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APIC Great Lakes: 2024 Educational Webinar Series

Raising the Bar on Patient Safety During Construction in Healthcare Facilities

February 20, 2024

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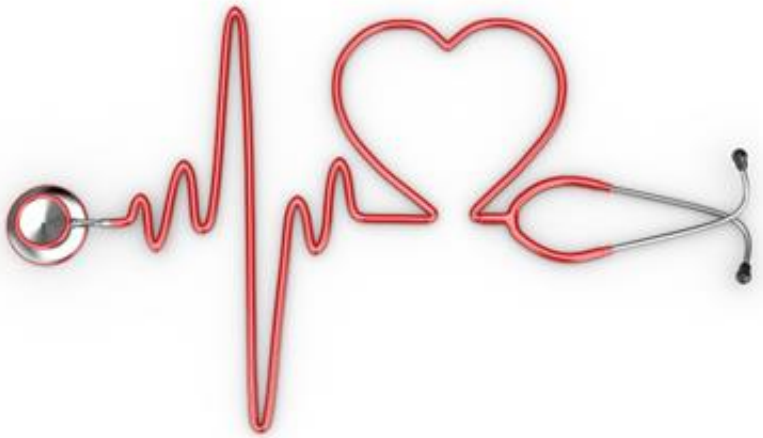
Housekeeping

- Please mute your line
- Have questions for our speaker? Drop it in the chat to be asked!

Raising the Bar on Patient Safety During Construction in Healthcare Facilities



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BUILDING STANDARDS FOR INFECTION PREVENTION

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Bridging the Gap Between Two Different Professional Cultures with ICRA Awareness Training

Annual HAI Statistics

- 1,700,000 affected
- 99,000 associated deaths each year
- 5,000 die from construction-related HAIs
- At cost of $47.5 Billion

Adapted from "Opening Pandora's (Tool) Box: Health Care Construction and Associated Risk for Nosocomial Infection. Jeffrey D. Clair, RN, Infection Control Manager/Construction, UPMC Health System, Corporate Construction, Pittsburgh, PA: Sandie Colatrella, RN, BSN, CLNC, Vice President, Health Care Planning and Research, Avanti Architecture, Pittsburgh, PA.

- *Aspergillus* spp.
  - Live in soil, water, and decaying vegetation
  - Survives well in air, dust, and moisture
- Mortality rate 65 – 100%
- Analysis of 24 reported outbreaks
  - 213 patient infection / colonized; 106 deaths

Adapted from Table 1. Summary of Documented Reports on Construction Related Nosocomial Outbreaks due to Fungus. Construction Related Nosocomial Infections in Patients in Health Care Facilities, Canada Communicable Disease Report; July 2001.

