A Healthy Hospital is a Safe Hospital

The Hospital Environment

Hospitals are the most complex of building types

The Hospital Environment

Challenges are presented by their size, open spaces, trusting atmosphere, transient population and sheer volume of people
The Hospital Environment

- No one person can reasonably have complete knowledge
- Each hospital is comprised of a wide range of services and functional units many of which are high risk

Evidence-Based Design
Evidence – Based Design

The process of basing decisions about the built environment on credible research to achieve the best possible outcomes

Crime & Hospitals

- Hospitals have traditionally been regarded as "safe havens"
- This perception is changing according to Tony York, president of the International Association for Healthcare Security and Safety
- "more and more violence is occurring in health care institutions"

Source: An undisclosed Maryland-based expert in a June 16th, 2009 article in the Charleston Daily Mail.

Hospital Crime is Rising

- Hospital crime of all kinds is rising
  
  2010 Int'l Association for Healthcare Security and Safety
Hospital assault highlights security need

An assault on a nurse at a Charlottetown hospital earlier this year has highlighted the need for better security at P.E.I. hospitals, a nurses union president said.

Josephine Freeman, NL, was sentenced in provincial court to six weeks in prison for assault in a scuffle in the emergency room at the Queen Elizabeth Hospital on March 26.

Crown prosecutor John Moloney said Freeman was drunk and having an epileptic fit when he arrived at the emergency room. When officers tried to take him into custody, he bit and ran off with the back of the head

The incident has raised questions about security in the province’s emergency departments, P.E.I. Nurses Union president Barbara Bonney said. There is no security guard at the QEH.
**Other Crimes**

- Theft of auto
- Theft from auto
- Internal theft
- Vandalism
- Trespass
- Crimes of opportunity
- Threats
- Terrorism

**Hospitals & Crime**

- According to the U.K.’s National Health Service (NHS) there were 55,000 **reported** incidences of physical assault against staff in 2007
- This represented 4.2% of NHS’ employees

**Who?**

- 97.1% of physical violence is perpetrated by patients and their relatives
High Risk Locations

The Secure Hospital Environment

Space Assessment

High Risk Areas

- Emergency Dept.
- Intensive care
- Maternity Ward
- Pharmacy
- Psychiatric Centre
- Retail Outlets
- Parking Lots and Structures
The Hospital Environment
Scheduling of space

Efforts should be made to group the following functions:
- Outpatients,
- Emergency,
- Intensive care,
- Radiography,
- Operating theatres,
- MRI scanners
- Obstetrics
- Gynaecology
- Anti-natal
- Labour
- Special care
- Maternity beds
- Aids in “compartmentalization”

Emergency Department

Emergency Dept. Crime
- 100 % of emergency dept. nurses experienced verbal threats
- 82% reported being physically assaulted

A recent Florida study
Emergency Dept

Several factors contribute to danger in the emergency department. These include:

- Stress
- Delays
- Overcrowding
- Lack of communication/language barriers
- Influence of alcohol, drugs
- Mental illness
- Presence of weapons
- 24 hour access

Workplace Violence

- Bill 168 amendments to Ontario’s Occupational Health and Safety Act (OHSA)
- Effective June 15, 2010 Bill 168 amends the OHSA to enhance protections against workplace violence and address workplace harassment

Training

- Training to help hospital staff recognize potentially violent patients and visitors and handle violent people
Curtailing ER Violence

- Hospitals with a zero-tolerance policy are 50% less likely than hospitals without one to experience a violent incident

  Emergency Nurses Association

Emergency Dept

- Design can play a key role in curtailing violence.
- It can:
  - allow staff members to keep tabs on patients, visitors and any potential problems brewing in the waiting and treatment area
  - prevent potentially dangerous individuals from entering the dept.
  - calm down aggravated individuals

C.P.T.E.D.

Proper design and effective use of the built environment can lead to a reduction in the incidence and fear of crime and an improvement in the quality of life.
A key element of good design is natural surveillance.

The shape and layout of the emergency dept. and waiting rooms is critical to maximizing this potential.

Emergency Dept

Has resulted in emergency dept. waiting rooms using a hub-and-spoke approach and full glass panels being added to treatment rooms.
Emergency Dept

- Access control is one of the most important aspects of emergency department security
- A 2007 survey released by GE Security and IAHSS, 68% of hospitals were using access control technology in their emergency department

Emergency Dept Entrance
The ER is generally the point of entry for the rest of the facility

Emergency Dept Entrance
- The ER offers great potential to develop the transition from public to semi-public (reception/triage/waiting) to semi-private (patient treatment) and private space (treatment rooms)
Emergency Dept Entrance

- Concentrate on controlling hospital access by securing the emergency department perimeter
- Fundamental question: How do we control the flow of people?

