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Owner:	*Sherie Goldbach: Infection Prevention Registrar*
Policy Area:	*Infection Prevention*
Policy Tag Groups:	
Applicability:	*UNC Medical Center*

Infection Control Plan FY 2019

I. Description

Outlines the annual infection prevention priorities of Hospital Epidemiology and UNC Health Care

II. Rationale

An organized, systematic plan based upon the annual infection control risk assessment that provides the foundation for an effective infection prevention program.

III. Policy

A. Goals

1. Overall
    a. Reduce risk of healthcare-associated infections for all patients, employee, and visitors.
2. Targeted
    a. **Healthcare-associated infection reduction** – 10% reduction overall across the infection types listed below. (Note: these infection counts are based on CMS required reporting regulations, not necessarily all hospital-wide infections)

Infection Types - All CMS Reportable	Count - CY17	Reduce %	Reduce # for FY19
MRSA bacteremia, *C. difficile*; CLABSI; SSI Hyst; SSI-Colon surgery; CAUTI	308	10%	31

    b. **Clean In, Clean Out hand hygiene compliance program**
        i. **Incorporate Patients and Families** in at least three areas - from pilot phase through full implementation.
        ii. **Consistently sustain ≥90% compliance across all inpatient units, outpatient areas, procedural areas, operating locations and job classes.**
            - At least 90 percent of inpatient units and departments must sustain 90 percent compliance or higher
            - At least 90 percent of participating outpatient/procedureal areas must sustain 90 percent compliance or higher
            - At least 85 percent of job classes must sustain 90 percent compliance or higher
            - At least 75 percent of OR locations must sustain 90 percent compliance or higher
        iii. **Continue improving our culture of feedback.**
            - Achieve overall feedback >75 percent in inpatient and outpatient areas
        iv. **Promote engagement**
            - Increase monthly number of participants by 10%

- Physician participation goal to be determine by Service Leaders

B. Risk Assessment

(see Attachment 1: Annual Unit Based Infection Risk Assessment)

1. Patient Populations at Increased Risk of Infection
    a. All intensive care unit patients
    b. Solid organ transplant patients
    c. Burn patients
    d. Hematopoietic Stem Cell Transplant (HSCT) patients
    e. Immunosuppressed patients (e.g., absolute neutrophil count [ANC] <1000, agranulocytosis)
2. Procedures/Devices that Increase Infection Risk
    a. Central venous catheters
    b. Indwelling urinary catheters
    c. Tubes, drains, other devices inserted percutaneously
    d. Intubation and prolonged ventilator support
    e. Surgical procedures
    f. ECMO
3. Epidemiologically Important Pathogens
    a. Legionella
    b. Aspergillus/Rhizopus/Mucor
    c. MRSA
    d. VRE
    e. *C. difficile*
    f. MDR Gram negative bacteria
    g. Carbapenem-resistant *Enterobacteriacae*
    h. *Candida auris*
4. Highly Communicable Diseases
    a. Novel Influenza virus
    b. SARS
    c. MERS-coV
    d. Viral hemorrhagic fevers (e.g., Lassa fever, Ebola viral disease)

C. Strategies to Reduce Infection Risk

1. Identify and control outbreaks
    a. Review of microbiology, immunology, molecular microbiology reports
    b. Prospective and syndromic surveillance
    c. Pulsed field gel electrophoresis of outbreak pathogens

d. Epidemiologic assessment as indicated (e.g., timeline, epidemic curve, case-control study)

e. Institution of prevention and control measures as indicated (e.g., isolation, cohorting of patients and staff, improved hand hygiene, active surveillance cultures, assessment of environmental cleaning)

f. Exposure follow-up (in conjunction with OHS)

2. Perform surveillance for healthcare-associated infections

   a. Follow CDC National Healthcare Safety Network (NHSN) definitions

   b. Prospective and targeted Retrospective

   c. Comprehensive: inpatient-related and outpatient-detected

   d. Calculation/distribution of monthly infection rates and line listing of infected patients for each inpatient unit/service line

   e. Monthly and as needed analysis of potential for cross-transmission

   f. Targeted surveillance for home health/hospice infections

   g. Monitor incidence of healthcare-associated device-related or procedure-related infections

      i. Central Line-Associated Bloodstream Infections

      ii. Ventilator-Associated Events (VAE)

      iii. Surgical Site Infections (SSI)

      iv. Catheter-Associated Urinary Tract Infections (CAUTI)

3. Conduct routine monitoring

   a. Biological indicators for sterilizers

   b. Endoscopes

   c. Pharmaceuticals

   d. Dental water lines

4. Improve Hand Hygiene Compliance

   a. Routinely monitor compliance and provide feedback to staff

   b. Routinely evaluate the availability and acceptability of hand hygiene products

   c. Provide just-in-time peer coaching

   d. Provide frequent and tailored education on when and how to perform hand hygiene along with frequent visible reminders

   e. Enlist organizational leaders to serve as role models

   f. Ensure commitment of leadership to achieve and sustain compliance of ≥90%. Managers must hold everyone accountable for proper hand hygiene.

