough! “A true healthy normal ALT level in prospectively studied populations without identifiable risk factors for liver disease ranges from 29 to 33 IU/l for males and 19 to 25 IU/l for females,” so just because it doesn’t pop up with a red exclamation point in Epic, doesn’t mean it’s cool.

3. In patients without identifiable risk factors for liver disease, elevated AST and ALT above the upper limit of normal is associated with increased liver-related mortality!

**Table 3. ALT and AST levels and liver related mortality**

<table>
<thead>
<tr>
<th>Author/year</th>
<th>Proposed ALT/AST cutoff level</th>
<th>ALT/AST level for increased mortality</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amati et al. (77)</td>
<td>AST, 18</td>
<td>AST &gt; 30</td>
<td>3X increase in all cause mortality</td>
</tr>
<tr>
<td>Kim et al. (30)</td>
<td>ALT &gt; 20</td>
<td>ALT &gt; 30-39</td>
<td>RR of liver mortality 2.9 (2.4-3.5) and 9.5 (7.9-11.5) in men, 3.8 (1.9-7.7) and 6.6 (1.5-26.0) in women</td>
</tr>
<tr>
<td>Lee et al. (29)</td>
<td>ALT IUN 45 IU/l for M, 29 IU/l for F</td>
<td>ALT IUN 45–90 M, 29–58 for F</td>
<td>SMR risk 3.37 for IUN, and 1.78 for &gt;2X IUN, and</td>
</tr>
<tr>
<td>Ruhl and Einerdal (38)</td>
<td>ALT IUN M, 19 IU/l for F</td>
<td>ALT IUN M, 19 IU/l for F</td>
<td>Increased liver related mortality</td>
</tr>
</tbody>
</table>

ALT, alanine aminotransferase; AST, aspartate aminotransferase; F, female; RR, relative risk; M, male; IUN, upper limit of normal.

**Figure 1.** Algorithm for evaluation of aspartate aminotransferase (AST) and/or alanine aminotransferase (ALT) level. HCV, hepatitis C virus.

**Figure 2.** Evaluation of moderate elevation of aspartate aminotransferase (AST) and/or alanine aminotransferase (ALT) levels. HCV, hepatitis C virus.

Resident Appreciation Lunch! Back of the UCMC Cafeteria February 13, 11:00 AM-1:00 PM

GLOBAL HEALTH! Calling all PGY-1s! If you are planning on going abroad during your experience next year during Long Block, or for future MP residents, please contact Caroline Lee, director of the Community Health Advocacy Pathway, to discuss ASAP! Email or by phone (513-300-6526)

Coming soon… Residency Olympics!
This week, Red team presented a great case of a patient who was diagnosed with calciphylaxis. Let’s talk about it!

**Noon Report Round-up!**

Calciphylaxis, or more accurately, Calcific Uremic Arteriolopathy (CUA) is rare, but super super bad! Calciphylaxis is a bit of a misnomer, as it suggests that there is an anaphylactic component to this disorder, but there isn’t. It presents with skin ischemia and necrosis, and is secondary to calcification of the dermal arterioles. Left: Early CUA skin lesion. Right: Advanced CUA. Below: histopathology of CUA with calcification of dermal arteriole.

The exact pathophysiology is unknown, but CUA is thought to be on a continuum of systemic vascular calcification in patients with ESRD. The picture above and to the right is of larger vessel calcification that can occur in patients with ESRD, you can see it on plain radiograph or even on ultrasound when you are doing central or arterial lines!

The calcification of these small vessels in the skin lead to skin infarction, pain, and suprainfection. Sepsis is actually a leading cause of death in patients with calciphylaxis, and the one-year mortality can be as high as 45-80%.

What can we do to help patients with CUA? Sodium thiosulfate is used as a treatment (12.5-25 g infused with HD), though the exact mechanism of treatment is unclear, it is thought to form water-soluble complexes with metals and minerals. Treatment must be multi-modal, with attention paid to wound care, management of dialysis bath, proper nutritional support, management of secondary hyperparathyroidism, avoidance of calcium and vitamin D supplementation, treatment of hyperphosphatemia with non-calcium –based phosphate binders, and avoidance of other risk factors (interestingly, use of warfarin is a risk factor, related to the suppression of a calcification-inhibitor by the warfarin!).
REMINDER!

