CONSTRUCTION AND RENOVATION

Construction and renovation projects in Long Term Care Homes pose a threat to residents and may also be a health risk to staff and visitors. Numerous outbreaks that occurred during construction or renovation projects have been reported. Fungi (e.g. *Aspergillus*) are the organisms most frequently associated with outbreaks. However, bacteria, in particular *Legionella* have also been associated with outbreaks during construction and renovation. Advanced age is a risk factor for acquisition of infection related to construction. Therefore, careful planning is required to ensure that appropriate infection prevention and control measures are utilized throughout the project to reduce these risks.

The interventions required during the construction phase will vary depending on the type and location of the work being carried out. Health Canada in the 2001 guidelines, “Construction-related Nosocomial Infections in Patients in Health Care Facilities” outlines the types of barriers required based on the activity and resident group. This “Risk Assessment and Preventive Measures Checklist” (Appendix X) should be utilized in all phases of the project to ensure that the appropriate interventions are carried out.

Infection Prevention and Control Measures:

Before Construction
1) Input from infection prevention and control professionals should be sought in the planning, pre-construction, construction and post-construction phases.
2) The responsibilities of the contractor and construction staff need to be clearly outlined and education should be provided by infection prevention and control to ensure there is compliance with these.
3) Representatives from Medical Staff, Nursing, Housekeeping, Maintenance and Administration should work together to identify areas of concern and develop a coordinated plan to manage these risks.
4) Essential services that could be disrupted should be identified and communicated to appropriate individuals. e.g. alternate source of water may be necessary.
5) High risk residents should be identified and moved if necessary.
6) Resident exposure to construction should be minimized.
7) Establish construction traffic routes including designated entrance, elevator, routes for transport of clean supplies/equipment and route for removal of debris.

During Construction
1) During the construction phase of the project, increased surveillance for nosocomial infections due to *Aspergillus sp.* or *Legionella* should be maintained.
2) Housekeeping staff should increase frequency of cleaning in the immediate areas adjacent to the construction to minimize dust and debris that may be generated.
3) Access panels should be closed and ceiling tiles replaced immediately.
4) Work areas should be cleaned with HEPA filter equipped vacuum cleaners.
5) Faucet aerators should not be installed.
6) Interruptions to water supply should be scheduled during periods of lower user activity.
7) Barriers should be constructed to prevent dust from entering resident care areas.
8) All staff must ensure patient care equipment and supplies remain protected from dust exposure.
9) Water leaks or discoloured water must be reported immediately.
10) Mechanisms for dealing with breaches of the preventive measures must be developed and communicated to both the administration of the home and the contractor. The Infection Control Practitioner (ICP) should have the authority to work with the contractor to identify and resolve issues that arise during the project. Issues that cannot be resolved by the ICP may result in a stop work order until these can be settled. The goal throughout the project should be to minimize the risk to residents, staff and visitors in the home.

After Construction
1) Review preventative measures that were initiated
2) Assess effectiveness of preventative measures
3) Document and communicate any improvements for future reference

Additional Resources:


Centers for Disease Control and Prevention *Guidelines for Environmental Infection Control in Health-Care Facilities*, 2003