

**Session Summary for 23 January 2018**

**Didactic:** Behavioral Change Part 2 by Chloe Bryson-Cahn

Chloe revisited and reviewed some of the key behavioral components of antimicrobial stewardship (AS), with a focus on nudge theory.

From Wikipedia: “Nudge theory is a concept in behavioral science, political theory and economics which proposed positive reinforcement and indirect suggestions to try to achieve non-forced compliance to influence the motives, incentives and decision making of groups and individuals.”

I think that the key take-away from Chloe’s presentation stems from her first slide showing that despite excellent guidelines (for URIs), clinicians still use abx most of the time. Guidelines and data are not enough and as AS teams, we need to think about behavioral approaches to affect what has been called “antimicrobial prescribing etiquette”.

<http://nudges.org/> highlights a Washington State nudge for state park donations as an example.

**Case discussions:**

Cheryl (Dayton) presented a case of a patient transferred to her hospital with orders to treat an infected stump wound with oral cefuroxime. The initial question was what to do when there isn’t any cefuroxime and you don’t have the sensitivity data? Cultures of the resected tibia grew our C albicans and Klebsiella.

* Is there even an infection? Usually resection of an infected stump removes all of the infected tissue. In those cases, abx are not useful, though some orthopods prescribe a “clean-up” course for unknown reasons. This may be supported by the fact that the candida was not treated.
* Cefuroxime is a 2nd generation oral cephalosporin that is presumed to be active against this patients isolate. At the UW (UWMC and HMC), K. oxytoca and K. pneumoniae share similar sensis to cefepime, cefotetan, ceftazidime and ceftriaxone, but are quite different for cefazolin (24% and 84% sensitive respectively). Based on this antibiogram, reasonable empiric substitutes include ciprofloxacin, levofloxacin and trim/sulfa. Another good reason to have access to your local antibiogram.
* Transfer patients need micro data if at all possible.

Amy (White Salmon) had a couple of questions, first about MRSA infections and double coverage. The sceneria is the practice of several providers who treat MRSA cellulitis with PO trim/sulfa + IV vancomycin because “this is how we’ve always done it”.

* Whenever I hear “MRSA” and “cellulitis” in the same sentence, I want to know if truly a red hot patch or an abscess? A red hot leg or arm due to cellulitis is 98% of the time due to GAS and not MSSA/MRSA. Throw in an abscess, then could be either GAS or MSSA/MRSA. This is important because beta-lactams are the best agents for GAS cellulitis and giving vanco + trim/sulfa is 2nd line (and inferior). Combining vanco + trim/sulfa is reasonable if there is a complicated abscess that has been drained and the patient is admitted overnight for observation with the plan to d/c on trim-sulfa. If the patient is staying beyond a night, combination therapy is not indicated and likely increases the risk of adverse effects (especially kidneys in this case).
* How to approach the provider? See above! The key here is what behavioral intervention will help to achieve your goal?
  + Gather the involved clinicians and get a consensus guideline together.
  + Make a point about the differences in abx prescribing between clinicians (without names) to highlight the discrepancy.
  + Share a paper focused on the data/research in this area
  + Definitely highlight and review any harm/adverse effects

Amy’s next question was about IV cefazolin + PO probenecid with a d/c rx for cephalexin for cellulitis. This was a very interesting discussion because many of us (esp at the UW) had not heard of this practice.

* There are papers in the literature supporting this combination for cellulitis
* Andre mentioned that it is common practice in South Africa
* Zahra asked if that a high level of cefazolin is needed for this purpose? The consensus is that it is not likely needed a IV cefazolin has a reasonable half-life and gets the patient to her first PO dose of cephalexin.
* May be a reasonable option for patients treated in the evening and who cannot get to a pharmacy before the next morning.

Another great TASP session! Thank you everyone for calling in and for participating in the conversation. Please remember to send in any questions or cases.

John and the UW TASP Team