

Emergency Department Antibiotic Stewardship Collaborative Project Plan

The California Emergency Department Antibiotic Stewardship Collaborative aims to engage emergency department (ED) staff in efforts to improve antibiotic prescribing by facilitating shared expertise and best practices for implementing stewardship interventions in ED settings.



Background

Inappropriate antibiotic use is a major public health concern. Excessive exposure to antibiotics results in emergence and spread of drug-resistant bacteria, potentially avoidable adverse drug reactions, and increased healthcare utilization and cost. Each year 10 million antibiotic prescriptions are written in emergency departments (ED) and unnecessary antibiotics are frequently prescribed for known viral infections, including 75% of adults with acute bronchitis and 45% of children with viral upper respiratory illness. Antibiotics are the second most commonly prescribed medication in ED visits.

Given rising numbers of ED visits in the U.S., strategies are urgently needed to reduce inappropriate antibiotic use in these settings. Recent critical behavioral science experiments suggest that the effectiveness of existing stewardship programs could be greatly augmented through inclusion of behavioral nudges, benchmarked audit and feedback, and peer-to-peer comparisons. Identification of ED champions is important for success of antibiotic stewardship in these settings.

To improve antibiotic prescribing in California ED, the California Department of Public Health Healthcare-Associated Infections Program (HAI Program) and the Los Angeles County Department of Public Health (LACDPH) are partnering with Dr. Larissa May of the University of California Davis Emergency Department to convene an ED Antibiotic Stewardship Collaborative.

Goals

1. Raise awareness of inappropriate antibiotic prescribing and opportunities for antibiotic stewardship in ED settings
2. Engage and empower ED staff to view antibiotic prescribing as a quality and patient safety issue
3. Share ED-specific antibiotic prescribing and stewardship tools and best practices
4. Provide a forum to exchange practical strategies for overcoming barriers to stewardship interventions in ED settings
5. Reduce inappropriate prescribing for acute respiratory infection (ARI) specific to ED settings

Structure

To address varying needs and strategies for implementing antibiotic stewardship in ED serving diverse communities and facility types, the collaborative will invite and engage ED partners across the state to participate in a year-long implementation project. The collaborative will be structured as a learning and action network consisting of:

- Quarterly webinars and regional in-person meetings
- ED provider surveys and tailored action plans for each participating ED
- Dissemination of guidance and tools
- Opportunities to discuss and share best practices.

Each ED will obtain leadership approvals to participate and involve a multidisciplinary ED antibiotic stewardship team, which should include ED leadership; additional participation from Chief Medical or Nursing Officers, hospital Antibiotic Stewardship Program (ASP) leaders, Infection Preventionists, Pharmacy, Microbiology, and Clinicians is encouraged.

Topics

ED provider survey results from participating facilities will guide selection of collaborative session topics. Additionally, findings from the MITIGATE* project at UC Davis will be incorporated. A few examples are as follows:

- Core elements for outpatient antibiotic stewardship
- Strategies for engaging all members of the healthcare team in antibiotic prescribing and stewardship, including leadership
- Strategies for implementing and assessing antibiotic stewardship targeting specific infections or clinical syndromes in ED settings
- Strategies for sustaining improvements
- Using behavioral economics to improve clinical decision making by engineering choices in a way to help providers make better decisions

*The UC Davis-founded project MITIGATE is a multifaceted intervention created to improve prescribing for ARI for adults and children in ED and urgent care settings. The project has developed a toolkit for best practices for implementing intervention to reduce inappropriate prescribing for acute respiratory infections specific to ED and urgent care settings via: (1) Evaluation of two adapted interventions to reduce inappropriate prescribing for ARI using pre- and post-intervention surveys and stakeholder engagement in acute ambulatory care, (2) novel application of a behavioral trial designed to develop impactful acute episodic care-based antibiotic stewardship programs for clinically burdensome infections, and (3) direct demonstration of improved health care quality and outcomes of a large patient population at ED and urgent care sites carefully selected to represent underserved populations (e.g., minorities, rural, elderly and those with poor access to care).

Benefits

Participation in the collaborative will provide participating ED with:

- **Access to ED provider surveys** to understand the status of current antibiotic prescribing practices and opportunities for improvement.
- **Assistance with development of an action plan** tailored to each participating ED.
- **Tools to enhance antibiotic prescribing** and implement evidenced-based practices while also addressing patient satisfaction.
- **Assistance with meeting recommended QI metrics**, targets, and performance metrics.
- **Opportunities to discuss and share** best practices, challenges, and lessons learned regarding antibiotic stewardship and prescribing with a **diverse network of ED**.

Expectations

As a collaborative member, participating ED will be asked to commit to the quality improvement process by:

- **Obtaining appropriate leadership approvals** and endorsement to participate in the ED antibiotic stewardship collaborative and gather an interdisciplinary team to carry out action plan items.
- **Actively engaging all team members in collaborative sessions** (e.g., webinars, conference calls, and in-person meetings).
- **Conducting ED provider surveys** and return to collaborative staff for review.
- **Committing to an action plan**.

Measuring Progress

Participating ED will be asked to complete a checklist of core elements of outpatient antibiotic stewardship upon enrollment and at the end of the project, and to periodically report on process measures of their action plan implementation. Participating ED will also be asked to consider tracking

numbers of antibiotic prescriptions for selected conditions, depending on the specific interventions included in their action plan.

Timeline

Recruitment

- Beginning in **November 2017**, the collaborative will conduct outreach at select healthcare facilities in California to participate in the ED antibiotic stewardship collaborative. A formal recruitment packet will be emailed to the ED leadership at each facility. The recruitment packet will include an introduction letter detailing pertinent specifics of the collaborative and a commitment form.
- Healthcare facilities will be asked to return the commitment form to collaborative staff by **Tuesday, January 2, 2018** to confirm participation.

Kick-off meeting

- In **February 2018**, the collaborative will convene a kick-off webinar with representatives from each enrolled facility. Facilities will be polled on best dates to convene the kick-off meeting shortly after enrollment.
- Collaborative staff will give an overview of the collaborative structure, goals, and expectations.
- Additionally, subject matter experts will provide an overview of antibiotic stewardship in the ED setting.
- The meeting will allow key staff at facilities to engage with each other as well as stakeholders from state and local public health (e.g., LACDPH, HAI Program and local public health departments) and other partner organizations.

Provider surveys

- From **February 2018 through May 2018** facilities will conduct and submit provider surveys.
- Provider surveys will focus on characteristics of antibiotic prescribing practices and attitudes, and will help identify strengths and areas where improvement is most needed.
- Upon completion of the provider survey, participating ED will review their data with a collaborative staff member.

Action plan

- Collaborative staff will aid each facility in developing a strategic antibiotic stewardship implementation action plan tailored to facility needs.
- Facilities are expected to prioritize and select elements from the action plan to implement. Facilities will periodically self-assess and measure their progress.

Webinars and in-person sessions

- Throughout the year (**February 2018- February 2019**), collaborative participants will meet quarterly via webinar or regional in-person sessions.
- Meetings will address topic areas identified as most problematic in provider surveys and provide a forum for discussing and sharing best practices, challenges, and lessons learned regarding antibiotic stewardship implementation. Participating ED may share tools to assess prescribing protocols, implementation and evaluation strategies, and ways to collect and use data.
- Meetings will be scheduled in **May 2018, August 2018, November 2018, and February 2019**, and will alternate between regional in-person sessions and webinars.