Role of the Infection Prevention Program in Antimicrobial Stewardship

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1

Objectives

- Identify the role of the infection preventionist in antibiotic stewardship activities for long term care and small hospital settings.
- Discuss the tool that is used to implement an effective antimicrobial stewardship program

Core Elements of Antibiotic Stewardship

- · What we know:
 - The proper use of antibiotics reduces morbidity and saves lives
 - Like all medications, antibiotics can have serious adverse effects
 - Misuse of antibiotics can lead to antibiotic resistance
- The Centers for Disease Control and Prevention (CDC) released the Core Elements of Antibiotic Stewardship Programs to help develop successful stewardship programs in the following types of facilities:
 - -Hospital
- -Nursing Home
- -Outpatient
- -Small and Critical Access Hospitals
- -Resource-Limited Settings
- Infection Preventionist role will vary depending on the type of facility and the type of patients or residents served in the facility.

https://www.cdc.gov/antibiotic-use/core-elements/index.html

3

Core Elements

- The Core Elements are similar for each setting
 - -Leadership
 - -Accountability
 - -Drug expertise
 - -Action
 - -Tracking
 - -Reporting
- The methods to achieve each of the elements will vary from one setting to another
- Infection Preventionist role will vary from one setting to another

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Leadership Commitment

- How does Leadership in your facility support safe and appropriate antibiotic use?
- Are there adequate resources dedicated to safe antibiotic use?
 - o Financial resources
 - Information technology
 - Human resources

5

Accountability

- Is there a leader appointed to manage the program?
- Is there a physician and pharmacist responsible for overseeing antibiotic stewardship activities and outcomes?
- Is there proper representation from the nursing areas?

Pharmacy/Drug Expertise

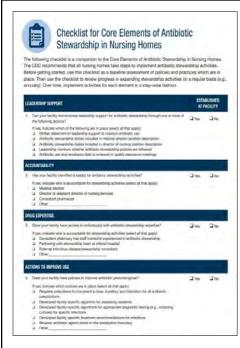
The pharmacist may help lead implementation efforts to improve antibiotic use

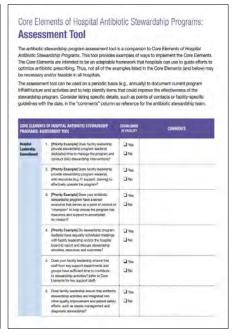
- In the nursing home setting, establish access to consultant pharmacists or other individuals with experience or training in antibiotic stewardship for your facility
- In CAH the pharmacist:
 - o Provides expertise in dosing and tapering antibiotics
 - Assists in writing algorithms for urine cultures, pneumonia order sets and soft tissue infections
 - o Is encouraged to become certified in Antimicrobial Stewardship

7

Action

- Use the CDC Antibiotic Stewardship Program Assessment Tool
 - Provides facilities with examples of ways to implement the Core
 - Try to implement at least one policy or practice to improve antibiotic
 - Implement interventions, such as prospective audit and feedback or preauthorization, to improve antibiotic use.
- The assessment tool can be completed regularly to identify areas that could improve the effectiveness of your program.





9

Tracking

- The program should monitor for antibiotic prescribing, checking for the right antibiotic, right dose, right length of time, etc.
- Monitor the impact of interventions using data such as new cases of resistant organisms and *C.difficile* infections.
- Monitor the new antibiotic starts and review how and why the antibiotic is prescribed to help determine if policies are being followed.
- Track the number of antibiotics used in the facility, and days of therapy to check for patterns of use as well as improvement in stewardship processes.
- If at all possible review antibiogram annually to identify trends of resistance and new emerging multi drug resistances.

Reporting

- Provide regular feedback on antibiotic use and resistance to:
 - o prescribing clinicians
 - o pharmacy staff
 - o nursing staff and other relevant staff
 - o facility leadership
- Utilize data to determine staff education needs
- Utilize reports to show improvement in stewardship

11

Education

- Education should include information regarding what stewardship is and why it is important.
- Education should include prescribers, pharmacists, nurses and others who pass medication.
- Education for patients and residents should include adverse reactions from antibiotics, antibiotic resistance, and optimal prescribing.
- Be prepared to provide resources to clinicians, nursing staff, patients, residents and families about antibiotic resistance and opportunities for improving antibiotic use

Summary

- Optimizing the use of antibiotics is critical to effectively treat infections, protect patients from harms caused by unnecessary antibiotic use, and combat antibiotic resistance.
- Antibiotic Stewardship Programs can help improve patient outcomes and minimize harms by improving antibiotic prescribing
- Infection Preventionists do surveillance and assist in gathering meaningful data that aids in aligning stewardship practices to patient outcomes

13

CDC Antibiotic Stewardship Resources

Overall Stewardship site

• https://www.cdc.gov/antibiotic-use/core-elements/index.html

Nursing Facilities

https://www.cdc.gov/antibiotic-use/core-elements/nursing-homes.html

Small and Critical Access Hospitals

 https://www.cdc.gov/antibiotic-use/healthcare/pdfs/core-elements-smallcritical.pdf

Hospitals

 https://www.cdc.gov/antibiotic-use/healthcare/pdfs/hospital-coreelements-H.pdf