E. Education Module 3 - Infection Prevention Programs

TIP Study Module 3: Infection Prevention Programs

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Mody L, et al. JAMA Intern Med 2015;175(S):714-723
Infection Prevention & Control Programs

- Definition: Broad-based program that engages all healthcare workers (HCWs) to prevent infections and improve safety and quality of care of the residents they care for.

- Goals:
  1. Protect residents by preventing infection
  2. Protect HCWs who care for residents
  3. Do both 1 & 2 as cost effectively as possible

Leadership

- Allocation of resources, oversight and decision-making
  - Infection Preventionist (IP)
  - Infection Control Committee
  - Administrative Team - IP, Dir. Of Nursing, Administrator, Medical Director

- Performance Improvement – measure performance and continuously improve

- Culture of Safety – improve communication, teamwork and culture to improve outcomes of care
**Surveillance**
(Performance Measurement)

- Definition: To observe residents for signs and symptoms of infection, collect and organize findings using standardized methods, and share them with HCWs to improve care.

- Surveillance is coordinated by the IP

- HCWs in LTCF are key to early awareness and identification of possible infections

**Why surveillance/performance measurement?**

- Give information about quality of care to consumers = transparency
- Establish baseline rates of infection
- Assess how well the facility staff is helping prevent infections
- Identify potential problems
- Educate staff
- Meet regulatory requirements
Surveillance
(Performance Measurement)

- Outcomes – Measure Infections
  - Rate of each HAI infection: respiratory, UTI, skin
- Process - Measure adherence to prevention protocols
  - Proportion of residents and HCWs who receive influenza vaccine
  - Proportion of HCWs who use hand hygiene before and after providing tube feedings
- Others uses:
  - job-related infections in employees
  - cleanliness of the environment

Education

- New Employee Orientation:
  - Chain of infection - employee health policies - department-specific (e.g. resident personal care, device insertion and care, cleaning and disinfection, dietary processes)
- On-going, periodic:
  - Annual –
    - Bloodborne infectious diseases prevention; others determined by facility
  - Periodic –
    - Influenza vaccination; new procedure/process; safe use of blood glucose monitoring equipment; findings from surveillance data
Prevention & Control

- Prevent infections
  - Prudent use of Antimicrobials
  - Asepsis
  - Hand Hygiene
  - Immunization
  - Resident care
  - Standard Precautions
- Prevent cross transmission of all microorganisms including multidrug-resistant organisms (MDROs)

Preventing Respiratory Tract Infections: Oral Care

- Source of microbes is often the respiratory tract
- Assist residents who are unable to do good oral care.
- Nurse assistants can make sure nursing staff is aware if a resident has difficulty swallowing

“Start flossing so you won’t catch pneumonia in our nursing home”
Preventing Catheter-Associated UTIs (CAUTI)

- Frequency of catheter use in residents in skilled nursing facility = 5-10%
- Prevention strategies:
  - Only use for appropriate indications
  - Remove as soon as no longer needed
  - Use aseptic technique for care and maintenance of the catheter
  - Hand hygiene & standard precautions

Preventing Feeding Tube Site Infection

- Prevention Strategies:
  - Keep insertion site clean and dry
  - Use hand hygiene before use
  - Examine skin at site for redness, inflammation, drainage – especially purulent
  - Let nursing know if there are new symptoms in the resident with a feeding tube including abdominal pain, nausea, new onset of diarrhea.

