Basic Elements of a LTC Infection Control Program

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Today's Topics

- Basic Elements of an Infection Control Program
- Long Term Care: F441 “the facility must establish and maintain an infection control program designed to provide a safe, sanitary and comfortable environment and to help prevent the development and transmission of disease and infection”
- Surveillance
- TB Control Programs
- Transmission-based Precautions
- Antibiotic Resistant Organisms
- New Updated Resources
- Disaster Preparedness
- Survey techniques
New Hire Orientation
All Employees
Staff Specific
Ongoing
Regulatory Mandate
Task-specific
Facility-determined
Pre-placement evaluation
Routine screening
Work restrictions
Occupational exposure management
Personal hygiene
Antimicrobial use
Asepsis
Patient Care Plan
Continuum of care
Hand Hygiene
Immunization
Isolation Precautions
Employee Health
Prevention & Control
Blood Stream; Eyes, Ears & Throat;
Gastrointestinal & Genitourinary Tract
Skin; Respiratory Tract;
Central Nervous System
Leadership
Surveillance/Performance Measurement
Education
Support Services
Clinical Practice
Body System Review
MI MODEL: INFECTION PREVENTION & CONTROL PROGRAM
Scope: processes & outcomes
Patient: Community & Healthcare-Associated Infection
Personnel: Health & Injury Prevention
Environment of Care (EOC)
Outbreak and Sentinel Events
Dental Service
Dietary Services
Equipment: Cleaning
Disinfection/Sterilization
Environmental Cleaning & Pest Management
Emergency preparedness
Facility operations; air, water construction/renovation
Laboratory/Pathology
Linen/Laundry
Personal care services
Rehabilitation Services
Service animals; Pet therapy
Waste management
Philosophy-Authority-Responsibility
Patient & Personnel Safety Culture
Oversight: Function and Committees
Performance Improvement
Regulatory Compliance
Community Standards of Care
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Revised 2005
Basic Elements of an Infection Control Program

- Leadership
  - Philosophy
  - Authority
  - Responsibility
  - Over-site: Function and Committee
  - Performance Improvement
  - Regulatory Compliance/Community Standards of Care
Basic Elements of an Infection Control Program

- Surveillance
  - Scope
  - Patient care processes
  - Patient outcomes
  - Employee
  - Outbreak/Sentinel Event Management
  - Environment/Physical Plant
Basic Elements of an Infection Control Program

- Prevention and Control – Clinical
  - Antimicrobial usage
  - Aseptic technique
  - Patient assessment and Care Plan
  - Continuum of care
  - Hand washing
  - Immunization
  - Standard Precautions and Isolation Precautions
Basic Elements of an Infection Control Program

- Prevention and Control – Body System
  - Bloodstream
    - Site and technique of insertion
    - Type of catheter material used
    - Hand hygiene and aseptic technique
    - Skin antisepsis
    - Catheter site care
    - Catheter securement
    - Use of antimicrobial/antiseptic impregnated catheters
Basic Elements of an Infection Control Program

- Prevention and Control - Body Systems
  - GU
    - Continence and incontinence management
    - Urinary catheter management - restrict use
    - Cleaning and disinfection of vaginal speculums
Basic Elements of an Infection Control Program

- Prevention and Control - Body Systems
  - Skin
    - Skin integrity assessment
    - Pressure ulcer prevention and management
    - Management of artificial openings
    - Pediculosis (Lice) identification treatment and control
    - Scabies identification treatment and control
    - BED BUGS
    - Management of herpes infections, cellulitis, and burns
    - Hair removal
    - Body piercing and tattoos
Basic Elements of an Infection Control Program

**Respiratory**
- Inhalation therapy
- IPPB
- C-Pap
- Bi-Pap
- Oxygen administration
- Medication administration
- Suctioning
- Tracheostomy care

**Ventilators**
- Use and cleaning of respiratory equipment (humidifiers, nebulizers, breathing circuits, peak flow meters, suction equipment)
- TB Skin test
- Swallow evaluation
Basic Elements of an Infection Control Program

- Prevention and Control - Body Systems
  - GI
    - Nutrition and hydration
    - Enteral feedings
    - Bowel management
    - Management and treatment of patients with diarrhea and/or emesis
    - Management of patients with *Clostridium difficile*
    - Cleaning and disinfection of endoscopes
Basic Elements of an Infection Control Program

- Prevention and Control - Body Systems
  - Ears, Eyes, Nose, Mouth and Throat
    - Oral hygiene
    - Ocular hygiene
    - Ear hygiene
    - Speculum cleaning and disinfection
    - Hearing aide cleaning and maintenance
Basic Elements of an Infection Control Program

