

ICRA

**BEST PRACTICES
IN HEALTHCARE
CONSTRUCTION**



Hospital administrators face budget decisions that can mean life or death. In this environment, more providers are opting for remodeling of existing facilities instead of building new ones.

That shift creates new challenges and potential risks, including exposing patients to contaminants that can lead to hospital-acquired infections, which kill more than 100,000 people yearly in the United States and Canada. Adding to the human loss are the medical costs of these infections, which range as high as \$45 billion a year, according to the U.S. Centers for Disease Control and

Prevention.

In response to the needs of the medical community and contractors that serve it, the United Brotherhood of Carpenters developed an innovative training and qualification program that teaches members how to reduce the risk of contamination while working in occupied healthcare facilities.

Construction ICRA-trained carpenters are trained to react quickly when unforeseen conditions show up inside or outside containment areas.



Construction ICRA: Best Practices in Healthcare Construction

delivers the comprehensive skill-sets for containing pathogens, controlling airflow, protecting patients, and productively performing work without disrupting adjacent operations. Carpenters receive knowledge and training for particulate counters, HEPA machines, air changes per hour, magnehelic gauges, working in occupied spaces, contained areas, PPE gear, and more. Training

also stresses the reading and understanding of the ICRA form, working with the facility on their Interim Life Safety Measures (ILSM) and ICRA. The goal is not to rewrite the facility's protocol, but rather to work in unison to ensure the safest environment for the patients and staff during construction. **This training is active and ongoing here in the St. Louis-Kansas City Carpenters Regional Council (STLKCCRC).**



Mold in a Healthcare Facility

It is not uncommon to find mold which can grow and spread undetected in a healthcare facility. If mold or fungi spores are inhaled or enter the bloodstream, serious infections or death could result, especially to immune-compromised people. When any mold is detected, it must be contained as quickly as possible.



New York City Guidelines

Mold containment and eventual removal involves a set of guidelines called the New York City (NYC) Guidelines, a widely accepted document concerning mold growth and mold remediation.

Risk Evaluation

Although it is not the responsibility

of the UBC member to evaluate risk levels or determine safety and security issues within a healthcare facility, it is important to be aware of potential hazards, to recognize the factors involved, and to understand how to read the ICRA form. This

knowledge is crucial and can help those working in a healthcare facility to protect the health, safety, and welfare of the patients, facility staff, and other construction workers. The Infection Control Risk Assessment (ICRA) team is a group that decides what precautions are necessary to isolate the work area and protect patients. The Interim Life Safety Measures (ILSM) team is a group of people who identify fire, safety, and security steps, as well as the routing of construction materials and personnel.

ICRA Team

Determining what precautions are necessary to properly isolate the work area and protect patients from hazards is the responsibility of the ICRA team appointed by the healthcare facility. Before the start of a construction or renovation project, the ICRA team studies the scope of the work to be done and evaluates the risk factors and any potential hazards that may affect patients, laboratories, sterile supplies, or medical equipment. The purpose of the team's assessment is to minimize the risk of hospital-acquired infections, which are the result of exposure to infectious agents brought in by other patients or that exist within the facility's structure. When making the assessment, the team considers the needs of the facility and the patients and reviews many aspects of the project, such as foot and material traffic, noise levels, entry and exit routes, and barrier types. This information is put into an ICRA form, which becomes a guideline for the precautions required during the construction project.

The Joint Commission

The organization responsible for evaluating and accrediting healthcare facilities is The Joint Commission (TJC), formerly known as the Joint Commission on Accreditation of Healthcare Organizations (JCAHO). TJC is responsible for inspecting and enforcing federal Center for Disease Control regulations and standards of health care. A Joint Commission inspection team, made up of physicians, nurses, technicians

and facility engineers, inspects facilities (other than their own) for CDC compliance in an unannounced format. If a facility is in compliance with all regulations and standards, the facility is eligible for various federally funded programs such as Medicare and Medicaid.

RISK MANAGEMENT

RISK MANAGEMENT STEP

	ASSESSMENT	
	SUSTAIN	IMPROVE
BEFORE THE MISSION		
1. MOST IMPORTANT HAZARDS IDENTIFIED?		X
2. RISK LEVEL OF EACH HAZARD ASSESSED?		X
3. CONTROLS DEVELOPED & RESIDUAL RISK DETERMINED?	X	
4. RISK DECISION MADE FOR SELECTED COA?	X	
5. HAZARDS & CONTROLS CLEARLY COMMUNICATED?	X	
DURING THE MISSION		
6. CONTROLS IMPLEMENTED & ENFORCED?	X	
AFTER THE MISSION		
7. RISK MGMT EFFECTIVE?		X

Awareness Workshop Objectives

Upon successful completion of this workshop, the participant should be able to:

1. Describe why healthcare facilities are unique work environments and why extra precautions must be taken while working in them.

