pennsylvania
DEPARTMENT OF HEALTH
BUREAU OF EPIDEMIOLOGY

THE STEWARD

2022 QUARTER 4

Healthcare-Associated Infection Prevention and Antimicrobial Stewardship (HAIP/AS)

A PARTNERSHIP IN REDUCING ANTIMICROBIAL RESISTANCE THROUGH ANTIMICROBIAL STEWARDSHIP

Non-Critical Is Critical

By: Dana Piatek, MPH, MSN, RN, CIC, FAPIC

To effectively prevent healthcare-associated infections (HAIs), all potential reservoirs for pathogen transmission need to be recognized, with appropriate cleaning and disinfection policies and procedures in place. Reservoirs are places where germs live in the healthcare environment, including water and wet surfaces, dry surfaces, dirt and dust, and devices (Centers for Disease Control and Prevention, 2022). (Page 2)

Hospital Reporting of Antibiotic Use and Antibiotic Resistance Data

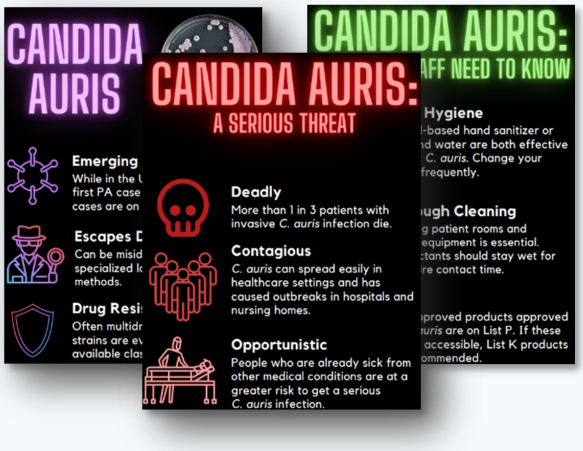
By: Christine L Mulgrew MPH, PhD

For many years hospitals have been encouraged to submit antibiotic use (AU) and resistance (AR) data to the antimicrobial use and resistance (AUR) Module in the National Healthcare Safety Network (NHSN). Beginning in calendar year 2024, Centers for Medicare & Medicaid Services (CMS) will require hospitals that participate in the Medicare Promoting Interoperability (PI) Program to attest to being in active engagement with NHSN to submit both AR and AU data under the public health and clinical data exchange objective (AUR Surveillance measure). (Page 3)

Candida auris: HAIP/AS Program Response

By: Jenna Sinkevitch, MSPH

The first case of *C. auris* in Pennsylvania was identified in March 2020 and since then there has been a steady rise in cases. The Healthcare-associated Infection Prevention & Antimicrobial Stewardship (HAIP/AS) program has implemented active case finding by screening patients with recent healthcare stays at facilities reporting *C. auris*. The team has also provided technical assistance through education, support, and tools to county and municipal health departments and healthcare facilities. (Page 4)