Challenges We Still Face Today

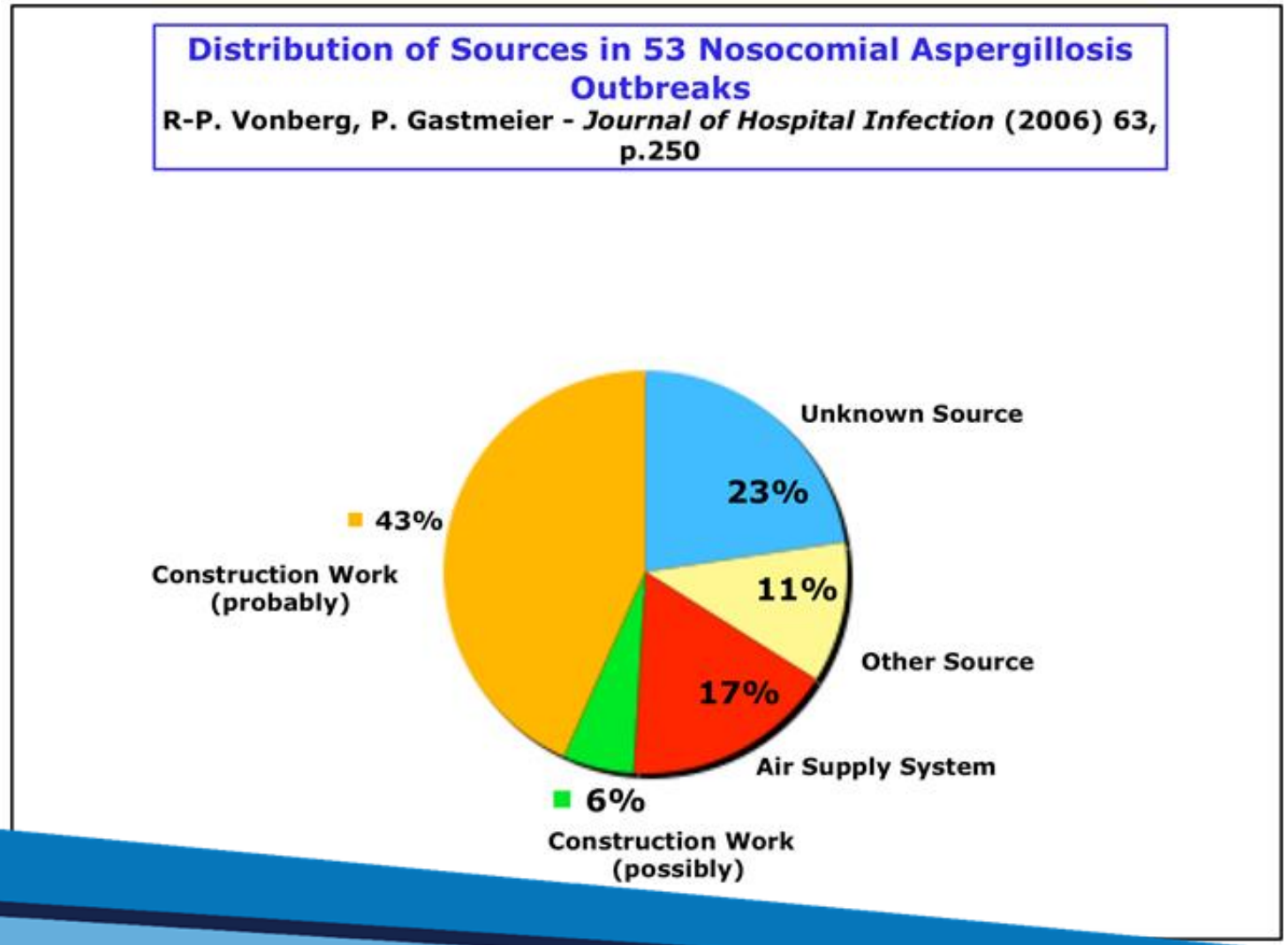
Infection Control: Employees of the Facility

Many health-care facilities have employees whose only duties are to observe and enforce infection control measures.

TJC – EC.02.05.05 EP1

"When performing repairs or maintenance activities, the hospital has a *process to manage risks associated with air quality requirements; infection control; utility requirements; noise, odor, dust, vibration; and other hazards* that affect care, treatment, or services for patients, staff and visitors"

Challenges We Still Face Today



Public Disclosure: Reputation and Funding

Michigan

41

24 Michigan hospitals penalized for infection rates, injuries

WNEM.COM
COVERAGE YOU CAN COUNT ON
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27 Michigan hospitals cited after patients get infections

Posted: Dec 27, 2016 8:15 AM EST
Updated: Dec 27, 2016 11:35 AM EST

By Jessica Royce, Digital producer CONNECT

MICHIGAN, (WNEM) - A new report shows more than two dozen Michigan hospitals have been penalized for hospital acquired infections, including five in Mid-Michigan.

The report from the Centers of Medicare and Medicaid Services looks to hold hospitals responsible for infections and the spread of antibiotic-resistant germs.

