The new 2013 EU directive for the prevention of sharp injuries (89/655/CEE) will require all healthcare organizations to introduce measures to assist in the reduction of the over a million occupational injuries reported each year in the EU.

The objectives of the new EU directive can be summarized as:

1) To achieve the safest possible working environment

2) To prevent workers injuries caused by medical sharps

3) To protect workers at risk

4) To set up an integrated approach establishing policies in risk assessment, risk prevention, training, information awareness raising and monitoring.

5) To put in place response and follow up procedures.

The prevention of injuries caused by all medical sharps is the overriding objective of the new Directive and this is hoped to be achieved by applying a number of control measures within the working environment.

These would be:

1) Elimination of unnecessary use of sharps through changes in working practice identified during risk assessment

2) Safe Procedures to be clearly specified and implemented for the use and disposal of sharp medical instruments and contaminated waste.

3) Engineering Controls enabling the provision of medical devices incorporating safety mechanisms and protection

4) PPE - the use of personal protective equipment such as gloves, gowns and masks.

The Operating Department can often be overlooked when considering sharps injury prevention since a third of incidents occurring between 2000-2007 were on the ward or in A&E, 43% and 37% respectively, compared to 20% in the OR, most of which would have been preventable with the correct application of universal precautions and safe disposal of clinical waste.
The vast majority of hospital based sharps injuries occur in the operating room and most of these are due to scalpel and suture needle injuries. Several case studies carried out in the US using dedicated Registered Nurse observers to monitor surgical procedures showed an increase of sharps injuries of 7% and 15% respectively. A factor unique to the surgical environment is that exposure to blood on the hands often occurs without the knowledge to the exposed worker until gloves are removed after the procedure. A study into scalpel blade injuries showed 39% of injuries to be self-inflicted while the user inflicted 61% on assistants. The majority of scalpel blade injuries occurred during the transfer between personnel.

Sites of scalpel and suture needle injuries are most commonly the thumb and index finger of the non-dominant hand, and then in ascending order, middle finger, other fingers, palm and back of the hand. These injury sites are not unexpected as the non-dominant hand is often used to reposition or reach for scalpels and needles, hold tissue being cut or sutured, or used as a retractor to protect adjacent viscera during cutting or suturing. "No touch" techniques should be substituted for these hazardous behaviour patterns.

A high incidence of sharps injury have been recorded in surgery during:

1 **Assembly and disassembly of sharps**

Injuries often occur mounting the scalpel blade onto the handle.

2 **Transfer between personnel**

Direct hand to hand transfer of sharps between team members is associated with injury. This type of high-risk transfer may be avoided by the use of "safe zone" or "neutral zone". This can be a tray, mat or other device designed for that purpose.

3 **During the use of sharps**

Preventable injury may occur during scalpel use when fingers are used as a backstop or guide during procedures where adjacent structures are protected by the hand of the surgeon or assistant, manual tissue is retracted or the wound exposed.

4 **Disposal**

Percutaneous injuries still occur during the recapping of needles or scalpels - a procedure that should be avoided.

The Hospithera Critical Care Division offers a number of safety related devices within their range. The Qlicksmart Blade Removers can be used to remove the blade at the point of the operation. It encapsulates the contaminated sharp which remains visible
for the post operative count and can then be disposed of in an appropriate sharps container.

The Sandel Safety Scalpels can enhance existing safe passing protocols and can assist in reducing potential sharps handling related injuries in such areas as OR, GP practice, trauma, paramedics and the A&E department where sharps handling is less frequent and the working environment less structured than the OR itself.

In addition to the above numerous products can be found in the assortments of Purple Surgical, Sandel and Comepa which help reducing the sharp injuries caused by instruments, blades and suture needles.

For more information on what Hospithera can offer you in the prevention of injuries caused by all medical sharps, feel free to contact your Account Manager ....

Paul Temmerman

Division Manager Critical Care