Name of Policy: Antimicrobial Stewardship	UTOLEDO HEALTH
Name of Policy: Antimicrobial Stewardship **Policy Number**: 3364-100-70-16 **Approving Officer**: Chief Executive Officer Chief of Staff **Responsible Agent**: Administrative Director of Pharmacy Services **Scope**: University of Toledo Medical Center and its Medical Staff	**Effective date:** **Original effective date**: 1/1/2017

Key words: Stewardship, Antimicrobial, Antibiotic, Medication, Anti-infective

☐	New policy proposal	☒	Minor/technical revision of existing policy
☐	Major revision of existing policy	☐	Reaffirmation of existing policy

(A) Policy Statement

The University of Toledo Medical Center will implement, develop, and support an antimicrobial stewardship program (ASP) based on current scientific literature.

(B) Purpose of Policy

Antimicrobial resistance is a public health threat and leads to at least two million illnesses and 23,000 deaths annually in the United States[1]. In September 2014, the President's Council of Advisors on Science and Technology (PCAST) prepared a report providing recommendations on combating antimicrobial resistance. One of these key recommendations focuses on improving stewardship of existing antibiotics and by 2017 the Centers for Medicare and Medicaid Services (CMS) require hospitals and long-term care facilities "to develop and implement robust antibiotic stewardship programs that adhere to best practices"[2].

The ASP at the University of Toledo Medical Center will follow best practices to combat antimicrobial resistance and improve appropriate ~~antibiotic~~ antimicrobial use according to the following mission, goals, and objectives.

(C) Scope

1. Mission
   a. Improve the quality of patient care through appropriate use of anti-infective agents

2. Overall Goals
   a. Improve patient outcomes
   b. Improve patient safety
   c. Minimize resistance/collateral damage
   d. Minimize cost

3. Specific Objectives
   a. Acheivement of the goals of the ASP will be monitored and evaluated via specific objectives as outlined in the Antimicrobial Stewardship PMAAR (Plan, Measure, Analyze, Act, Review)

    b. The results of the Antimicrobial Stewardship PMAAR will be reported quarterly to the Antimicrobial Subcommittee then disseminated institutionally via the Pharmacy and Therapeutics Committe

4. Antimicrobial Subcommittee
    a. Core Members
        i. Executive Owner
            1. Chief Medical Officer
        ii. Chair
            1. Antimicrobial Stewardship Program -Director
        iii. Secretary
            1. Antimicrobial Stewardship Pharmacist
        iv. Regular Members
            1. Infectious Diseases Physicians
            2. Pharmacy
            3. Microbiology
            4. Infection Prevention and Control
            5. Quality
            6. Information Technology
            7. Critical Care Physician
            8. Hospitalist Physician
            9. Surgical Physician

    b. Responsibilities
        i. Develop and implement initiatives to ensure rational and appropriate use of antimicrobial agents and promote data-driven, evidence-based strategies to optimize antimicrobial use
        ii. Oversee the implementation and utilization of computer-based surveillance tools to track antimicrobial stewardship interventions
        iii. Review antimicrobial susceptibility rates via annual reports from the clinical microbiology laboratory
        iv. Review antimicrobial formulary for changes regarding antimicrobial agents as necessary
        v. Establish mechanisms to effectively assess and measure antimicrobial therapy
        vi. Improve awareness and knowledge of antimicrobial stewardship through facility-wide educational efforts
        vii. Provide quarterly report of activities and recommendations to the Pharmacy and Therapeutics Committee

5. Key Strategies
    a. Prospective monitoring with intervention and feedback
        i. Antimicrobial stewardship pharmacist reports (e.g., positive culture results)
        ii. Reviewed daily with direct interaction and feedback to the prescriber and documentation in pharmacy intervention system
    b. Formulary restriction/preauthorization or criteria-monitored antimicrobials
    c. Pathways for empiric use and antimicrobial order forms
        i. Evidence-based, customized for local microbiology and resistance patterns
    d. Education

  e. Streamlining or de-escalation of therapy
        i. Automatic stop dates
        i.ii. Selection of appropriate agents with positive rapid diagnostic blood culture results
        ii.iii. De-escalation upon culture finalization or diagnostic results (e.g., MRSA nares)
        iii.iv. Reduction in duplicate therapies (e.g., double β-lactam or double anaerobe)
        iv.v. Discontinuation of unnecessary or inappropriate antimicrobial therapy
  f. Dose optimization
        i. Automatic renal adjustments and pharmacy dosing services
        ii. PK/PD dosing adjustment recommendations
        iii. Pharmacist credentialing/privileging for monitoring/ordering of pertinent labs
  g. Parenteral to oral conversion
        i. Automatic IV to PO policy

6. Conclusion
The antimicrobial stewardship program at the University of Toledo Medical Center aims to optimize antimicrobial therapy and minimize unintended consequences due to antimicrobials. Core members of the antimicrobial stewardship team include individuals from the department of infectious diseases, pharmacy, microbiology, infection prevention and control, quality, and information technology. In order to achieve desired outcomes, collaboration and support from hospital administration, medical staff leadership, and local providers is also necessary. Routine evaluation of progress toward overall goals and adjustment of policies and practices will be led by the antimicrobial stewardship program director and reported to hospital administration. This will be achieved in conjunction with other core members of the antimicrobial stewardship team via regularly scheduled antimicrobial subcommittee meetings. Recommendations from this committee will be presented quarterly to the Pharmacy and Therapeutics committee.

References:
1. Centers for Disease Control and Prevention. Antibiotic Resistance Threats in the United States, 2013. http://www.cdc.gov/drugresistance/threat-report-2013/
2. President's Council of Advisors on Science and Technology. Report to the President on Combating Antibiotic Resistance. September 2014. http://1.usa.gov/1qhDgF6

Approved by:	**Policies Superseded by This Policy:**
_____ Daniel Barbee Chief Executive Officer _____ Date _____ Puneet Sindhwani, MD Chief of Staff _____ Date *Review/Revision Completed by:* *HAS, Chief of Staff, Pharmacy*	• *None* Initial effective date: 1/1/2017 Review/Revision Date: 02/20/2020 02/01/2023 Next review date: