TEXAS Department of Aging and Disability Services

COMMISSIONER
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To: Nursing Facilities, Assisted Living Facilities and Intermediate Care Facilities for Persons with Mental Retardation or Related Conditions

Subject: **Provider Letter 09-18** – Recommendations for Infection Control and Prevention in Long-Term Care Facilities

In July 2008, the Society for Healthcare Epidemiology in America (SHEA) and the Association for Professionals in Infection Control (APIC) published guidelines for the prevention and control of infections in long-term care facilities. The purpose of this letter is to inform providers of the SHEA/APIC guidelines and to present an overview of recommendations for prevention and control of infections in long-term care facilities.

The Texas Department of State Health Services (DSHS) has endorsed the "SHEA/APIC Guideline: Infection Prevention and Control in the Long-Term Care Facility" as a guide for the development of an effective infection control program. The guideline may be viewed at the following web address:

http://www.journals.uchicago.edu/doi/pdf/10.1086/592416

According to the SHEA/APIC Guideline, the risk of long-term care facility residents developing a health care-associated infection (HAI) approaches that seen in acute care hospital patients. Major elements leading to HAIs are the infectious agent, a susceptible host and a means of transmission.

Infection control recommendations in the SHEA/APIC guidelines are categorized as follows:

Category IA. Strongly recommended for implementation and strongly supported by well-designed experimental, clinical, or epidemiologic studies.

Category IB. Strongly recommended for implementation and supported by some experimental, clinical, or epidemiologic studies and by strong theoretical rationale.

Category IC. Required for implementation, as mandated by federal or state regulation or standard.

Category II. Recommended for implementation and supported by suggestive clinical or epidemiologic studies or by theoretical rationale.

No Recommendation. Unresolved issue. Practices for which insufficient evidence or no consensus regarding efficacy exists.

GLOSSARY OF ACRONYMS USED IN THE RECOMMENDATIONS BELOW

ACIP – Advisory Committee on Immunization Practices

APIC – Association for Professionals in Infection Control

CDC – Centers for Disease Control and Prevention

DSHS – Texas Department of State Health Services

HBV – Hepatitis B Virus

HCW – Healthcare Worker

HICPAC – Healthcare Infection Control Practices Advisory Committee

ICP – Infection Control Professional

IV – Intravenous Therapy

LTCF – Long-Term Care Facility

MDRO – Multi-Drug Resistant Organisms

MRSA – Methicillin-Resistant Staphylococcus Aureus

OSHA – Occupational Safety and Health Administration

SHEA – Society for Healthcare Epidemiology in America

TB – Tuberculosis

TST – Tuberculin Skin Test

UTI – Urinary Tract Infection

VRE – Vancomycin-Resistant Enterococci

RECOMMENDATIONS

A. Infection Control Program

1. An active, effective, facility-wide infection control program should be established. The purpose of the program is to help prevent the development and spread of infectious diseases (Category IC).

   Elements of an infection control program:
   a. Surveillance – Systematic data collection to identify infections in residents
   b. Outbreak control – A system for detection, investigation, and control of epidemic infectious diseases in the facility
   c. Isolation – An isolation and precautions system to reduce the risk of transmission of infectious agents
   d. Policies and procedures – Relevant to infection control
   e. Education – Continuing education in infection prevention and control
   f. Resident health program
   g. Employee health program
   h. Antibiotic stewardship – A system for antibiotic review and control
   i. Disease reporting to public health authorities http://www.dshs.state.tx.us/idcu/investigation/conditions
   j. Facility management, including environmental control, waste management, product evaluation and disinfection, sterilization and asepsis
   k. Performance improvement/resident safety
   l. Preparedness planning

2. The infection control program must be in compliance with federal, state, and local regulations (Category IC).

B. Infection Control Administrative Structure

1. Oversight of the infection control program should be defined and should include participation of the ICP, administration, nursing staff, and physician staff (Category II).
2. Formal delegation of infection control oversight should be made in writing (Category II).
3. The infection control oversight committee should meet on a regular basis and have a mechanism for emergent meetings as needed (Category II).
4. The infection control oversight committee should maintain written minutes with identification of problems and plans for action (Category II).
5. Effectiveness of the infection control program should be evaluated by facility administration at least on an annual basis (Category II).
6. Policies and procedures for investigating, controlling, and preventing infection transmission in the facility should be established (Category IC).
7. Consultation should be available as needed, including with an infectious disease physician or other professional with expertise in infection control (Category II).

