

## PREVENTION OF NEEDLESTICK INJURIES

Blood borne pathogens remain the greatest source of nosocomial infection to health care workers in both hospital and community settings. Any significant exposure to blood carries a potential risk of transmission if the donor is a carrier of hepatitis B or C or else HIV. The risk for acquiring from a needlestick injury involving a positive individual is around 0.5% for HIV, 3% with hepatitis C and as high as 30% in cases of exposure to hepatitis B. "Significant exposure" normally follows a needlestick or sharps injury although splashing of blood especially in the eyes can also result in infection. Unfortunately, there is still much to be done to improve the local situation. Needlestick injuries continue to occur because many still persist in resheathing used needles despite the fact that this is singularly the most common risk factor for such injuries. In addition, members of the nursing and especially medical professions daily put cleaning staff at risk through carelessly mislaid and undisposed needles. Despite the fact that the Infection Control Unit offers a continuous on-call service, many injuries still go unreported or else are notified as long as 24 hours after the event, by which time any intervention would have limited or no benefit.

### *To my fellow healthcare professionals . . . .*

In September 1991, I became infected with the human immunodeficiency virus (HIV) when I suffered a needle stick after drawing blood from a patient with AIDS. In the months and years since this incident, I have traveled the country speaking to fellow health care workers about my feelings and insights regarding the ways my life has changed and the ways it remains the same. When asked what my most constant message is, I reply that as health care workers we must closely examine our attitudes about the risks we face regarding occupational exposure to blood-borne pathogens. How do we handle the knowledge that we face such severe risks in the environment in which we spend our days without becoming overreactive, even paranoid? How do we protect ourselves? And to what extent and in what circumstances can we do so without denying our patients the feeling that while they alone have the illness, we are facing it together? Where do we place the fine line that resides between self-protection (as potential patients) and self-expression (as compassionate caregivers)?

I recall one of the lectures I gave to a group of health care workers in California. After I described the safest tactics to employ in the operating room, a prominent surgeon rose from where he sat to share his feelings about what I had said. With all due respect, he told me, he recognized the value of my words and he agreed that it would be best to completely gown and follow all precautions when handling instruments with each and every patient. But frankly, he continued, he had to admit that he tended to evaluate patients' possibilities of being HIV-positive simply by the way they appeared.

On the other hand, if a patient was known to be a high-risk candidate, he was far more likely to go to the extent of dressing and behaving in the manner I was recommending. He was just being "realistic"-- gowns are hot, double gloving is inconvenient. Another of his colleagues stood and concurred with what he'd said. Truly, I was astounded. Here I stood before them, a living example of the experience I might help them avoid. After the lecture, the head operating room nurse approached me quietly and asked, "Do you see what I'm up against?" How could she have any effect on increasing safety when she worked with people who were otherwise proficient, superb physicians, yet chose to ignore my cautionary words?

No one wants to admit it could happen to them. It's easier to just deny the whole problem. But in denying the problem, denying the risk, we put ourselves in a category that is separate from all other human beings. Given my experience as both physician and patient, I implore you: care for yourself, care about your patients, and never stop generating hope - the greatest treatment any patient, any person, can ever receive.

With greatest respect,

*Patti Wetzel, MD*

# THE FOUR GOLDEN RULES TO PREVENT NOSOCOMIAL TRANSMISSION OF BLOOD BORNE INFECTIONS TO HEALTH CARE WORKERS

## ADOPT UNIVERSAL PRECAUTIONS

- Adopt universal precautions for each and every patient, irrespective of presumed risk status.
- Wash **hands** with soap and water between each and every patient and if contact occurs with blood or body fluids. Cover cuts and abrasions with water-proof plaster
- Wear **gloves** when contact with blood/body fluids is a possibility
- Wear an **apron** when contact with blood/body fluids is a possibility
- Wear a **visor** when splashing of blood or body fluids is a possibility
- Dispose **clinical waste** into yellow bio-hazard bags for incineration
- **Linen** soiled with blood or body fluids should be placed in water soluble bags and then put into yellow laundry bags for transportation.

