Carolina Antimicrobial Stewardship Program Policy

I. Description

This policy outlines the duties, responsibilities, and reporting structure of the UNC Medical Center (UNCMC) Carolina Antimicrobial Stewardship Program (CASP).

II. Rationale

The purpose of the CASP is to promote the appropriate use of antimicrobials, minimize adverse effects, contribute to slowing antimicrobial resistance, and improve patient outcomes. CASP’s multidisciplinary team provides guidance and tools to support clinical decision-making, aligned with IDSA/SHEA, the CDC Core Elements for Hospital Antibiotic Stewardship, The Joint Commission Antimicrobial Stewardship Standard, and the Centers for Medicaid and Medicare Services Conditions of Participation.

III. Policy

A. Definitions

• CASP: This program is led by adult and pediatric infectious diseases (ID) physicians and ID clinical pharmacists. CASP is supported by clinical microbiologists, epidemiologists, and information technology (IT) specialists. Representatives from non-ID physicians, nursing, and Information Services Division (ISD) also collaborate and provide input. The team is responsible for appropriate use of antimicrobials in both inpatient and outpatient areas of UNCMC.

B. Service Hours & Contact Information

1. Hours of Operation:
a. Monday – Friday: 0800 – 1700
   • Weekends/Holidays: 0800 – 1700 by pager only

b. Contact:
   i. UNC Antimicrobial Stewardship pager: 2162398
   ii. ID Pediatrics Antimicrobial Stewardship pager: 1234031
   iii. CASP members may also be contacted via their UNC email.

C. Program Responsibilities

1. Provide clinical antimicrobial education, training, and resources to support patient care activities at UNCMC.

2. Develop and implement policies/procedures that support evidence-based antimicrobial use.

3. Identify, implement, and track CASP strategies each fiscal year.

4. Collect and assess antimicrobial use data to inform strategy selection. This may include, for example, participating in the CDC’s National Healthcare Surveillance Network’s Antimicrobial Use module.

5. Collaborate with Infection Prevention in diagnostic stewardship efforts or identify and control outbreaks through focused monitoring and/or restriction of antimicrobials in targeted units.

6. Regularly report information on antibiotic use and resistance to prescribers, pharmacists, nurses, and hospital leadership.

D. Staff Roles & Responsibilities

1. **CASP Medical Director:** ID physician responsible for overall direction of CASP, physician education, and strategy development, implementation, and monitoring
   a. Ensure therapeutic guidelines, antimicrobial restriction policies, and other CASP products and activities are evidence-based, providing safe and effective therapy for patients
   b. Provide recommendations on policies and decisions regarding the use of antimicrobials at UNCMC to the P&T Committee
   c. Intervene on antimicrobial decisions utilizing a hybrid strategy of prospective audits and authorization of restricted antimicrobials with support of the CASP pharmacists
   d. Provide consultation on antimicrobial treatment of complex cases as...
determined by the CASP pharmacists

e. Document clinical interventions and associated outcomes

f. Liaise between the Department of Pharmacy, Department of Medicine – Infectious Diseases Division, Microbiology, and Infection Prevention to assure activities related to antimicrobial use and infection prevention are coordinated and consistent.

2. **CASP Lead Pharmacist:** ID pharmacist responsible for co-leadership of the program in collaboration with the CASP Medical Director and facilitation of clinical pharmacist activities relating to antimicrobial stewardship

   a. Lead Pharmacist is supported by CASP Pharmacist(s): ID pharmacist(s) responsible for daily antimicrobial alert review and interventions, consulting with clinicians, and performing duties as assigned by the CASP Medical Director.

   b. Together, CASP Pharmacists:

      i. Ensure therapeutic guidelines, antimicrobial restriction policies, and other CASP products and activities are evidence-based, providing safe and effective therapy for patients.

      ii. Provide recommendations on policies and decisions regarding the use of antimicrobials at UNCMC to the P&T Committee.

      iii. Responsible for weekday review of surveillance alerts as prioritized by CASP. These alerts are based on patient level microbiology results and antimicrobial pharmacotherapy.

      iv. Intervene on antimicrobial decisions as appropriate utilizing a hybrid strategy of prospective audits of antimicrobials and authorization of restricted antimicrobials with support of the CASP medical director.

      v. Be available for consultation by UNCMC clinicians regarding judicious use of the antimicrobials.


      vii. Conduct medication use evaluations related to antimicrobials as prioritized by CASP.

