

The Cure for Hospital Safety and Security

AS ONE MOVES THROUGH A hospital or healthcare facility, it's easy to recognize that there are a large number of openings. Many operate in a way specifically needed for the different rooms or departments they serve. Understanding these unique needs, keeping up with ever-changing compliance issues, and maintaining these openings can be challenging.

In general, hospital doors withstand constant use, and potential problems may not always be obvious. There are some universal issues to look for on openings of any kind.

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The following recommendations will help facility managers at hospitals and independent

locksmiths who deal with hospitals to create a smart, safe and secure environment by identifying potential issues with design, products that aren't functioning correctly, and those devices that just need a little maintenance to keep things running smoothly.

Here are a few issues that should be identified and addressed immediately:

- Latches that don't engage, preventing doors from properly closing and locking (and don't meet safety ratings)
- Malfunctioning closers that cause the door to slam shut or not close completely, as well as closers that don't have covers or are leaking oil
- Corroded or worn hinges that don't allow doors to open or close smoothly, including hinges pulling from the door frame, causing binding
- Poor-quality exit devices that can catch on clothing and carts, including damaged or missing end caps and missing or bent bottom rods
- Faulty power transfers that can prevent the use of credentials for entry



Phoenix Children's Hospital

- Loose door hardware that can eventually break or inhibit easy use of the door
- Wall magnets that are loose, shoved into the drywall, or malfunctioning so that the electronics don't work and the doors end up being propped open
- In areas used for patient care and staff concentration, the overall reduction of auditory disturbances is important. The use of specially designed quiet latches and sound-reducing exit devices can help. By incorporating exit devices with innovative dampers that decelerate the mechanical push pads on the push and return stroke, as well as motor-driven electronic latches, most of the noise associated with traditional exit devices is eliminated.
- Using a concealed vertical cable system eliminates the rattles of rods in the door and the clanking of rods on the floor.

Healthcare facility doors get extremely heavy use. Oftentimes, their performance literally hinges on the hardware. In fact, doors that sag in their frames may be the result of faulty hinges. This can easily be prevented by replacing standard hinges with continuous hinges that provide support for the entire length of the door or pivot hinges that support the door at the top and bottom.

There are a number of specialty door hardware solutions available that create a safer and more efficient environment. The use of push/pull hospital latches makes it easier for patients and staff members to operate doors when their hands are full, and they are ADA-compliant. And specially designed anti-ligature devices help create a safer space for behavioral health patients. With unique sloped and recessed surfaces, these locks and hinges cannot be used as a ligature point for those intending to do harm to themselves.

Also be aware that Joint Commission inspections now include a life safety specialist as part of the team. Life safety codes require that certain doors have appropriate smoke seals and fire protection ratings. Getting into compliance can be as easy as installing a steel door that seals tightly when closed. The seals also reduce noise, which is an important part of creating a quiet and safe environment for patients.



Indiana University Health North Hospital



Specially designed anti-ligature devices create a safer space for behavioral health patients.

In addition to general issues that need attention in a healthcare facility, there are also specialty openings that have unique needs.

Cross-Corridor Openings

It's well known that doctors and other hospital personnel need easy movement throughout the facility and don't like to open doors or wait for them to open when they're in a hurry. Doors that don't open as needed can sustain repeated

is also imperative. These areas also include a wide range of applications, such as private patient rooms and care areas, public areas like waiting and vending areas, and staff offices within the department. Facility managers and independent locksmiths need to consider the following:

- Coordination with infant abduction systems
- Controlled access and monitoring of visitors coming and going within department

Emergency departments present special challenges. The fast pace and constant flow of people makes tracking visitors difficult.

damage from carts and other equipment banging into them. A smart solution is to automate the hospital's cross-corridor openings.

To automate them with enough time for easy flow of traffic, locate a push or touchless actuator farther from the door opening. By creating a longer distance between the actuator and the door, it lets the user trigger the actuator sooner so that the door is open by the time the user gets to it, minimizing damage from pushing. To make this transition, there are wireless actuator options that talk directly to the auto-operators and make installation simpler.

Labor and Delivery, Neo-Natal Intensive Care (NICU) and Nursery Departments

Security is one of the biggest priorities in these areas. While keeping mother and baby safe is of the utmost importance, maintaining a warm and nurturing environment

- Reduction of unwanted noise
- Openings that allow room for carts, gurneys and other equipment to pass easily
- Compliance with fire codes
- Reduction of dangerous bacteria

Emergency Department

Emergency departments present special challenges. The fast pace and constant flow of people makes tracking visitors difficult, and the constant wear and tear on doors and hardware means special care is needed to keep openings functioning properly. Increasing levels of violence also require facilities to plan for the unexpected. Hospitals need to be prepared for the following:

- Lockdown situations to contain violence
- High use and abuse that cause damage to doors and hardware
- Behavioral health patients who require care areas designed to remove physical risk

Patient Records Storage

Whether protecting physical patient records or computers that access them, patient records storage and access areas offer a special challenge because they must be easily accessible and are often used by many people on any given day. However, confidentiality of the information contained in these areas is vital because of HIPAA regulations requiring protection of confidential patient information. That means that effective security systems are critical. You must meet the following challenges:

- Compatibility between locks, credential systems and/or hardware
- Adequate key and access control
- Adoption of wireless devices such as electronic locks to meet the needs of existing buildings that don't permit easy installation of hard-wired access control systems
- Reduction of liabilities associated with a records breach and HIPAA regulations

In addition, although regular staff offices within a hospital may only be used by a few people, they also often contain highly sensitive information ranging from patient charts to inter-office communications. Suggest adding an electronic access control to these openings to control access and track who has entered that specific door.