Treat body fluid **spillages** by mopping up with disposable paper towels (wearing gloves) and then applying chlorine disinfectant to the surface, leaving it to act for 15 minutes before removing.

## DISPOSE OF ALL SHARPS PROPERLY

- ◆ Each ward or clinical area should be in possession of a proper sharps container
- ◆ The sharps container should be taken by the user to the point of use so that all sharps are immediately by him/herself directly into the container.
- ◆ In cases of conventional syringes, needles should not be re-sheathed after use. The needle should be removed using the needle removing slot purposely constructed into the lid of the sharps container. If using Vaccutainers, impale needle into the slot on the top of the lid, whilst still in sheath. Remove needle to take blood and then replace into the sheath still stuck to the lid. Once resheathing has been done safely, the needle can be removed from the barrel and disposed immediately into the sharps box
- ◆ The sharps container should be locked once two-thirds full and placed in the dirty utility. Do not overfill as the lid will not lock and may tempt other users to push down the contents with the risk of injury.

The container should always be held at a distance from the body whilst being transported.

## GET VACCINATED AGAINST HEPATITIS B

- All health care workers should ensure that they have received a complete course of three doses of Hepatitis B vaccine.
- The vaccine is totally safe, as it produced in yeast cells and provides a good immune response.
- Hepatitis B vaccination is normally given in three doses.
  - Dose 1
  - Dose 2    1 month after first dose
  - Dose 3    5 months after second dose
- Individuals whose work brings them into direct contact with patients should then have a blood sample taken 8 weeks after the third dose.
- If the anti-HBs antibody titre is more than 100 IU then no boosters will be needed subsequently.
- Individuals exhibiting lower titres will be assessed and advised by the Infection Control Physician.
- There is currently no vaccine available against hepatitis C or HIV

## MANAGE SHARPS INJURIES ADEQUATELY

- Free bleeding should be encouraged, but under no circumstances should the wound be sucked.
- Wash the wound **liberally with saline or soap and water**, without scrubbing, and then cover with a waterproof dressing. Similarly, contaminated skin, conjunctivae or mucous membranes should be washed immediately. This applies to all situations at all times.
- **Any significant incident**, however small, MUST be reported PROMPTLY to the Infection Control Unit, especially but not only if the donor is known to be hepatitis B or C or HIV positive or within a high-risk category
- For exposure incidents occurring during the day, the Infection Control Unit should be informed immediately on ext. 1747. In addition the Infection Control Nurses are on call after hours and should be contacted by pager for advice.
- Prophylaxis is available against hepatitis B and also against HIV but no prophylactic treatment exists against hepatitis C

# FIRST ANNOUNCEMENT

As infectious diseases threaten to become the major medical challenge of the new millennium, it is vital that health care professionals are brought up-to-date with the latest developments in the prevention, control and treatment of infections in both hospital and community settings.

This conference will include a morning plenary session with three state-of-the-art lectures. A choice of concurrent symposia on nosocomial infections, infection control and community infections will be held in the afternoon. Topics include MRSA, antibiotic resistance, sensible antibiotic prescribing, prophylaxis, treatment algorithms for community infections, needlestick injuries etc

Two world renowned experts from the Hospital Infection Division of the Public Health Laboratory (UK):

Dr. Barry Cookson &  
Ms. Linda Taylor.

will participate at this one-day event.

You are cordially invited to take part in what will certainly be a multidisciplinary educational experience not to be missed.

## FIRST MALTESE CONFERENCE ON INFECTION CONTROL & ANTIBIOTIC THERAPY

ORGANISED BY THE  
INFECTION CONTROL UNIT  
ST. LUKE'S HOSPITAL

IN COLLABORATION WITH THE DIRECTORATES  
OF INSTITUTIONAL HEALTH AND OF NURSING,  
THE CME COMMITTEE AND THE MALTA  
COLLEGE OF FAMILY DOCTORS

*Saturday 6 November 1999*  
*New Dolmen Hotel, Bugibba*

Further details can be obtained from the organisers  
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