



## **(Management Case Study) Formulary Development for an Off-Site Freestanding Emergency Department (FSED)**

Kellie L.E. Musch, Pharm.D., M.S.; Pharmacy Manager  
Valerie A. Budinger, Pharm.D.; Lead FSED Pharmacist  
OhioHealth, Columbus, OH

# Disclosures

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

# Learning Objectives

- Describe the freestanding emergency department model at OhioHealth.
- Discuss our comprehensive approach to formulary development.
- Explain lessons learned through this project that could be applied to other facilities.

# Self-Assessment Questions

1. (True or False) In OhioHealth's 8-bed freestanding emergency departments, pharmacy support is virtual
2. Which of the following strategies were included in the comprehensive approach to formulary development?
  - a. Leveraging 503B outsourcing facilities
  - b. Review of emergency medicine physician preference lists in the EHR
  - c. Examination of drug strength and dosage form
  - d. All of the above
3. (True or False) Utilizing a thoughtful multidisciplinary approach to remote facility formulary creation can lead to safe and cost effective care

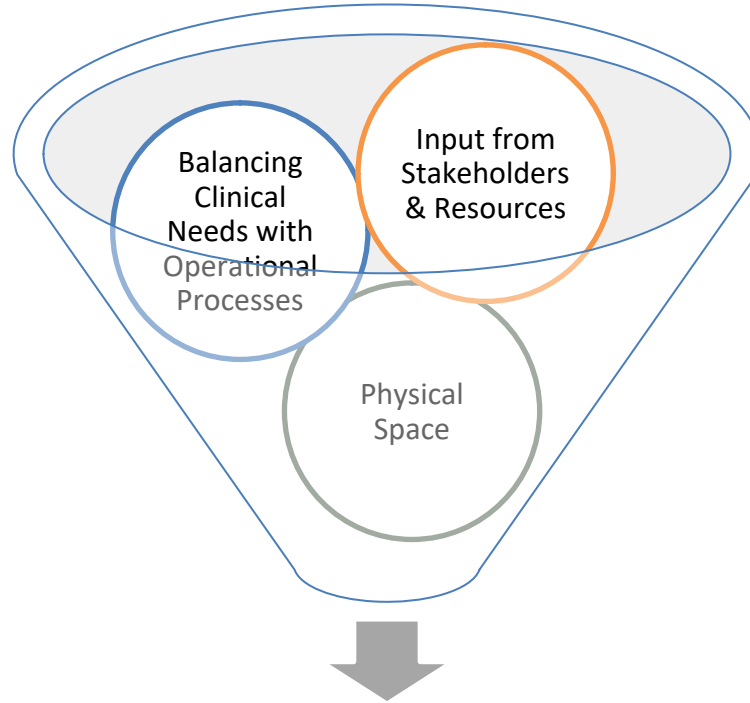
# Background

- 8-bed emergency departments
- On-site staff:
  - 1 provider
  - 2 registered nurses
  - 1 radiology technician
  - 1 registration/patient safety personnel
- Remainder of services are virtual



