



Components of an Infection Control Program for Residential Care Homes

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NC Statewide Program for Infection Control and Epidemiology (SPICE)

<http://www.unc.edu/depts/spice/>



Objectives of Lecture

1. Describe the components of a Residential Care Home Infection Control Program.
2. Develop skills in setting up a Infection control surveillance program in Residential Care Homes.



The geriatric population are not just people in wrinkled skin; they have many unique factors contributing to the severity and frequency of infectious diseases in the elderly.

In the US, infections occur an average of 2 to 4 times per year. And account for up to 50% of all nursing home transfers to hospitals.



Infection Control Components

- Surveillance plan
- Outbreak control resources
- Isolation and precautions model
- Policies and procedures facility-wide
- Education and training structure
- Resident health program
- Occupational health program
- Antibiotic utilization review
- Communicable disease reporting to health departments



Residential Care Home Infection Control Infrastructure

“Oversight Committee,” - directs the “Infection Preventionist (IP),” -who directs the infection control functions.

- Oversight committee - working group of IP, administrator, and medical director, may be merged with quality management committee.
Activities: Review infection data (respond to errors or problems), review policies, establish goals and priorities, monitor implementation



Infection Preventionist (IP)

- usually a staff nurse, familiar with LTCF resident-care problems
- responsibilities may often be combined other jobs (occupational health, quality management, staff education)
- responsible for implementing, monitoring and evaluating the infection control program
- requires specific training
- well-defined support from administration (education and resources)
- ability to interact tactfully with personnel, physician, and residents



Infection Control Hours

- Is the time given to the IP adequate for the size of the facility, acuity of the residents, and types of procedures and treatment?
- No specific amount of time has been researched to be ideal; the following guideline has been developed based on experience



Infection Control Surveillance in Long Term Care Facilities

- Surveillance process consists of
 - collecting data on individual cases
 - analyzing those nosocomial (facility-acquired)
 - developing a plan of action to reduce problems
- Data collection may consists of
 - outcome measures (i.e., number of UTI's)
 - process measures (i.e., was correct catheter procedure used?)




Outbreak Control in Long Term Care Facilities

- Most LTCF nosocomial infections are sporadic but clustering of infectious diseases can occur
- An epidemic, or outbreak (cluster) implies the occurrence in excess of the expected number
- This may be a single case of unusual disease for the setting (i.e., TB)
- Outbreaks in LTCF account for a substantial portion of reported epidemics
- Policies and protocols for prevention and investigation of outbreaks need to be in place



Isolation and Precautions for Residential Care Homes

- Isolation and precautions systems are an important means for preventing cross-infection
- The use of barrier precautions in RCHEs has been handicapped by lack of adequate handwashing facilities, private rooms, and appropriate ventilation systems
- The 2007 CDC Isolation Precautions Guideline was developed primarily for acute care, but includes recommendations that are applicable to Residential Care Facilities.



Policies and Procedures in Residential Care Homes

- Policies establish programs expectations and parameters.
- Procedures guide implementation of policies
- Develop for each department and service in the facility (housekeeping, PT, RT, dietary, laundry, wound care, pet therapy)
- Need to reflect current and actual practice (reviewed every 3 years)
- Use published guidelines from governmental agencies (i.e., CDC, OSHA, FDA, EPA, USP)



CDC HICPAC Guidelines

Healthcare Infection Control Practices Advisory Committee (HICPAC)

- Guideline for Hand Hygiene in Healthcare Settings, 2002
- Guideline for Prevention of Intravascular Catheter-Related Infections, 2002
- Guideline for Environmental Infection Control in Healthcare Facilities, 2003
- Guideline for Prevention of Healthcare-Associated Pneumonia, 2003

AND...



New CDC HICPAC Guidelines

- Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings, 2007
- Guideline for Disinfection and Sterilization in Health-Care Facilities, 2008
- Guideline for the Prevention of CAUTIs, 2010

Coming . . .

- Guideline for Norovirus
- Revision of IV Therapy Guidelines



Infection Control Education and Training in Residential Care Homes

- The importance of education of the RCHE IP has been demonstrated
- Study of participants in 2 day basic training course demonstrated increase in post course knowledge
- Study of participants at 3 and 12 month follow-up showed statistically significant increase in implementation of key infection control practices (performance of surveillance, using infection definitions, calculating infection rates, giving employees and residents TB skin tests and influenza vaccines)



Education of Healthcare Workers in Residential Care Homes

- One of the most important roles is education of RCHE personnel in basic infection control principles
- Education should focus on new personnel and nursing aids
- Surveillance data are good starting points
- Walking rounds are opportunities for timely in-service
- Subject content includes disease transmission, hand-washing, barrier precautions, and basic hygiene
- Teaching methods should be sensitive to the language, cultural background, and educational level.
- **Initial and ongoing IC education provided**



Resident Health Program in LTCFs

- One major function is the immunization of the elderly resident (tetanus, diphtheria, pneumococcal and influenza vaccines)
- Suggested all new residents receive (2-step) TB skin test on admission and x-ray if skin test positive or symptomatic
- Other resident care practices that should be addressed include prevention of aspiration, skin care, prevention of UTIs and oral hygiene



Resident Health Programs- Immunizations

Updated ACIP recommendations 2010

- All residents should be vaccinated with Pneumococcal vaccine (PPSV23) at:
 - Age 65years;
 - All 19-64 year olds with chronic or immune suppressing condition including asthma or smokers;
 - One time, second dose 5 years after first dose if administered before 65 years old, and \geq 65 years.



