The Design Professional and Infection Prevention for Healthcare Facilities

David J. Wells, AIA

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Personal Background

David J. Wells, AIA

21 Years of Experience in Healthcare Design

Representative Clients:

- Allegheny Health Network
- Penn State Hershey Medical Center
- Uniontown Hospital
- University of Pittsburgh Medical Center
- VA Healthcare System
**Discussion Topics**

1. Design Professional Role
2. Approach to Infection Control
3. Hospital Guidelines and Codes
4. Construction Practices
5. Discussion
Design Professional Role

Understanding Project Goals and Objectives
- Working with all stakeholders
- Involvement of Infection Control Officer
- The patient population

Review of Hospital Guidelines and Codes
- Governmental requirements
- Impact on project program

Thoughtful Design
- Patient and staff flow
- Maximize infection control through design

Construction Observation
- Assistance with coordination of infection control criteria
- Construction process and infection control
Approach to Infection Control

Project Layout
• Appropriateness within the facility
• Reduce cross traffic – High Risk / Low Risk

Promoting Hand Washing through Design
• Placement of sinks
• Hands free controls
• Wrist blades
• Seamless sink design

Hand Sanitizers
• Quantities
• Placement

Airborne Infection Isolation Rooms
• Anterooms
• Special design features
Approach to Infection Control

Material Selection
- Easily cleanable
- Seamless products

Advancements
- Vinyl like fabrics
- Easier maintenance
- Antimicrobial products

HVAC, Plumbing, and Electrical
- Fresh air requirements
- Air changes
- Filtering
- Flushing of plumbing systems
- Hands free controls
Hospital Guidelines and Codes

FGI Guidelines for Healthcare Facilities
- Key objectives
- Infection Control Risk Assessment (ICRA)
- Infection Control Risk Mitigation (ICRM)
- Patient Handling and Movement Assessment (PHAMA)

International Building Codes and NFPA
- IBC and IEBC – Construction requirements
- NFPA and Pennsylvania Department of Health

Other Codes
- Americans with Disabilities Act (ADA)
- Allegheny Co. Amendments to the Plumbing Code
- Energy Codes
Construction Practices

Maintain ICRA Barriers
- Placement
- Types of barrier construction
- HEPA filtering and exhaust
- Maintaining the ICRA barrier
- Project phasing

Control Access to the construction site
- Contractors, Hospital Staff, Visitors
- Debris removal and material delivery

Mitigate Impact to adjacent spaces
- Construction site access route
- Elevators
- Adjacent MEP Systems
- Project close-out / final inspection
Discussion

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