Stethoscope generic

The Detroit News

Infection rates cost Michigan hospitals fed funding

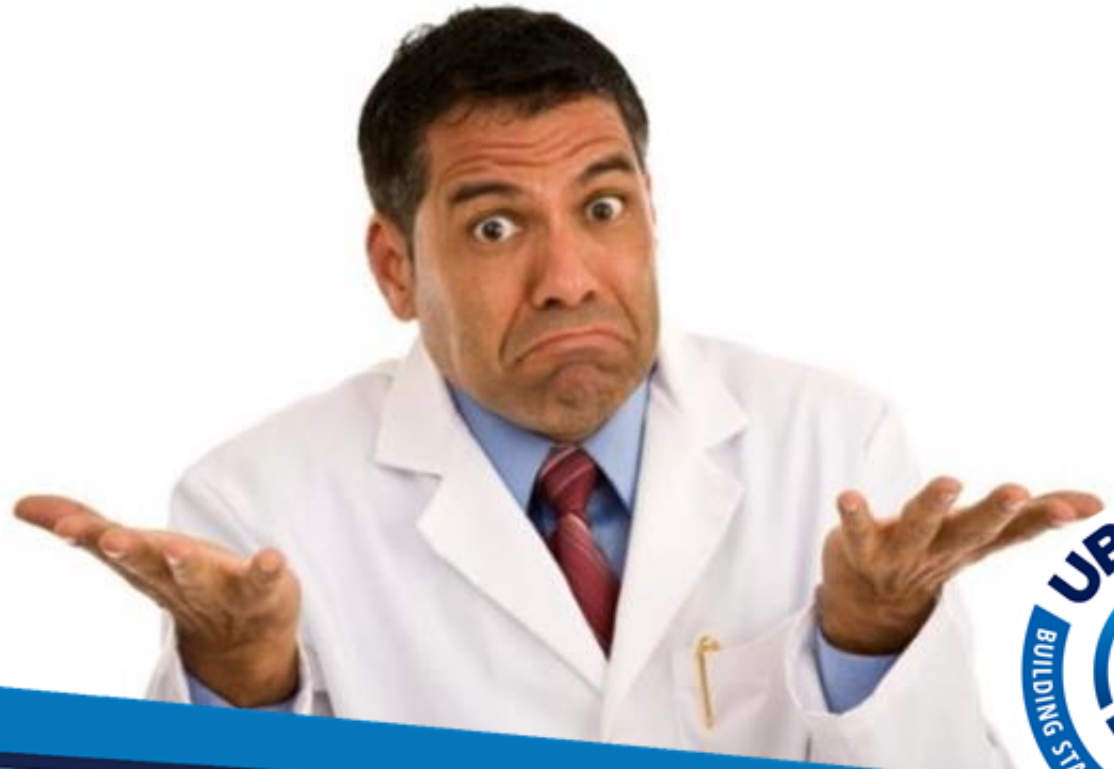
Karen Bouffard, The Detroit News Published 11:32 p.m. ET Aug. 30, 2016 | Updated 9:54 a.m. ET Aug. 31, 2016

Compliance Challenges & Updates

- Standard IC.01.03.01
- Standard EC.02.06.01
- Standard IC.02.03.01
- Standard EC.02.05.05
- Standard EC.02.06.05

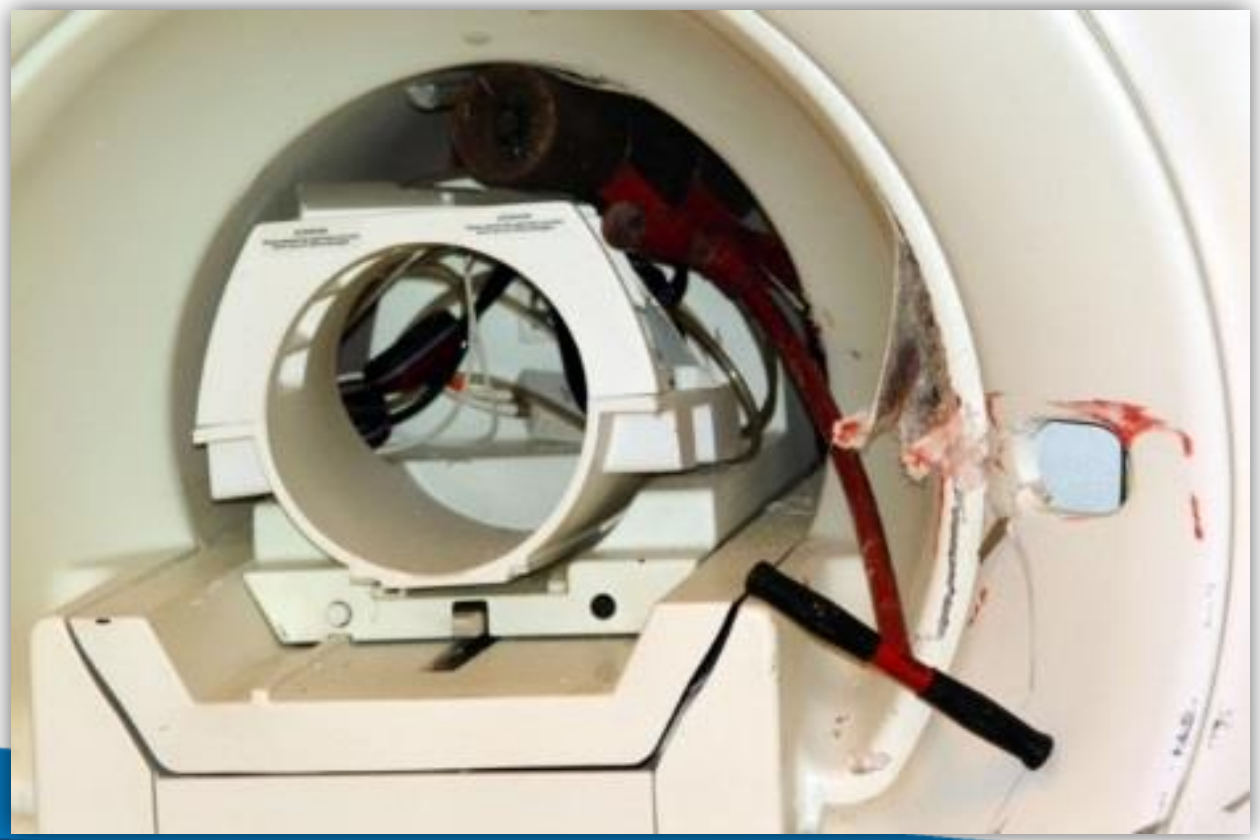
Does Everyone Have ICRA Awareness On Your Construction Project?

