



UWWTASP
tele-antimicrobial stewardship program

June 4, 2019

Announcements

- Website
- TASP Noon Session



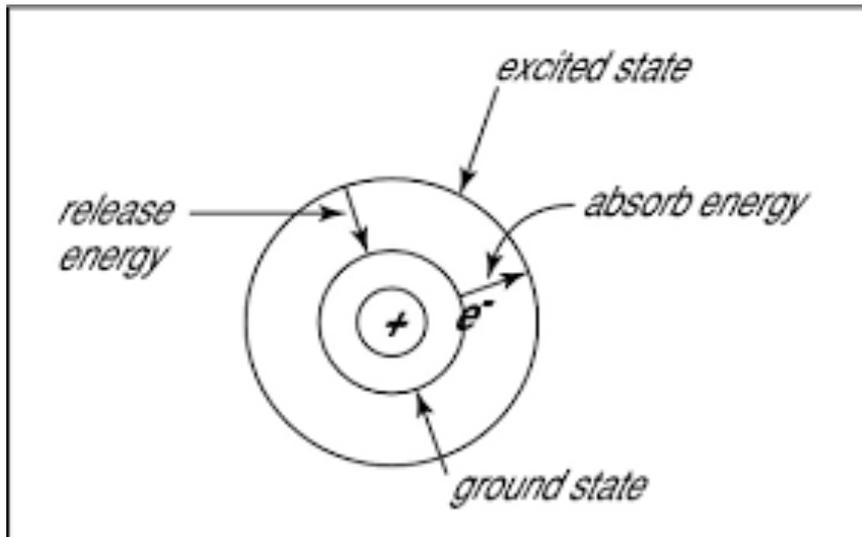
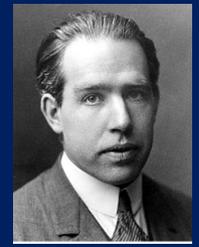
UWWTASP
tele-antimicrobial stewardship program

June 4, 2019

Agenda

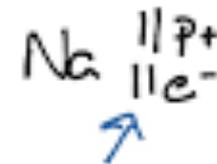
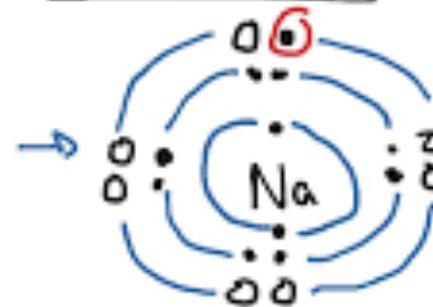
- *Didactic: NHSN Antibiotic Use Reporting*
- **Case Discussions**

Niels Bohr – Nobel Prize winning Physicist



Shell 1 = 2 "spots"
Shell 2 = 8 "spots"
Shell 3 = 8 "spots"

