

Antimicrobial Stewardship Subcommittee Report

HAI-AC Meeting
February 12, 2015

California Senate Bill 1311

Section 1288.85 to the Health and Safety Code

(approved Sep 29, 2014)

Each general acute care hospital, as defined in subdivision (a) of Section 1250, shall do all of the following by July 1, 2015:

- (a) Adopt and implement an antimicrobial stewardship policy in accordance with guidelines established by the federal government and professional organizations. This policy shall include a process to evaluate the judicious use of antibiotics in accordance with paragraph (3) of subdivision (a) of Section 1288.8.
- (b) Develop a physician supervised multidisciplinary antimicrobial stewardship committee, subcommittee, or workgroup.
- (c) Appoint to the physician supervised multidisciplinary antimicrobial stewardship committee, subcommittee, or workgroup, at least one physician or pharmacist who is knowledgeable about the subject of antimicrobial stewardship through prior training or attendance at continuing education programs, including programs offered by the federal Centers for Disease Control and Prevention, the Society for Healthcare Epidemiology of America, or similar recognized professional organizations.
- (d) Report antimicrobial stewardship program activities to each appropriate hospital committee undertaking clinical quality improvement activities.

CDPH AFL 14-36

(dated Dec 19, 2014)

“This All Facilities Letter (AFL) notifies all hospitals of new requirements resulting from the enactment of SB 1311 (Chapter 843, Statutes of 2014), which added Section 1288.85 to the Health and Safety Code (HSC), and requires general acute care hospitals (GACH) to adopt and implement Antimicrobial Stewardship Programs (ASPs).”

ASP Collaborative

- HAI-AC Dec 12, 2013: CDPH establish a collaborative process among California hospitals to facilitate the implementation of the three tiers of Antimicrobial Stewardship. The collaboration should include representation from a diverse cross section of California hospitals.
- 12 monthly sessions from Jan-Dec 2015
 - 6 topic area webinar presentations
 - 6 implementation webinar conferences (with 2 tracks based on hospital size)
- >100 hospitals have enrolled
- First webinar took place on Jan 22, 2015

AS Subcommittee Activities

- ASP toolkit has been developed for California acute care hospitals to provide assistance on how to meet the components that define basic, intermediate, and advanced programs
- Toolkit has been unanimously approved by AS subcommittee (see packet)
 - Overview of each component
 - Examples
- AS subcommittee requests that HAI-AC reviews and approves the toolkit so that it may be made available to acute care hospitals via the CDPH website

B1: Antimicrobial stewardship policy/procedure

Developing a formal antimicrobial stewardship program policy/procedure is an invaluable process. It enables a facility to define the goals and scope of the ASP, considering the needs and nuances of the institution. It is also an important opportunity to solicit input from physician stakeholders from throughout the hospital, allowing them a voice in the process so that their concerns and misconceptions can be addressed and their buy-in gained. Involving these stakeholders provides publicity for the program so that few are surprised at the time of implementation. Finally, this document, once approved/adopted by the medical leadership of the hospital, is an important step in institutionalizing the program, giving it standing among both supporters and naysayers.

B2: Physician-supervised multidisciplinary committee (or subcommittee/workgroup)

A physician-supervised multidisciplinary ASP committee should oversee organization-wide efforts to promote and evaluate the appropriate use of antimicrobial agents. The composition and the function of the ASP committee should be defined in the ASP policy/procedure. Ideally, the committee membership should be comprised of physician stakeholders from throughout the hospital. By involving them in the process, ASP activities and interventions can be tailored and targeted in a more effective fashion. These individuals can play a valuable role as liaisons/champions to promote stewardship education and practices among their constituencies.

The ASP committee should include the following core members (though the exact composition may vary depending on the facility's resources and needs):

- Physician or pharmacist with training in antimicrobial stewardship (as defined in basic component #3)
- At least two members of the Medical Staff representing different disciplines
- Infection preventionist
- At least one (1) representative from Hospital Administration, Patient Safety, and/or Quality Assurance
- Clinical microbiologist
- Hospital epidemiologist
- Information technology specialist/data analyst

B3: ASP support by physician or pharmacist with AS training

Because antimicrobial stewardship education is not generally provided in the typical medical or pharmacy school curriculum, it is important that the physician or pharmacist leading the ASP receive additional training with a focus on antimicrobial stewardship. This can be accomplished by completing one of several continuing education training programs offered by the federal Centers for Disease Control and Prevention, the Society for Healthcare Epidemiology of America, and other recognized professional organization (see links below) or via post-graduate training with a concentration in antimicrobial stewardship which is typical of infectious disease pharmacist training.

B4: Reporting of ASP activities to hospital committees involved in quality improvement activities

Dissemination of information about the activities of the antimicrobial stewardship program is an important means of promoting stewardship across the hospital. Engaging these committees and highlighting successes can encourage buy-in from skeptics. In addition, discussing problem areas and challenges can foster creative solutions from interested stakeholders. Examples of hospital committees to whom the antimicrobial stewardship program may report include (but are not limited to) Infection Control, Pharmacy & Therapeutics and Patient Safety.

