ashp MIDYEAR 2017
Clinical Meeting & Exhibition

(Management Case Study)
Outpatient Antimicrobial Stewardship Opportunities Using Clinical Surveillance Technology

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Disclosure

All planners, presenters, and reviewers of this session report no financial relationships relevant to this activity.

Learning Objectives

- Discuss the challenges in managing antimicrobial use in outpatient care centers.
- Demonstrate the importance of implementing antimicrobial stewardship programs in outpatient facilities.
- Explain the use of clinical surveillance systems for antimicrobial stewardship.

Self-Assessment Questions

1. (True or False) The challenges in managing antibiotic use in outpatient settings are the same as those experienced in hospitals.
2. (True or False) Antimicrobial stewardship increased interventions and reduced medication costs in these outpatient facilities.
3. (True or False) Clinical surveillance technology provides a central repository of patient data, medication information, lab results, physician notes, and intervention data that can help pharmacists identify opportunities for interventions aimed at improving antibiotic use.

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Outpatient Antimicrobial Stewardship Programs (ASP)

Total inappropriate antibiotic use, which includes unnecessary antibiotic use plus inappropriate antibiotic selection, dosing, and duration, may approach 50% of all outpatient antibiotic use.

https://www.cdc.gov/getsmart/community/improving-prescribing/outpatient-stewardship.html

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Challenges in Outpatient ASP

- Multiple providers
- Less frequent follow up
- Limited information
- Antimicrobial delivery
- Patient expectations
- Limited resources

King's Daughters Medical Center

- Located in Ashland, KY
- 465-bed not for profit medical & surgical hospital
- Numerous physician practices
- 2011 – Inpatient ASP
- 2012 – Inpatient clinical surveillance technology

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Inpatient Clinical Surveillance Technology

- Pharmacist notification of real-time culture results and antibiotic levels
- Patient identification
- Documentation of pharmacy interventions
- Report generation

Expanding ASP to Outpatient Settings

March 2015

- Daptomycin use evaluation

May 2015

- Outpatient Infusion Center (IVTH)

November 2015

- Wound Care Center (WCC)

Utilizing Clinical Surveillance Systems

IVTH – May 2015

- List pulled from IVTH schedule
- Documentation entered in clinical surveillance system
- Follow up on patients pulled from clinical surveillance system across encounters

WCC – November 2015

- New culture results print daily
- Documentation entered in clinical surveillance system
- Follow up on patients pulled from clinical surveillance system across encounters

Utilizing Clinical Surveillance Systems

1. Review of antibiotic regimen and cultures
2. Document intervention in clinical surveillance technology
3. If follow up required, leave intervention pending
4. Next day, review pending interventions

