

## **Antibiotic Stewardship in Hospitals**

Antibiotics are a crucial and powerful treatment option in modern healthcare. These medications, when used appropriately, can effectively treat common illnesses and life-threatening conditions. However, antibiotics have side effects, and their misuse can lead to harm and contribute to antibiotic resistance, which the Centers for Disease Control and Prevention (CDC) has identified as an urgent threat to public health.<sup>1</sup>

In some cases, antibiotics are prescribed for patients who don't need them. About 30 percent of all antibiotics prescribed in U.S. acute care hospitals are either unnecessary or suboptimal.<sup>2</sup>

To ensure the best use of antibiotics, hospitals should maintain antibiotic stewardship programs. Following are some high-level considerations based on CDC guidance that may be helpful when evaluating a hospital's antibiotic stewardship program for ways to modify existing procedures to optimize antibiotic use.<sup>3</sup>

	Yes	No
Hospital Management		
Does your hospital's antibiotic stewardship program have a director?		
If the director of the antibiotic stewardship program is not a physician, has the hospital determined a physician to provide support for that leader?		
Does hospital management designate specific time to guide its antibiotic stewardship program and perform regular stewardship interventions?		
Do stewardship program leaders convene on a scheduled basis with hospital management to review progress on the program's activities, resources, and outcomes?		
Does hospital management ensure stewardship program leaders have sufficient resources to administer the program, including training and IT support?		

	Yes	No
Hospital Management (continued)		
Does hospital management allow for staff members from key support departments and groups to have adequate time to assist with stewardship program activities?		
Is one of the hospital's senior leaders a designated contact for the stewardship program to advocate for it?		
Does hospital management assimilate antibiotic stewardship responsibilities with quality improvement efforts in the hospital?		
Does hospital management value being part of and reporting to the National Healthcare Safety Network (NHSN) Antimicrobial Use and Resistance Module, and will they provide any IT support needed?		
Pharmacy		
Is a pharmacist organizing and facilitating the efforts to improve antibiotic use in your hospital?		
<ul> <li>Does that pharmacist have specialized education or experience in antibiotic stewardship?</li> </ul>		
Training and Education		
Do healthcare providers that prescribe antibiotics as well as appropriate staff receive training on optimal prescribing, adverse reactions from antibiotics, and antibiotic resistance?		
Are the healthcare providers who prescribe antibiotics trained as part of the prospective audit and feedback process of your hospital's antibiotic stewardship program?		
Interventions to Improve Antibiotic Use		
When your hospital chooses antibiotics to prescribe for common clinical conditions, are choices based on recommendations specific to your hospital that are gleaned from national guidelines and local pathogen susceptibilities?		
Is a prospective audit and feedback conducted in your hospital for particular antibiotic agents?		
Is a preauthorization conducted in your hospital for particular antibiotic agents?		

	Yes	No
Interventions to Improve Antibiotic Use (continued)		
Are particular interventions employed in your hospital to make the most effective use of antibiotics to treat the most common infections, including urinary tract infections, community-acquired pneumonia, and skin and soft tissue infections?		
Are particular interventions in place at your hospital to optimize the use of antibiotics for the following conditions/circumstances:		
• Sepsis?		
Staphylococcus aureus infection?		
Clostridioides difficile infection (CDI)?		
Culture-proven invasive infections?		
Planned outpatient parenteral antibiotic therapy?		
Does hospital policy require healthcare providers that prescribe antibiotics to document in the health record or during order entry a dose, duration, and indication for all antibiotic prescriptions?		
Does your hospital have a formal protocol for all healthcare providers that prescribe medications to perform a review each day of the antibiotic selected until a specific diagnosis and length of treatment is defined?		
Tracking Antibiotic Use and Outcomes		
Does your antibiotic stewardship program track:		
<ul> <li>Antibiotic use by releasing information to the NHSN Antimicrobial Use Option?</li> </ul>		
<ul> <li>Prospective audit and feedback interventions by type of intervention and acceptance of recommendations?</li> </ul>		
<ul> <li>Preauthorization interventions to determine which agents are being requested for which conditions?</li> </ul>		
<ul> <li>Antibiotic resistance by releasing information to the NHSN Antibiotic Resistance Option?</li> </ul>		

	Yes	NO
Tracking Antibiotic Use and Outcomes (continued)		
Does your antibiotic stewardship program monitor for:		
Compliance with hospital-specific treatment recommendations?		
Compliance with its documentation policy (dose, duration, and indication)?		
<ul> <li>Performance of antibiotic timeouts to determine how often they are being used and if opportunities to improve antibiotic use are being taken advantage of during timeouts?</li> </ul>		
<ul> <li>How often patients are discharged on the correct antibiotics for the recommended duration?</li> </ul>		
Does your antibiotic stewardship program conduct medication use evaluations to determine courses of therapy for specific antibiotics and/or infections to pinpoint ways to enhance use?		
Is CDI tracked in context of antibiotic use?		
Is an antibiogram (cumulative antibiotic susceptibility report) created at your hospital?		
Reporting Antibiotic Use and Outcomes		
Does your antibiotic stewardship program share hospital and/or individual prescriber-specific reports on antibiotic use?		
Does your antibiotic stewardship program provide information about compliance with treatment recommendations to the healthcare providers who prescribe antibiotics?		
Have the healthcare providers who prescribe in your hospital received a current antibiogram?		

## **Endnotes**

This document does not constitute legal or medical advice and should not be construed as rules or establishing a standard of care. Because the facts applicable to your situation may vary, or the laws applicable in your jurisdiction may differ, please contact your attorney or other professional advisors if you have any questions related to your legal or medical obligations or rights, state or federal laws, contract interpretation, or other legal questions.

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<sup>&</sup>lt;sup>1</sup> Centers for Disease Control and Prevention. (2021, December 17). Antibiotic/antimicrobial resistance (AR/AMR). Retrieved from www.cdc.gov/drugresistance/

<sup>&</sup>lt;sup>2</sup> Centers for Disease Control and Prevention. (2019). *The core elements of hospital antibiotic stewardship programs:* 2019. Retrieved from www.cdc.gov/antibiotic-use/core-elements/hospital.html

<sup>&</sup>lt;sup>3</sup> Ibid.