Occupational Health Programs in Residential Care Homes

- Published information from governmental organization (i.e., CDC) are available.

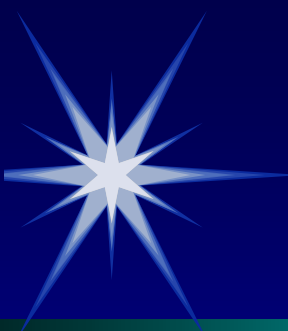
cdc.gov/ncidod/dhqp/pdf/guidelines/InfectControl98.pdf

- LTCF (RCHE) should consider prohibiting HCWs with skin lesions or communicable diseases from direct contact with residents and to prohibit employees with potentially infectious skin lesions from contact with residents food.

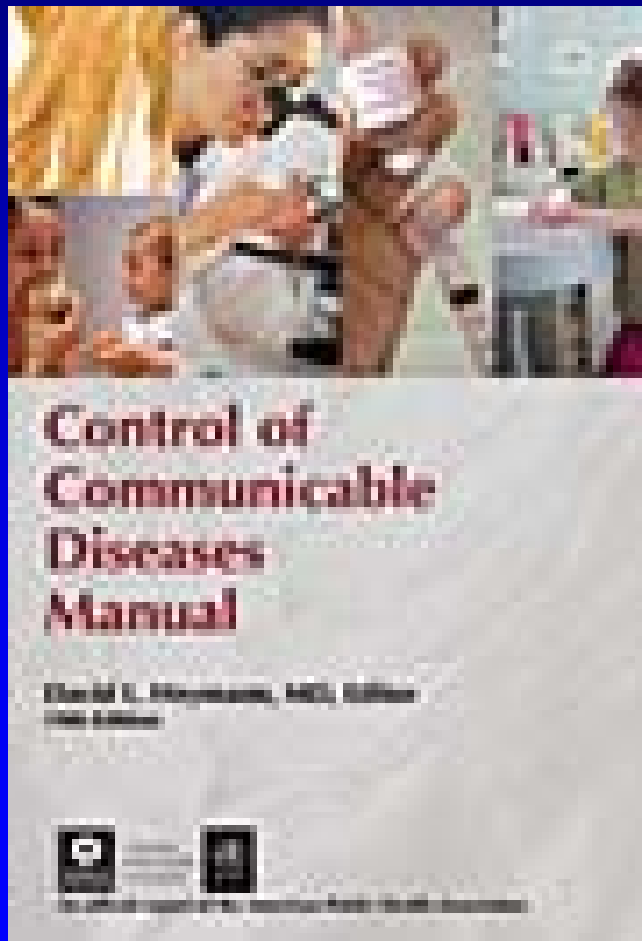


Occupational Health Programs in Residential Care Homes

- Initial assessment of employees and a reasonable sick leave policy
- Policy and procedures for post-exposure follow-up (to HIV, HBV, HCV, TB, and scabies)
- Healthcare workers vaccinations should include tetanus, diphtheria, influenza, HBV
- In certain circumstances hepatitis A vaccine may be appropriate (psychiatric and facilities for mentally impaired)



New edition published in October 2008




Control of Communicable Diseases Manual, 19th Edition

Edited by: David L. Heymann, MD

The 19th edition is a timely update to a milestone reference work that ensures the relevance and usefulness to every public health professional around the world.

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Antibiotic Use and Resistance in Nursing Homes

- Antibiotic resistance develops largely as a consequence of antibiotic use
- Antibiotics are given to approximately 7 to 10% of residents
- Several studies have questioned this practice
- Common problem is confusion of infection with colonization (positive culture from wound or bacteria in a urine culture) and the treatment of the colonization
- Recent position paper by SHEA encourages inclusion of antimicrobial review in LTCF infection control program
- **Because of increases in MDROs review antibiotic use (include prescribed ATB with susceptibility reports**



Communicable Disease Reporting Laws and Regulations of the Republic of China

➤ . For case definitions of the communicable diseases and other related preventive measures, please refer to the Communicable Disease Control Work Manual or visit the website of the Centers for Disease Control of the Department of Health at <http://www.cdc.gov.tw>.

Reference: The Categories of Communicable Diseases and Preventive Measures for Category IV and V Communicable Diseases (2010.09.09)



Other Issues of Infection Control Concern in Residential Care Homes

- Medical waste handling and disposal
- Product selection-
 - urinary catheters, gloves, disposable diapers, disinfectants and antiseptics
 - Quality, efficacy and cost issues have to be weighed.



Handling Linens

- Standard Precautions for handling all linen then no additional separating or labeling.
- Laundry items in hot water > 160 F (71C) for 25 minutes.
- Alternatively, low temperature washing at 71 to 77 F (22 to 25C) plus a 125 ppm chlorine bleach rinse comparable.
- Keep linen covered to prevent contamination during storage and transport.



In Conclusion

- One person, the IP, should be assigned the responsibility of directing, infection control activities in the Nursing Home.
- The IP should have a written job description of infection control activities
- The IP requires the support of administration in order to function effectively
- The IP needs to be guaranteed sufficient time to direct the infection control program
- The IP should have written authority to institute infection control measures.



In Conclusion

The trained competent Residential Care Home IP shall be able to establish an active, effective, facility-wide infection control program in the Residential Care Home to help prevent the development and spread of infections and infectious diseases.



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