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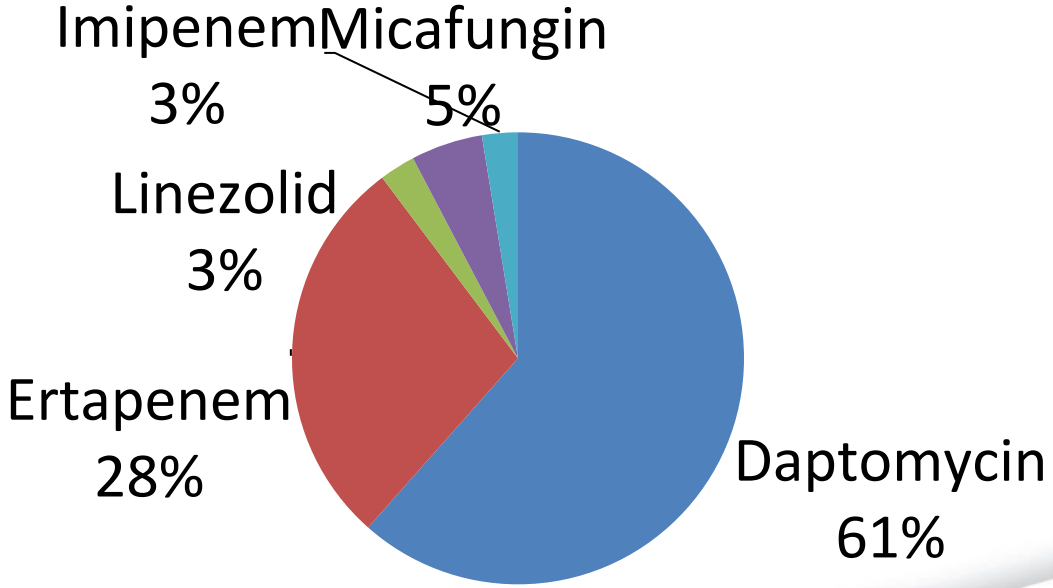
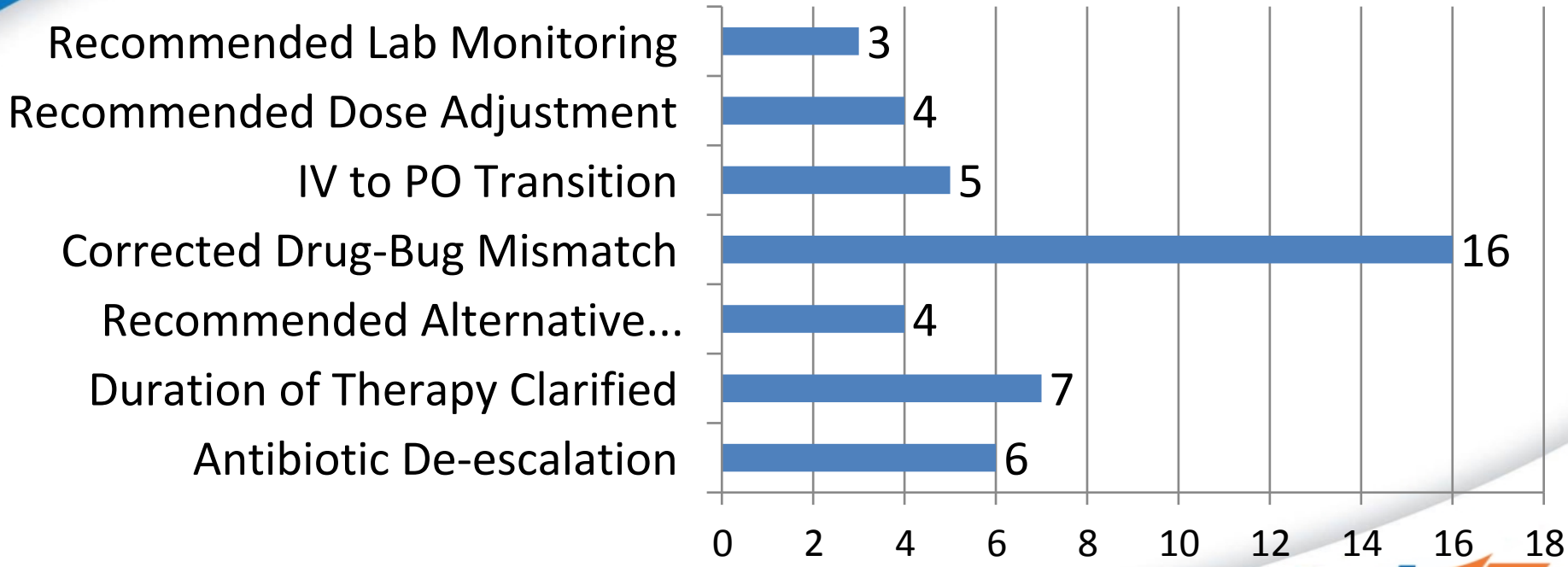
IVTH Outcomes