Emergency Dept Entrance

- The entrance to the emergency department should have an access control system fitted for nighttime use
- Experience shows that fights often continue in ED
- Entry by night security staff has proven very effective in preventing further trouble

Source: Secured by Design – Hospitals

Emergency Dept Entrance

- Ambulance entries should not be visible from walk-in entries
- Emergency Dept. access control should include measures to prevent persons from entering through the ambulance area
- Best achieved by way of garage door opener
Emergency Dept Reception/triage area

- Reception staff should have surveillance of all parts of the ward including the whole waiting area, toilets and, where possible, corridors to treatment rooms
- Triage areas should have access control potential

Source: Secured by Design – Hospitals

Emergency Dept Reception/triage area

Design of the desk is important to ensuring safety and confidence of staff
High, wide reception desks increase the distance between the receptionist and potentially aggressive patients

Source: Secured by Design – Hospitals

Emergency Department Visitor Management & Badging

- A form of territorial reinforcement
- Should include staff
- 11% of hospitals in the GE/IAHSS survey used electronic visitor management
Emergency Dept Waiting Area

The waiting area should be well lit and open to surveillance

Source: Secured by Design – Hospitals

Emergency Dept Waiting Area

- All furniture should be fixed to prevent their being used as weapons
- Public telephones and vending machines should be located with a direct view to the reception counter

Source: Secured by Design – Hospitals

Emergency Dept Waiting Area

- Use of pale green or blue colour scheme
- Provision of TV, permanently tuned to a news channel

Source: Secured by Design – Hospitals
Emergency Dept
Patient Treatment Area

- Entrance to the treatment rooms should be controlled by an attendant.

Source: Secured by Design – Hospitals

Emergency Dept
Treatment Rooms

- The layout of treatment rooms should omit obstacles between the doctor/nurse and the door
- A secondary door should be provided between treatment rooms to minimize entrapment potential

Emergency Dept
Secure (psychiatric) rooms

- Used to contain mentally unstable or intoxicated patients who might otherwise be harmful to themselves or others
- Ideally should feature a controlled waiting area
Emergency Dept

Secure (psychiatric) rooms
- Outfitted in such a way that nothing can be used to harm themselves or others
- Air conditioning vents that do not accept a loop

Maternity ward

Trouble Spotting
- National Center for Missing and Exploited Children (NCMEC) has developed a profile for Infant Abductors
Maternity ward

- A high profile unit with enormous potential for bad publicity and liability

Maternity ward: Location

- The maternity ward should be located deep within the hospital off the main floor with consideration being given to a stand alone maternity and paediatric ward.

Source: Secured by Design – Hospitals

Maternity ward: Nursing Station

- Strategically locate to facilitate the control of all visitors entering the ward
- Entrances covered by natural surveillance and CCTV aimed for identification level coverage

Source: Secured by Design – Hospitals
Maternity ward: Entry Doors
- Entry doors glazed to allow visitors to be viewed prior to entry
- Access controlled double door system capable of being locked in the event of an emergency

Source: Secured by Design – Hospitals

Maternity ward: Procedures
- Visitation policy
  - Limits
  - Badges
- Arm band/skin sensing alarm

Source: Secured by Design – Hospitals

Pharmacy
- A vulnerable part of the building which can attract all forms of drug dependent people.
**Pharmacy: Location**

- The pharmacy should be located within the interior of the building well away from the main entrance away from publically accessible washrooms.

Source: Secured by Design – Hospitals

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**Pharmacy: Staff access**

- The staff entrance should have access control and be located in an area inaccessible to the public.

Source: Secured by Design – Hospitals

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**Pharmacy: Counter area**

- The pharmacy counter should benefit from both natural surveillance and CCTV coverage.
- The counter should be high and wide enough to prevent staff from coming into direct contact with customers:
- The floor may be raised.

Source: Secured by Design – Hospitals
Pharmacy: Exterior walls

- The pharmacy walls should be masonry and continuous to the floor above

Source: Secured by Design – Hospitals

Retail Outlets

- Size and layout of the shelves should be arranged to facilitate natural surveillance

Source: Secured by Design – Hospitals

RFID Technology

- Found in many new anti-theft devices
- Also use to monitor babies in the maternity ward and keep eye on alzheimer patients
- Helps staff keep an eye on it as well as locate equipment quickly when needed
Wayfinding

- Clear signage and other forms of wayfinding will help to reduce confusion and stress and aid with the movement of people

Wayfinding

Clear signage and other forms of wayfinding will help reduce confusion and stress and aid with the movement of people while eliminating excuses

PUTTING THEORY INTO PRACTICE

Children’s Mercy Hospital
Kansas City, Missouri
Putting Theory Into Practice

- 15 entry points
- No feasible way to monitor and account for people coming in
- At most, only possible to staff five sign-in posts

Resulted in 10 doors being designated as emergency-exit-only throughways

Decision based on levels of historic flow, where emergency access is needed

Access is further controlled at night, when just three entrances (two main entrances & ER) are open
Putting Theory Into Practice

Results
- Have reduced security incidents and won the support of staff given the backing of top Doctors and Administration

Reference
- Secured by Design – Hospitals, April 2005
- www.securedbydesign.com/pdfs/SBD_Hospitals_110405.pdf

Questions?
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