

Policy: ANTIMICROBIAL STEWARDSHIP

Type:	Patient Care Manual
Applicable to:	CHOP Inpatient Units: Main Hospital (Philadelphia) & King of Prussia
Process owner:	Manager, Antimicrobial Stewardship Program
Effective Date:	August 13, 2020
Supersedes:	October 22, 2019
Approved by:	Therapeutic Standards Committee
Accountable for:	SVP & Chief Medical Officer

1 Policy Statement

Children's Hospital of Philadelphia is committed to optimizing antimicrobial use to improve patient outcomes, reduce the emergence of antimicrobial resistance, and decrease adverse drug events through its support of the Antimicrobial Stewardship Program (ASP).

Organizational Structure

The ASP is co-led by a physician and pharmacist. The ASP will report to and work closely with the Center for Healthcare Quality and Analytics (CHQA) and the Therapeutic Standards Committee (TSC). The ASP reports through the VP and Chief Safety and Quality Officer. The ASP team will also work closely with Infection Prevention and Control, the Division of Infectious Diseases, and the Department of Pharmacy Services.

Program Activities

1. Formulary restriction/prior approval
 - a. The Formulary Subcommittee, which reports to the TSC, will continue to review new antimicrobials and determine the need for them to be included on the hospital formulary. The ASP will work with the Formulary Subcommittee in helping inform and guide these decisions.
 - b. Prior approval refers to the process requiring prescribers to obtain approval for an antimicrobial prior to that drug being dispensed, unless a preapproved indication exists. For antimicrobials requiring prior approval, the prescriber is required to call or page on a CHOP approved communication device and discuss antibiotic choice and duration with an ASP clinical pharmacist or infectious diseases fellow. If approval is given, an Antimicrobial Stewardship Note is entered into Epic. See Procedure: [Targeted Antimicrobials: Ordering](#).
 - c. Please see the [Preapproved Indications for Targeted Antimicrobials](#) for a current list of antimicrobials requiring approval and preapproved indications. This list of antimicrobials requiring prior approval will be reviewed at least annually. Other antimicrobials might be added to this list in cases of severe drug shortages or as new broad-spectrum agents are brought to market.
2. Escalation and de-escalation
 - a. Positive cultures from sterile sites will be reviewed by the ASP pharmacist. Reviews will focus on appropriate antibiotic selection and duration of therapy. Prescribers will be contacted about any potential stewardship related actions (*e.g.*, broaden therapy, narrow therapy, stop antibiotic, consult Infectious Diseases, etc.).
3. Intravenous (IV) to oral (PO) conversion

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- a. Patients receiving select IV antibiotics will be reviewed by the ASP pharmacist to identify opportunities for IV to oral conversion.
4. Empiric antimicrobial treatment and prophylaxis guidelines
 - a. Empiric antimicrobial treatment guidelines will be available to help guide antimicrobial selection for infections commonly encountered by clinicians in the inpatient setting. Refer to the [Clinical Pathways Programs](#)
 - b. Perioperative antibiotic prophylaxis recommendations will be provided for the majority of surgical cases performed. It will be reviewed at least annually in collaboration with the Preventing Surgical Site Infections Committee. Refer to Policy: [Peri-operative Antibiotic Prophylaxis](#).
5. Clinical pathways
 - a. The ASP will assist in the development of clinical pathways to aid in standardizing care for common infectious diseases. The ASP will focus on antimicrobial treatment recommendations assuring that the correct drug, dose and duration are specified within these pathways.

Data Reporting

1. The ASP will report data on program activities at the following meetings and frequency:
 - a. Antibiotic Drug Use Evaluation (DUE) Subcommittee - quarterly
 - b. TSC – quarterly
 - c. Quality Assurance and Performance Improvement meeting (QAPI) Subcommittee of the Hospital Quality Improvement Committee – data reported quarterly and presented annually
2. Hospital-acquired multi-drug resistant organisms [methicillin-resistant *Staphylococcus aureus* (MRSA), Vancomycin-resistant enterococci (VRE), and Carbapenem-resistant Enterobacteriaceae (CRE)] will be available on the Infection Prevention and Control Dashboard under [ASP SPS metrics](#). [These metrics will be reporting out quarterly at the Antibiotic DUE Subcommittee meeting.](#)

Education

1. All clinical employees are required to review an ASP module that addresses the importance of antimicrobial stewardship and the mechanisms of improving antimicrobial prescribing through the Learning Management System. Providers must also complete a competency-based assessment after reviewing the content. This will occur once, upon hire or granting of initial privileges and then every three years.
2. Interns and residents will receive an annual in-person lecture that addresses the reasons for and mechanisms of antimicrobial stewardship.
3. Patient-Family education on the appropriate use of antimicrobials is provided in the Welcome Packet upon admission.

2 Scope

This policy applies to all inpatients who receive antimicrobials at Children's Hospital of Philadelphia (CHOP).

3 Definitions

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Term	Definition
Antimicrobial Stewardship Program (ASP)	A quality improvement and patient safety program comprised of physician medical directors and clinical pharmacists dedicated to optimizing the use of antibiotics through clinical pathway and guideline development, guidance on antibiotic choice, duration, dose, and route, and monitoring antibiotic use.

4 Outcome Monitoring

- The ASP will monitor program process and outcome measures. Potential examples may include:
 - Days of antimicrobial therapy per 1,000 patient days.
 - Compliance with the use of peri-operative antibiotic prophylaxis in high-risk surgeries. Audits are reported to the respective surgical divisions, front line ordering clinicians, and the Preventing Surgical Site Infection Committee monthly.
 - Percentage of coverage by ASP empiric antibiotic recommendations of hospital acquired central line associated bloodstream infections and community-acquired and hospital-acquired bloodstream infections. Audits are reported quarterly to the Antibiotic Drug Use Evaluation Subcommittee.
 - Hospital-acquired *C. difficile* infections
 - Hospital-acquired multi-drug resistant organisms MRSA, VRE, and CRE isolated per month.
 - Data are tracked using statistical process control charts
- The ASP will work in conjunction with the Infectious Disease Diagnostics Laboratory (IDDL), Division of Infectious Diseases, and CHQA to develop and maintain an annual antibiogram.

5 Related Documents

Document Type	Document Name
Policies, Procedures, & Job Aids Patient Family Education	Please refer to "Content Linkage".
Regulatory References	Standard MM.09.01.01
Resource(s)	CHOP Electronic Antibiogram Antimicrobial Stewardship Program