- May 2015 to May 2017
  - 208 patient encounter reviews
  - 39 target medication reviews
  - 45 interventions / recommendations
  - 22% of patients had an intervention

IVTH Target Medication Reviews (n=39)



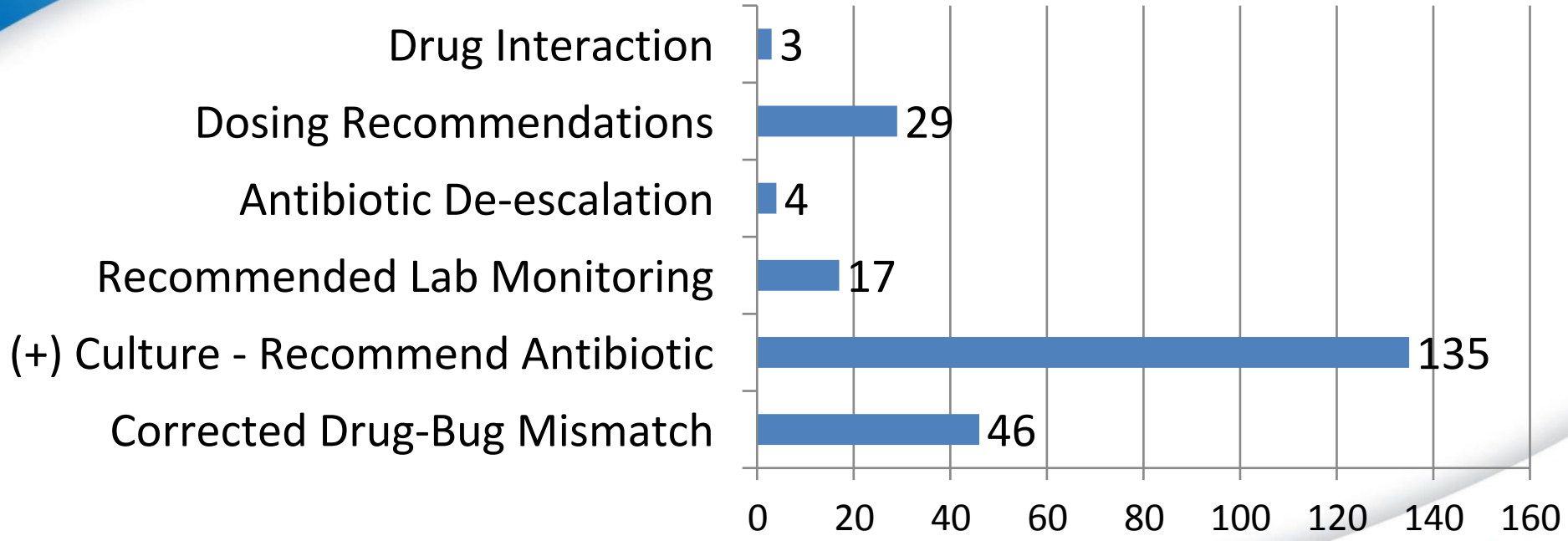
IVTH Interventions



WCC Outcomes

- November 2015 to May 2017
  - 271 patient encounter reviews
  - 237 interventions / recommendations
  - 40% of patients had an intervention
    - Multiple interventions for some patients

WCC Interventions



Overall Outcomes

- Easily track patients who need follow-up across encounters
- Improved appropriate antimicrobial use in IVTH and WCC
- Cost savings of more than $12,000

Our Challenges

- Determining which provider to contact
- Incorporating into current inpatient workflow
- Developing relationships with outpatient providers
  - Who are you?
  - Why are you calling me?

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Key Takeaways

- Key Takeaway #1
  - Opportunities exist outside the four walls of inpatient practice
- Key Takeaway #2
  - Find the low-hanging fruit - where can you make the most impact with current resources
- Key Takeaway #3
  - Clinical surveillance technology can be a powerful tool for tracking and reporting interventions in outpatient settings