2. Explain the functions and responsibilities of the ICRA team and how the ICRA form is used to determine a work area classification.
3. Explain the differences between positive, equal, and negative air pressure and how air pressure affects contaminants.
4. Recognize how airborne contaminants are isolated and controlled.
5. Describe the work practice procedures used in a healthcare facility.
6. Identify the agencies and organizations that oversee healthcare facilities.
7. Identify the different types of barriers and the purpose of each.
8. Describe the four methods used for mold remediation and a list of PPE and work practices needed for mold remediation in a healthcare facility.

Safety of the patients and staff is our #1 concern.

Bloodborne Pathogens, Fifth Edition

Bloodborne Pathogens, Fifth Edition is the center of an integrated teaching and learning system that offers instructor, student, and technology resources to better support instructors and prepare students. This program is designed to meet OSHA training requirements and was created for students and employees who have the potential for occupational exposure to blood or other potentially infectious materials. This text includes:

- Current information consistent with OSHA compliance
- Skill drills: Offer step-by-step explanations and visual summaries of important skills
- Complete OSHA documentation on bloodborne pathogens
- Detailed information on strategies to prevent or reduce exposure to bloodborne pathogens

- Guidance on setting up an exposure control plan.

Soft Wall System

A quick way to safely contain an entire work area is with a soft wall system. This is a temporary enclosure with walls constructed of polyethylene sheeting that is fire resistant. In a healthcare facility, a soft wall system

creates a barrier that protects patients from construction hazards and containments.

It is used to create a negative air pressure environment on short-term projects. The Carpenters have the expertise to build these barriers in different configurations to minimize cross contamination while keeping patients safe without disturbing the hospital's daily activities.



Barrier Removal Training Example (Class IV Project)

- Remove barrier materials carefully to minimize spreading dirt and debris from construction.
- Contain construction waste in tightly covered containers before transport.
- Cover transport receptacles or carts.
- Vacuum work area with HEPA-filtered vacuum.
- Wet mop area with disinfectant.
- Upon completion, coordinate with healthcare facilitators on the restoration of HVAC, plumbing, and negative air systems.

The following are excerpts from various chapters from the Construction ICRA: Best Practices in Healthcare Construction training curriculum...

Unique Environment

Healthcare facilities are unique work environments compared with other construction jobsites. Many healthcare facilities, such as hospitals and nursing homes, provide services 24 hours a day, 7 days a week. A healthcare facility is often a self-contained community with food services, laundry, and power generation on site. They contain a variety of services, such as pharmacies, laboratories, and testing areas. Each of these support services presents its own type of challenge during construction work. Often, patients and staff cannot be removed from the facility during construction or renovation work.

Construction ICRA-trained carpenters are compassionate, highly skilled, productive workers, often working off-hours when noise or disruption to daily activities is a concern.

Patients may be vulnerable or immune-compromised, which requires an awareness of infection control, especially during the demolition stage. Infection control is the discipline concerned with

preventing the spread of infections within a healthcare facility. Work may need to be rescheduled or performed during off-peak hours when conflicts such as noise or disruption of daily activities

to the facility are encouraged. We all know these projects are necessary to keep these facilities up to date with current building codes and technological advances.



This booklet gives you an inside summary view of this proprietary training. We want to illustrate a sample of our curriculum highlights so that you'll know how seriously the carpenters are taking this issue, and what we're doing to keep everyone safe.

For more information about this program go to www.carpdc.org/icra.

About the St. Louis-Kansas City Carpenters Regional Council's Construction ICRA Training

Carpenters who get training in Construction ICRA are given 24 hours of total training, including eight-hours of hands-on training. Successful results in skill-assessment testing must be mastered before certification, and the carpenter must re-certify every four years.

A photo I.D. issued from the STLKCCRC Training Center validates the completion of the ICRA training. There is no additional cost to the contractor or the healthcare facility for carpenters to be trained. All UBC members are trained free of charge.

ICRA Construction training takes place at the three STLKCCRC training centers, as well as several other satellite facilities:

St. Louis, MO:

8300 Valcour Avenue
St. Louis, MO 63123

Kansas City, MO:

8955 East 38th Terrace
Kansas City, MO 64129

Belleville, IL:

2290 S. Illinois St.,
Belleville, IL 62220



TEAM ICRA

For more information, visit
www.carpdc.org/ICRA

