Antimicrobial Stewardship Program
JMH House staff Orientation 2012

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What is Stewardship?
Antimicrobials
✓ Selection
✓ Dosing
✓ Duration
Antimicrobial Stewardship

Optimize clinical outcomes

Minimize Toxicity Resistance

Potential for cost reduction

Impact of Antimicrobial Resistance
(CDC: Nationally 2006)

1.7 million hospital-acquired infections
- 3 people per minute
  - 4700 per day
- 99,000 deaths per year
Antimicrobial Pipeline

Adapted from: IDSA. Clin Inf Dis 2011;52(S5):S397-S428.
Evaluation of Faculty and Resident Physicians’ Knowledge Attitudes and Perceptions about Antimicrobial Use and Resistance
A Web Based Survey
Proportion of Faculty vs. Residents that agreed that Antimicrobials are overused:
Proportion Of Faculty Vs. Residents Perceptions Regarding Inappropriate Prescriptions

- **I overprescribe**: p = 0.010
- **Other doctors overprescribe**: p = 0.726
Who to Contact?

• If you need any of the restricted antimicrobials (pocket card or UGotaBug website) E.g.: carbapenem for a resistant gram negative infection or voriconazole for aspergillosis. **Any question on dosing end empiric antibiotics**

  Call ASP team

• 56 y/o male IVDU with MRSA bacteremia or patient s/p spinal surgery and wound infection. **Any consults on drug and duration of therapy, w/up of infection**

  Call JMH Team A  ID consult

• 67 y/o female s/p liver transplant or patient diagnosed with Acute Leukemia and has fever. **Consults on immunosuppressed patients with infections**

  Call JMH Team B ID consult
How to Contact?

• Antimicrobial Stewardship Program (ASP)
  Phone: 786-586-0607
  ✓ 7 days a week (7 am-11 pm)
  ✓ Who will answer? → ID clinical PharmD with ID physician back up

• Jackson Memorial Hospital ID Consult Pager:
  – For general ID/ HIV consults:
    • Team A: 305-881-3165
  – Transplant/ Oncology infections:
    • Team B: 305-996-0007

• To schedule Outpatient Appointment:
  There is no ID clinic at JMH at this time- call ID team for assistance with follow up
Pocket Card

• Renal Dosing Recommendations
  – Antibacterials
  – Antifungals
  – Antiretrovirals

• List of Restricted Antimicrobials

For other useful tools, please visit our website:
http://gotabug.med.miami.edu
www.Ugotabug.med.miami.edu
How do you optimally select an antibiotic pending cultures?

...depends on the bug, the site of infection, patient’s risk factors for resistant organisms...

CALL THE ASP!
# Piperacillin/Tazobactam and Cefepime Comparison

<table>
<thead>
<tr>
<th>Pip/Tazo</th>
<th>Cefepime</th>
<th>Cefepime + Metronidazole</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Does not cover</strong></td>
<td><strong>Anaerobes Enterococcus</strong></td>
<td><strong>Enterococcus</strong></td>
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</table>

<table>
<thead>
<tr>
<th>Pip/Tazo</th>
<th>Cefepime/Metro IV</th>
<th>Cost Difference</th>
</tr>
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<tbody>
<tr>
<td>Average Cost</td>
<td>$31</td>
<td>$17</td>
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**Annual Savings JMH:** $880,000
Prudent Use of Vancomycin:

- Treat infections
  - DON’T treat Contamination or Colonization

- DON’T continue empiric use for presumed infections

- DON’T use if organism is sensitive to β-lactam
  - Unless patient allergic to β-lactams

- DON’T use empirically for febrile neutropenic patients Unless evidence or high suspicion of gram-positive infection

www.cdc.gov
Antibiotics are the only drugs that we use, that have a significant impact in “public health”
Let’s **STOP**
Antimicrobial Resistance

1. Does my patient still need antibiotics?
2. Have I chosen the most narrow agent?
3. Can we switch to a PO antibiotic?
4. Get help from the experts (ASP or ID)
5. WASH YOUR HANDS
Antimicrobial Use has Consequences
Watch this video!

http://www.youtube.com/watch?v=N1R94X0JeMs
Welcome
And
Good Luck!!!