# Antibiotic Stewardship

The Infection Preventionist's Role in Combating Antibiotic Resistance

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## Overview



LITERATURE REVIEW



DATA COLLECTION



IDENTIFY OPPORTUNITIES TO DECREASE ANTIBIOTIC USE

## Literature Review

## **Best Practices:**

- When to test
- How to collect
- Type of testing









# NHSN AU/AR Surveillance

Mechanism for facilities to report & analyze antimicrobial use & resistance data

- benchmarking
- reduce antimicrobial resistant infections through antimicrobial stewardship
- interrupt transmission of resistant pathogens at facilities



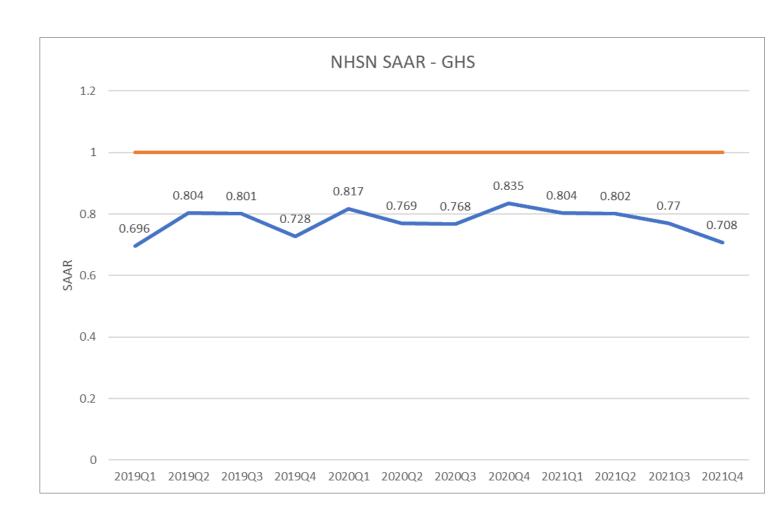
## NHSN Antibiotic Utilization (AU)

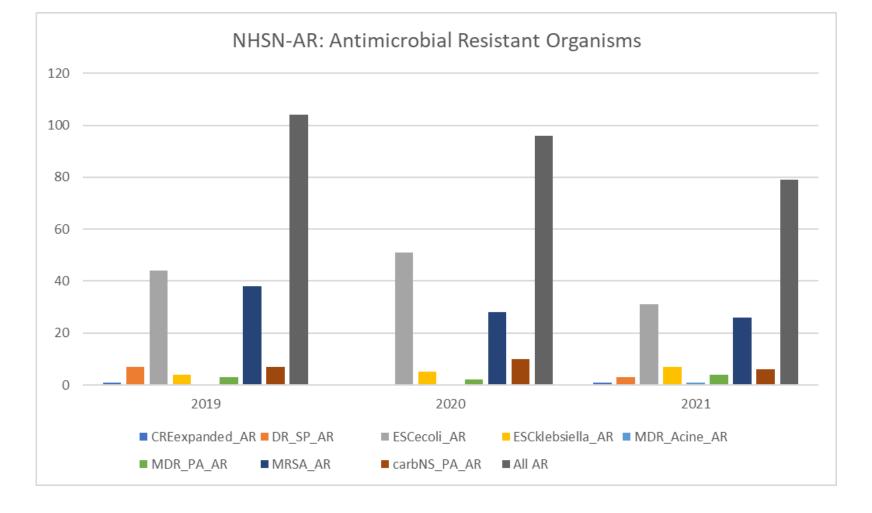
### Data can be broken down

- Unit level
- Antibiotic

### We saw:

- Lower SAAR with Broad spectrum
- Higher SAAR with Narrow spectrum
- Increase rates with some antibiotics due to flu/COVID





# NHSN Antibiotic Resistance (AR)

- Data can be used to capture trends in resistance
- Antibiograms

## Opportunities to decrease antibiotic use

### Bacitracin:

 Converting from prophylactic use of Bacitracin to petrolatum-based ointments

#### **Bacitracin Ointment**

Bacitracin ointment single unit of use packets are on back order. As part of our antibiotic stewardship efforts we are converting from prophylactic use of Bacitracin to petrolatum based ointments. Petrolatum-based ointments are more cost effective and safer to use. Individual packets of petroleum jelly (Lawson 94187), Vaseline or Aquaphor are effective substitutes.

Current studies suggest that petrolatum-based ointments are equally effective in healing clean wounds when compared to antibiotic based ointments. Prophylactic use of antibiotic ointment does not decrease the rate of infection and puts patients at risk for allergic contact dermatitis and antibiotic resistance.



CURAD Petroleum Jelly Substitute

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# Summary

• IPs play a consulting role through providing information on best practices occurring in healthcare.

• This information leads to genral assessments and detailed reviews.

• The ASP gathers feedback and develops the protocols and education used to facilitate change.

### SAAR or other indicators of antibiotic use show higher than expected values



#### **General Assessments**

Search for specific agents driving overall high use.

Assess for unnecessary combinations. Look for specific providers with high prescribing rates. Assess use to see if high use reflects large numbers of starts or prolonged courses.

Compare antibiotic use to resistance patterns.

Discuss antibiotic use in high use locations.

Narrow investigation targets



Medication use evaluations

#### **Detailed Reviews**

Review indications for prescribing.

Review treatment of specific infections. Review use of agents to treat resistant grampositive infections.

Review selected courses of broadspectrum therapy.

Review prolonged courses of antibiotics.





### Stewardship Actions