Figure from: Maki DG, Tambyah PA. Emerg Infect Dis 2001;7:1-6
**Model of MDRO Transmission in Skilled Nursing Facility**

- **Resident Factors:**
  - Age, Abx Use, Immune status, Functional status, Indwelling device

- **Facility Factors:**
  - Use of invasive devices, e.g., urinary catheters
  - Hand hygiene – adherence & frequency
  - Staffing levels – Aides, Env. Services, Nursing, etc.
  - Cleanliness of environment; incl. amount of time to clean
  - Single vs multi-bed resident rooms

**Colonized.....Infected**

- **MDRO +**

**Employee Health**

- Work restriction: avoid work if ill with acute infection, e.g., diarrhea, influenza-like illness, conjunctivitis
- Occupational exposure management
- Tuberculin skin testing: at-hire and annually
- Vaccine-preventable disease interventions
  - Influenza
  - Hepatitis B
  - Measles, Mumps, Rubella
  - Tetanus, diphtheria, pertussis: Tdap
  - Varicella (chickenpox)
  - Meningococcal
Support Services & Environment of Care (EOC)

- Environmental Services (Housekeeping) - processes for cleaning, disinfection and schedules, product selection, use of personal protective equipment.
- Used linens / laundry
- Food Services
- Medical waste
- Animals in healthcare
- Water

The Environment Can Facilitate Transmission

= MDRO Culture Positive Sites (MRSA, VRE, Resistant Gram-Negative Bacteria)

## Roles & Responsibilities of Nursing Assistants

<table>
<thead>
<tr>
<th>Site of Healthcare-associated Infection</th>
<th>Roles &amp; Responses of Nurse Assistants</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAUTI</td>
<td>• Aseptic technique</td>
</tr>
<tr>
<td></td>
<td>• Notify nurse if resident has new suprapubic tenderness or back pain, fever,</td>
</tr>
<tr>
<td>Feeding tube site</td>
<td>• Aseptic technique</td>
</tr>
<tr>
<td></td>
<td>• Notify nurse of new signs of infection: redness, inflammation, drainage</td>
</tr>
<tr>
<td>MDRO</td>
<td>• Hand hygiene</td>
</tr>
<tr>
<td></td>
<td>• Standard precautions</td>
</tr>
<tr>
<td>Respiratory tract infection, including pneumonia</td>
<td>• Encourage resident to perform regular oral care</td>
</tr>
<tr>
<td></td>
<td>• Notify nurse if resident has difficulty swallowing, new cough, shortness of breath</td>
</tr>
</tbody>
</table>
Targeted Infection Prevention (TIP) Program
Module 3: Infection Prevention Programs

PRE/POST-TEST

DATE: _______________

Please check one answer for each of the following questions.

1. Prevention refers to actions that protect residents from getting and spreading infections.
   True [ ] False [ ]

2. The nursing assistant is a member of the infection prevention team.
   True [ ] False [ ]

3. An effective infection prevention program requires every employee to participate.
   True [ ] False [ ]

4. One performance improvement activity is to evaluate actions taken during the work shift.
   True [ ] False [ ]

5. In a nursing home, an employee health program can help prevent infections.
   True [ ] False [ ]

6. Surveillance activities measure (or evaluate) outcomes and processes.
   True [ ] False [ ]

7. Surveillance is most important to:
   a. Satisfy the person conducting the survey. [ ]
   b. Save money for the long-term care facility. [ ]
   c. Assess how well the HCW's are helping to prevent infections. [ ]
   d. Keep the infection preventionist occupied. [ ]

8. Surveillance activities include:
   a. Observing residents for signs and symptoms of infection. [ ]
   b. Sharing the information with the HCW's. [ ]
3. The responsibility of the infection preventionist.
☐ d. All of the above.

9. One proven strategy that prevents respiratory infections is to:
☐ a. Have the resident cough and deep breathe each day.
☐ b. Assist the resident in a daily walk.
☐ c. Provide good oral care.
☐ d. Assure the resident eats a well-balanced diet.

10. To prevent infection in a resident with a urinary catheter which of the following is necessary?
☐ a. Removing the catheter as soon as possible.
☐ b. Performing hand hygiene and wearing gloves when touching the catheter.
☐ c. Using a catheter only when necessary.
☐ d. All of the above.
Module 3: PRE/POST-TEST ANSWER KEY

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