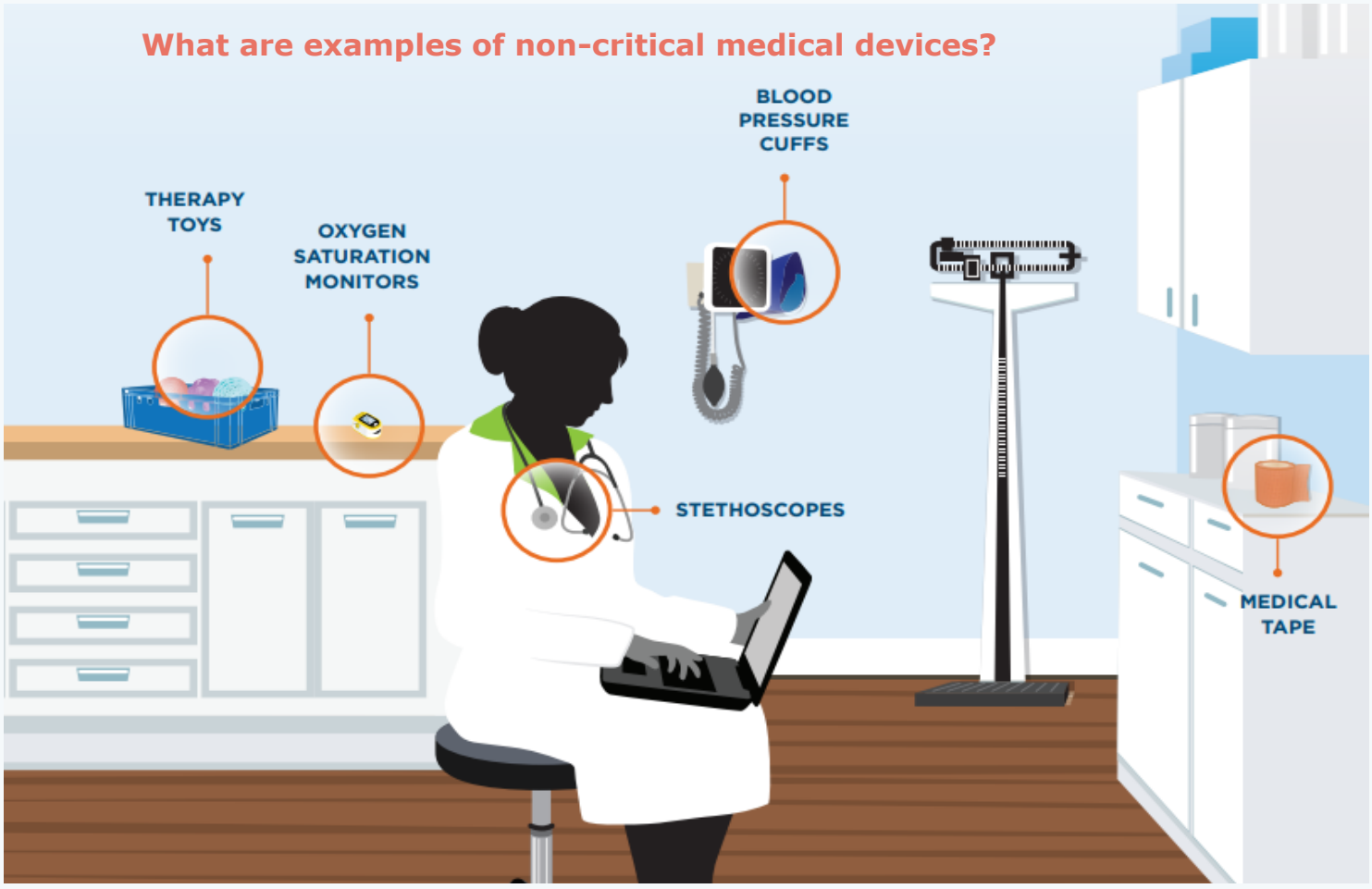


Non-critical is Critical (continued)

By: Dana Piatek, MPH, MSN, RN, CIC, FAPIC

One set of reservoirs that often gets overlooked is those that fall under the category of non-critical items or devices. These "non-critical" items are multiple-use, non-invasive, portable clinical objects, such as medical tape and stethoscopes, usually shared among patients and are considered part of the patient's immediate surroundings (Johnson et al., 2022).

Unlike medical devices labeled as critical or semi-critical that require specific cleaning and disinfection, non-critical medical devices may not be accompanied by Instructions for Use (IFUs). These IFUs provide proper handling, storage, and processes required to clean and reach the parameters of safe use on patients (Association for Professionals in Infection Control and Epidemiology, 2021). Once that label of "non-critical" is applied to something and without these IFUs, the importance of cleaning and disinfecting may become a low priority. Unfortunately, research shows that many of these items and surfaces are contaminated and can be linked to HAIs. In a 2015 literature review, between 23% and 100% of the items investigated in 13 qualifying studies were contaminated; up to 86% of items were contaminated with pathogenic organisms, and multi-drug resistant organisms (MDROs) were found on up to 25% of items (Johnson et al., 2022). This contamination with pathogenic microorganisms can increase infection occurrence, which means inappropriate disinfection practices increase the risk of HAIs transmitted from such items.



An APIC Issue Brief published earlier this year tackles this topic regarding contamination of multiple-use, non-critical medical items frequently used across patient care settings.

The brief "Strategies to Mitigate Cross Contamination of Non-critical Medical Devices" sheds light on best practices for minimizing infection risk from these items. Another great resource on this topic from the issue brief is a two-page infographic titled "Non-Critical Is Critical."