If the hospital can't accommodate the installation of a networked access control system for records rooms or offices, consider a stand-alone electronic lock. Such easy-to-use locks require a PIN and/or other credential for entry and can track up to 2,000 events at each lock. The administrator can then know who used the lock and when.



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Stairway Doors

Stairways in hospitals don't typically see much traffic, aside from staff using them to get quickly from place to place. But stairwell doors play an important safety role by allowing quick, easy egress in an emergency. However, they can also compromise security by allowing access to unauthorized persons within the hospital. Look for the following issues:

- Older doors that may not be able to prevent unauthorized entrance
- Doors that may not close and latch correctly
- Doors that may not be up to current code
- Gaps between doors and frames that don't provide proper fire and smoke seal

- Doors that are propped open, compromising security and environmental air pressures

One sure sign of an improperly functioning door is one that's propped open with a broom handle or wood wedge. Not only does propping compromise the security of the door, it can also impact the performance of other doors nearby. Hospitals have a lot of negative pressure, and changes in pressure can prevent doors from latching. Propping doors open can cause this type of pressure change.

If there is one door that won't close, although it appears that all hardware is working correctly, check that all the other doors in the area are properly closed. Often fixing a door is as easy as making sure all the others are closing properly.

Patient Rooms

Patient room doors need to allow easy access for gurneys, equipment, wheelchairs and medical staff while still providing patients and family the privacy and safety they need. Because patient rooms turn over frequently, cleanliness is also critical to patient and staff well-being. Consider the following:

- Use of push/pull latches in place of standard levers to make doors easier to open when the user's hands are not free
- Openings that are wide enough for equipment to pass to avoid damage to frame, hardware and door

A hospital's shipping and receiving dock is one of the most vulnerable areas when it comes to security and access control.

- The use of door hardware made from antimicrobial copper solutions to reduce the spread of infectious bacteria
- Kick plates that cover the appropriate amount of the door to avoid damage from cleaning equipment
- Hinges play a big part in the accessibility of openings. Doors that aren't quite wide enough to let carts or equipment pass easily can be made wider by changing to swing-clear hinges. These hinges let the door swing past the frame to maximize the size of the door opening.

Patient Restrooms

Patient restrooms must provide privacy but also the right safety features to prevent injury to the patient and provide quick, easy staff access in an emergency. Here are some issues to consider:

- Outward-swinging doors to allow staff access in the event of a patient fall
- Use of push/pull latches with a privacy function for added confidence of privacy
- Locks with a release on the opposite side for access in case of emergency
- Use of overhead stops on doors that may swing into walls and cause damage
- Doorways wide enough for wheelchairs to pass easily

Hospital Pharmacy and In-Department Pharmaceutical Storage

When it comes to the pharmacy, theft is the number-one security concern. Pharmaceutical supplies are accessible to staff members across shifts and possibly from other departments. These areas may also be in view of patients and/or accessible to visitors. Access control and tracking are critical to preventing drug theft and maintaining patient confidentiality. Consider these issues:

- Maintaining key control and/or accurate access management
- Use of the correct device for the opening, whether it's access to a room or a cabinet
- A quality lock will not have lever sag, which may prevent correct latching, compromising security.
- A great way to control pharmacy access is with biometric readers. High-security areas of the hospital, particularly laboratories and pharmacies, require a higher level of access control. Biometric readers, networked or standalone, ensure that only those who are authorized gain access to these sensitive areas.

Receiving Dock

A hospital's shipping and receiving dock is one of the most vulnerable areas when it comes to security and access control.

Staff and delivery personnel come and go through this area 24 hours a day, creating a need for effective and reliable access management.

Linens/Hazmat

Linen storage rooms do not typically see high traffic, but they do take abuse from carts being pushed in and out, banging into the door and frame. Allowing only the people who should have access to these areas is important, as linen chutes and other hazmat receptacles pose a risk for transfer of infectious materials. Be aware that:

- Doors are not propped open to allow unauthorized or accidental access.
- Damage to doors from carts and equipment can compromise latching, closing and locking.
- Using access control measures such as electronic locks can eliminate unauthorized access.

Designing, installing and maintaining the openings in a healthcare facility are no simple tasks, but there is one way to make it easier. Standardizing on solutions from a single provider will ensure that you have more control over your openings. You will become more efficient in your installation and maintenance activities, key systems will be easier to manage, and you'll notice smoother performance of your electronic access control and electrified door hardware. The results will be less maintenance and far more reliable performance.

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