- Tradesmen & Women
- Project Managers
- Estimators
- Facility Staff



What is the Infection Preventionist's Role? And how do your daily activities impact patients?

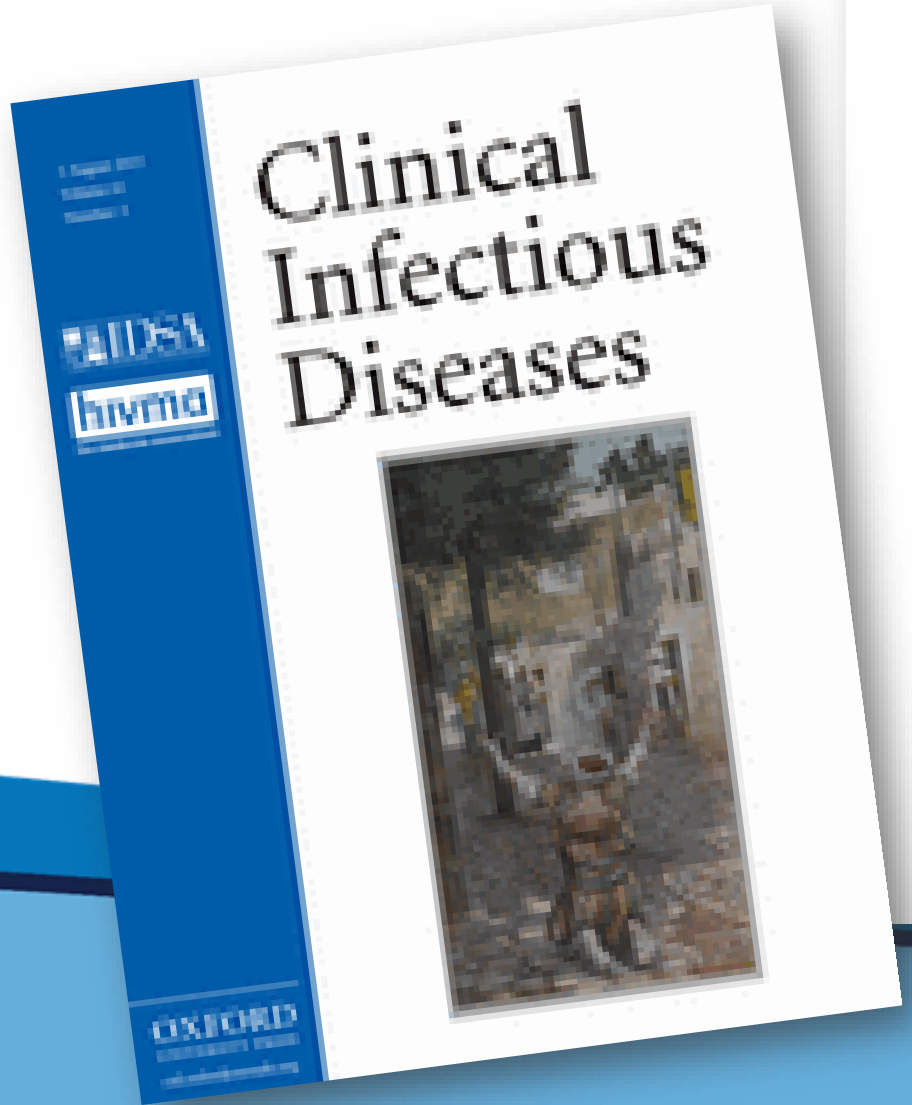
Small Glimpse Into Current Reports



100 lb. floor-roller pulled into MRI machine.

This cost the flooring contractor $55,000 to repair the damage and restart the MRI machine.