The infographic (above) provides an eight-step approach to reducing the risk of non-critical devices becoming a transmission source when IFUs aren't available. A multi-pronged approach involving risk assessment, application of current disinfection guidelines, human-factors solutions, and consideration of newer technologies and non-traditional safe handling methods is recommended to help ensure the safety of patients in healthcare settings (Johnson et al., 2022).

Hospital Reporting of Antibiotic Use an Antibiotic Resistance Data (continued)

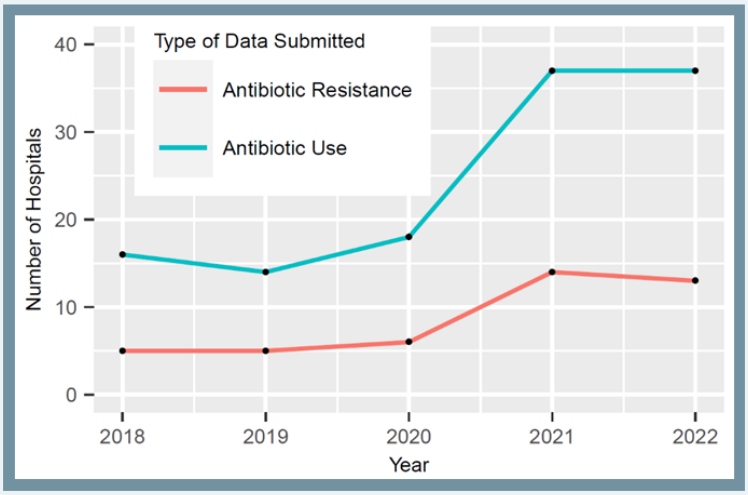
By: Christine L Mulgrew MPH, PhD

CMS will also require participating hospitals to submit their level of engagement (i.e., preproduction and validation, or validated data production). Additionally, CMS described the possibility of increasing the points allocated to the public health and clinical data exchange objective from 10 to 25 points and reducing the points associated with the measure regarding providing patient electronic access to their health information from the current 40 points to 25 points. For the final federal rule, refer to this document which was posted in August 2022.

According to data posted by CMS, 126 acute care hospitals and 13 critical access hospitals in Pennsylvania met the criteria to receive payment from the PI Program (https://data.cms.gov/provider-data/dataset/xubh-q36u) as of July 2022. There is a large gap between these numbers compared to the number of hospitals that have submitted at least 1 month of AU or AR data to NHSN. As shown in Figure 1, only 37 reported at least 1 month of AU and 13 hospitals reported AR data in 2022. Based on these data, many hospitals that participate in the PI Program may want to begin planning to submit AUR data to NHSN.

Instructions to submit AUR data to NHSN can be found here. Participation in NHSN's AUR Module requires the purchase or building of an AUR reporting solution. CMS estimates that hospitals will need to pay between $17,000 and $388,500 annually, with a median of $187,400 to implement AUR reporting. To report AU data, hospitals will need to have either an electronic medication administration record (eMAR) or bar-coding medication administration (BCMA) system. To report antimicrobial susceptibility results (AR data), an electronic laboratory information system (LIS) is needed. Additionally, an electronic admission, discharge, and transfer (ADT) system is required to capture patient movement within the facility. Hospitals without these prerequisites will be able to claim an exclusion to the AUR surveillance measure in the PI Program. Hospitals typically engage a certified vendor as their AUR reporting solution but can choose to develop their own system. Because of the complexity of the data, it typically takes months from start to finish for a hospital to successfully submit data to the AUR module. Based on a survey of 58 Pennsylvania critical access, acute care and children's hospitals in 2017, there were 6 main barriers to submitting data to the AUR module: IT resources, cost, personnel, time, training and access to the data. At that time, 39 (67%) anticipated a high reward for submitting AUR data to NHSN. Since then, NHSN has improved the analytic reports and posted additional training resources online. Given the threat of infections caused by antimicrobial resistance has increased and antimicrobial stewardship programs have expanded their scope and effectiveness, use of the AUR data will be more beneficial than ever before.

Figure 1: Number of Hospitals that Submitted Data to the AUR Module in NHSN by Year | Pennsylvania



The Department of Health has received funding from CDC to bolster data submission into the AUR module. Hospitals should prepare to complete a survey from the Department to assess the prerequisites listed above as well as other barriers associated with data submission. The results of this survey will help to inform the Department's activities to bolster AUR module reporting and will be shared in 2023.