- Prevention and Control - Body Systems
  - CNS
    - Spinal Tap
    - Management and treatment of a patient with known or suspected bacterial meningitis
    - Management of patient with prion disease
Basic Elements of an Infection Control Program

- Prevention and Control - Body Systems
  - Reproductive
    - Conjugal visitation
    - Speculum cleaning and disinfection
    - Screening for sexually transmitted diseases
Basic Elements of an Infection Control Program

- Prevention and Control – Support Services
  - Dental Services
    - Disinfection and sterilization
Basic Elements of an Infection Control Program

- Prevention and Control – Support Services
  - Sterilization, Disinfection and Cleaning
    - Whirlpools bathing unit
    - Thermometers
    - Reusable instruments/equipment
    - Reuse and reprocessing of items labeled for single-use
    - Storage of clean and sterile items
    - Use and monitoring of sterile processing
    - Use and monitoring of
      - High-level disinfection
      - Pasteurization
Basic Elements of an Infection Control Program

- Prevention and Control – Support Services
  - Beauty and barber shop, hair, and nails
    - Cleaning and disinfection of combs
    - Brushes, razors, etc
    - Linen management
    - Nail care
Basic Elements of an Infection Control Program

- Prevention and Control – Support Services
  - Linen/Laundry
    - Clean and soiled linen management for facility and personal
      - Handling
      - Storage
      - Transport
      - Soiled linen processing
      - If vendor used; monitor
Basic Elements of an Infection Control Program

- Prevention and Control – Support Services
  - Laboratory/Pathology Services
    - Specimen collection, storage and transport
    - Reporting of abnormal results
    - Reporting of antimicrobial sensitivity
    - Antibiograms
    - Use of waived testing
    - Quality controls for testing
Basic Elements of an Infection Control Program

- Prevention and Control – Support Services
  - Pest Management
    - Evidence of an integrated pest management plan
  - Construction and renovation
    - Infection control approval
    - Barrier/site evaluation
Basic Elements of an Infection Control Program

- Prevention and Control – Support Services
  - Animals, birds, fish and plants
    - Screening for health/temperament
    - Screening residents for allergies and compatibility
    - Caring for pets while in facility, (contracted? include protocols)
    - Bite protocol, domestic and wild
Basic Elements of an Infection Control Program

- Prevention and Control – Support Services
  - Podiatry
    - Cleaning and disinfection of equipment
  - Radiology
    - Cleaning and disinfection of equipment
  - Rehab services: occupational, physical and speech
    - Cleaning and disinfection of equipment and whirlpools
    - Wound management: debridement and wound care
Basic Elements of an Infection Control Program

- Prevention and Control – Support Services
  - Waste management
    - Medical waste management plan
      - Waste separation
      - Waste handing and transport
      - Waste disposal
      - Documentation
Basic Elements of an Infection Control Program

- Prevention and Control – Support Services
  - Water supply
    - Have a Disaster Plan for emergency water supply
  - Disaster planning
    - Evacuation
    - Stockpile monitoring
    - Alternate plans for hemodialysis
Basic Elements of an Infection Control Program

- Employee Health- inclusive of full-time, part-time, contingent/contracted employees, students and volunteers
  - Bloodborne pathogens program
  - Job descriptions include:
    - Job essential job function
    - Job-specific hazard exposure assessment
    - Personal Protective Equipment requirement
  - Policies for contracted employees and students to delineate facility responsibility
Basic Elements of an Infection Control Program

- Employee Health-
  - Baseline health assessment
  - Immunization for or documentation of immunity for measles, mumps, rubella, chickenpox, tetanus, hepatitis
  - Influenza vaccination program
  - Screening for latent TB, Mantoux method of TB skin testing using PPD
    - two step method vs. quantiferon serology test
    - TST among BCG recipients
Basic Elements of an Infection Control Program

- Employee Health-
  - Annual/periodic Screening
    - Health assessment
    - Immunizations
    - TB evaluation (TST, questionnaire)
Basic Elements of an Infection Control Program

- Employee Health-
  - Work restrictions
    - Work restrictions related to communicable disease
    - Work-related exposure and return to work policies
Basic Elements of an Infection Control Program

• Employee Health-
  ◦ Post-exposure Management
    • Identification, reporting, evaluation, and management of an exposure (BBP, TB, meningitis, scabies)
    • Treatment, consents and processes
Basic Elements of an Infection Control Program

- Employee Health
  - Personal hygiene
    - Dress code
    - Personal hygiene
    - Hand hygiene
      - Artificial nails
Basic Elements of an Infection Control Program

- Education
  - Employee upon hire
    - Hand hygiene
    - Dress code, personal hygiene
    - Standard/Isolation precautions
    - Immunizations
    - Illness reporting/work restriction
    - Exposure control plans
    - Bloodborne infectious diseases
    - Tuberculosis control plan
    - Aseptic technique
Basic Elements of an Infection Control Program