Small Glimpse Into Current Reports Continued



INVITED ARTICLE HEALTHCARE EPIDEMIOLOGY

Robert A. Weinstein, Section Editor

Review of Fungal Outbreaks and Infection Prevention in Healthcare Settings During Construction and Renovation

Hajime Kanamori,[1,2] William A. Rutala,[1,2] Emily E. Sickbert-Bennett,[1,2] and David J. Weber[1,2]

[1]Hospital Epidemiology, University of North Carolina Health Care, and [2]Division of Infectious Diseases, University of North Carolina School of Medicine, Chapel Hill

Hospital construction and renovation activities are an ever-constant phenomenon in healthcare facilities, causing dust contamination and possible dispersal of fungal spores. We reviewed fungal outbreaks that occurred during construction and renovation over the last 4 decades as well as current infection prevention strategies and control measures. Fungal outbreaks still occur in healthcare settings, especially among patients with hematological malignancies and those who are immunocompromised. The causative pathogens of these outbreaks were usually *Aspergillus* species, but Zygomycetes and other fungi were occasionally reported. *Aspergillus* most commonly caused pulmonary infection. The overall mortality of construction/renovation-associated fu gal infection was approximately 50%. The minimal concentration of fungal spores by air sampling for acc tion of fungal infections remains to be determined. Performing infection control risk assessmen implementing the recommended control measures is essential to prevent healthcare-associated fungal ou during construction and renovation.

Keywords. fungal outbreaks; *Aspergillus*; healthcare-associated infections; construction; renovation.

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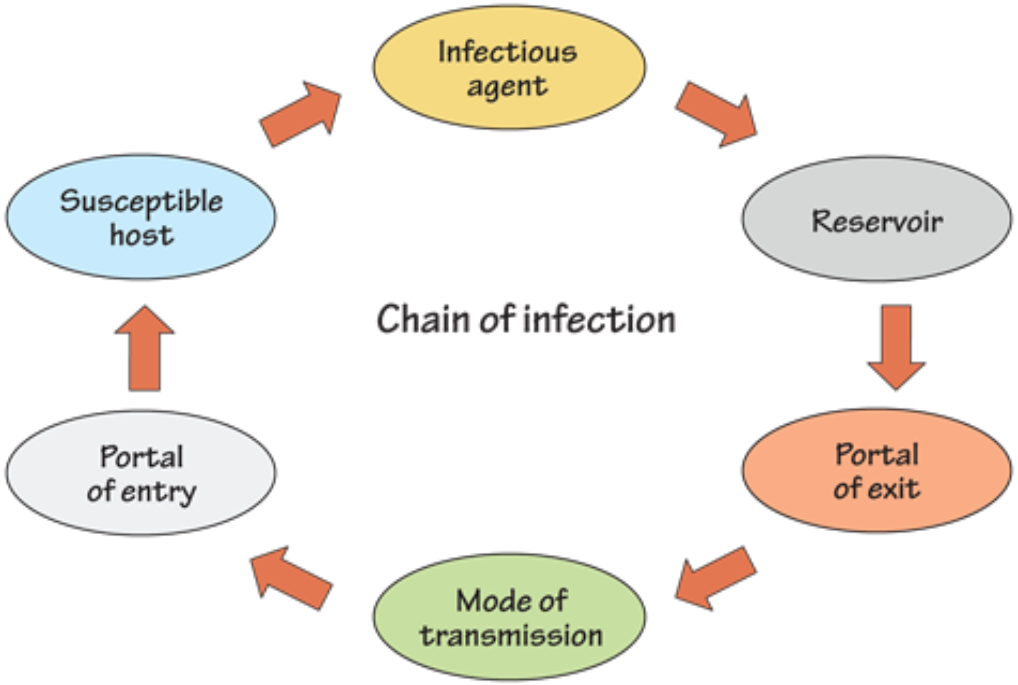
The **chain of infection** is a way to visualize the elements that contribute to the spread of infection.