Candida auris: HAIP/AS Program Response (continued)

By: Jenna Sinkevitch, MSPH

2021 *C. auris* Symposium

HAI programs from the PA Department of Health and the Philadelphia Department of Public Health jointly presented a half-day virtual symposium to increase awareness of *C. auris* epidemiology in PA and to educate healthcare facilities on prevention measures to reduce transmission. Breakout sessions educated healthcare personnel on prevention of transmission, laboratorians on methods for detection and identification, and local health department staff on building response capacity.

2022 *C. auris* Toolkits

As *C. auris* became a more prominent threat to public health, the HAIP/AS program developed two toolkits to guide response to cases and outbreaks. The Public Health Toolkit guides public health staff through initial responses to cases, colonization screenings, and facility communication.

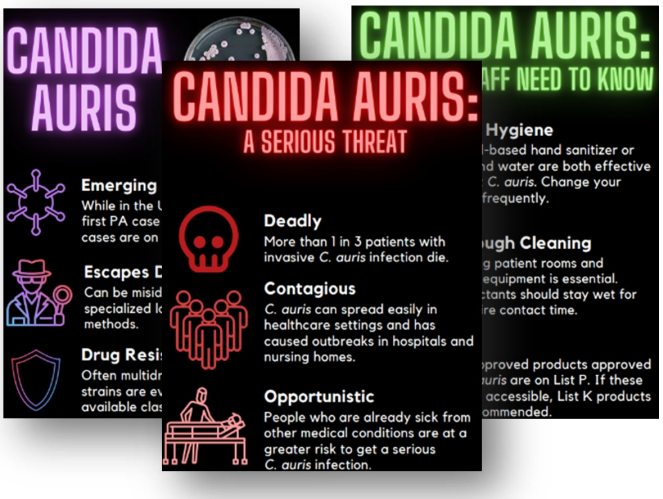
The Healthcare Facility Toolkit provides guidance on IPC recommendations, colonization screenings, patient communication, and laboratory identification. The Public Health Toolkit has been disseminated to county and municipal health departments who need assistance with containment and surveillance for facilities in their jurisdiction. The Healthcare Facility Toolkit is given to facilities as part of the guidance when responding to *C. auris* cases and conducting colonization screenings.

C. auris Workgroup

In March 2022, the HAIP/AS program kickstarted a workgroup following a Patient Safety Authority HAI Advisory Committee meeting where leaders from healthcare systems across the state expressed concerns about *C. auris*. The objectives of this ongoing workgroup are to provide feedback on the direction of HAIP/AS program activities related to *C. auris*, troubleshoot issues that are being presented by *C. auris* in all facility types, and brainstorm methods of promoting education and awareness.

Resources Developed

The program has also developed multiple tools and resources to assist in the containment of *C. auris.* PA Project Firstline has developed three posters for facilities to display: general education, provider education, and environmental services education. The team has also developed an infographic to demonstrate the epidemiology of *C. auris* in Pennsylvania as well as infection prevention and control measures that can be taken to prevent *C. auris.* Additionally, a discharge information sheet was created to assist individuals with *C. auris* on what to do when receiving care at home and if they are re-hospitalized.



Quarterly Data Update

Antimicrobial Resistant Organisms Reported in Pennsylvania

Carbapenemase	Quarter 3 - 2022 (7/1/2022 – 9/30/2022)			
	CRE	CRAB	CRPA	Total by Mechanism
KPC	17	0	0	17
NDM	3	0	0	3
IMP	0	0	0	0
OXA-like	0	9	0	9
VIM	0	0	0	0
Carbapenemase detected by phenotype, no genotype detected	1	0	0	1
Total by Organism	21	9	0	30
	Clinical		Colonized	Total
Candida auris	8		16	24

Abbreviations: CRE=Carbapenem-resistant *Enterobacterales*; CRAB=Carbapenem-resistant *Acinetobacter baumannii*; CRPA=Carbapenem-resistant *Pseudomonas aeruginosa.* Learn more about carbapenemases and CRE at CRE Technical Information | CRE | HAI | CDC

*Data include all counties in PA except for Philadelphia. The counts were captured through voluntary reporting by health care facilities and laboratories, including the PA Bureau of Laboratories. To view Philadelphia's surveillance data, please visit their website at https://hip.phila.gov/data-reports-statistics/healthcare-associated-infections.

