The Antimicrobial Stewardship and Resistance Update

Quarterly newsletter providing updates on news, reports, research, policies, and events related to antimicrobial stewardship and resistance in California.

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Message from HAI Program Chief, Dr. Erin Epson

Efforts to prevent emergence and contain spread of antimicrobial resistance (AR) are more critical than ever! The ongoing COVID-19 pandemic has amplified the threat of AR in California healthcare facilities. Cases and outbreaks of various AR pathogens have increased and spread substantially in California since the start of the pandemic. As the COVID-19 pandemic continues to evolve, there is an urgent need for public health and healthcare partners to renew our focus on preventing AR emergence and spread through redoubling our antimicrobial stewardship (AS) efforts and ensuring diligent application of infection prevention practices across the healthcare continuum. With this new newsletter, the CDPH HAI Program aims to introduce our portfolio of AR prevention and containment activities to new partners and broaden our engagement with existing partners. Please feel free to reach out to us if you’d like to learn more about any of our initiatives, or to suggest a new opportunity. We look forward to hearing from you, and to our ongoing collaboration to ensure safer health care for all Californians!

Sincerely,
Erin Epson, MD
Cold and Flu Season

As we head into the fall and winter seasons, gatherings with family and friends for the holidays will commence, as will flu activity. And circulating right along with the flu will be COVID-19. Be sure to encourage vaccination for your patients and their close contacts. Remind patients that antibiotics save lives, but they do NOT treat viruses like those that cause colds, the flu, and COVID-19. Below are some important dates and useful resources.

- **U.S. Antibiotic Awareness Week** is November 18-24, 2022
  (www.cdc.gov/antibiotic-use/week/index.html)
- **National Influenza Vaccine Week** is December 5-11, 2022
  (www.cdc.gov/flu/resource-center/nivw/index.htm)
- **CDPH Toolkit for Cold and Flu**
  (www.cdph.ca.gov/Programs/OPA/Pages/Communications-Toolkits/Fight-Flu-Together.aspx)
- **CDC’s Be Antibiotics Aware Partner Toolkit**
  (www.cdc.gov/antibiotic-use/week/toolkit.html)

### CDC COVID-19 AR Report

The Centers for Disease Control and Prevention (CDC) recently published a report highlighting the increase in antimicrobial resistance (AR) during the COVID-19 pandemic, which mirrors what we have experienced in California. Read the [COVID-19 Impact Report](www.cdc.gov/drugresistance/pdf/covid19-impact-report-508.pdf)

*Available data show an alarming increase in resistant infections starting during hospitalization, growing at least 15% from 2019 to 2020.*

- **Carbapenem-resistant Acinetobacter** (+78%)
- **Antifungal-resistant Candida auris** (+60%)*
- **Carbapenem-resistant Enterobacterales** (+35%)
- **Antifungal-resistant Candida** (+26%)

- **ESBL-producing Enterobacterales** (+32%)
- **Vancomycin-resistant Enterococcus** (+14%)
- **Multidrug-resistant P. aeruginosa** (+32%)
- **Methicillin-resistant Staphylococcus aureus** (+13%)

*Candida auris* was not included in the hospital-onset rate calculation of 15%. See Data Table and Methods for more information on this pathogen.
AR in California

Title 17 updates: *Candida auris*, carbapenemase-producing organisms (CPO) reportable! (www.cdph.ca.gov/Programs/CID/DCDC/Pages/Reportable-Disease-and-Conditions.aspx)

For more information on how to prevent, respond to, and report on these pathogens, visit our *[C. auris](www.cdph.ca.gov/Programs/CHCQ/HAI/Pages/Candida-auris.aspx)* and *[CPO](www.cdph.ca.gov/Programs/CHCQ/HAI/Pages/CRE_InfectionPreventionStrategies.aspx)* web pages. Look out for related webinars in October and November.

- Since the start of the pandemic, and in support of findings from the CDC COVID-19 AR Report, CDPH has received reports of **increased numbers and types of AR pathogen cases** (see Figure 1). This includes cases linked to large regional outbreaks of *C. auris* and CPO.
- Increases in AR cases were likely **influenced by COVID-19** infection prevention and control (IPC) practice changes, staffing challenges, and reduction in antimicrobial stewardship efforts. Extensive patient sharing networks across the state contributed to widespread transmission.
- We have also seen **higher numbers of pan-nonsusceptible** (intermediate or resistant to all antimicrobial agents tested) and **rare** carbapenemase-producing (CP) carbapenem-resistant Enterobacterales (CRE), *Pseudomonas aeruginosa* (CRPA), and *Acinetobacter baumannii* (CRAB).
- Keep up-to-date on AR-related California Health Alert Network (CAHAN) advisories (www.cdph.ca.gov/Programs/CHCQ/HAI/Pages/CAHAN.aspx).