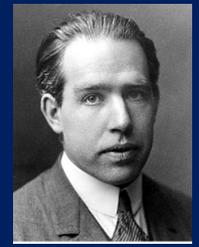
Na - sodium



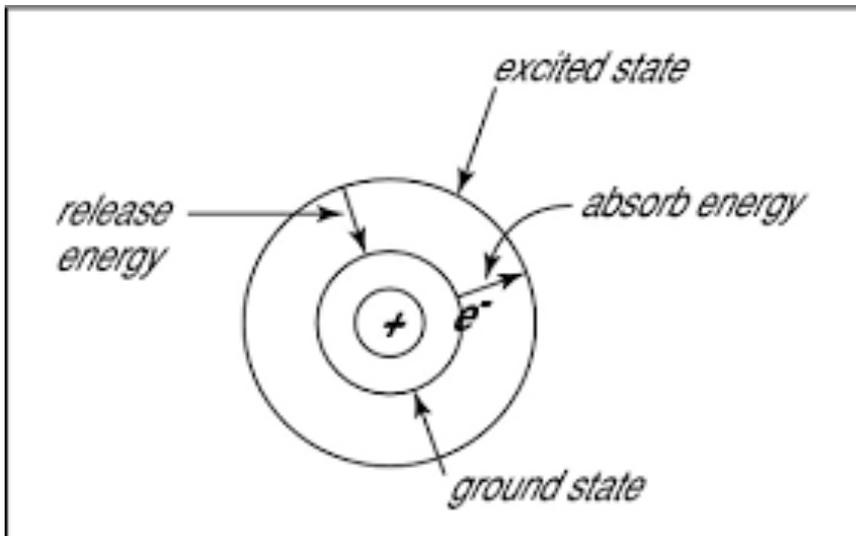
1 - valence
electron



Niels Bohr – Nobel Prize winning Physicist

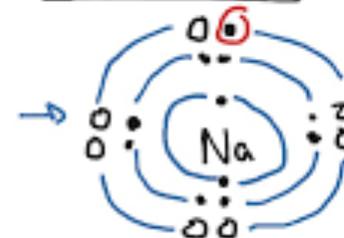


An expert is a person who has made all the mistakes that can be made in a very narrow field



Shell 1 = 2 "spots"
Shell 2 = 8 "spots"
Shell 3 = 8 "spots"

Na - sodium



Na $\begin{matrix} 11p^+ \\ 11e^- \end{matrix}$

1 - valence electron



My Institution Reports Antimicrobial Use to the NHSN

Yes

No

Working on it

Not Sure



My Institution Reports Infection Prevention Data to the NHSN

Yes

No

Not Sure



NHSN: Opportunities to Partner with Infection Prevention

🏠 NHSN

NHSN Login

About NHSN +

Enroll Here +

Materials for Enrolled Facilities -

Ambulatory Surgery Centers +

Acute Care Hospitals/Facilities -

Surveillance for Antimicrobial Use and Antimicrobial Resistance Options

Surveillance for BSI (CLABSI)

Surveillance for UTI (CAUTI)

Surveillance for C. difficile, MRSA, and other Drug-resistant Infections

Surveillance for CLIP

Surveillance for SSI Events

Surveillance for VAE

Surveillance for PedVAE

Surveillance for PNEU (pedVAP)

Surveillance for Healthcare Personnel Exposure

Surveillance for Healthcare Personnel Vaccination

Surveillance for Antimicrobial Use and Antimicrobial Resistance Options

Resources for NHSN Users Already Enrolled

Training	+
Protocols	+
Frequently Asked Questions	+
Data Validation	+
Data Collection Forms	+
Supporting Material	+
Analysis Resources	+

NHSN options for surveillance (infection prevention)

Resources to Help Prevent Infections

- [HAI Prevention in Long-term Care Settings](#)
- [Resources for Patients and Healthcare Providers](#)
- [HHS Action Plan to Prevent Healthcare-associated Infections](#)
- [Management of Multidrug-Resistant Organisms In Healthcare Settings, 2006](#)
- [Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings, 2007](#)
- [Guideline for Environmental Infection Control in Healthcare Facilities, 2003](#)
 - [See: C. difficile Excerpt](#)

New Users - Start Enrollment Here



Step 1: Enroll into NHSN

Step 2: Set up NHSN

Step 3: Report

[Click here to enroll](#)



Getting Started...

