ID-ASP NEWSLETTER

A brief overview of new and emerging topics related to ID, IPAC, ASP, and Microbiology at Osler

Issue 1 - 2019

MICRO & LAB NEWS

NEW The β-Lacta Test for Direct Detection of Extended-Spectrum-β-Lactamase-Producing *Enterobacteriaceae*

Osler has high rates of β-lactam resistance in *Enterobacteriaceae* and in particular *E. coli*. Decisions about empiric antibiotics can be challenging because of these high resistance rates. The microbiology laboratory is set to implement the β-Lacta test on all positive blood cultures growing *E. coli*, *Klebsiella* spp. or *Proteus mirabilis.* This test has a very high sensitivity and specificity for extended-spectrum β-lactamase (ESBL) producing organisms.

As a result, **if the β-Lacta test is reported as positive then a carbapenem‡ should be used** pending susceptibility results. **If the β-Lacta test is reported as negative then it is unlikely that the organism has an extended-spectrum-β-lactamase (ESBL) and a carbapenem is not required**. Of note, there are organisms with other mechanisms of β-lactam resistance (plasmid-mediated AmpC) not detected by the β-Lacta test and therefore in a critically ill patient with *Enterobactericeae* bacteremia it may be prudent to use a carbapenem pending susceptibility results.

If you have any questions about the β-Lacta test and how to interpret it please contact Dr. David Richardson (david.richardson@williamoslerhs.ca, **x58725**)

‡ Carbapenems available at Osler include **Ertapenem**, and **Meropenem** (restricted)

NEW Changes to Urine Culture Procedure Results in Huge Efficiency

In August of last year the laboratory started performing urine cultures only if the urinalysis met specific quantitative cut-offs for bacteria and WBC. The goal of this change in practice was to select out urines that were likely going to be 'no growth' or 'not clinically significant' and **set-up only clinically significant positive urines**.

From the time of implementation we have **decreased the number of urines for culture by 64%** while increasing the positivity rate from 16% to 34%. The laboratory still receives 5000 urines per month and practitioners are reminded **not to test asymptomatic individuals** unless they are pregnant or require a urologic procedure.

What's New?

Updated ID-ASP website The Osler Infectious Disease & Antimicrobial Stewardship Program recently launched the new Osler ID-ASP website, which features additional clinical resources for front line staff. Some of our biggest updates include:

18 NEW AND UPDATED CLINICAL GUIDELINES including intra-abdominal infections, aspiration pneumonia, and skin & soft tissue infections.

NEW RENAL DOSING RECOMMENDATIONS for common antimicrobial agents, including dosing in hemodialysis.

NEW RECOMMENDATIONS FOR ANTIMICROBIAL AGENTS including aminoglycosides, vancomycin, and sulfamethoxazole/trimethoprim.

For more information & access to these resources, visit the **ID-ASP website**!

ANTIMICROBIAL SPOTLIGHT

NEW Fluoroquinolone Black Box Warning (Dec 2018)

In addition to previously identified risks and initial black box warning released by the FDA in January 2017, a new warning has been identified for patients with cardiac risk and aortic aneurysms.

LITERATURE HIGHLIGHTS

NEW Duration of Therapy for Pneumonia (*AAC* 2018)

Meta-analysis showing **short course therapy** (≤ 6 days) is **as effective** as longer course therapy (≥ 7 days) for the treatment of community acquired pneumonia. Additional benefits for short course therapy **include fewer serious** adverse events and **lower mortality**.

NEW 7 vs 14 Days of Antibiotic Therapy for Bacteremia (CID 2018)

RCT showing that **7 days** of antimicrobial therapy is **non-inferior** to 14 days for **uncomplicated gram-negative bacteremia**. Patients who **achieved clinical stability before day 7** had **no difference in 90-day mortality**, and returned to baseline functional status quicker in the 7 day group compared to the 14 day group.

NEW Oral Step Down in Bacteremia (*JAMA* 2019)

In patients with **Enterobacteriaceae bacteremia** who have achieved source control with appropriate clinical response, there was **no difference** in **30-day mortality** and **30-day recurrence** of infection for patients who were **stepped down to PO** antibiotics within the **first 5 days** of therapy compared to continued IV therapy. This was associated with a **decrease in duration of hospital stay** (average discharge was 2 days sooner).