![Figure 1. C. auris and CPO Cases Reported to CDPH, January 2019–June 2022](chart.png)
AR/AS Project Highlights

Antibiotic Use (AU) and Social Determinants of Health (SDoH) Project

- We are collaborating with over 15 hospitals to explore the association between AU and SDoH, and to improve AS and reduce health inequities among acute care facilities in California.
- This project continues our initial work, Associations Between Patient Neighborhood Characteristics and Inappropriate Antimicrobial Use, among hospitals submitting AU data via the National Healthcare Safety Network (NHSN) in 2019 (doi.org/10.1017/ash.2021.73).
- We will evaluate how health equity-related variables can identify disparities and are associated with appropriateness of antimicrobial prescribing. We will use findings to inform public health interventions in facilities for developing strategies to reduce prescribing inequities.

Long-Term Acute Care Hospital (LTACH) AS Workgroup

- Beginning in February 2022, we partnered with local health departments to convene an 18-month project to support AS programs in California LTACH.
- The LTACH AS Workgroup aims to support and equip LTACH with tools for appropriate AU to prevent and safely care for their patients.

Ventilator-equipped Skilled Nursing Facility (vSNF) Project

- This is an 18-month project aimed at strengthening IPC practices in vSNF to prevent outbreaks, contain transmission, and limit spread of AR pathogens to new facilities and regions.
- This project is part of a larger collaborative with the LTACH AS workgroup, where we have engaged facilities in joint workshops on topics such as interfacility transfer and communication.
- Learn more at our vSNF website (www.cdph.ca.gov/Programs/CHCQ/HAI/Pages/vSNF.aspx).

AR Regional Prevention Collaboratives

- We are working with local health departments, hospitals, and SNF in 3 counties to support comprehensive AR prevention activities, including:
  - Hands-on training for environmental services staff
  - Onsite IPC assessments and C. auris and CPO colonization screening
  - AS consultations
  - Promotion of interfacility peer-to-peer learning and communication
SPOTLIGHT

CDPH ASP Honor Roll Gold Designations

Each quarterly newsletter, we will spotlight some gold status ASP Honor Roll members (www.cdph.ca.gov/Programs/CHCQ/HAI/Pages/Honor_Roll.aspx). This quarter we would like to highlight facilities from our inaugural Honor Roll enrollment period from Fall 2020. Nineteen facilities received gold designation during that time. Each exemplified community engagement in different areas, and some in multiple areas.

Mentoring/Supporting Lower Resource Facilities
- Community Hospital of San Bernardino
- Eisenhower Health
- Hoag Memorial Hospital
- Kaiser Foundation Hospital – Woodland Hills
- Los Alamitos Medical Center
- San Mateo Medical Center
- Sharp Chula Vista Medical Center
- University of California, San Francisco

Direct Engagement in the Community with Outpatient Partners
- Hoag Memorial Hospital
- Lompoc Valley Medical Center
- Mercy Medical Center Mt. Shasta
- Palomar Medical Center Escondido
- Palomar Medical Center Poway
- Stephen Birch Healthcare Center at Sharp Memorial Hospital

Collaborations to Improve Antimicrobial Stewardship
- Children’s Hospital Los Angeles
- Lucile Packard Children’s Hospital Stanford
- Marian Regional Medical Center
- St. Mary’s Medical Center
- Sanford Healthcare
- VA Greater Los Angeles Healthcare System

CA ASP Honor Roll Map
(www.cdph.ca.gov/Programs/CHCQ/HAI/Pages/HonorRoll_InteractiveMap.aspx)
Did you know?

- Nearly 50% of outpatient visits for presumed viral upper respiratory tract infection filled an antibiotic prescription according to the American Journal of Managed Care (www.ajmc.com/view/antibiotic-use-for-viral-acute-respiratory-tract-infections-remains-common).
- Per the American College of Physicians and CDC recommendations (doi.org/10.7326/m15-1840), best practices for antibiotic use in healthy adults presenting with acute respiratory tract infection include, but are not limited to the following recommendations for clinicians:
  - Do not perform testing or initiate antibiotic therapy in patients with bronchitis unless pneumonia is suspected.
  - Test patients with symptoms suggestive of group A streptococcal pharyngitis and only treat patients with antibiotics if rapid antigen detection test and/or culture for group A is confirmed.
  - Do not prescribe antibiotics for patients with the common cold.

Stay Connected with CDPH

CDPH HAI Websites
Visit the CDPH webpages for more information and resources.
- CDPH HAI Program page (www.cdph.ca.gov/Programs/CHCQ/HAI/Pages/HAI/ProgramHome.aspx)
- CDPH Antimicrobial Stewardship page (www.cdph.ca.gov/Programs/CHCQ/HAI/Pages/AntimicrobialStewardshipLandingPage.aspx)
- CDPH Antimicrobial Resistance page (www.cdph.ca.gov/Programs/CHCQ/HAI/Pages/AntimicrobialResistanceLandingPage.aspx)

CDPH HAI Newsletters
Subscribe to our HAI Program quarterly newsletters (cdph-marketing.powerappsportals.com/HAI/HAI-Registration/) to receive updates on our initiatives and education opportunities.

CDPH Listserv
To stay connected with all things AS at CDPH, join the California Antimicrobial Stewardship Collaborative Network ASCN (www.cdph.ca.gov/Programs/CHCQ/HAI/Pages/ASCN.aspx).

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