New Users -
Start Enrollment
Here

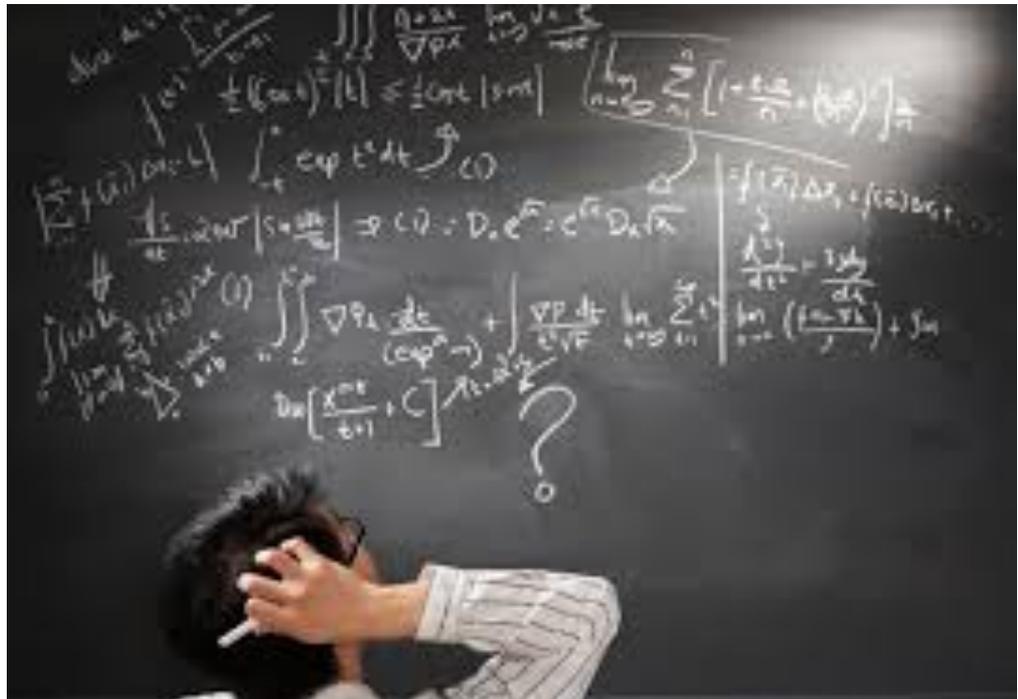


Step 1: Enroll into
NHSN

Step 2: Set up NHSN

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[Click here to enroll](#)



<https://www.cdc.gov/nhsn/acute-care-hospital/aur/index.html>



NHSN Definition	ID	AUR Reporting	Days Present	Admission Count	Total Patient Days
VALLEY MEDICAL CENTER HOSPITAL	N998005950910397	Yes	9130	1504	6156

Days Present

Patient Days

Antimicrobial Usage

Antimicrobial Usage Data for VALLEY MEDICAL CENTER HOSPITAL - April 2019

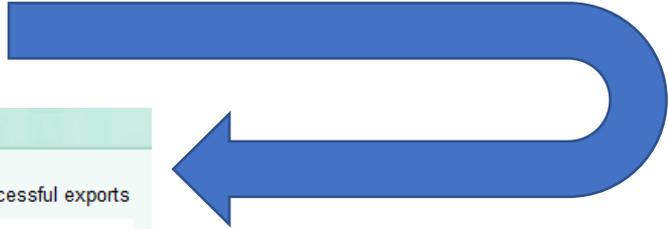
Per 1000 days present (Total days present: 9130)

Antimicrobial	Digestive	Respiratory	Intravenous	Intramuscular	Any Route
Amantadine	↑ 1	= 0	= 0	= 0	↑ 1
Amikacin	= 0	= 0	↑ 2	= 0	↑ 2
Amoxicillin (only)	↓ 3	= 0	= 0	= 0	↓ 3
Amoxicillin with Clavulanate	↑ 15	= 0	= 0	= 0	↑ 15
Amphotericin B	= 0	= 0	= 0	= 0	= 0
Amphotericin B Liposomal	= 0	= 0	= 0	= 0	= 0
Ampicillin (only)	= 0	= 0	↑ 9	= 0	↑ 9
Ampicillin with Sulbactam	= 0	= 0	↓ 0	= 0	↓ 0
Anidulafungin	= 0	= 0	= 0	= 0	= 0
Azithromycin	↓ 15	= 0	↓ 12	= 0	↓ 26
Aztreonam	= 0	= 0	↑ 1	= 0	↑ 1
Caspofungin	= 0	= 0	= 0	= 0	= 0
Cefaclor	= 0	= 0	= 0	= 0	= 0
Cefadroxil	= 0	= 0	= 0	= 0	= 0
Cefazolin	= 0	= 0	↑ 114	↑ 0	↑ 114

Step 1: Run the Report

Export AU Data

NHSN Definition	ID	AUR Reporting	Days Present	Admission Count	Total Patient Days
VALLEY MEDICAL CENTER HOSPITAL	N998005950910397	Yes	9130	1504	6156



