

**Session Summary for 31 October 2017**

1. Didactic: Introduction to the Micro Lab Part 2 by Dr. Rob Cybulski
   1. Continuation of how samples get from patients back to the clinical teams, this time with an emphasis on MALDI-TOF (time of flight spectroscopy) for the identification of organisms. This technology is not usually available in smaller labs, but definitely being used in large and reference micro labs.
   2. Biggest benefit to protein-based laboratory tools is the ability to identify organisms about 24 hours earlier. They still require the specimen to be cultured, which typically takes 12-24 hours, prior to using either protein- or genetic-based assays.
2. Case presentation on a complex MDR E. coli penile SSI and bacteremia from the Confluence Health team in Wenatchee.
   1. Group agreed that drug resistance profile likely a “narrow-spectrum” beta-lactamase
   2. No concern for using a cephalosporin such as ceftriaxone for this isolate
   3. Question from the team about why cefazolin susceptibility not provided as would be a nice option, especially given fluoroquinolone resistance
   4. Programmatic question about why a microbiological specimen was not obtained during surgery? Opportunity for discussion with the urologist? Tissue and fluid are key for best sensitivity for micro work-up. In this case the bacteremia definitely helped narrow down treatment but that was a bit of luck.
3. Question/Discussion on microbiology sampling from skin and soft tissue abscesses treated in the ED from the Forks team. Based on our discussion:
   1. If planning on treating with antibiotics, recommend getting cultures to guide therapy
   2. If not planning on starting antibiotics, there may be a benefit in getting cultures for 2 reasons:
      1. For the patient, next time s/he comes in with an infection, the susceptibilities will likely be the same
      2. For the institution, getting samples may help inform antibiogram/susceptibility patterns in local patient population
      3. Down-sides: cost, unused data

**References:**

Chadayammuri, V. *et al.* Diagnostic accuracy of various modalities relative to open bone biopsy for detection of long bone posttraumatic osteomyelitis. *Eur. J. Orthop. Surg. Traumatol.* (2017). doi:10.1007/s00590-017-1976-y