C. Infection Control Professional

1. One person, the ICP, should be assigned the responsibility of directing infection control activities in the facility. The ICP should be someone familiar with facility resident care problems (Category IC).
2. The ICP should have a written job description of infection control duties (Category II).
3. The ICP is responsible for implementing, monitoring, and evaluating the infection control program for the facility (Category II).
4. The ICP should be guaranteed sufficient time and the support of administration to effectively direct the infection control program (Category II).
5. The ICP (or other appropriate individual, such as the medical director) should have written authority to institute infection control measures in emergency situations (Category IB).
6. The ICP should have a sufficient infection control knowledge base to carry out responsibilities appropriately (Category II).
7. The ICP should know the federal, state, and local regulations dealing with infection control in the LTCF (Category II).
8. The ICP should communicate with relevant facility committees, personnel within the facility, ICPs from transferring facilities, and public health authorities to ensure appropriate isolation and collection of surveillance information (Category II).
9. No recommendation on number of ICPs per 100 LTCF beds.

D. Surveillance

1. The facility should have a system for ongoing collection of data on infections in the facility (Category IC).
2. A documented surveillance procedure should be used, including written definitions of infections (Category IB).
3. The ICP should review surveillance data frequently and recommend infection control measures, as appropriate, in response to identified problems (Category IB).
4. Infection rates should be calculated periodically, recorded, analyzed, and reported to the administration and infection control oversight committee (Category IB).
5. Surveillance data should be used for planning infection control efforts, detecting epidemics, directing continuing education, and identifying individual resident problems for intervention (Category IB).
6. In addition to the above outcome measures, surveillance should also include analysis of process measures relevant to infection control (Category II).

E. Outbreak Control

1. Surveillance data should be used to detect and prevent outbreaks in the facility (Category IB/IC).
2. The facility should define authority for intervention during an outbreak (Category IB).
3. In order to facilitate response to an outbreak, consent for appropriate diagnostic or therapeutic measures should be obtained from the resident or medical decision maker and the resident's primary physician on admission to the facility (Category II).
4. Obtaining cultures of the environment or from asymptomatic personnel is not recommended except as targeted by an epidemiologic investigation (Category II).
5. A TB control program should focus on detection of active cases in residents and staff and isolation or transfer of residents with known or suspected pulmonary TB disease (Category IC).

F. The Facility

1. Hand hygiene facilities and supplies should be available and conveniently located for residents and staff (Category IA).
   Hand Hygiene: http://www.cdc.gov/mmwr/PDF/rr/rr5116.pdf
2. Clean and soiled utility areas should be functionally separate and clearly designated (Category IC).
3. Appropriate ventilation and air filtration should be addressed by the LTCF (Category IC).
4. Housekeeping in the facility should be performed on a routine and consistent basis to provide for a safe and sanitary environment (Category IC).
5. Measures should be instituted to correct unsafe and unsanitary practices (Category II).
6. Areas in the LTCF with unique infection control concerns (e.g., laundry, kitchen) should have the appropriate policies and procedures developed (Category II).

G. Isolation and Precautions

1. Isolation and precautions policies and procedures should be developed, evaluated, and updated in accordance with most recent Centers for Disease Control and Prevention (CDC)/Healthcare Infection Control Practices Advisory Committee (HICPAC) guidance (Category IC).
   Contact and Isolation Practices:
   http://www.cdc.gov/ncidod/dhqp/gl_isolation_Contact.html
2. Regular education programs should be developed to reinforce understanding and compliance (Category IC).
3. Compliance with these infection control practices (e.g., hand hygiene, isolation) should be monitored (Category IC).