Export AU Data ▾

Documents: 1 Hide successful exports

AU 2019-04 VALLEY MEDICAL CENTER HOS Pending
PITAL 20190603 100452.xml

Destination:

No export in progress

Step 2: Export the Report



SAMS
 secure access management services

Warning: This warning banner provides privacy and security notices consistent with applica includes all devices/storage media attached to this system. This system is provided for Go result in disciplinary action and/or civil and criminal penalties. At any time, and for any law intercept, search and seize any communication or data transiting or stored on this system. stored on this system may be disclosed or used for any lawful Government purpose.

Choose a login option

External Partners

SAMS Credentials



SAMS Username

SAMS Password

Login

[Forgot Your Password?](#)

For External Partners who login with only a SAMS issued UserID and Password.

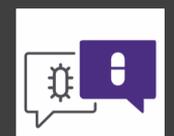
OR

SAMS Grid Card



Click the Login button with a SAMS Grid Card

Step 3: Upload the Report



NHSN Home

Alerts

Dashboard

Reporting Plan

Patient

Event

Procedure

Secondary Data

Export



Analysis Reports

Expand All

Collapse All

Search

- Device-Associated (DA) Module
- Procedure-Associated (PA) Module
- HAI Antimicrobial Resistance (DA+PA Modules)
- Antimicrobial Use and Resistance Module
- MDRO/CDI Module - LABID Event Reporting
- MDRO/CDI Module - Infection Surveillance
- MDRO/CDI Module - Process Measures
- MDRO/CDI Module - Outcome Measures
- CMS Reports
- TAP Reports
- Baseline Set 1
- Advanced

Collapse All

Search

- Device-Associated (DA) Module
- Procedure-Associated (PA) Module
- HAI Antimicrobial Resistance (DA+PA Modules)
- Antimicrobial Use and Resistance Module
 - Antimicrobial Use Data
 - SAAR SAAR Report - All SAARs (2017 Baseline)
 - SAAR SAAR Report - All SAARs by Location (2017 Baseline)
 - Rate Table - Drugs predominantly used for extensively AR bacteria (2017 Baseline)
 - Line Listing - Most Recent Month of AU Data for FACWIDEIN
 - Line Listing - Most Recent Month of AU Data by Location
 - Line Listing - All Submitted AU Data for FACWIDEIN
 - Line Listing - All Submitted AU Data by Location
 - Rate Table - Most Recent Month of AU Data - Antimicrobial Utilization Rates for FACWIDEIN
 - Rate Table - All Submitted AU Data - Antimicrobial Utilization Rates for FACWIDEIN
 - Rate Table - Most Recent Month of AU Data - Antimicrobial Utilization Rates by Location
 - Rate Table - All Submitted AU Data - Antimicrobial Utilization Rates by Location
 - Rate Table - Selected Drugs - FACWIDEIN - Most Recent Month
 - Rate Table - Selected Drugs - FACWIDEIN - All Months
 - Rate Table - Selected Drugs - by Location - Most Recent Month
 - Rate Table - Selected Drugs - by Location - All Months
 - Pie Chart - Most Recent Month of AU Data by Antibacterial Class and Location
 - Pie Chart - All AU Data by Antibacterial Class and Location
 - Pie Chart - Most Recent Month of AU Data by Antifungal Class and Location
 - Pie Chart - All AU Data by Antifungal Class and Location
 - Pie Chart - Most Recent Month of AU Data by Anti-influenza Class and Location
 - Pie Chart - All AU Data by Anti-influenza Class and Location
 - Bar Chart - All Data - Selected Agent Distribution by Month
 - Bar Chart - Most Recent Month of AU Data by Antibacterial Class and Location
 - Bar Chart - All AU Data by Antibacterial Class and Location
 - Bar Chart - Most Recent Month of AU Data by Antifungal Class and Location