References

Association for Professionals in Infection Control and Epidemiology. (2021, April). Non-Critical Is Critical Infographic. Retrieved from apic.org: https://apic.org/wp-content/uploads/2021/09/Infographic_noncritical_is_critical.pdf

Centers for Disease Control and Prevention. (2022, March 11). Germs Live in the Environment. Retrieved from Project Firstline: https://www.cdc.gov/infectioncontrol/projectfirstline/healthcare/germs-environment.html

Johnson, L., Nutt, A., Piatek, D., Reese, S. M., Rindels, J., & Schommer, K. (2022, April 1). Strategies to Mitigate Cross Contamination of Non-critical Medical Devices. *American Journal of Infection Control*, 50(4), PB1-B15. doi:https://doi.org/10.1016/S0196-6553(22)00128-6

Bureau of Epidemiology

Healthcare-Associated Infection Prevention & Antimicrobial Stewardship

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NCQA, CDC and PEW Charitable Trusts have partnered to produce and host "Get Better at Managing Antibiotics"

Five free webinars centering on health plans and new tools and practices to fight antibiotic resistance. You can view the webinars by setting up an NCQA account.

Webinar One:

Defining Antibiotic Stewardship and Reviewing Associated HEDIS Measures

Webinar Two:

What's New in Antibiotic Stewardship?

Part I: Using Performance Measures in Practice to Drive Change

Webinar Three:

What's New in Antibiotic Stewardship?

Part II: Impacts of COVID and Use of Telehealth

Webinar Four:

Addressing Social and Behavioral Drivers of Prescribing

Webinar Five:

How Health Plans Approach Antibiotic Stewardship and HEDIS Antibiotic Measures

We would love to feature your facility or lab as a success story in a future edition of *The Steward*

Please send a brief summary related to preventing antimicrobial resistance or promoting stewardship activities to our resource mailbox:
RA-DHHAI@pa.gov

National Handwashing Awareness Week – December 5-11, 2022

Clean hands prevent healthcare-associated infections. Therefore, we want all healthcare personnel to become hand hygiene champions and learn the key moments for hand hygiene. Let's examine some helpful tips in honor of National Handwashing Awareness Week, which takes place each year during the first full week of December. Learn more about Hand Hygiene in Healthcare Settings and review the DOH Hand Hygiene Audit Toolkit available now.

PA Project Firstline aims to provide engaging, innovative, and effective infection and prevention (IPC) control training for frontline PA healthcare workers as well as members of the public health workforce.

Project Firstline's innovative content is designed so that — regardless of a healthcare worker's previous training or educational background — they can understand and confidently apply the infection control principles and protocols necessary to protect themselves, their facility, their family, and their community from infectious disease threats, such as COVID-19. This educational program is created by the PA Department of Health's Healthcare-associated Infection Prevention team in the Bureau of Epidemiology with a goal of reaching all healthcare workers in all roles and facility types to provide foundational knowledge on infection prevention and control (IPC) in a way that is easily accessible, immediately applicable to their work, and *even entertaining*.

How do I get in touch with PA Project Firstline?

- Email us directly through our resource account: RA-DHFIRSTLINE@pa.gov
- Visit our website to access PA Project Firstline materials such as our quarterly newsletter, posters, and CDC Project Firstline educational materials: http://bit.ly/ProjectFirstlinePA
- Interested in Project Firstline training at your facility? Complete the: Pennsylvania Project Firstline Training Request Form.
- Join the PA Project Firstline Text Message Program: Text **JOIN** to **IPC4U** now.

PROJECT FIRSTLINE
CDC'S National Training Collaborative for Healthcare Infection Prevention & Control

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Frontline Healthcare Worker Survey

PA Project Firstline is distributing an online survey to frontline healthcare workers. The survey will assess healthcare worker literacy in infection prevention and control and identify training gaps. The PA Project Firstline team will develop training to address the identified gaps.

Frontline healthcare workers are encouraged to access the survey to inform PA Project Firstline of their training experiences and needs using the QR code.