4. Any isolation and precautions system used should include implementation of Standard Precautions for all residents (e.g., wearing of gloves, masks, eye protection, and gowns when contamination or splashing with blood or body fluids is likely) (Category IC).
5. Any isolation and precautions system should include the implementation of transmission-based precautions (Contact Precautions, Droplet Precautions, or Airborne Precautions) in accordance with current CDC/HICPAC guidance (Category IB/IC).
6. The LTCF should have a policy dealing with MDROs, such as MRSA or VRE, that is compatible with current national standards (such as the HICPAC isolation and MDRO guidelines) and appropriate to the LTCF setting (Category IB).
7. The individual resident's clinical situation should be considered when deciding whether to implement or modify the use of Contact Precautions in addition to Standard Precautions if colonized or infected with an MDRO (Category IB/IC).
8. A program of safe work practices to prevent HCW exposure should be developed in accordance with CDC/HICPAC and OSHA guidance. Used needles and syringes should not be manually recapped, broken, or bent. Self-capping needles should be used. They should be disposed of, with all sharps, in a puncture-resistant, leak-proof container (Category IC).
9. Gloves are indicated for contact with blood or body fluids, contaminated items, mucous membranes, or nonintact skin (Category IC).
10. Policies should be developed to deal with spills and personnel exposure to blood or body fluids. Employees should know how to respond to an exposure. Postexposure prophylaxis should be readily available (Category IC).
11. Residents with suspected TB should be placed in a negative-pressure room or transferred to a facility with such a room (Category IC).

H. Asepsis and Hand Hygiene

1. Routine hand hygiene should be encouraged. Hands should be washed after each patient contact, especially after contact with body fluids, after removing gloves, when soiled, and when otherwise indicated (Category IA). Unless hands are visibly soiled, use of alcohol-based hand gels is encouraged (Category IA/IC).
2. A hand hygiene policy and procedure should be developed by the LTCF in accordance with current CDC/HICPAC guidance with a program of ongoing hand hygiene education (Category IB/IC).
3. Hand hygiene compliance should be monitored (Category IC).
4. Policies and procedures for disinfection and sterilization should be developed (Category IB).

I. Resident Care

1. Resident rooms should have an accessible sink, with soap, water, towels, and toilet facilities (Category II).
2. A resident skin care program should be developed to maintain the skin as a barrier to infection (Category II).

3. A program to prevent UTIs should be developed, including the following:
    - Routine urinalysis or urine culture to screen for bacteriuria or pyuria is not recommended (Category IA).
    - Residents with impaired bladder emptying managed with intermittent catheterization should be managed with a clean technique (Category IA).
    - Policies for catheter use should address catheter insertion, closed drainage systems, maintenance of urinary flow, and indications for changing the catheter (Category IB).
    - Irrigation of indwelling catheters with saline or antiseptics is not routinely recommended (Category IB).
    - If leg bags are used, the LTCF should develop policies and procedures for aseptic connection, cleaning, and storage of leg bags (Category II).
    - Adequate hydration should be maintained (Category II).
4. A program to minimize the risk of pneumonia in the LTCF should address the following:
    - reducing the potential for aspiration;
    - minimizing atelectasis; and
    - caring for respiratory therapy equipment (Category II).
5. Policies and procedures should be developed for prevention of infections associated with nasogastric and gastrostomy feeding tubes, including the following: preparation, storage, refrigeration, and administration of feeding solutions and care of percutaneous feeding tube skin sites (Category II).
6. Policies and procedures should be developed for prevention of IV infections, including central lines, if these devices are used (Category IB).

J. Resident Health Program

1. A resident health program should be implemented (Category II). There should be explicit and accessible documentation of program components in the resident record (Category II).
2. At admission, each resident should have a complete history (including important past and present infectious diseases), immunization status evaluation, and recent physical examination (Category II).
3. All newly admitted residents should receive TB screening unless a physician's statement is obtained that the resident had a past positive TST (Category IA/IC). *Comment*: *A 2-step booster TST is often recommended in this setting.*
4. When new or active TB is suggested by a positive skin test result, or symptoms are consistent with active TB, a chest radiograph and medical evaluation should be obtained (Category II).
5. Follow-up TST for TB should be performed periodically or after discovery of a new case of TB in a resident or staff member (Category II). No recommendation on frequency of routine follow-up TSTs for residents.
6. Each resident should receive current vaccinations for tetanus, diphtheria, influenza, pertussis, pneumococcal pneumonia, and any other vaccines recommended by the ACIP (Category IB/IC).

7. Each resident should receive the influenza vaccine annually in the fall, unless medically contraindicated (Category IC).
8. Policies and procedures addressing visitors should be developed to limit introduction of community infections (such as influenza) into the LTCF (Category II).