- **Education**
  - **Employee** (ongoing, annual, periodic)
    - Change in regulatory standard
    - Change in policy
    - Non-compliance
  - **Patient, families, and visitors**
    - Hand hygiene
    - Infection prevention
    - Isolation procedures
    - Procedure specific
    - Antimicrobial resistance reduction
**Surveillance**

- **Methods** - Standardized, Definitions, Denominators
  - Whole-house limitations
  - Targeted, point prevalence
  - Device related
  - Combination
  - Based on high risk, high volume problem areas
Surveillance

Purpose
- Improve quality and outcome of healthcare
- Promote public health
- Benchmarking
  - NHSN- [www.cdc.gov/ncidod/hip](http://www.cdc.gov/ncidod/hip)
  - NNIS
  - NaSH
  - DSN
Surveillance

- Data Collection
  - What
    - System
    - Process
    - Outcome
  - Identify sources
    - Lab reports
    - Unit reports
    - Pharmacy
    - observational
Surveillance

- Analysis
- *Document*
- Reports
  - Infection Control Committee
  - Quality Committee
  - Administrator
  - Medical Director
  - Director of Nursing
  - Unit
  - Front line personnel
  - Physicians
Surveillance

• Intervention of risk-reduction measure
  ◦ Documented
• Evaluate effectiveness of intervention
• Measure progress toward program goals
• See Websites: Healthcare Associated Infection Prevention
  ◦ http://www.cdc.gov/HAI/stateplans/state-hai-plans/mi.html (Michigan)
  ◦ http://www.cdc.gov/hai/ (national)
  ◦ www.cdc.gov/hicpac
TB Control Program

- Oversight of the Program is assigned and reviewed at periodic (annual) intervals
  - Surveillance
  - Containment
  - Assessment
  - Education
TB Control Program

- Surveillance
  - Diagnosis
  - Case Reporting
  - TB and HIV
TB Control Program

- Containment
  - Early recognition
  - Isolation or transfer
  - Treatment of TB Disease
  - Investigation of contacts
  - Treatment of Latent TB Infection
TB Control Program

Assessment

◦ % of staff and residents with positive TST
◦ % of tested with conversion from Neg. to Pos.
◦ TB Risk assessment
◦ TB Education and management
TB Control Program

- **Education**
  - **Administrative Controls**
    - Policies for early recognition, isolation and treatment
    - Two-step TST for patients
    - Two-step TST for health care worker
    - Interferon-gamma release (blood) assay - TB blood test (single test)
  - **Engineering Controls**
    - Negative pressure rooms with 6-12 ACH
    - Tested monthly/daily when in use
TB Control Program

- Education
  - Respiratory Protection
    - N-95 or PAPR- (powered air purifying respirator)
    - When to use
    - How to apply
    - Fit check
    - Fit test and medical evaluation
  - MIOSHA (Licensing and Regulatory Affairs)

"The patient in the next bed is highly infectious. Thank God for these curtains."
Infection Control Precautions
http://www.cdc.gov/hicpac/

- Hand Hygiene
  - Written policy
  - Hand washing facilities, alcohol-based hand sanitizer available
  - When to use each
    - Hand washing
      - Anytime hands are visibly soiled
      - After toileting
Infection Control Precautions

- **Hand Hygiene**
  - Hand washing continued…
    - After contact with body fluids, mucous membranes, and non-intact skin or dressing, provided hands are not visibly soiled
  - Before and after contact with **food**, products for food preparation and before eating
  - Following any contact with **pets** during animal assisted therapy or visitation and after contact with any pet care item
  - Hand sanitizer
    - Before any direct patient contact
    - After contact with resident’s skin
    - After contact with inanimate objects in the care environment
Infection Control Precautions

• Hand Hygiene
  • Discourage use of artificial nails
  • Educate patient family and volunteers
  • Observe compliance/document/report
Infection Control Precautions

- Standard/Isolation Precautions - a two-tiered system

  Standard Precautions
  - applies to all patients with or without recognized infectious agents
  - assumes infectious agents are present in all non intact skin mucous membranes, blood, and body fluids (except sweat)
  - therefore hand hygiene and use of personal protective equipment should be used consistently if contact with those fluids are likely
Infection Control Precautions

- Standard/Isolation Precautions - a two-tiered system
  - Standard Precautions continued...
    - PPE - gloves, gowns, mask, resuscitation device and eye/face protection
      - Selection
      - Availability
    - Respiratory Hygiene/Cough Etiquette
      - Source containment of respiratory tract pathogens (i.e. SARS, influenza, avian influenza)
      - Cover your cough with a tissue or use a regular surgical mask
Infection Control Precautions

