#### **General submission guidelines**

UOTW cases are meant to be like tiny case reports that demonstrate the usefulness of ultrasound. We prefer scans that, in and of themselves, change patient management or outcome. Each UOTW need not be completely unique, but we try to avoid similar cases in close succession (ie, we did an eFAST case 3 years ago, so we can do another). BEFORE spending time writing up your case, make sure you have been given the green light to do so from Ben, Jacob, or Mike.

Please use Google docs to compose your UOTW. Once ready for submission, share the doc with me for edits and review.

#### **Section guidelines**

- <u>Vignette</u>: Paragraph style prose of a patient's presentation. Essentially the patient's HPI.
   Please do not include any identifying or unique characteristics of your actual patient.
   Change the age slightly and sex to obfuscate the patient's identiy.
- <u>Images</u>: Prefer clips (1-4 max) at the highest resolution possible. Use the <u>ClipDeidentifier</u> to anonymize your images and then email them to the person who has given you approval: Ben, Jacob, or Mike.
- Answer: give the diagnosis or answer in a few words or phrases
- Answer paragraph: Give one paragraph describing the findings on your images, and what happened to your patient based on the ultrasound data.
- <u>Pearls</u>: bulleted list of key evidence-based facts about this patient's disease process and how it relates to ultrasound. Include superscripts for reference. If available, please list sensitivity and specificity of ultrasound for the specific diagnosis. Try to summarize the evidence, rather than just citing the one article where ultrasound looked stellar.
- <u>References</u>: AMA style references in a numbered list. Use the *cite* button on the new
  pubmed interface to get the reference in the correct format. Please include a link to the
  original pdf if available free (PMC for example), otherwise the pubmed citation. Use my
  citation generator to make this fast.

# **EXAMPLE SUBMISSION**

**UOTW Submission – April, 2016** AUTHOR: Dean Vlahaki, MBBS

#### **Vignette**

A 60 year old female presents with a painful right neck swelling. She has a past medical history of EtOH cirrhosis. Her vitals signs are within normal limits. On examination she has a mass in the right submandibular area. It is tender to palpation, but smooth with no fluctuance. You are asked to assess her with bedside ultrasound to rule out an abscess, which reveals the following:

STILL #1 and CLIPS #1 and 2 Displayed

### Answer and Pearl Sialadenitis secondary to sialolithiasis

The bedside ultrasound images demonstrate an enlarged, hyperemic, right submandibular gland with evidence of a sialolith obstructing Wharton's duct. There is no encapsulated fluid collection concerning for abscess. The patient was treated with antibiotics, sialagogues, and arranged to have close outpatient ENT follow-up. No formal imaging was done in the Emergency Department that day. Repeat imaging at follow-up demonstrated stone passage and clinically her symptoms were resolving.

- The submandibular gland is an exocrine gland that secretes saliva into the floor of the mouth via the submandibular (Wharton's) duct<sup>1</sup>.
- Sialolithiasis (salivary gland stone) occurs most commonly in the submandibular gland at 85%<sup>1</sup>. This is believed to be due to the longer, upward path of the submandibular duct. The parotid gland is next most common at 15%.
- Sialadenitis is inflammation of the salivary gland due to infection, obstruction, or both.
  The most common precipitant is obstruction by a sialolith. Initial management includes
  empiric antibiotics, sialagogues (e.g. sour candy, lemon juice), warm compresses, gland
  massage, and oral hydration<sup>1</sup>.
- Ultrasound is the preferred first line imaging for sialolithiasis/sialadenitis with a sensitivity of 77%, specificity of 95%, PPV of 94%, and NPV of 78%<sup>2</sup>. The vast majority of false negatives are due to stones less than 3mm, which are difficult to visualize.
   Computed Tomography is more sensitive than ultrasound but reserved but reserved for ultrasound negative cases with high clinical suspicion due to the radiation exposure.

## **References**

- 1. Wilson KF, Meier JD, Ward PD. Salivary gland disorders. American family physician. 89(11):882-8. 2014. [pubmed]
- 2. Terraz S, Poletti PA, Dulguerov P. How reliable is sonography in the assessment of sialolithiasis? AJR. American journal of roentgenology. 201(1):W104-9. 2013. [pdf]