Overview of Stanford Antimicrobial Safety & Sustainability (SASS)
Antimicrobial Stewardship Program

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Who?
We are a 4-member team consisting of 2 physicians and 2 pharmacists. We work closely with clinicians, Infection Control, Quality, and the Antimicrobial Subcommittee.

Why?
• Antimicrobial misuse is widespread: ~30-50% not needed or suboptimal
• Our goal is to optimize the utilization of antimicrobial agents and patient outcome while minimizing unintended consequences of antimicrobial usage, including toxicity, the selection of pathogenic organism, and the emergence of resistance.

What?
• Guidelines and protocols http://bugsanddrugs.stanford.edu
  o E.g. Sepsis ABX Guide, C.diff Treatment Guidelines, IV-to-PO interchange protocol, ABX Dosing
• 2 free CME modules https://med.stanford.edu/cme
  o Antibiotic Timeout Module - link
  o ASP Module - link

Where?
• Email ABX@stanfordhealthcare.org phone: x11908
• Find us on http://bugsanddrugs.stanford.edu and intranet
• We also have an intranet portal page under “Organization” → “Antimicrobial Stewardship Program” http://portal.stanfordmed.org/depts/AntimicrobialStewardshipProgram

How can you help?
• Your practice is important in curbing the development of MDROs and the rise of C.diff infections
• When you prescribe antibiotics:
  o Draw appropriate cultures prior to starting antibiotics
  o Use published guidelines and the antibiogram to make informed decisions – Lane Library link
  o Document your decision-making!
  o Commit to an antibiotic TIMEOUT @ 48-72 hours after starting empiric abx
• ID Team pagers
  o General ID: 24308  ICU-ID: 27190  ICHS: 17000  ITA/lung transplant: 17008

ABX Timeout Key Questions
1. True infection?
2. Right antibiotic?
3. Right dose?
4. Right route?
5. Right duration?
**Restricted ABX: 2 categories**

**ID Consult ONLY**
- Ceftriaxone
- Ceftaroline
- Ceftazidime/avibactam
- Ceftolozane/tazobactam
- Dalbavancin
- Inhaled ribavirin (NF)

*No doses released without ID consult*

**Non-ID Consult Use Allowed if it Meets Restriction Criteria**
- Colistin/Polymyxin B
- Daptomycin†
- Fidaxomicin
- Fusidic acid
- Isavuconazole
- Linezolid, Telizolid†
- Peramivir
- Posaconazole IV

† 72 hour empiric use limit:
If no microbiological target is identified by 48-72h, ID consultation is required to continue NO CURBSIDES!

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**Comparisons of PO ABX Bioavailability**

<table>
<thead>
<tr>
<th>Oral Bioavailability</th>
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<tbody>
<tr>
<td>&lt;50%</td>
<td>50-80%</td>
<td>80-100%</td>
</tr>
<tr>
<td>Azithromycin (38%)</td>
<td>Cefpodoxime</td>
<td>Amoxicillin</td>
</tr>
<tr>
<td>Ciprofloxacin</td>
<td>Cephalexin</td>
<td></td>
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<tr>
<td>Clindamycin (90%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Doxycycline (~complete)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fluconazole (&gt;90%)</td>
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<td></td>
</tr>
<tr>
<td>Levofloxacin (99%)</td>
<td>Linezolid (99%)</td>
<td></td>
</tr>
<tr>
<td>Metronidazole</td>
<td>Moxifloxacin (&gt;90%)</td>
<td></td>
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<tr>
<td>SMX/TMP (&gt;90%)</td>
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</tbody>
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Items in bold are part of the SHC IV to PO Interchange Protocol.

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**Dose optimization: Extended Infusion β-lactams**

<table>
<thead>
<tr>
<th></th>
<th>Conventional dosing</th>
<th>Extended infusion</th>
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<tbody>
<tr>
<td><strong>Piperacillin- tazobactam</strong></td>
<td>3.375 - 4.5g q6h over 30 mins.</td>
<td>3.375g q8h over 4 hours</td>
</tr>
<tr>
<td><strong>Meropenem</strong></td>
<td>1g q8h over 30 mins.</td>
<td>Same dose over 3 hours*</td>
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<td></td>
<td>CNS: 2g q8h</td>
<td></td>
</tr>
<tr>
<td><strong>Cefepime</strong></td>
<td>1-2 g q8h over 30 mins</td>
<td>Same dose over 4 hours*</td>
</tr>
</tbody>
</table>

Note: All new starts begin with a one-time 30' order.
All dosing regimens above have dose adjustments for renal function.

*preferred if suspected Acinetobacter and Pseudomonas infections