- Standard/Isolation Precautions - a two-tiered system
  - Isolation Precautions - to be used in addition to standard precautions (expanded? Precautions)
    - Are based on the mode of transmission of the specific pathogen
    - Apply to epidemiologic important agents or highly transmissible agents
Infection Control Precautions

- Standard/Isolation Precautions - a two-tiered system
  - Isolation Precautions -
    - Contact
      - Private room or cohort
      - Gown and gloves
      - Masking if patient is coughing
Infection Control Precautions

- Standard/Isolation Precautions- a two-tiered system
  - Isolation Precautions-
    - Droplet
      - Surgical mask if within 3 feet
      - Gown if splashing or spraying
    - Protective
      - Positive pressure
      - Complete PPE
Infection Control Precautions

- Standard/Isolation Precautions - a two-tiered system
  - Isolation Precautions -
    - Airborne
      - Private room
      - Negative pressure
      - 6-12 air changes per hour
      - Door closed
      - Apply N-95 before entering
Infection Control Precautions

- Standard/Isolation Precautions - a two-tiered system
  - Isolation Precautions -
    - Helpful additions
      - Alternative methods
      - Discontinuing
    - Surveillance/detection
    - Monitoring adherence
    - Rapid recognition
MDRO Multi-drug Resistant Organisms
Prevention and Control

- Multiple Guidelines
  - SHEA
  - CDC
  - MSIPC

- Minimum requirements
  - Administrative
  - Education
  - Judicious antimicrobial use
  - Surveillance
  - Prevent transmission - infection control precautions
  - Environmental measures
MDRO Multi-drug Resistant Organisms Prevention and Control

- Surveillance
  - Establish a laboratory based system to detect and communicate evidence of MDROs in clinical isolates
  - Prepare and monitor antimicrobial susceptibility reports and provide physicians with summary reports. If labs are outsourced, request local or regional aggregated susceptibility trends
  - Notify infection control of novel resistance patterns, i.e. VISA, VRSA
  - Identify specific MDROs for systematic monitoring, i.e. MRSA, VRE, CRE & C. Diff
  - Determine prevalence and define frequency of MDRO that would trigger intensive MDRO control measures
Updated Resources

  http://www.michigan.gov/emergingdiseases/0,1607,7-186--147759--,00.html

- Head Lice Manual –

- Scabies Manual –
Updated Resources


Disaster Preparedness

- Plan
  - SURVEILLANCE
  - RESPONSE
  - COMMUNICATIONS
  - SECURITY
  - EDUCATION
- Local/regional planning meetings
- Participate in community and regional disaster drills
- Long Term Care Disaster Planning Resources
  - [http://www.michigan.gov/mdch/0,1607,7-132-54783_54826_56166_56167---,00.html](http://www.michigan.gov/mdch/0,1607,7-132-54783_54826_56166_56167---,00.html)
  - [http://go.usa.gov/aOm](http://go.usa.gov/aOm)
  - Michigan Department of Community Health, Office of Public Health Preparedness [www.michigan.gov/ophp](http://www.michigan.gov/ophp)
Regional Healthcare Coalitions

Region 1
5020 Northwind Drive, Ste. 104
East Lansing MI 48823
Office: 517-324-4404
Fax: 517-324-4406
http://www.d1rmrc.org

Region 2N
1000 W. University Drive
Rochester MI 48307
Office: 248-759-4748
Fax: 248-759-4751
http://www.region2north.com

Region 2S
6754 Brandt Street
Romulus MI 48174
Office: 734-728-7674
Fax: 734-902-6000
http://www.2south.org

Region 3
1600 N. Michigan Avenue
Rm. 411
Saginaw MI 48602
Office: 989-758-3712
Fax: 989-758-3714
http://www.region3hpn.org

Region 4

Region 5
1000 Oakland Drive
Kalamazoo MI 49008
Office: 269-337-4263
Fax: 269-337-6476
http://www.5drmc.org

Region 6
1675 Leahy Street, Ste. 308B
Muskegon MI 49442
Office: 231-728-1967
Fax: 231-728-1644
http://www.miregion6.org

Region 7
2464 Silver Fox Trail, Ste. A
Gaylord MI 49735
Office: 989-731-4975
Fax: 989-732-6793
http://www.portal.miregion7.org

Region 8
420 W. Magnetic Street
Marquette MI 49855
Office: 906-225-7415
Fax: 906-225-3038
http://www.reg8.org

http://www.d1rmrc.org

http://www.5drmc.org

http://www.miregion6.org

http://www.portal.miregion7.org

http://www.reg8.org
Survey Strategies

1. Observations
   - Patient care, medication administration dressing change, room cleaning

2. Interview
   - IP, staff patients

3. Policy review
   - Evidence based

4. Data
   - Benchmarks
   - Posted
In Conclusion... 

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