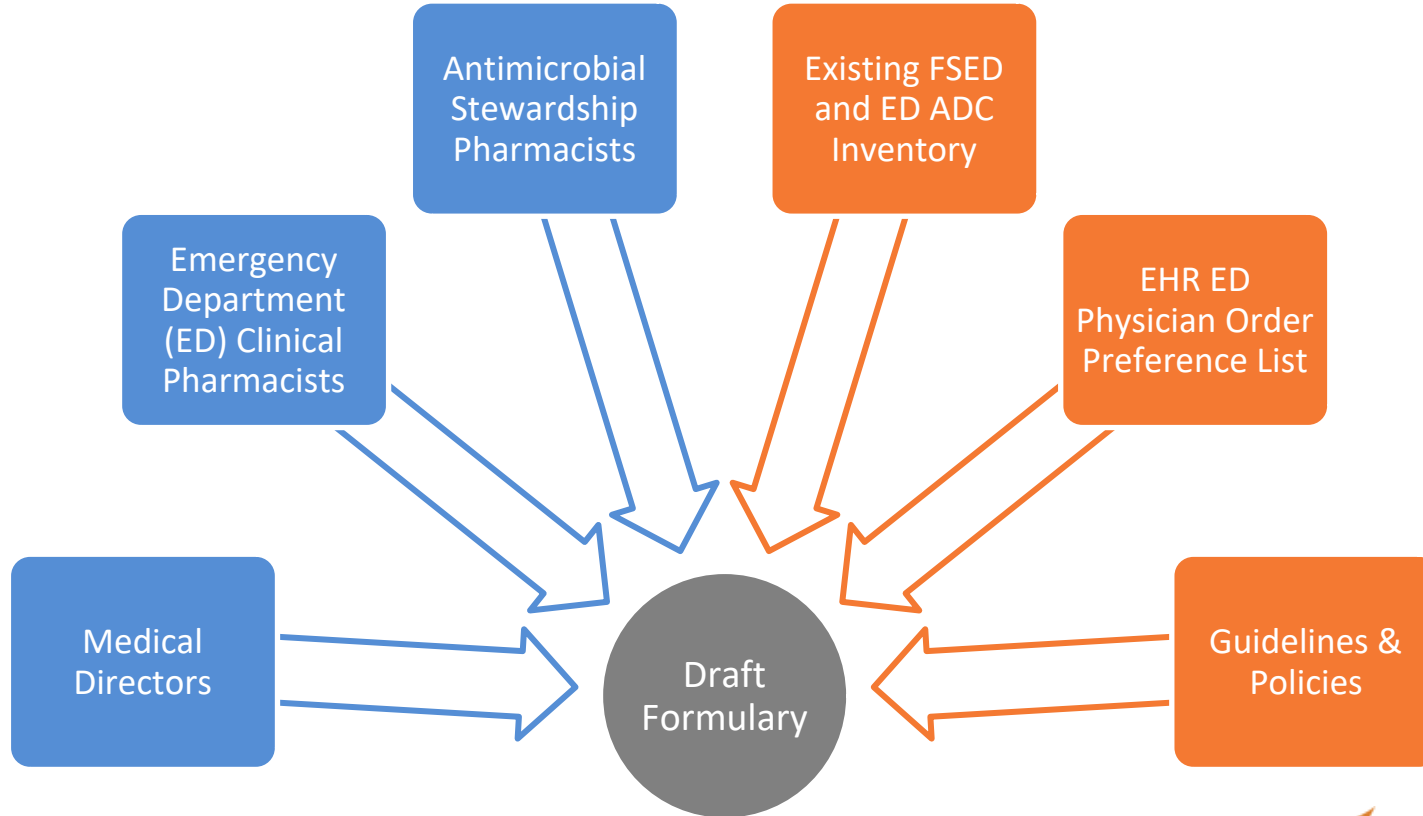


# Determining a Formulary for Five FSEDs



A Finalized Formulary

# Stakeholders & Resources