5. Support Infection Control Liaison Program

   a. Unit-based staff, outpatient care services clinical staff, and ancillary care staff (i.e., ES, FNS, Transport) with focused infection control training provided by Hospital Epidemiology

   b. Responsible for assessing their unit's compliance with infection control policies/procedures and conducting performance improvement activities related to infection prevention (e.g., reducing device-associated infections, monitoring and improving hand hygiene compliance)

   c. Serves as the contact person to disseminate infection control information, updates, and answer staff questions

6. Ensure compliance with JC National Patient Safety Goals

a. Comply with WHO or CDC hand hygiene guidelines
b. Prevent HAIs due to multi-drug resistant organisms (MDROs)
    i. Annual risk assessment for MDROs
    ii. Implement and assess prevention strategies outlined in this plan and under NPSG 07.03.01
c. Assess compliance with evidence-based practices for prevention of central line-associated bloodstream infections
    i. Compliance with Central Line Insertions, Access, and Maintenance Bundle
    ii. Standardized insertion training for providers
    iii. Chlorhexidine bathing in intensive care units, step down units, and oncology units
    iv. Daily assessment for central line need
    v. Appropriate maintenance of central venous access devices
    vi. Provide Central Line-Associated Bloodstream Infection rate data and prevention outcome measures to key stakeholders, including leaders, licensed independent practitioners, nursing staff, and other clinicians.
d. Assess compliance with evidence-based practices for prevention of surgical site infections
    i. Ensure patient education provided in Pre-op visit. Use LMS for staff education.
    ii. Ensure Peri-Operative Services and Anesthesia infection control policies support prevention strategies.
    iii. Trend surgical procedure specific infection rates and unit rates and provide feedback to key stakeholders
e. Implement evidence-based strategies for prevention of catheter-associated urinary tract infections
    i. Staff education regarding aseptic insertion of catheter
    ii. Insertion order must include indication for catheter
    iii. Daily assessment for urinary catheter need
    iv. Appropriate maintenance of indwelling urinary catheters

7. Manage HAIs as Sentinel Events When Indicated
    a. Review all HAIs for indications of an unanticipated death or permanent loss of function
    b. Notify Risk Management of suspected sentinel event
    c. Participate in root cause analysis and follow up as needed
8. Construction Rounds and Construction Risk Assessment Meetings
    a. Walk-about rounds with Plant Engineering every 2 weeks and on an as needed basis
    b. Attend bi-weekly and as needed construction meetings held by Plant Engineering and Contract Services
    c. Review blueprints and risk assessments for all new construction and renovations in clinical areas
9. Infection Control Rounds
    a. Evaluate compliance with infection control policies/practices
    b. Written recommendations to manager with their follow-up documented
10. Policy Review and Revision
11. Committee Participation: Refer to Infection Control Program Policy for committee information
12. Periodic Comprehensive TB Risk Assessment
13. Consultation, Education/Training

a. In-services, presentations, educational material to staff, visitors/families, attending physicians, residents, contract employees, students, and volunteers
b. Computer-based training modules
c. Educational videos
d. Newsletter articles
e. Educational materials (e.g., booklets/brochures)
f. Quality Improvement support from Epidemiology Quality Improvement Staff
g. On-Call availability 24/7 for Infection Prevention consultation

14. Additional Strategies to Reduce Infections for the Immunosuppressed Patient
    a. Ideally a private positive pressure room, HEPA filtration for HSCT patients
    b. No live plants or fresh flowers
    c. Immunosuppressed diet per physician order
    d. Patient must wear tight-fitting surgical mask when outside room
15. Additional Strategies for Home Health and Hospice
    a. Trend analysis of device-related infections (urinary catheter-associated UTIs and central catheter-associated bloodstream infections)
    b. Promote immunizations to prevent respiratory infections: influenza and pneumococcal pneumonia vaccines (as recommended by ACIP)
16. Additional Strategies for Outpatient Care Services
    a. Since most patient encounters with the healthcare system now take place in outpatient settings, UNC Health Care will maintain infection control programs in Outpatient Care Services, and this will include
    b. Training and monitoring of practices on:
        i. the basic principles of disease transmission and the methods to prevent transmission
        ii. safe injection practices and proper use of single use and single patient devices/medications
        iii. principles of asepsis and hand hygiene
        iv. OSHA Bloodborne Pathogen Standard
        v. the principles of disinfection and sterilization
        vi. TB and respiratory protection per OSHA

D. Evaluation of Plan Effectiveness

1. Statistical analysis of infections
2. Trend analysis of infection rates
3. Device-associated rates to include home health and hospice
4. Monthly infection reports to nurse managers, clinical directors, infection control liaisons
5. Monthly infection reports to Infection Control Committee
6. Infection Control rounds report and annual compliance assessment
7. Monitor compliance with required and recommended immunizations
8. Annual assessment of communicable disease exposures with trend analysis

9. Annual risk assessment for MDROs with trend analysis
10. Periodic assessment of process measures with staff feedback
    a. Evidence based processes to prevent surgical site infections
    b. Evidence based processes to prevent catheter associated bloodstream infections
    c. Evidence based processes to prevent catheter associated urinary tract infections
    d. Evidence based processes to prevent *Clostridium difficile* infections
    e. Evidence based processes to prevent ventilator associated pneumonia
    f. Hand hygiene compliance
    g. Isolation precautions compliance

Attachments:

Attachment 1 - Annual Unit Based Infection Risk Assessment.docx

Approval Signatures

Step Description	Approver	Date
Policy Stat Administrator	Patricia Ness: Nurse Educator	08/2018
	Thomas Ivester: CMO/VP Medical Affairs	08/2018
	Emily Vavalle: Director, Epidemiology	08/2018
	Sherie Goldbach: Infection Prevention Registrar	08/2018

Applicability

UNC Medical Center