

### June 9, 2020

## Agenda

- AMS Building Blocks
- Case Discussions
- Updates



### **Antimicrobial Stewardship Building Blocks**

### • Zahra Kassamali Escobar, PharmD, BCIDP

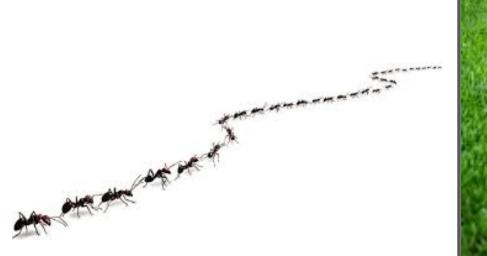
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This presentation is intended for educational use only, and does not in any way constitute medical consultation or advice related to any specific patient.



## Antibiotic Stewardship and COVID-19







### **Getting Back to Business**

## Review your meeting minutes/charter

## Review your antimicrobial usage

Reflect



# Have you written Policies & Procedures for your Antimicrobial Stewardship Program?

Yes No Unsure



When was the last time you reviewed your ASP policies and procedures?

## Within the last month Within the last 6 months Within the last year More than a year ago Not sure/Not applicable



### **Antimicrobial Stewardship Policy & Procedures**





PURPOSE: The purpose of this policy is define the antimicrobial stewardship program at UW/Valley Medical Center. Antimicrobial stewardship is a multifaceted, multidisciplinary program to promote safe, effective and efficient treatment of infections in order to improve healthcare outcomes and minimize microbial resistance at UW/Valley Medical Center.

### POLICY:

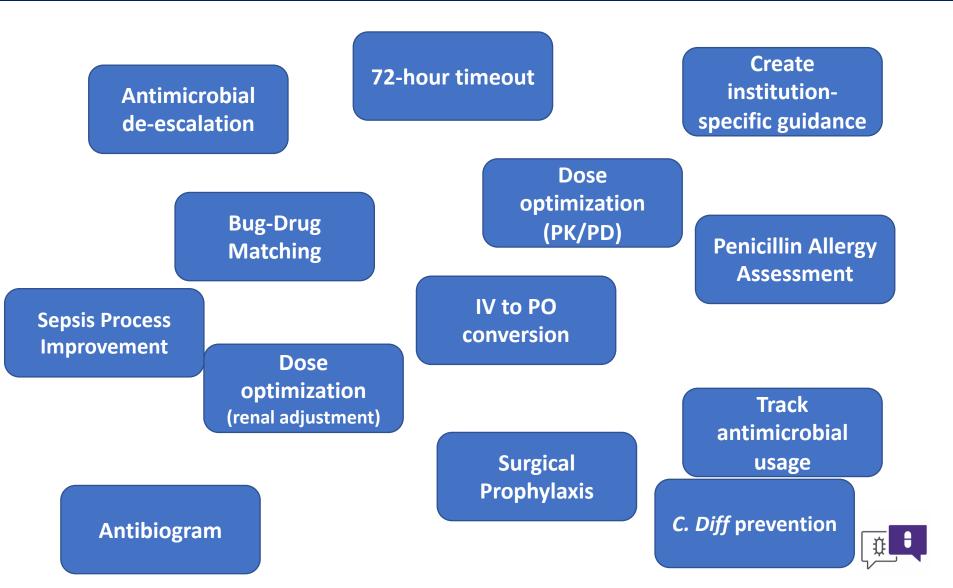
 Leadership: The antimicrobial stewardship program (ASP) will be <u>lead</u> by a physician with infectious diseases (ID) training or a special interest in ID and antimicrobial therapy, and a pharmacist with advanced training in ID and/or antimicrobial stewardship. They will be responsible for stewardship outcomes.

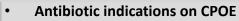
2. Antimicrobial stewardship committee: The ASP program will be overseen by a multidisciplinary team consisting of physician and pharmacy leaders, an infection preventionist, and representatives from the following services: microbiology, nursing, quality, information technology, and the hospitalist staff. Additional members may be included as deemed important for furthering ASP objectives.

3. Meetings: The antimicrobial stewardship committee shall meet, at a minimum, quarterly.

4. Reporting Structure: A record of meetings by agendas and minutes shall be maintained. Proceedings and actions will be referred to the Pharmacy and Therapeutics committee for review and/or approval.

