



Regulations Spotlight Infection Control Risk Assessment in Healthcare Facility Expansions & Renovation Projects

by Jack Waisblat

Regulatory agencies and industry groups are more directly addressing the need for operating healthcare facilities to prevent the spread of infection during renovation and expansion projects, as reflected on the Joint Commission on the Accreditation of Healthcare Organizations (JCAHO) Standards.

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JCAHO's Environment Of Care standards EC.3.2.1 (as well as the AIA guidelines for design and construction of hospitals and healthcare facilities, chapter 5, and newly issued CDC guidelines implemented in January 2002), require a detailed construction risk assessment, monitoring and thorough documentation as outlined by the American Institute of Architects guidelines for design and construction of healthcare facilities. As hospitals, nursing homes and other healthcare facilities increasingly schedule major renovation and construction projects, they face the daunting task of meeting these new infection control mandates.

The requirements address a valid concern. Adherence to infection control procedures during construction in occupied, sensitive environments can mean the difference between a successfully completed project and one where patients, especially those with compromised immune systems, become ill.

A surprise survey/inspection by JCAHO or DHS could create problems for hospitals that lack a project-specific agenda for assessing, monitoring and documenting construction-related infection control measures. Beyond fines, there is a greater risk for hospitals to receive lower accreditation scores under the new regulations.

During major expansions or renovations, the design and construction team's experience with infection control procedures is crucial to compliance. Healthcare facility construction differs significantly from non-healthcare projects in a variety of ways. The contractor is usually working in a constantly occupied, sensitive environment, and crews must cope with challenges such as active electrical, mechanical, plumbing systems and medical gases serving occupied areas.

Construction activities that can increase infection risk in healthcare environments include: wall removal, inadequate barriers usage, ceiling tiles removal, improper negative air pressure in

construction area, poor ventilation and water leakage, which can cause mold growth. The mold *Aspergillus* is prevalent throughout the country and typically lies harmlessly dormant in dry warm places, such as inside walls or ceilings. But when disturbed, as they often are during construction, these microbes can be a real threat to immuno-suppressed patients.

Assembling the project's infection control risk assessment (ICRA) team is essential before weighing the risks of construction-induced infection. The healthcare facility has the responsibility for instituting an ICRA; it is not the responsibility of the design and construction team and is typically not included in the design and construction teams costs. Team members should consist of a healthcare facility infection control director, risk manager and facilities director. The design and construction professionals for the project – architect, engineer and general contractor – should also serve on the ICRA team. The ICRA team should be assembled prior to design commencement so elements that need to be incorporated into the construction documents are issued with the bid documents, thus reducing future change order costs. In selecting the design and construction professionals for these sensitive projects, hospitals should carefully check the following:

- **Experience.** Don't settle *just* for references. Ask contractors for a list of *all* projects they have completed over the last three years. This gives you an idea of the specific challenges they've

handled, and how recently they have worked on healthcare facilities.

- **Check references.** Believe it or not, many facilities do not check references.

- **Education.** Has the company had its project executives and managers educated in infection-control regulations? Does the contractor belong to ASHE? Does the company send its staff to DHS life safety seminars?

- **Infection control orientation.** Interview contractors to see if they are familiar with terms such as *Aspergillus* and *negative air pressure*. Ask how they have previously participated in the risk assessment process and provided compliant documentation for projects.

- **Mop-and-broom designee.** This is much more important than it sounds. Documentation is an important aspect, but a mop-and-broom designee speaks to whether the construction team implements the sterilization and clean-up requirements set out in your risk assessment. Do they have one person who is assigned to clean, sterilize and maintain the project site during and after shifts? Are they as neat and clean as possible?

With proper due diligence, a healthcare facility can assemble a team to ensure a compliant, cost-effective construction process, and, most importantly, the well being of every patient.