Click to begin

Click to continue

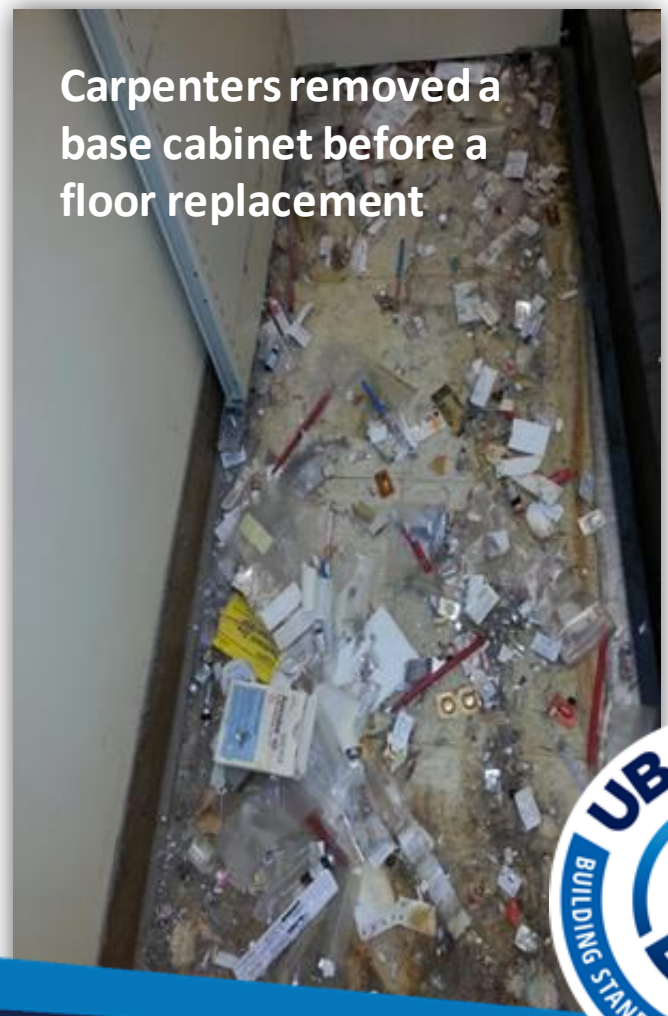


Routes of Entry

There are four ways that infectious agents can enter the body:

- **inhalation**
- **ingestion**
- **absorption**
- **puncture**

Routes of Entry



Bridging the Gap Between Two Different Professional Cultures with ICRA Awareness Training

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Standard Healthcare Facility Requirements

??? / ??? / ???

- Carpenter
- Electrician
- Plumber/Pipefitter
- HVAC Tech
- Floorlayer

Degree/Certificate/License

- X-ray Technician
- MRI Technician
- Nurse
- Doctor
- Surgeon

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“Back to the Drawing Board”

Standard EC.02.06.05 requires the organization to have a pre-construction risk assessment process in place, ready to be applied at any time if planned or unplanned demolition, construction or renovation occurs. Additionally, organizations must have a process that allows for minor work tasks to be performed in established locations or under particular low risk circumstances using predetermined levels of protective practices. The assessment covers potential risks to patients, staff, visitors or assets for air quality, infection control, utility requirements, noise, vibration and any other hazards applicable to the work.

The Joint Commission does not prescribe a particular risk assessment and implementation process. Recommendations can be found in the most recent edition of the FGI Guidelines for Design and Construction of Hospitals and the Centers for Disease Control and Prevention (CDC).

Many organizations use an assessment matrix that applies the construction intensity to the risk level of the construction planned as well as the location of the project, resulting in specific protective practices to be implemented for the duration of the construction project.

Staff and contractors performing the work are to have working knowledge of the specific protective practices being implemented. The organization monitors the project to ensure that the implemented protective practices are being followed and adjusted to meet any unforeseen conditions.

TJC Standards/Critical Access Hospital/Environment of Care/6-9-23

Important Topics of Best Practice Training

Awareness:

Regulatory Agencies, Organizations, and Responsible Parties

Healthcare Facility Administrative Controls:

Fire Control, Facility Permits, Facility Codes

Controlling Contaminants:

Particulate Counter, Negative Air Pressure, Barrier Types

Work Protocol:

Communication Protocols, Decommission Process, Daily Monitoring, Facility Etiquette

Mold Considerations:

New York City Guidelines, Inspection, Preliminary Determination

Objectives for Infection Control during Construction in Healthcare Facilities

- Respectful of patients
- Maintain a clean environment
- Prevent water damage
- Respond to emergencies
- Provide documentation
- Be trained & communicate

Understanding of Documentation Standards and Facility Requirements: Particle Count and Pressure Monitoring and Containments

- Training for scope of work
- Types of Containment
- What to look for in particle management
- Stoppage guides for particle & noise/vibration

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Understanding How to Respond Appropriately During Classification Changes

Mold Sources are Common
ICRA Awareness Training Helps Prevent Infection

Hazardous Materials Overview

Understanding ILSM Requirements: Disruption Planning

Healthcare Associated Infections - HAIs

In 2009 CMS/Centers for Medicare & Medicaid Services deemed HAI's as "Never Events"

Never Events are defined as, "adverse events that are serious, largely preventable, and of concern to both the public and health care providers for the purpose of public accountability".