### **Antimicrobial Stewardship Activities**





- 7-day antibiotic stop dates
- Linezolid vs. vancomycin
- **Prospective audit w/feedback**
- IV to PO conversions Pharmacy collaborative ٠ agreement
- Antibiotic renal dosing Pharmacy collaborative aareement

orative **High Impact, Low Effort Focus HERE First** ent

review

- Clinical pharmacist review of positive cultures
- Formulary antibiotic restrictions
- 72 hour antibiotic timeout BPA •
- ASP iVent •
- **ID Consult patient list** •
- Antimicrobial pocket quide annual review .
- Pharmacist participation in SCIP committee

Low Impact, Low Effort

- Antibiotic use reports
- Extended infusion pip/tazo
- Update antibiotic PK/PD collaborative practice agreement (per vancomycin data)
- **Rapid diagnostics acquisition**
- ICon build
- Annual antibiogram production and review
- Clinical pharmacist daily antimicrobial utilization review on rounds
- Procalcitonin review
- Sepsis order sets

### **High Impact, High Effort**

- Antibiotic allergy review program .
- ASP studies and outcomes -Pip/tazo, sodium load in HF -Review of ASP software
  - -P In mes) Low Impact, High Effort ру or
    - **Lowest Priority**

Italicized items indicate projects and/or tasks currently in progress

Effort

mpact

	<ul> <li>Antibiotic indications on CPOE</li> <li>7-day antibiotic stop dates</li> <li>Linezolid vs. vancomycin</li> </ul>	270
Impact	<ul> <li>Prospective audit w/feedback</li> <li>IV to PO conversions - Pharmacy collaborative agreement</li> <li>Antibiotic renal dosing - Pharmacy collaborative agreement</li> <li>Antibiotic PK/PD consult – Pharmacy collaborative agreement</li> <li>ED pharmacist antimicrobial culture/treatment review</li> <li>Clinical pharmacist review of positive cultures</li> <li>Formulary antibiotic restrictions</li> </ul>	<ul> <li>PK/PD collaborative practice agreement (per vancomycin data)</li> <li>Rapid diagnostics acquisition</li> <li>ICon build</li> <li>Annual antibiogram production and review</li> <li>Clinical pharmacist daily antimicrobial utilization review on rounds</li> <li>Procalcitonin review</li> <li>Sepsis order sets</li> </ul>
Italicized items	<ul> <li>72 hour an the device a PDF</li> <li>ASP iVent</li> <li>ID Consult patient list</li> <li>Antimicrobial pocket guide – annual review</li> <li>Pharmacist participation in SCIP committee</li> </ul>	<ul> <li>biotic allergy</li> <li>review program</li> <li>ASP studies and outcomes         <ul> <li>-Pip/tazo, sodium load</li> <li>in HF</li> <li>-Review of ASP</li> <li>software</li> </ul> </li> </ul>

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	<ul> <li>72 hour antibiotic timeout BPA</li> <li>ASP iVent</li> <li>ID Consult patient list</li> <li>Antimicrobial pocket guide – annual revie</li> <li>Pharmacist</li> </ul>	<ul> <li>Antibiotic allergy review program</li> <li>ASP studies and outcomes         <ul> <li>-Pip/tazo, sodium load in HF</li> <li>-Review of ASP software</li> <li>-Pre-ASP analysis (usage data and/or outcomes)</li> </ul> </li> <li>Infusion Center standard antimicrobial therapy orders</li> </ul>		
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Low Impact, High Effort Lowest Priority

Low Impact, Low Effort

Italicized items indicate projects and/or tasks currently in progress

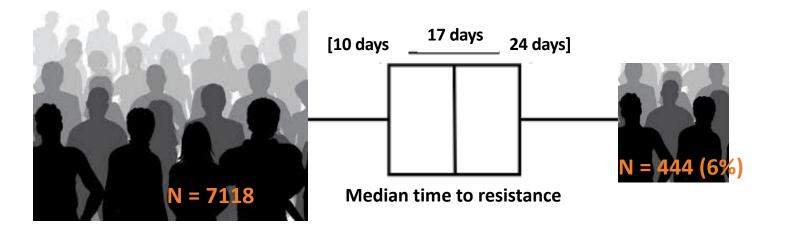
Effort

## **Every Day Makes a Difference**

### PHARMACOTHERAPY



Duration of Exposure to Antipseudomonal β-Lactam Antibiotics in the Critically Ill and Development of New Resistance



There was a <u>4% increased risk</u> of new resistance for <u>each</u> <u>additional day</u> of any antipseudomonal β-lactam exposure



Pharmacotherapy 2019;39(3):261-268.