15: Annual antibiogram developed using CLSI guidelines with distribution to and education of the medical staff

An antibiogram is a summary report of antimicrobial susceptibilities of selected pathogens using Clinical Laboratory Standards Institute (CLSI) criteria. It reflects the percentage of a given organism that is susceptible to each of the antimicrobial agents routinely tested. Local antibiograms with pathogen-specific susceptibility data should be updated annually in order to provide guidance to clinicians on choosing appropriate empiric therapy. In addition, examining trends in the susceptibility patterns of important bacterial pathogens, such as MRSA, VRE, ESBL and CRE, can be useful in informing changes to empiric treatment guidelines as well as to the antimicrobial formulary.

16: Institutional guidelines for the management of common infection syndromes

Multidisciplinary development of evidence-based guidelines incorporating local microbiology and resistance patterns can improve antimicrobial utilization. Guidelines implementation can be facilitated through provider education, use of electronic order sets, guideline distribution on websites or mobile applications. Additionally, provider feedback on antimicrobial use and patient outcomes can be helpful.

17: Monitoring of usage patterns of antibiotics determined to be of importance to the resistance ecology of the facility, using Defined Daily Doses (DDD) or Days of Therapy (DOT)

Measurement of aggregate usage of antimicrobials in a healthcare facility can help to optimize antimicrobial utilization and ultimately patient outcomes, through:

- Identifying patterns of antimicrobial usage over time and measuring the effect of interventions that affect antimicrobial utilization;
- Benchmarking utilization to similar institutions to identify outlying utilization patterns that may be candidates for intervention;
- Providing clinicians with data on their prescribing habits in context of that of their peers.

Techniques for aggregate measurement of antimicrobial use will vary based on the available data and resources at each institution. Defined Daily Doses (DDD) or Days of Therapy (DOT) are the preferred units of measurement.

18: Regular education of hospital staff/committees about antimicrobial stewardship

One of the most important aspects of an effective antimicrobial stewardship program is the dissemination of stewardship education and monitoring/intervention data to the medical staff. Practitioners are much more likely to change their prescribing habits when local data is presented that demonstrate opportunities for improvement. In addition, positive feedback to practitioners for participation in the ASP is valuable as a successful program depends on their participation. Education can be disseminated in any number of ways, including regular reports at medical staff or departmental meetings, monthly newsletters, or regular conferences/grand rounds.

A9: Antimicrobial formulary that is reviewed annually with changes made based on local antibiogram

The annual antibiogram provides essential information that should be used to guide empiric antimicrobial therapy pending final culture results. The microbiology laboratory should provide an antibiogram for analysis on an annual basis, at a minimum. Serial evaluations permit the identification of trends in local antimicrobial resistance. Utilizing the ASP committee, the results of this antibiogram should be compared to the antibiotic formulary and any order sets that include antibiotic selections. Any necessary changes should be made to the formulary and order sets to ensure that the options provided to the practitioner are congruent with the patterns seen. In addition to any new trends noted, organisms of importance e.g. MRSA, ESBL, CRE, and VRE should be identified and highlighted in the report. Subsequent education of health care providers should be based on this analysis as well as on the formulary and order set changes that resulted.

A10: Prospective audits with intervention/feedback

Prospective audits with intervention and feedback to the prescriber have been demonstrated to improve appropriate antimicrobial use. This process allows the ASP to identify opportunities for optimization of treatment, whether that be in antimicrobial choice, dosing, route, or duration. It also serves as an opportunity for one-on-one education of prescribers. Once empiric antimicrobial guidelines are developed and approved by the respective medical specialties throughout the hospital/health-system, antimicrobial orders/prescriptions should be audited for appropriateness. The ASP team may intervene on orders/prescriptions that fail to meet criteria for use. A written intervention may be left in the chart or a phone call may be placed to the prescribing physician to recommend alternate agents to use. The ASP team can also join physicians during rounds and discuss antibiotic choices for their patients. Physicians who repeatedly fail to follow hospital empiric therapy guidelines or de-escalate antimicrobial therapy may be counseled by the ASP team.

If several physicians in a department fail to follow hospital antimicrobial guidelines, inappropriate orders/prescriptions for antimicrobials can be tallied and reported to the respective department chairs. The ASP team can attend department meeting to discuss alternative antimicrobial agents to use, criteria for using restricted agents, and potential problems with their overuse.

A11: Formulary restriction with preauthorization

The rationale for placing restrictions on specific antimicrobials is to limit the inappropriate use of certain broad-spectrum agents, last-line agents, or agents with concerning toxicities. Restricted antimicrobials should be reserved for the treatment of infections caused by multi-drug resistant organisms and patients with multiple drug allergies or contraindications to first-line agents in order to minimize the development of microbial resistance and serious adverse effects. The Antimicrobial Stewardship Committee should review and recommend which antimicrobials will be restricted based on the hospital's antimicrobial formulary, bacterial resistance patterns, and risks of drug toxicity.

The antimicrobial stewardship program must develop a process for reviewing all requests for restricted antimicrobials. If the patient fails to meet criteria for use, the antibiotic stewardship team should contact the prescribing physician to discuss alternative agents. If the physician insists on using the restricted antimicrobial, the antibiotic stewardship team may recommend that the prescriber obtain an Infectious Disease consult.

Motion Requested

- AS Subcommittee requests that HAI-AC approves ASP toolkit so that it may be made available to California acute care hospitals via the CDPH website

Subcommittee Members

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