ICRA Curriculum

Topics of Training Continued

- **Health-Care Facility Administrative Controls**
  - *Risk Evaluation (*Infection Control Risk Assessment)
    - ICRA **Team**
  - *Documentation*
    - ICRA **Form**
      - ICRA Matrix
    - ICRA **Permit**
    - Changes in Work Classification
    - Interim Life Safety Measures Team

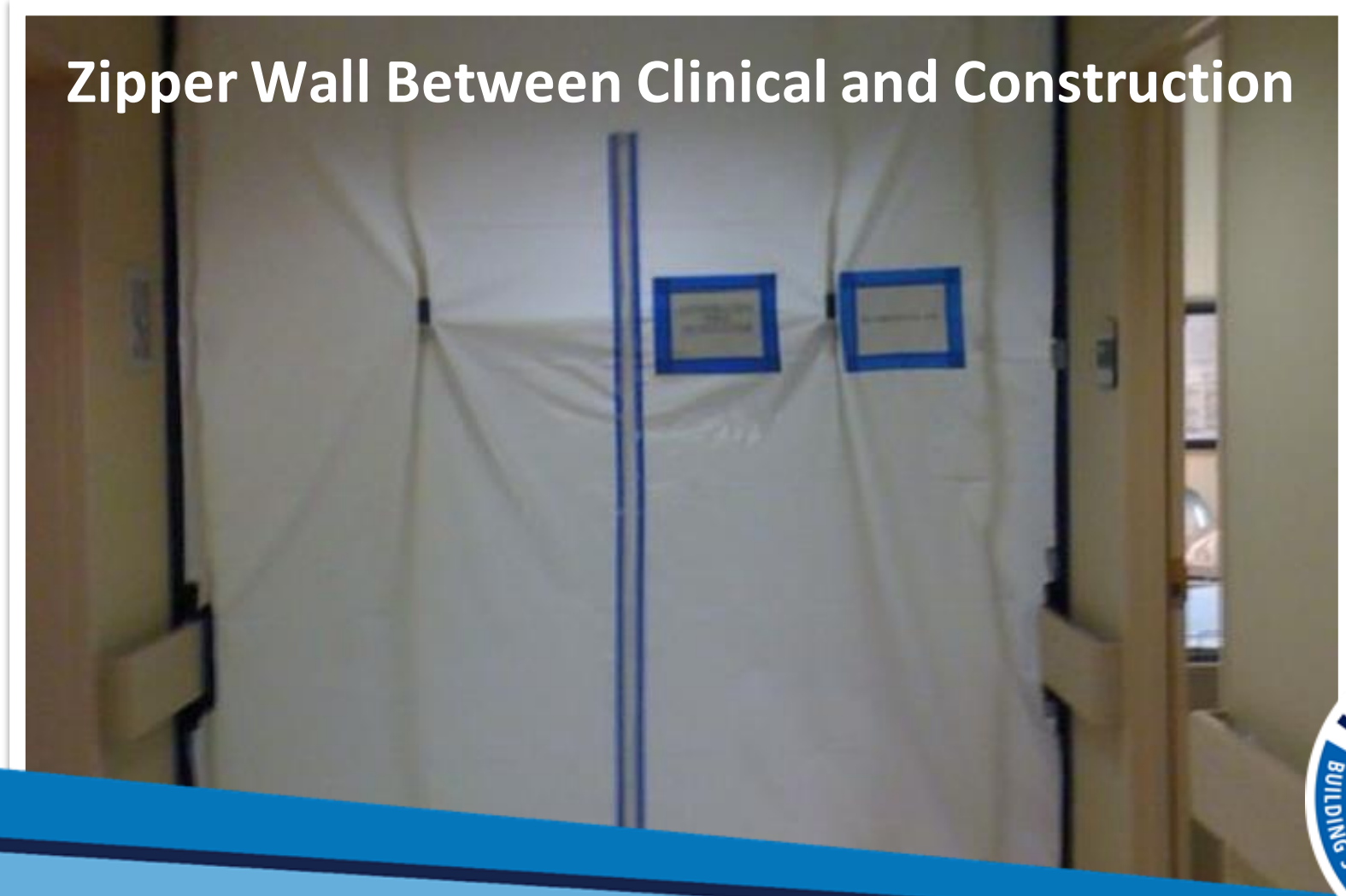
TABLE 3

Step 3 of the ICRA form

	Construction Project Type			
Patient Risk Group	**TYPE A**	**TYPE B**	**TYPE C**	**TYPE D**
LOW Risk Group	I	II	II	III/IV
MEDIUM Risk Group	I	II	III	IV
HIGH Risk Group	I	II	III/IV	IV
HIGHEST Risk Group	II	III/IV	III/IV	IV

Note: Infection Control approval will be required when the Construction Activity and Risk Level indicate that Class III or Class IV control procedures are necessary.