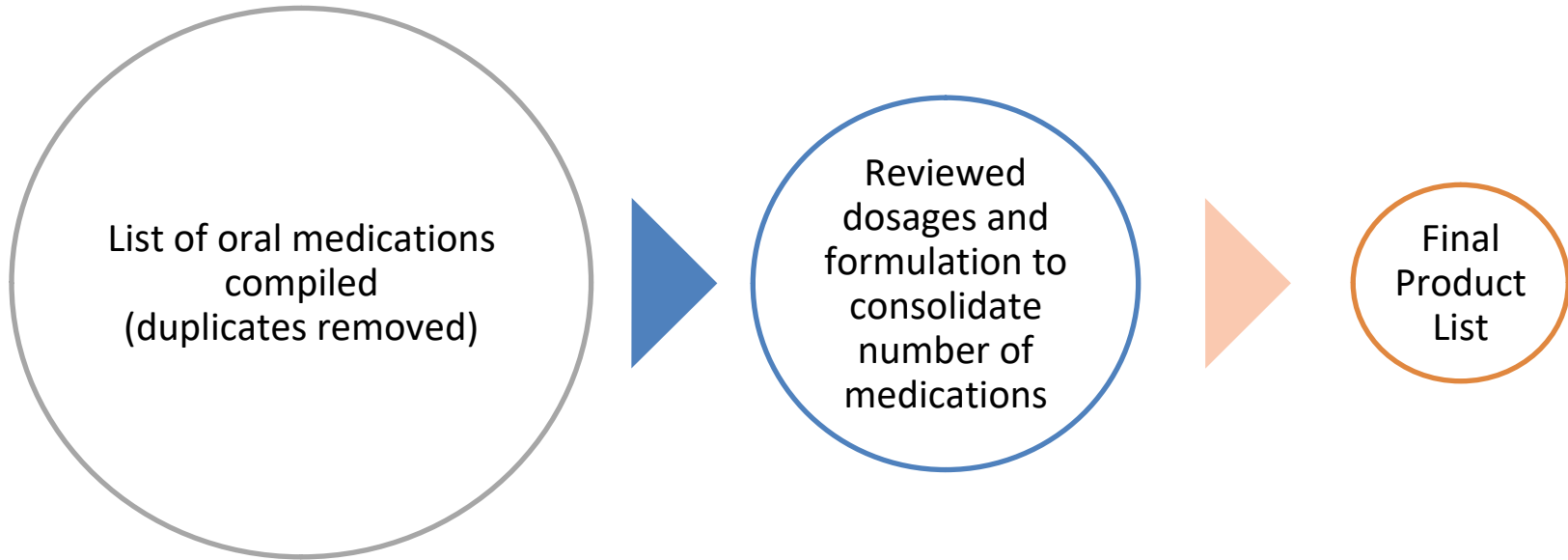




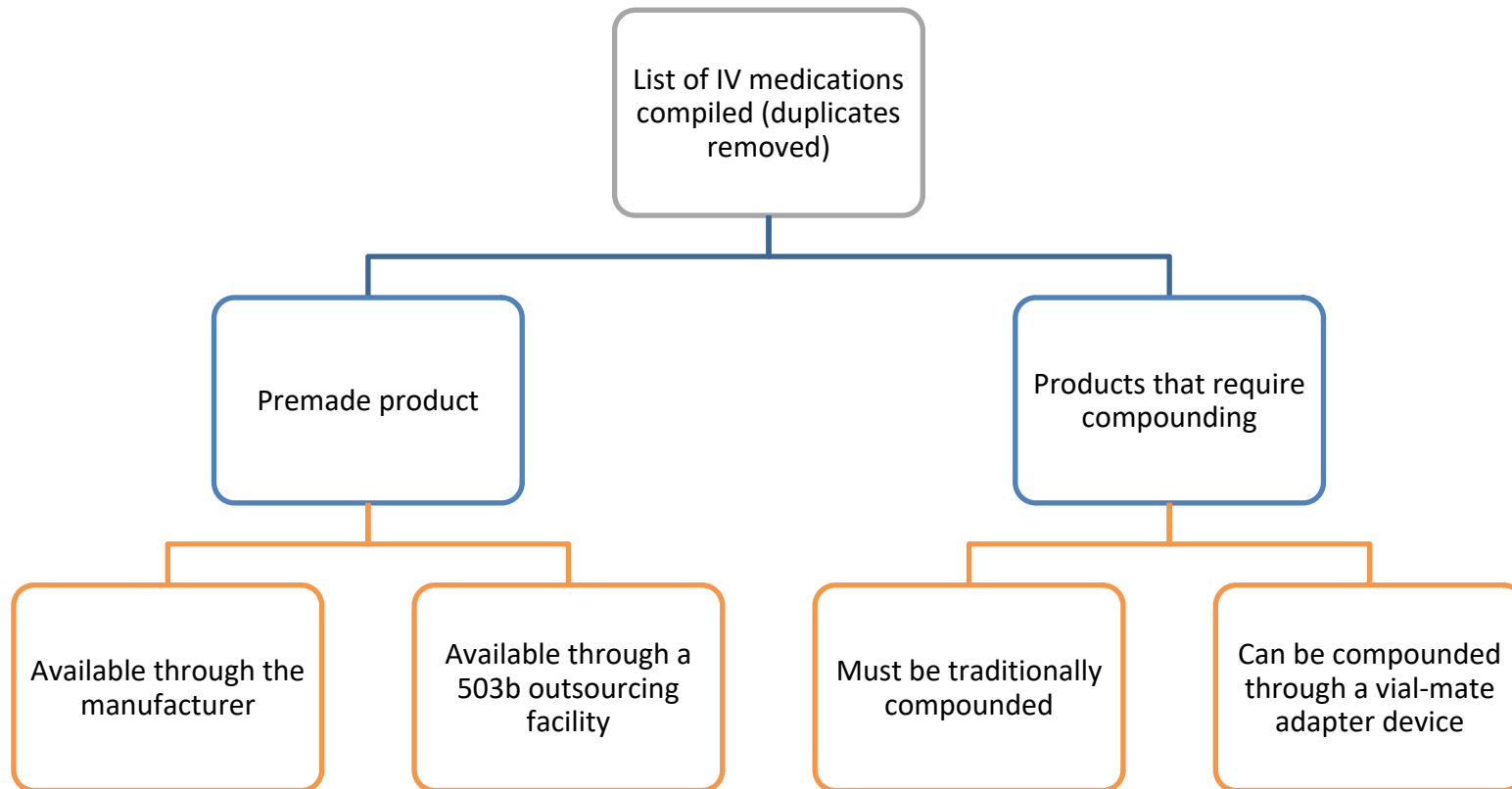
# Example - Medical Director Prioritization

