

MEDICAL CENTER

Category Clinical Practice

**Protocol:** BICU Antibiotic Stewardship Guidelines

Approval Date: 5/29/2020 (CMT)

Review Date: 6/1/2022

Applicable to							
<input checked="" type="checkbox"/> VUH	<input checked="" type="checkbox"/> VCH	<input type="checkbox"/> DOT	<input type="checkbox"/> VMG Off-site locations	<input type="checkbox"/> VMG	<input type="checkbox"/> VPH	<input type="checkbox"/> Other	
Team Members Performing							
<input type="checkbox"/> All faculty & staff	<input checked="" type="checkbox"/> Faculty & staff providing direct patient care or contact	<input checked="" type="checkbox"/> MD	<input checked="" type="checkbox"/> House Staff	<input checked="" type="checkbox"/> APRN/PA	<input type="checkbox"/> RN	<input type="checkbox"/> LPN	
<input type="checkbox"/> Other:							
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**I. Purpose**

To promote appropriate use of antimicrobials and decrease microbial resistance in the burn intensive care unit (BICU).

**II. Background**

The multidisciplinary SICU team employs infection reduction and antibiotic stewardship practices. Such practices have resulted in a dramatic reduction in multidrug resistant pathogens, a significant increase in the percentage of pathogens that are pan-sensitive, and a significant reduction in broad spectrum antibiotic use per patient day.

**III. Recommendations**

**1. Surgical Prophylaxis:**

- a. All antibiotic prophylaxis will be discontinued  $\leq$  24 hours post operatively
- b. Use narrowest spectrum antibiotics based on type of surgery

**2. Empiric Antibiotic Protocols**

- a. Indication specific empiric antibiotic therapy
- b. Empiric antibiotics driven by unit data and hospital antibiogram
- c. Evidence-based antibiotic treatment durations

**3. Narrowing of Antimicrobial therapy**

- a. De-escalate therapy as soon as possible based on culture results

**4. Organ system specific recommendations**

- a. Intraabdominal infection protocol considerations
  - i. Antifungal coverage-please see antifungal protocol
  - ii. MRSA coverage: add MRSA coverage when
    1. Prior MRSA infection
    2. Recent hospitalization and/or nursing facility exposure
    3. Intravenous antibiotic use within the past 90 days
- b. Pneumonia protocol considerations
  - i. Noninvasive sampling with semiquantitative cultures are recommended to diagnose VAP (deep tracheal aspirate)
  - ii. If BAL is performed, cultures with  $<10^4$  CFU/mL should prompt discontinuation of antibiotics
  - iii. Consider double gram-negative coverage with tobramycin
    1. Prior intravenous antibiotic use within the past 90 days
    2. Prior multi-drug resistant infections
    3. Septic shock
    4. Failure to improve on current regimen

- c. Bacteremia
  - i. MRSA bacteremia should not prompt an ID consult
- d. Burn wound infection
  - i. Follow empiric treatment per the bacteremia guidelines if systemic infection is a concern
  - ii. Defer to surgical team recommendations for superficial burn infections, burn surgery team will use burn wound infection guideline for management

#### 5. Empiric Antibiotic Rotation for Sepsis

- a. January to June medication dosing
  - i. Vancomycin: use vancomycin dosing advisor for recommendations
  - ii. Zosyn (piperacillin/tazobactam):
    - 1. CrCl > 20 = 3.375mg q8h
    - 2. CrCl < 20 = 3.375mg q12h
    - 3. Hemodialysis = 3.375mg q12h
    - 4. CRRT = 3.375mg q8h
- b. July to December medication dosing
  - i. Vancomycin: use vancomycin dosing advisor for recommendations
  - ii. Cefepime
    - 1. CrCl > 60 = 2grams q8h
    - 2. CrCl 30-60 = 2grams q12h
    - 3. CrCl 11-29 = 2grams q24h
    - 4. CrCl < 11 = 1gram q24h

#### 6. Empiric Antibiotic Rotation for Abdominal Sepsis

- a. January to June medication dosing
  - i. Vancomycin: use vancomycin dosing advisor for recommendations
  - ii. Zosyn (piperacillin/tazobactam)
    - 1. CrCl > 20 = 3.375mg q8h
    - 2. CrCl < 20 = 3.375mg q12h
    - 3. Hemodialysis = 3.375mg q12h
    - 4. CRRT = 3.375mg q8h

- b. July to December medication dosing
  - i. Vancomycin: use vancomycin dosing advisor for recommendations
  - ii. Cefepime
    - 1. CrCl > 60 = 2grams q8h
    - 2. CrCl 30-60 = 2grams q12h
    - 3. CrCl 11-29 = 2grams q24h
    - 4. CrCl < 11 = 1gram q24h

#### IV. References

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