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**Session Summary**

**Date: 9/11/2018**

Didactic Session: Non-Antibiotic Prescription - Zahra Kassamali Escobar, PharmD

* Non-antibiotic approaches to treatment include rest, rehydration, pain control, and other OTC symptom-controlling therapies
* On the inpatient side: can consider delaying initiation of antibiotics during diagnostic work-up IF the patient is clinically stable
  + Data show that risk of delay is minimal in stable patients1
* Tools to reduce unnecessary antibiotic use on the inpatient side
  + Rapid diagnostics
  + Censoring urine culture results for non-cath medical/surgical inpatients.2 This may not be an option for your lab, depending upon reporting requirements.
  + Empowering nurses to evaluate major and minor criteria for UTI before calling prescriber to order antibiotics and urine culture
* Outpatient strategies
  + Delayed prescription
  + Randomized controlled data showed that for uncomplicated UTI, 50% of women 18-20 years old improved without antibiotics. However, 50% required antibiotic treatment, and 7 (4%) progressed to pyelonephritis when cystitis was treated with ibuprofen rather than an antibiotic.3
  + Delayed prescribing may be a strategy for uncomplicated UTI
  + Delayed prescriptions are available for upper respiratory tract infections from CDC website
  + Non-antibiotic prescription pad templates available in multiple languages from CDC – includes non-antibiotic strategies, OTC medications, rest, re-hydration and instructions to return to care if no signs of improvement
    - The focus of these resources is on upper respiratory tract infections

Discussion

* Other strategies to reduce antibiotic usage centered around diagnostic stewardship for decreasing inappropriate urine cultures
  + Empowering nursing through algorithmic based approach with criteria for when to contact the provider and potential alternative interventions
  + UA with reflex culture
* Behavior/ mental status changes in the elderly in the absence of urinary symptoms are usually NOT due to UTI
  + Checking the urine in this scenario leads to antibiotic overuse and possible patient harm due to missing the true cause
  + Re-education needed for prescribers and nursing
  + A powerful potential nursing intervention
  + Excellent review of UTI in older women notes a useful approach for evaluation in this setting including hydration and evaluation for other causes.4

Cases

Beware – bacterial names are changing as taxonomists get more sophisticated

* *Pantoea agglomerans* – formerly *Enterobacter agglomerans*. We recommend treating like other Enterobacter species.
* *Klebsiella aerogenes* – formerly *Enterobacter aerogenes* - also an ampC producing organism.

Increasing Employee Influenza Vaccination Uptake

* Make getting the vaccine as easy as possible
* Make not getting the vaccine tough
  + Yearly in person education sessions for people opting out
  + “Badge-buddies” identifying those who have been vaccinated
  + Masking if not vaccinated

References:

1. Cain SE, Kohn J, Bookstaver PB, Albrecht H, Al-Hasan MN. Stratification of the impact of inappropriate empirical antimicrobial therapy for Gram-negative bloodstream infections by predicted prognosis. Antimicrob Agents Chemother. 2015;59(1):245-50
2. Leis JA, REbick GW, Daneman N, et al. Reducing antimicrobial therapy for asymptomatic bacteriuria among noncatheterized inpatients: a proof-of-concept study. Clin Infect Dis 2014;58(7):980-3.
3. Vik I, Bollestad M, Grude N, et al. Ibuprofen versus pivmecillinam for uncomplicated urinary tract infection in women – a double-blind, randomized, non-inferiority trial. Plos Med 2018; 15(5):e1002569.
4. Mody L, Juthani-Mehta M. Urinary tract infections in older women: a clinical review. Jama. 2014 Feb 26;311(8):844-54.

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PLEASE NOTE that Project ECHO case consultations do not create or otherwise establish a provider-patient relationship between any UW Medicine Health Care Professional and any patient whose case is being presented in a Project ECHO setting.  A provider-patient relationship between a UW Medicine Health Care Professional and a patient whose case was presented at Project ECHO may later be established if the patient is referred and seen in the context of a regular appointment with the UW Medicine Health Care Professional.