Data Analysis

AU Data

National Healthcare Safety Network

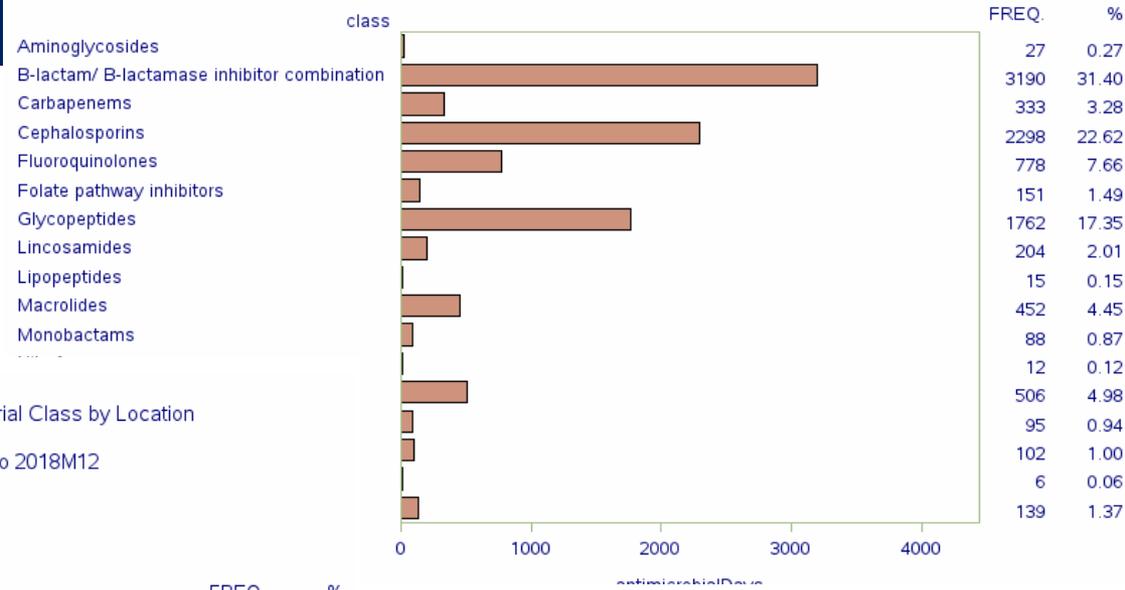
Bar Chart - All Data - Proportion of Antimicrobial Days per Antibacterial Class by Location

As of: June 3, 2019 at 2:04 PM

Date Range: SUMMARYAU summaryYM 2016M01 to 2018M12

if (((category = Antibacterial)))

location=CCU



National Healthcare Safety Network

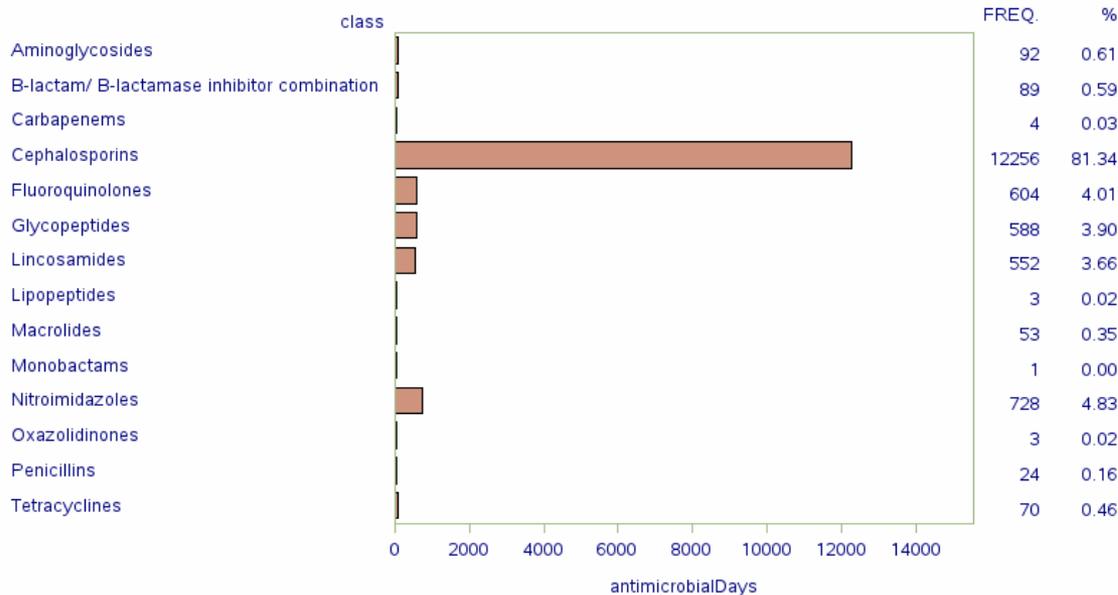
Bar Chart - All Data - Proportion of Antimicrobial Days per Antibacterial Class by Location