3. **CASP Pediatric Director:** ID pediatrician responsible for direction of pediatric physician education, and strategy development, implementation, and monitoring

   a. Ensure therapeutic guidelines, antimicrobial restriction policies, and other CASP products and activities are evidence-based and coordinated and consistent with existing UNCMC activities, policies, and procedures
b. Provide recommendations on policies and decisions regarding the use of antimicrobials at UNCMC to the P&T Committee

c. Intervene on antimicrobial utilizing a hybrid strategy of prospective audits and authorization of restricted antimicrobials with support of the CASP pharmacists

d. Provide consultation on antimicrobial treatment of complex cases as determined by CASP pharmacists

e. Document clinical interventions and associated outcomes

4. **CASP Program Manager**

   a. Direct and manage non-clinical aspects of the program, including support to individual strategies and development of work plans, project and program monitoring, and reporting

   b. Liaise with management and stakeholders to communicate program goals and strategies, solicit input, and coordinate across UNCMC, which may include convening and directing *ad hoc* working groups

   c. Manage communication and outreach to extend CASP’s influence

5. **CASP Analyst/Project Manager**

   a. Manage CASP quality improvement projects including data management, project scope, work breakdown structure, project breakdown structure, team communication, monitor project execution, and maintain project documentation.

   b. Manage and lead CASP participation in external data sharing projects such as those with CDC NSHN and AHRQ.

   c. Utilize data analysis, data visualization, and quality improvement tools such as Tableau, SAP BusinessObjects, REDCap, and Microsoft Excel to maximize project quality, effectiveness, and efficiency.

   d. Provide project consultancy to additional CASP projects in order to drive additional efficiencies and further support CASP goals.

6. **CASP Administrative Director**

   a. Usher contracts and budgets through internal administrative processes

   b. Liaise with senior hospital leadership for resources

   c. Ensure alignment with accreditation and standards

   d. General oversight of program administration
7. **CASP Attending Physicians**
   a. Intervene on antimicrobial decisions utilizing a hybrid strategy of prospective audits and authorization of restricted antimicrobials with support of the ASP pharmacists
   b. Provide consultation on antimicrobial treatment of complex cases as determined by CASP pharmacists
   c. Document clinical interventions and associated outcomes
   d. Assist with weekday reviews led by CASP pharmacists(s). Review positive blood culture and restricted antibiotics and cover the ASP pager during weekends.
   e. Contact teams when there is need for attending to attending or physician to physician communication and join rounding with the CASP team
   f. Participate in CASP meetings, plan, and facilitate educational activities
   g. Serve as lead/co-lead for selected stewardship quality improvement projects, strategies, and outreach

**E. Functions of CASP Advisory Staff**

1. **Director, Clinical Microbiology (or designee)**
   a. Collaborate with the CASP on projects designed to optimize antimicrobial use at UNCMC.
   b. Prepare and distribute antibiograms, specific to community, inpatient, and intensive care populations on a periodic basis.

2. **Director, Infection Prevention (or designee)**
   a. Provide expertise in surveillance and study design to evaluate the effects of antimicrobial stewardship initiatives.
   b. Gather data on healthcare-associated infections to aid the stewardship team's initiative planning and evaluation of outcomes and strategies.

3. **Assistant Director of Pharmacy, Pharmacy Administration, Department of Pharmacy**
   • Provide guidance and expertise to CASP via its steering committee

4. **Pharmacy Data Analytics and Outcomes, Department of Pharmacy**
   • Assist in the abstraction, organization, and analysis of data related to antimicrobial use and resistance at UNCMC.

5. **Nursing Leader, Division of Nursing**
• collaborate with CASP on projects designed to optimize antimicrobial use at UNCMC

6. Hospital Leadership

• Establish antimicrobial stewardship as an organizational priority
  
  i. Ensure program leadership has appropriate resources (including staffing, budgetary, and IT support)
  
  ii. Provide regularly scheduled opportunities to report stewardship activities, resources, and outcomes to senior executives and hospital board
  
  iii. Meet regularly with CASP leaders to assess resources needed to accomplish goals

F. Reporting Structure

1. The UNCMC CASP reports to the Regional Director of Pharmacy Services (pharmacist personnel) and the CASP Administrative Director/Director of Infection Prevention (all other personnel), who reports to the Associate Vice President, Office of Quality Excellence.

2. CASP provides routine reports, recommendations, and guidance to UNCMC Hospital Infection Control Committee (HICC) and the UNCMC P&T Committee. Both of these committees report to the Medical Staff Executive Committee. Periodic reports may be provided to other hospital safety and quality committees on an ad hoc basis.

IV. Responsible for Content

Director, Infection Prevention, UNCMC Hospital Infection Control Committee, UNCMC Anti-Infective Pharmacy & Therapeutics Subcommittee, NCMC Pharmacy & Therapeutics Committee

Approval Signatures

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<td>Policy Stat Administrator</td>
<td>Kimberly Novak-Jones: Nurse Educator</td>
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<td>Thomas Ivester: CMO/VP Medical Affairs</td>
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