Antimicrobial Stewardship (AS)

Antimicrobial stewardship is defined as the optimal selection, dosage, and duration of antimicrobials that results in:

- The best clinical outcome for treatment & prevention of infections
- Minimum toxicity to the patient
- Minimum impact on subsequent bacterial resistance

In order to conserve the antibiotics that are available, we need to prevent antimicrobial overuse and misuse:

- Studies have found that 50% of antibiotic orders in the hospital setting are unnecessary

We need to minimize the development of bacterial resistance:

- Both in the community and hospital setting, antibiotic use can change bacterial susceptibility patterns
- Patients exposed to antibiotics are at higher risk of becoming colonized or infected with resistant organisms
- Antibiotics will wipe out your natural flora, allowing more resistant bacteria to colonize

Nurses work at multiple levels within the clinical setting:

- They play a key role in patient safety
- They have the most consistent presence as a patient care giver
- They routinely review medication charts & administer medications
- Nurses are in a key position to collaborate with AS team and contribute to the multidisciplinary management of antimicrobials

For more information about this example contact Olga DeTorres, PharmD at OlgaDeTorres@verity.org

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Nurses can play a vital role by:

- Monitoring duration and indication for antimicrobial treatment
- Instigating prompt de-escalation from intravenous to oral therapy
- Monitoring for drug allergies and side effects
- Monitoring therapeutic levels
- Ensuring timely administration of antimicrobials
- Following up on missed doses

- As one of the less transient professional populations within the hospital, nurses are in an ideal position to contribute the patient’s past antimicrobial therapy, tolerability, and duration of therapy when discussing patient’s antimicrobial management with the medical team.

- In collaboration with physicians and pharmacists, nurses’ knowledge can assist in making informed decisions in relation to antimicrobial therapy, and enhance the multidisciplinary approach to antimicrobial management.

**Benefits of Nurse Involvement in AS:**

- By increasing awareness of antimicrobial use and the impact of antibiotic therapy on clinical outcomes, you can optimize antimicrobial treatment, monitoring, and administration.
- You can improve patient safety and quality of care.
- As treatment options for infections decrease, and the development of new antimicrobials is very slow, it is important that we each do our part to reduce antimicrobial resistance.

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