

Antibiotic Stewardship Policy

Example 2

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Purpose

The Antibiotic Stewardship Program (ASP) is designed to improve the use of antibiotics at (insert facility name here) and ensure that patients receive optimal and cost-effective therapy. (Insert facility name or approved abbreviation here) Antibiotic Stewardship Program is a hospital-wide program that is managed by a multidisciplinary team that includes an infectious diseases physician and a pharmacist. The ASP team works in collaboration with the hospital Infection Control Committee and microbiology laboratory and reports to Pharmacy and Therapeutics Committee.

Statement of Leadership Support: The Leadership of (insert hospital name here) recognizes the ASP and its members for their commitment to patient safety and the optimization of patient care; and provides them with the utmost of support in order to ensure the success of the program.

Specific Goals

- To improve outcomes for patients with infectious diseases
- To prevent/ reduce antimicrobial resistance
- To reduce the risk of adverse effects associated with antimicrobials (e.g. *Clostridium difficile* diarrhea)
- To deliver cost-effective therapy

Procedures/ Components of ASP

1. **Prospective audit with intervention and feedback** component ensures appropriate use of antimicrobials.
 - a) ID Pharmacist receives report generated via VigiLanz software daily.
 - b) ID Pharmacist reviews patient charts daily, Monday through Friday to evaluate appropriateness of antimicrobial therapy, dosing, opportunities for streamlining, identifies areas requiring intervention and communicates recommendations to the team pharmacists and / or prescribers.

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- c) The indication for each antimicrobial needs to be identified in the progress notes. If possible, providers should also identify expected duration of therapy. If an indication is absent, then ID Pharmacist is to take steps to rectify the deficiency by contacting the provider.
 - d) If the provider does not respond to the recommendation or review and / or patient does not show signs of improvement within 48-72 hours the case will be discussed with the ID physician-member of ASP team. The ID physician will then contact the prescriber with recommendations.
 - e) ID pharmacist is available for consultation. Day time phone: ext. 4421, after hours phone: 646-610-0768.
- 2. Formulary review** to be performed by ID pharmacist:
- a) Review pharmacy antibiotic formulary at least annually
 - b) Identify the costs associated with each antimicrobial
 - c) Identify all antimicrobials available on the formulary and assess for duplicative agents
 - d) Implement a process for removing duplicative antimicrobials from the formulary with P&T approval
 - g) Ensure that antimicrobials from the formulary are aligned with hospital antibiogram
- 3. Antibiotic order sets review** to be performed by ID pharmacist
- a) Review antibiotic order sets at least annually
 - b) Update order sets according to the current evidence, practice guidelines and hospital antibiogram
- 4. Review of antibiotics at discharge** is performed by ID pharmacist to improve patient outcomes and reduce re-admissions by ensuring that patients continue to receive appropriate therapy at discharge.
- a) Discharge coordinator or a floor pharmacist will notify ID pharmacist if patient is discharged from the hospital on antibiotics
 - b) ID pharmacists reviews all discharge antibiotic orders
 - c) ID pharmacist evaluates the appropriateness of discharge regimen, duration of therapy, dose, and contacts prescribing physician with recommendations as necessary.
- 5. Retrospective review** of patients charts to be performed quaternary to assess antibiotic use, effectiveness of ASP and compare results to previous time points to identify the areas for targeted

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interventions. The results of retrospective review are presented during Pharmacy & Therapeutics Committee meeting every 6 months or more frequently if needed.

The following components will be evaluated.

- Utilization of all antimicrobials within the facility (dispensing data, defined daily doses)
- Cost of all antimicrobials within the facility
- Utilization of specific antimicrobials within the facility (appropriateness of therapy, length of therapy, dispensing data, defined daily doses)
- Cost of specific antibiotics
- Mean duration of antimicrobials over time (e.g. patients that received antimicrobials for >3 days)
- Utilization of specific antimicrobials within the facility by unit/specialty
- Cost of all antimicrobials by unit/specialty
- Antimicrobial resistance trends within the facility
- Adherence to strategies recommended by ASP team
- Cost of dedicated time of ASP Team members
- Number of bug-drug mismatches over time
- Patient outcomes (readmission rates for specific infections, length of stay)

Example criteria for targeted intervention:

- a) High-use agents (e.g., fluoroquinolones)
- b) Double coverage of organisms (e.g., anti-pseudomonal)
- c) High-cost agents (e.g., linezolid, daptomycin, echinocandins)
- d) Broad-spectrum agents (e.g., carbapenems, piperacillin/tazobactam)
- e) High risk of adverse effects (e.g., aminoglycosides)
- f) Specific disease state (e.g., asymptomatic bacteriuria)
- g) 3 or more antimicrobials for >3 days
- h) Susceptibility mismatch
- i) Adverse events

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6. Education of practitioners regarding appropriate use of antibiotics will be done by the members of the ASP team and will include but not limited to:

- a) Real time patient case discussions with the prescribers
- b) Newsletters
- c) Didactic lectures

Pharmacists and prescribers are highly encouraged to provide ongoing feedback to the antibiotic stewardship team. Open communication will help us provide better service to the patients as well as make adjustments in the program to make it more useful for the providers.

REFERENCES

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