Children's of Alabama®

Emerging Resistance Patterns for CoA
Year End 2020

GRAM POSITIVE INFECTIONS

- ***Staphylococcus aureus*** **–58% Oxacillin susceptible (MSSA) for ALL isolates; 64% for *CA-S aureus***
  - **Empiric therapy for *S aureus*; dependent on clinical presentation; Vancomycin is recommended in ill-appearing patients; Clindamycin or Cefazolin empiric therapy in non-ill appearing, nontoxic patients**
  - **Nafcillin or cefazolin are indicated once MSSA documented (Vancomycin no longer needed)**
  - **Patients with documented penicillin allergy – consult ID for treatment options**
  - **For *all* sites – Clindamycin sensitivity for both MSSA and MRSA is trending down for community isolates @ 59% and 71%, respectively.**

- ***Streptococcus pneumoniae*** **– 81% susceptibility for ceftriaxone in non-CSF isolates; 100% from blood, 66% in CSF.**
  - **Empiric therapy for pneumococcus – Ceftriaxone**
    - ✓ **In cases of meningitis – Ceftriaxone + Vancomycin until sensitivity confirmed**

- ***Enterococcus*** **– 0 VRE isolates for 2020.**
  - ***E. faecalis*** **– 100% sensitivity to Penicillin G/Ampicillin (drug of choice)**

- **Gram positive organisms that are 100% sensitive to Penicillin, no need for sensitivity confirmation**
  - ***Group B streptococcus*** **– Ampicillin or Penicillin G**
  - ***Group A streptococcus*** **– Penicillin G**
  - ***Listeria monoctogenes*** **– Ampicillin (add gentamicin for meningitis)**

GRAM NEGATIVE INFECTIONS

- **ESBL rates – overall 10% (for *E. coli*, *Klebsiella* species) for sterile site infections and urine isolates (average from community acquired and hospital acquired).**
  - **For ESBL (+) sterile site infections – Meropenem is indicated**
  - **For ESBL (+) urinary tract infections – Nitrofurantoin (not for pyelonephritis), fosfomycin, Bactrim, Ciprofloxacin or Gentamicin/Tobramycin therapy could all be appropriate treatment**
  - **For non-urine/sterile site infections (respiratory or wound) – Meropenem, Bactrim or Ciprofloxacin would be preferred agents.**

- **E. coli – Increasing rate of resistance to Bactrim for isolates from urine, currently less than 75% of all urine isolates are sensitive to Bactrim for 2020. Cefazolin/Cephalexin rates of sensitivity remain above 95% for both inpatient and community acquired urinary tract infections and should be considered good empiric options.**

- **Pseudomonas aeruginosa – similar sensitivities for Ceftazidime, Cefepime and Piperacillin/Tazobactam .**