As of: June 3, 2019 at 2:04 PM

Date Range: SUMMARYAU summaryYM 2016M01 to 2018M12

if (((category = Antibacterial)))

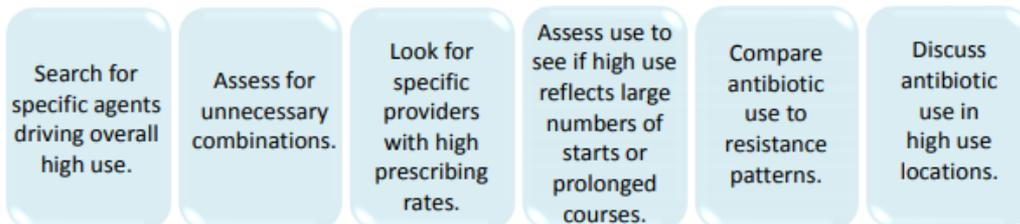
location=OR



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



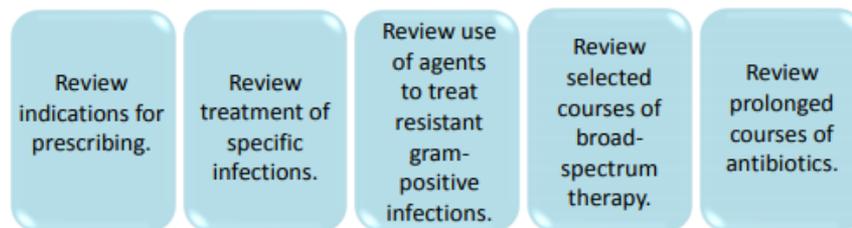
General Assessments



Narrow investigation targets Medication use evaluations



Detailed Reviews



Stewardship Actions



SAAR
Standardized
Antimicrobial
Administration
Ratio

Standardized Antimicrobial Administration Ratios (SAARs)

National Healthcare Safety Network

SAARs Table - All Standardized Antimicrobial Administration Ratios (SAARs) High-Level Indicators and High-Value Targets (2017 Baseline)