UW MEDICINE VALLEY MEDICAL CENTER Antimicrobial Stewardship Committee Minutes February 12, 2020 12:30 – 1:30 PM Conference Room A

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Γ	Attendees:	Ryan Leininger			
	Mike Hori	Novae Simper			
	Zahra Kassamali Escobar	Christina Kwong			
	Jean Borth	Kamal Sandhu			
	Melanie Chong	Elaine Thurnhofer			
	Lucia Chou	Pam DeVol			
	Amy Jones	Cameron Buck			
		Sean Linn			

## You are doing good work. Keep documenting and celebrating your wins

## Reflect

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	panel in EPIC to facilitate ordering aerobic/anaerobic cultures in surgery Discussed distribution and implementation of guidelines	<ul> <li>Encouraged pharmacy to feel empowered to these guidelines on rounds (ZKE will send the r -Post guidelines to pharmacy sharepoint (Kam -ACS order set abx doses need to be changed: ceftriaxone to 2g and cefazolin to 2g (ZKE)</li> </ul>
Antibiotic Ordering Panel	Dr. Molina wants focused order set to remain for COPD and DRA Antibiotic ordering panel will include all infections except DRA	Need to revise CAP focused order set accordin guidelines ( <b>Brandon + ZKE</b> ) Working on updating ED quick sets according t antibiotic guidelines ( <b>Brandon</b> )
2019 Inpatient Antibiogram	Increased susceptibility 2018 $\rightarrow$ 2019 Red $\rightarrow$ Yellow K. <u>axytoga</u> - Amp/syl [61 $\rightarrow$ 81] P. aeruginosa - Levofloxacin [77 $\rightarrow$ 84] C. <u>freundii</u> - SMX/TMP [76 $\rightarrow$ 83] Decreased susceptibility 2018 $\rightarrow$ 2019 Green $\rightarrow$ Yellow A. <u>bgumannii</u> - Levofloxacin [97 $\rightarrow$ 88] A. <u>bgumannii</u> - Pip/Tazo [92 $\rightarrow$ 82]	Will post to pharmacy website ( <b>ZKE</b> ) Update ED links ( <b>ZKE</b> )
Asymptomatic bacteriuria & CDI	Reviewed the data and the dilemma of treating Asymptomatic bacteriuria. Data presented is probably an iceberg – for all the cases we identify and admit inpatient, there are several cases treated for ASB as outpatients Urine cultures ordered as reflex (~99% of the time) from UA Issue: getting providers to <u>not</u> treat a positive urine culture Another issue: educating family members about UTI because history of "successful" treatment of UTI in the past may inform	Will focus on ED to start. Elaine will facilitate conversation with upper management including Dr. Hori and Dr. Herner admission diagnoses – what are our requireme Create and distribute treatment pathway for A
		6-2



### Influenza

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#### Description

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#### Progress on PDSA Cycle 2

Plan Do Study Act

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#### Completed Cycles

Your organization has completed the following PDSA cycles. Click a heading to view a cycle's details.

Cycle 1 (Completed on 11-7-2018)



#### Project Library

#### Project Resources:

Bacterial Coinfection in Influenza A Grand Rounds Review

File: 🗟 Chertow 2013 Bacterial Coinfection in Influenza A JAMA.pdf

### Core elements

#### Accountability

Appointing a single leader responsible for program outcomes. Experience with successful programs show that a physician leader is effective





Home Resources - Calendar Connect to Zoom CE Evaluation Forms

Admin - Log out

### Formalized Process for Antibiotic Timeouts

View Edit Manage display Grant

#### Description

Formalize a process for antibiotic timeouts which meets CMS standards and reduces innapropriate broad spectrum antibiotic use.

#### Trogress on PDSA Cycle 1

Plan Do Study Act

After ~6 months of antibiotic timeouts, we sat back down with pharmacists to discuss the process and see what opportunities existed for improving our system. We gathered feedback. We found that there were several questions related to the formalized process for timeouts. These were then addressed in the attached word document and communicated back out to the team. To track the progress after these optimizations, we will look at volume of antibiotic timeouts compared to previous as well as our DOT for broad spectrum anti-PSE antibiotics, also attached. Further, we addressed new opportunities related to the the new PNA guidelines where timeouts are encouraged in the de-escalation of broad spectrums w/o growth of MRSA or PSE. We have new metrics were tracking on our use of Amp/Sulbactam, Pip/Tazo, Meropenem and Cefepime in PNA as we are likely overusing these agents. We're tracking what proportion of our PNA DOT we're using these agents and shooting for a much lower % than our baseline in Dec. which was ~50%.

#### Tracking Documents:

Pharmacy goals tracking sheet including AMS measures



## Summary

- Review your ASP charter
- Review and make a list of goals
- Organize goals by impact and effort
- Focus on high impact/low effort where possible
- Document. Document. Document.



## Be Kind to Yourself and Others Keep Moving Forward

your speed doesn't matter, forword

