## Summer 2018 Newsletter



New IDSA guidelines recommend starting isolation and testing for clostridium difficile in patients who have had at least 3 unformed stools within 24 hours without the use of a laxative in previous 2 days

Transmitted typically via the fecal-oral route or through exposure to contaminated products.

Most common symptoms include watery diarrhea, nausea, loss of appetite, abdominal pain, and fever.

**Repeat cultures are not recommended**, 60% of patients will stay C. difficile positive. (See page 2 for more info)

## **Reducing Transmission and Risk**

## Recommendations to Reduce Transmission

- Place patients preemptively in an isolation room with a private toilet
- Continue isolation until 48 hours after diarrhea resolved
- Hand hygiene: soap and water preferred over alcohol-based products, always use gloves
- Showering is more effective than bed bathing in reducing spore count

## Recommendations to Reduce Risk

- Decrease unnecessary antibiotics by limiting the number of total antibiotics and their duration
- Practice antibiotic stewardship by using target antibiotics based on local antibiogram
- o Limit proton pump inhibitor use

## **Update in Treatment Guidelines**

#### \*\*Metronidazole no longer first line treatment\*\*

#### Initial

- First line: vancomycin 125mg QID x 10 days or fidaxomicin 200mg BID x 10 days
- Second line: metronidazole 500mg TID x 10 days

## Fulminant

- Oral: vancomycin 500mg QID
- Rectal: vancomycin 500mg in 100mL NS
- o IV: metronidazole 500mg Q8hours

## Recurrences

- First: tapered/pulsed vancomycin over 4-8 weeks or fidaxomicin x 10 days
- Future: rifaximin added to oral vancomycin or fecal transplant



## **New Drug Updates**

## Bevyxxa

- Generic: betrixaban
- Class: Anti-coagulant
- BBW: spinal/epidural hematoma may occur in patients receiving neuraxial anesthesia or spinal puncture
- MOA: selective factor Xa inhibitor works to prevent clotting
- Dosing: 160mg PO initially followed by 80mg PO daily for 35-42 days with food at the same time of day, daily
- Adjustments: Use with P-gp inhibitors or if CrCl 15-30 mL/min - decrease dose to 80mg initially followed by 40mg daily, avoid use in patients with hepatic impairment
- Unique properties: extended half-life of 19-27 hours, 11% excreted in urine (lowest of the DOACs), <1% metabolized by CYP enzymes
- Indications: oral option for VTE prophylaxis for patients with restricted mobility, postop, or at risk for VTE



## **CMS Initial Survey Update - Mega Rule**

- New survey process includes on entry asking for number and location of medication storage rooms and carts
- First quarter statistics for deficiencies cited for the first quarter of 2018 show an upswing for both Pharmacy Services and Unnecessary Medication citations written compared to the fourth quarter 2017 noted from a recent open record request from HHSC
- Attention given to residents on high risk meds including insulin, anticoagulants, antipsychotics with Alzheimer's or Dementia and PASRR is noted with the new process with thus far an emphasis seen on the appropriate diagnosis, consistency in assessments and in documentation for the overall use and necessity of antipsychotics.
- One possible strategy to consider is to have interdisciplinary team meetings -- a time for prescribers, psychologists, nursing team leaders, pharmacists, social services and/or activities to comprehensively discuss, assess, and document care for complicated patients with psychiatric disorders and ensure CMS standards are met for the use of psychotropic medications, including possible DC of PRN orders and opportunities for gradual dose reduction trials where applicable

# Do NSAIDs prevent Alzheimer's?

- Recently, a Canadian pharmaceutical company stated that regular ibuprofen use can prevent Alzheimer's
  - The company reports ibuprofen use can prevent disease development based on 17 studies that showed a correlation between NSAIDs and less severe Alzheimer's
  - The company based the claim on their developed saliva test that measures the amount of amyloid beta protein in saliva – however the test was evaluated using a sample size of only 37 people, so clinical relevance is limited
- New imaging research indicates there are other proteins besides amyloid beta involved in plaques that cause Alzheimer's
- Reports from the Annals of Internal Medicine indicated medications like statins and NSAIDs were associated with lower dementia risk, but there was no conclusive evidence that any specific exercise, medication, or activity would definitively prevent Alzheimer's

# Should I Repeat Culture?

Literature indicates that repeated urine analysis and culture sensitivities do <u>not</u> provide clinical value.

How does this apply to specific disease states?

#### UTI

- UTI treatment is based primarily on symptoms
- Repeated urine analysis and culture sensitivities can lead to the treatment of asymptomatic bacteriuria

## C. difficile

- 2017 guidelines recommend that during a single course of diarrhea, repeat testing should not occur within 7 days
- If symptoms return after the completion of treatment and with cessation of diarrhea, then repeat testing is indicated



#### References:

- 1. Mcdonald LC, Gerding DN, Johnson S, et al. Clinical Practice Guidelines for Clostridium difficile Infection in Adults and Children: 2017 Update by the Infectious Diseases Society of America (IDSA) and Society for Healthcare Epidemiology of America (SHEA). Clinical Infectious Diseases. 2018. doi:10.1093/cid/cix1085.
- Portola Pharmaceuticals. "Bevyxxa® (Betrixaban) for VTE Prophylaxis." Bevyxxa, 2018, www.bevyxxa.com/.
  Patrick L. McGeer, Edith McGeer. Conquering Alzheimer's Disease by Self Treatment. *Journal of Alzheimer's Disease*, 2018; 1 DOI: 10.3233/JAD-179913
- Zeidler, Sasha. "A Daily Dose of Ibuprofen Can Help Prevent Onset of Alzheimer's, Study Finds." Global News, 26 Mar. 2018, globalnews.ca/news/4105741/daily-ibuprofen-prevent-alzheimers/.
- 5. Garza, Roseanna. "UTSA Chemists Succeed in Developing Molecular View of Alzheimer's." Rivard Report, 29 Mar. 2018, therivardreport.com/utsa-chemists-succeed-in-developing-molecular-view-of-alzheimers/.
- News Staff. "CDC Clarifies Opioid Guideline Dosage Thresholds." AAFP Home, 12 Jan. 2018, www.aafp.org/news/health-of-the-public/20180112cdcopioidclarify.html.
- 7. Hooton TM. Uncomplicated urinary tract infection. N Engl J Med 2012;366(11):1028-37. doi:10.1056/NEJMcp1104429.
- 8. Nicolle LE. Uncomplicated urinary tract infection in adults including uncomplicated pyelonephritis. Urol Clin North Am 2008;35:1-12. doi:10.1016/j.ucl.2007.09.004. Christiaens TCM, De Meyere M, Verschraegen G,
- 9. Aichinger E, Schleck CD, Harmsen WS, Nyre LM, Patel R. Nonutility of repeat laboratory testing for detection of Clostridium difficile by use of PCR or enzyme immunoassay. J Clin Microbiol 2008; 46:3795–7.
- Abujamel T, Cadnum JL, Jury LA, et al. Defining the vulnerable period for re-establishment of Clostridium difficile colonization after treatment of C. difficile infection with oral vancomycin or metronidazole. PLoS One 2013; 8:e76269.
- 11. Cooley, Tracy, RN. (2018). Surviving the Dramatic Changes of a New Era. [McKnights Webinar Powerpoint Slides]