As of: June 3, 2019 at 2:14 PM

Date Range: All AU_SAAR_2017

Data divided by month

Antibacterial agents posing the highest risk for CDI used in adult SAAR wards

Statistical validity

orgID	summaryYM	SAARType_2017	antimicrobialDays	numAUDaysPredicted	numDaysPresent	SAAR	SAAR_pval	SAAR95CI
12944	2017M06	Adult_CDI_Ward_2017	677	811.623	4138	0.834	0.0000	0.773, 0.899
12944	2017M07	Adult_CDI_Ward_2017	739	826.223	4185	0.894	0.0022	0.832, 0.961
12944	2017M08	Adult_CDI_Ward_2017	641	848.024	4334	0.756	0.0000	0.699, 0.816
12944	2017M09	Adult_CDI_Ward_2017	617	858.665	4361	0.719	0.0000	0.664, 0.777
12944	2017M10	Adult_CDI_Ward_2017	663	945.295	4814	0.701	0.0000	0.649, 0.756
12944	2017M11	Adult_CDI_Ward_2017	615	947.077	4809	0.649	0.0000	0.600, 0.702
12944	2017M12	Adult_CDI_Ward_2017	792	965.873	4903	0.820	0.0000	0.764, 0.879
12944	2018M01	Adult_CDI_Ward_2017	873	1000.332	5084	0.873	0.0000	0.816, 0.932
12944	2018M02	Adult_CDI_Ward_2017	605	839.248	4265	0.721	0.0000	0.665, 0.780
12944	2018M03	Adult_CDI_Ward_2017	796	979.697	4991	0.812	0.0000	0.757, 0.870
12944	2018M04	Adult_CDI_Ward_2017	637	916.528	4638	0.695	0.0000	0.643, 0.751
12944	2018M05	Adult_CDI_Ward_2017	621	946.750	4819	0.656	0.0000	0.606, 0.709
12944	2018M06	Adult_CDI_Ward_2017	662	892.638	4534	0.742	0.0000	0.687, 0.800
12944	2018M07	Adult_CDI_Ward_2017	784	921.546	4677	0.851	0.0000	0.793, 0.912
12944	2018M08	Adult_CDI_Ward_2017	737	940.591	4794	0.784	0.0000	0.728, 0.842
12944	2018M09	Adult_CDI_Ward_2017	704	878.142	4459	0.802	0.0000	0.744, 0.863
12944	2018M10	Adult_CDI_Ward_2017	679	922.222	4704	0.736	0.0000	0.682, 0.793
12944	2019M02	Adult_CDI_Ward_2017	684	898.837	4554	0.761	0.0000	0.706, 0.820
12944	2019M03	Adult_CDI_Ward_2017	865	978.359	4948	0.884	0.0002	0.827, 0.945

Ratio: Our use vs. other AU-submitting facilities

Raw data

Includes data for January 2017 and forward.

The SAAR is only calculated if the number of predicted antimicrobial days (numAUDaysPredicted) is >=1.

If antimicrobial days exceed days present for a specific SAAR category, a SAAR will not be calculated and data should be validated for accuracy.

Data restricted to medical, medical-surgical, surgical, step down and oncology locations.

Source of aggregate data: 2017 NHSN AU Data

Data contained in this report were last generated on June 3, 2019 at 1:48 PM.

Data Analysis & Choices

Modify "Bar Chart - All Data - Selected Agent Distribution by Month"

Show descriptive variable names (Print List) Analysis Data Set: SummaryAU Type: Bar Chart

Title/Format Time Period Filters Display Options

Title:
Bar Chart - All Data - Selected Agent Distribution by Month

Modify "Bar Chart - All Data - Selected Agent Distribution by Month"

Show descriptive variable names (Print List) Analysis Data Set: Su

Title/Format Time Period Filters Display Options

Time Period:

Date Variable	Beginning	Ending	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="button" value="Clear Time Period"/>

Enter Date variable/Time period at the time you click the Run button

Modify "Bar Chart - All Data - Selected Agent Distribution by Month"

Show descriptive variable names (Print List) Analysis Data Set: SummaryAU Type:

Title/Format Time Period Filters Display Options

Additional Filters:

AND OR

AND OR

drugIngredient	in
AMK - Amikacin	AZT - Aztreonam
CEFEP - Cefepime	CEFTAZ - Cefotaxime
CEFTAVI - Cefotaxime/Avibactam	CEFTOTAZ - Ceftolozane/Tazobactam
COLIST - Colistimethate	DORI - Doripenem
GENTA - Gentamicin	IMIPWC - Imipenem with Cilastatin
MERO - Meropenem	PIPER - Piperacillin
PIPERWT - Piperacillin with Tazobactam	PB - Polymyxin B
TICARWC - Ticarcillin with Clavulanate	TIG - Tigecycline
TOBRA - Tobramycin	

+ Add rule Delete



NHSN AU Survival Tips

New Users -
Start Enrollment
Here



Step 1: Enroll into NHSN

Step 2: Set up NHSN

Step 3: Report

[Click here to enroll](#)

Make friends with IT
Review CDC guides and NHSN videos

Make sure EMR is up to date

Create NHSN Account SAMS Profile – *this takes a LONG time*

Delay if you are moving/ changing name

Submit data, ask questions, experiment with analysis options

Shadow a user (IP, etc)

Send Zahra your successes
zescobar@uw.edu