Must have	{	Med Description	{	Highly desirable
		acetaminophen (TYLENOL) 325 mg tablet		
		acetaminophen (TYLENOL) 650 mg Suppository		
		adenosine (ADENOCARD) 3 mg/1 mL (2 mL) vial		
		albuterol (PROVENTIL) 2.5 mg/0.5 mL nebule		
		albuterol 0.083% (PROVENTIL) 2.5 mg/3 mL nebule		
		amiodarone (CORDARONE) 50 mg/1 mL (3 mL) injectable		
		amiodarone 360 mg/200 mL (CORDARONE) bag		
		aspirin (DFEC) 325 mg tablet		
		aspirin, chewable 81 mg tablet		
Desirable	{	atropine 0.1 mg/1 mL (10 mL) syringe	{	If space available
		amoxicillin (AMOXIL) 500 mg capsule		
		amoxicillin-clavulanate 500-125mg (AUGMENTIN) tablet		
		amoxicillin-clavulanate 875-125mg (AUGMENTIN) tablet		
		azithromycin (ZITHROMAX) 250 mg tablet		
Don't need	{	amlodipine (NORVASC) 5 mg tablet	{	
		dicyclomine (BENTYL) 10 mg capsule		
		insulin lispro, subcutaneous (Humalog) 100 unit/1 mL (3 mL) vial		
		loperamide (IMODIUM) 2 mg capsule		
		acetaminophen-codeine 300-30mg (TYLENOL #3) tablet		
		ALPRAZolam (XANAX) 0.25 mg tablet		
		aspirin 300 mg Suppository		

# Product Selection – Oral Medications



# Product Selection – Intravenous (IV) Medications



# Physical Storage Space Considerations

- All medications stored in automated dispensing cabinet (ADC)
- Utilized projected volumes for initial PAR development
- 2 deliveries/site/week
  - Minimal FTE support in LEAN environment



# Challenges to Overcome: Extended Dating

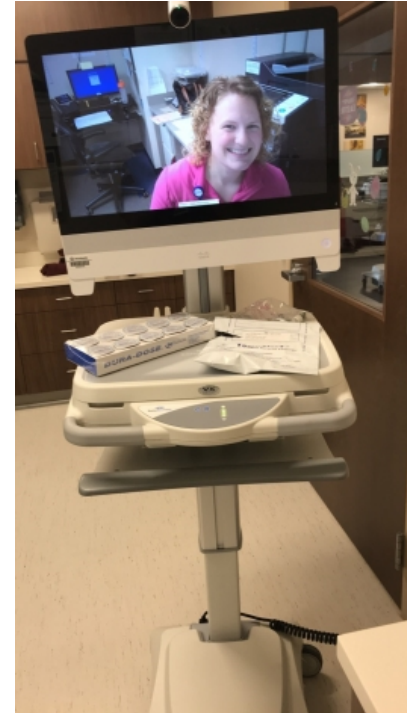
- Low volume facilities can lead to increased waste from short dated products
- Vial-mate assembly on-site
  - Individually packed IV solution bags
  - Vial and IV bag stored separately in ADC
- Concerns:
  - How does a provider order in the EHR to support operation?
  - Ability for ADC to dispense multiple components per order?



piperacillin-tazobactam (ZOSYN) 4.5 g in sodium chloride (NS) 0.9% 100 mL IVPB (vialmate) (FSED)

# Challenges to Overcome: Nurse Compounding

- Limited number of medications that require compounding
- Pharmacy-led on-site training during each go-live
- Virtual health technology for high risk high alert (HRHA) compounds



# End Result of Initial Formulary



# Where are we now?

- The drug inventory at each site is assessed at minimum every 90 days for additions and removals
  - In Summer 2018, our PAR assessment led to \$8,757.27 in one time savings
- Living formulary
  - Pharmacy holds a lot of autonomy in the decision making
  - Controversial items come to medical directors for approval
    - Example: Prothrombin complex concentrate and idarucizumab



# Self-Assessment Questions

(True or False)

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**TRUE**

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(True or False)

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**TRUE**

# KEY TAKEAWAYS

## 1) ENGAGE ALL MEMBERS OF THE HEALTHCARE TEAM

*A comprehensive approach to formulary management can lead to cost containment while maintaining high quality patient care*

## 2) LEVERAGE INNOVATIVE STRATEGIES

*Challenge your technology to go outside of existing processes and build something new*

## 3) COST IS NOT THE ONLY DECISION POINT

*High dollar medications often have an appropriate clinical use even in a low acuity setting*