As is usually the case, closed loop communication is KEY when you are re-triaging patients who are called up to you for admission from the ED. When the ED decides a patient is to be admitted, they place an ED bed request that then prompts bedboard to page you with an admission and for you to get sign out from the ED. If you decide that a patient needs a non-medicine service, needs further work-up before admission, needs a different level of care, or after discussion with the ED that the patient doesn’t need admission, you MUST ensure that bedboard is aware that the patient is no longer being admitted to medicine and ensure that you (or the ED) removes the bed request. Once bedboard has connected you to the ED provider, from their end, everything is completed, and they are not privy to the discussions had between you and the ED regarding the patient’s next moves. Closed loop communication ensures that our patients don’t end up in limbo, so please make sure that this is happening!

BOARD REVIEW WITH THE CHIEFS:

Q. A 63 year old female is evaluated for diarrhea that has persisted for 3 months. She describes her stool as watery, and denies the presence of blood in her stool or on the toilet paper. She usually has about 6 or 7 bowel movements daily, occasionally awakens at night to have a bowel movement, and has had a few episodes of fecal incontinence over the months. She denies any weight loss, fevers, chills, nausea, or vomiting. She is otherwise healthy, is up to date with her age-appropriate cancer screening including a routine colonoscopy 3 years ago which was normal, and takes no medications other than ibuprofen, which she takes for knee pain. What is the most likely diagnosis?

A. Microscopic colitis  C. Inflammatory bowel disease
B. Clostridium difficile  D. Irritable Bowel Syndrome, diarrhea predominant

A. The correct answer is A, microscopic colitis. This is an example of the textbook disease script for microscopic colitis; an older female patient, with chronic, watery diarrhea, who may or may not have had nocturnal bowel movements and fecal incontinence. It is more common in women, and the average age of diagnosis is 65 years old. Patients will have normal appearing mucosa on colonoscopy, but random biopsies will confirm the diagnosis. There are two types of microscopic colitis, collagenous and lymphocytic, and they can only be distinguished by pathology. Lymphocytic colitis will show intraepithelial lymphocytosis, and collagenous colitis will show thickening of the subepithelial collagen band. The treatment is based on disease severity, with mild cases responding to loperamide, but more severe cases may require treatment with budesonide (keep in mind there is a high relapse rate when budesonide is stopped). This patient does not have risk factors for C.dif, and also has a chronic diarrhea (>6 weeks), so this is not likely to be the diagnosis. IBS-D should be considered as a diagnosis of exclusion, but with this patient’s presentation, she is more likely to have microscopic colitis. IBD should always be considered, and has a bimodal distribution so it can be found in older patients, however the lack of blood in the stool and weight loss are reassuring that this is not an inflammatory diarrhea. Remember that Dr. Gianella taught us that inflammatory diarrhea is more likely to be small volume, frequent stools, and is bloody or mucoid!
**Weekend to-do!**

**Friday:** Opening: It Girl, 6-8 p.m., Clifton Cultural Arts Center, 3711 Clifton Ave. Celebration of women’s clothing from 1860-1920. Exhibit continues through March 17. Free. info@cliftonculturalarts.org.


**Saturday:** My Furry Valentine, 10 a.m.-6 p.m. Saturday, 10 a.m.-5 p.m. Sunday, Sharonville Convention Center. Hundreds of adoptable dogs and cats in festive, family-friendly event. Adopter swag bags, raffle prizes, vendor booths and free kid’s activities. Benefits My Furry Valentine. $5. myfurryvalentine.com.


**Sunday:** Jewish and Israeli Film Festival: Persona Non Grata, 3 p.m., Kenwood Theatre. Drama follows real-life story of Japanese consul Chiune Sugihara, who issued transit visas to European refugees during WWII. $12, $10 members. www.mayersonjcc.org.

- **Manhole: The Elliott Welford Experience,** 8pm, 1230 Louden St. Free.

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**TRIVIA**

First correct answer wins a $5 Starbucks gift card!

You admitted a hypoxic patient with this on their BAL. What is your diagnosis? What is your treatment? (Be specific)

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**SHOUT OUTS!!!**

- To **Amar Doshi,** for being the only resident to turn in his wards calendar without being harangued. Where are the rest of them?
- To **Greg Wigger,** for stepping up for some jeopardy like a champ!
- To **Dan Tim,** for flying solo on a night float shift to prevent any coverage needs! Also, for “being an awesome senior” on nights!
- To **Leslie Applegate,** for always making time to come to Finding Meaning in Medicine, even when she’s in the MICU!
- To **Joel Gabre** for placing a crash line during a code at the VA, and to **Danielle Clark** for “being an all around BA,” while caring for a very ill veteran who got “ROSC, intubated, and lined” in very short order; from a “secret admirer.” Thank you all for your excellent care!
- To **David Young, Sean Maloney,** and the **ED interns** on the VA MICU, for “being awesome during a crazy week, and helping each other learn CPRS!” From a co-intern.