K. Employee Health Program

1. All new employees should have a baseline health assessment, including immunization status and history of relevant past or present infectious diseases (Category IB/IC).
2. All new employees should receive TST unless there is written documentation that the employee had a positive reaction to a tuberculin test. When new or active TB is suggested by a positive TST result or by symptoms, a chest radiograph and medical evaluation should be obtained (Category IA/IC).
3. Follow-up skin testing of staff who are TST negative should be performed periodically based on the facility's annual risk assessment or after discovery of a new case of TB in a resident or staff member (Category IA/IC).
4. All employees should have current immunizations as recommended for HCWs by the Advisory Committee on Immunization Practices (ACIP), with documentation in the employee record (Category IA/IC).
5. Employees with blood or body fluid contact should be offered HBV immunization within 10 working days of hire and after training has been completed (Category IC). *Comment: Refusal of this vaccine should be documented using the OSHA-required Declination Statement for Hepatitis B vaccine.*
6. Employees should be offered the influenza vaccine annually (Category IA/IC).
7. Employees should be taught basic use of personal protective equipment, hand hygiene and to consider blood and all body fluids as potentially infectious (Category 1C).
8. Employees with signs or symptoms of communicable diseases (e.g., cough, rash, diarrhea) should not have contact with the residents or their food (Category IB).
9. All employees should be educated to report any significant infectious illnesses to their supervisor and the staff member responsible for employee health (Category IB).
10. The LTCF should develop protocols for managing employee illnesses and exposures, such as bloodborne pathogens like HIV and hepatitis B and C, as well as TB, scabies, or gastroenteritis (Category IB/IC).

L. Education

1. Infection control education should be provided at the initiation of employment and regularly thereafter. Training should include all staff, especially those providing direct resident care (Category IC).
2. All programs should be documented with the date, topic, names of attendees, and evaluations (Category IC).

M. Policies and Procedures

1. Infection control policies and procedures dealing with relevant aspects of infection control such as hand hygiene, disinfection, and isolation precautions should be in place and compatible with current regulations and infection control knowledge (Category IC).
2. Infection control policies and procedures should be approved, reviewed, and revised on a regular basis (Category IC).
3. Employees should be made aware of infection control policies and procedures (Category IC).

N. Antibiotic Stewardship

1. Infection control programs in LTCFs should be encouraged to include a component of antimicrobial stewardship (Category IB).
2. The ICP should monitor antibiotic susceptibility results from cultures to detect clinically significant antibiotic resistant bacteria, such as MRSA or VRE, in the institution. Changes in antibiotic-susceptibility trends should be communicated to appropriate individuals and committees (Category IC).

O. Miscellaneous Aspects

1. There should be a system for reporting notifiable diseases to proper public health officials (Category IC).
2. The infection control program should collaborate with the performance improvement program, if a formal program exists (Category II).
3. The ICP should be involved with the review and selection of new products that have infection control implications (Category II).
4. The ICP should be involved with LTCF influenza pandemic preparedness planning (Category II).

   Resources:

   Template to assist with identification of issues that must be addressed in order to create a workable pandemic influenza preparedness plan
   http://qmweb.dads.state.tx.us/PIP_Template.xls

   Vaccine Administration Record for Adults
   http://www.immunize.org/catg.d/p2023.pdf

   Texas Department of State Health Services Pandemic Influenza Preparedness Plan
   http://www.dshs.state.tx.us/idcu/disease/influenza/pandemic

   Long-Term Care and Other Residential Facilities Pandemic Influenza Planning Checklist
   http://www.pandemicflu.gov/plan/healthcare/longtermcarechecklist.html
5. Infection control activities should address relevant resident safety issues (Category II).

P. Regulations

1. The infection control program must be in compliance with federal, state, and local regulations (Category IC).
2. The infection control program should reflect national, evidence-based standards of practice for infection prevention and control (Category IC).

HELPFUL WEBSITES

1. Association for Professionals in Infection Control (APIC)
www.apic.org
2. Society for Healthcare Epidemiology in America (SHEA)
www.shea-online.org
3. Centers for Disease Control and Prevention (CDC)
www.cdc.gov
4. Texas Department of State Health Services (DSHS)
www.dshs.state.tx.us

If you have questions regarding the content of this letter, please contact a program specialist in the Policy, Rules and Curriculum Development unit at 512-438-3161. If you have questions pertaining to recommendations outlined in this letter or information in the SHEA/APIC guidelines, please contact the DSHS Infectious Disease Control unit at 512-458-7676.

Sincerely,

[signature on file]

Veronda L. Durden
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Regulatory Services

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