Preparing Healthcare Professionals to Recognize and Understand Containment Procedures



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Benefits

What's in it for Consumers?

The ability for my loved ones or myself to visit our local healthcare facility and feel confident that we're in a safer environment for receiving the care we need.

What's in it for the Healthcare Organization?

The ability to have a workforce of healthcare industry professionals and construction related professionals who understand why and how to protect the patients, visitors, and themselves during maintenance projects and construction projects in a healthcare environment.

Who Should Receive the Training?

Whether you wear a tie or a toolbelt, no one is above patient safety.

- All construction related professionals
- Environmental Health & Safety
- Quality & Patient Safety
- Construction, Planning & Design
- Facility Management
- Interim Life Safety Measures
- Information Technology (IT)
- Environmental Services (ES)
- Security Personnel
- Infection Preventionists (IP)
- Regulatory Compliance
- Risk Management
- Maintenance workers.

This training breaks down the silos that we are working in and builds bridges of communication for patient safety. *Because the containment area is only as strong as its weakest link.*

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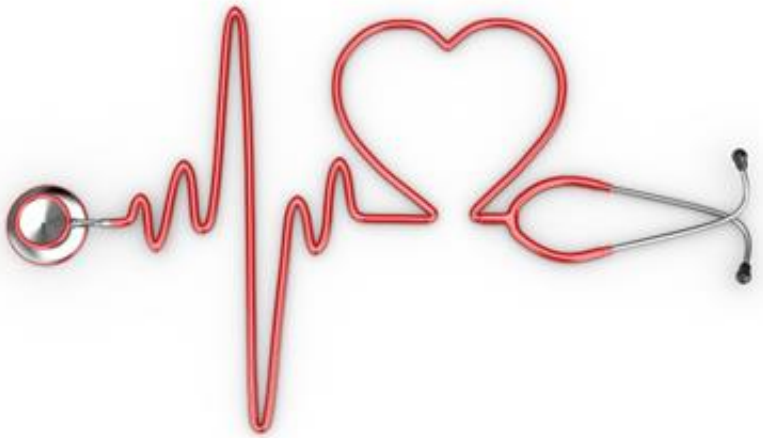
Questions? 1-888-553-ICRA | icramichigan.com



[MDHHS – APIC Infection Prevention Courses]

- Education for the Prevention of Infection
- Long-Term care Infection Prevention Essentials

[MHA – MDHHS Online learning modules]

- Module 1: Introduction to the ICAR Tool
- Module 2: Quality Improvement 101
- Module 3: Environmental Services
- Module 4: Hand-Hygiene

The Joint Commission Standards for High-Consequence Infectious Disease Preparedness

- [Video]
- [Report]

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- Our Events - APIC Chapter 077 – Great Lakes

- **YouTube channel– webinar recordings**
- APIC Great Lakes – YouTube

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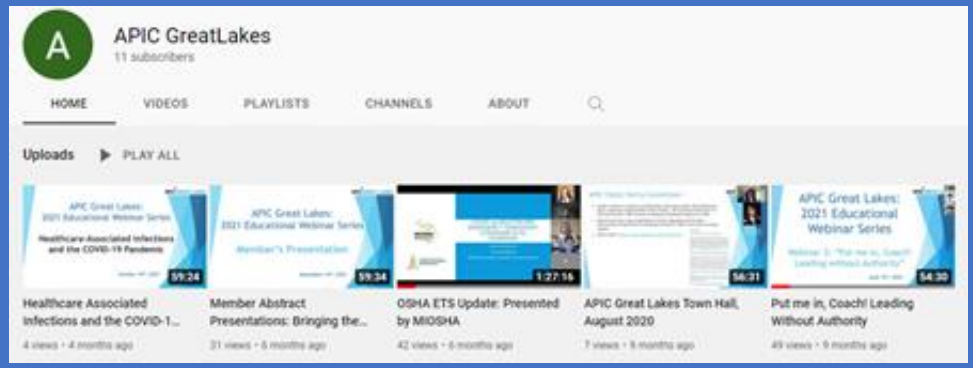

Job Postings

- **If you have an open position you would like to post to the APIC-GL webpage, please email our web master Rebecca Battjes (apicgreatlakes@gmail.com)**

Link to job board

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Thank you for joining us today!