

Hospital Construction/Renovation Activities

Ref:(a) Efficacy of Infection Control Measures during a Nosocomial Outbreak of Disseminated Aspergillosis Associated with Hospital Construction, *The Journal of Infectious Diseases*, Vol. 153, No. 3, March 1986.

(b) APIC, *Infection Control & Applied Epidemiology Principles & Practice*, 1996.

Purpose. Construction/renovation activities within or around a facility may present certain infection control hazards and have been associated with several limited epidemics. These risks include:

- Construction may produce dust and debris that can carry microorganisms into patient care areas. External construction increases the potential contamination of dust/debris on air intake filters and may decrease filtration with airborne spread of microorganisms via ventilation systems.
- Aspergilli are common fungi that are ubiquitous. Their potential to produce severe disease in the immunocompromised host poses a serious health hazard. Large numbers of aspergillus spores may be generated during construction projects and conveyed by air currents to distant sites.
- Increased contamination of air conditioning cooling tower may result in dissemination of organisms, such as legionella to patients and employees.
- Intermittent interruption of the water supply may result in lack of potable water for drinking and food preparation, and lack of water for handwashing, flushing toilets and patient bathing.

Procedures.

- All efforts will be made to reduce patient and personnel exposure to debris as much as possible.
- Physical barriers consisting of floor to ceiling plastic or dry wall barriers will be erected across all openings between construction areas and the adjoining patient care areas. The barriers will be sealed with plastic tape or spackling compound.
- Traffic will be prohibited between the construction sites and patient care areas.
- Hospital doors and windows will remain closed.
- Because of the risk of dispersion of dust, microorganisms, and fungal spores, fans are not allowed.
- The construction area will be maintained as clean as possible, with all refuse being disposed of on the exterior of the building.
- The Facilities Management Department must assure proper maintenance of the water and air handling systems.
- Ventilation systems must be maintained properly with external venting of the construction area by exhaust fans. Air intake filters must be maintained properly and changed frequently. High efficiency rating filters must be used and checked frequently to assure proper functioning.
- If interruption of the normal water service is necessary, it should be scheduled during low activity time periods (nights or weekends). Antiseptic towelettes will be used for handwashing in the event of water outage.

- In the event of renovation on patient care areas, every effort will be made to transfer immunocompromised patients to another location within the hospital.
- The Infection Control pre-construction risk assessment policy will be utilized to assist the job evaluation team on the correct Infection Control precautions to be administered **prior to any** construction service i.e., demolition, renovation, modification, etc. At least one of the Infection Control Nurse Consultants will be a member of the job evaluation team.