

A blue-tinted photograph of a modern office hallway. On the left, a group of people in white lab coats are gathered around a counter. On the right, a person in a white lab coat is walking away. The hallway has large windows on the right and a glass partition on the left. The floor is polished and reflects the light.

# STAFF SAFETY: WHY DO WE NEGLECT IT?

And What Is The Cost?

# OVERVIEW

1

Why do we neglect our own safety?

2

What is the risk of sharps safety for your and your family?

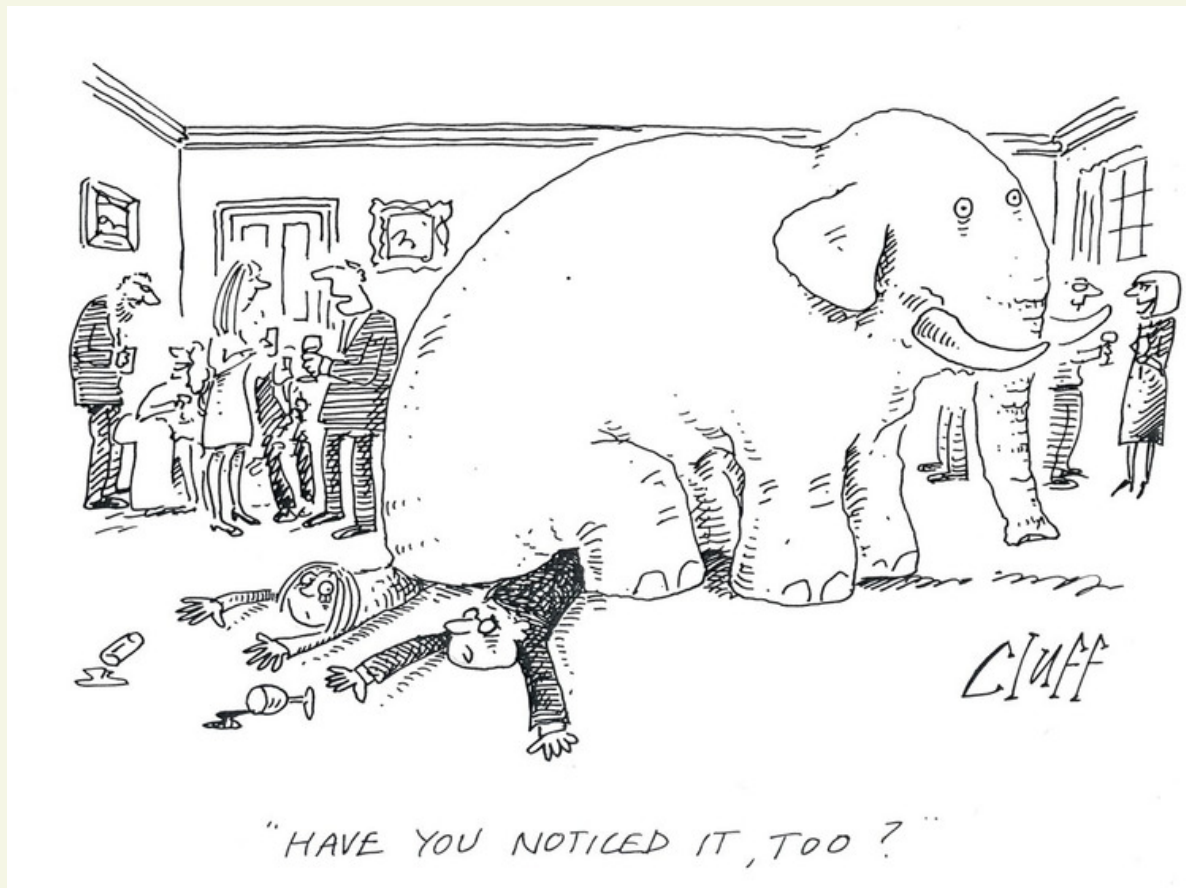
3

What are the current rules and guidelines?

4

Safe Sharps Management

# SHARPS SAFETY: THE ELEPHANT IN THE ROOM



# WHY WE IGNORE SHARPS SAFETY: REASON #1

SELF BLAME OR BLAME  
WORTHY STAFF CULTURE

VS.

NO BLAME CULTURE FOR  
PATIENT SAFETY



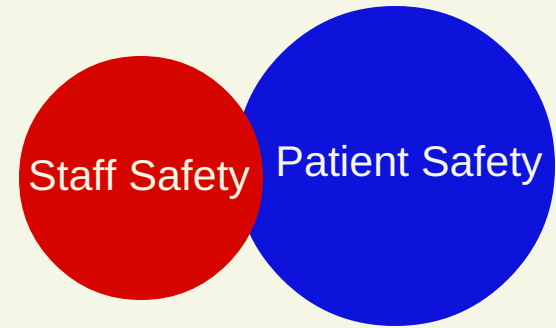
# WHY WE IGNORE SHARPS SAFETY: REASON #2

**“IT WILL NEVER HAPPEN TO  
ME” ATTITUDE.**

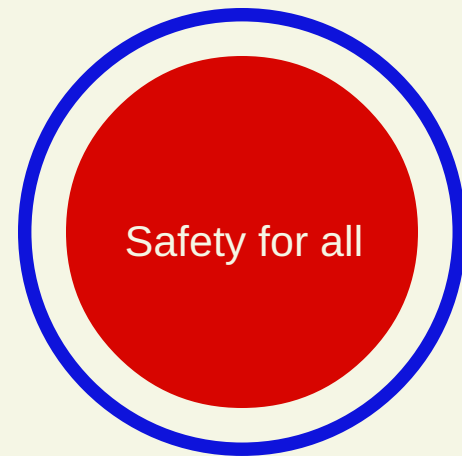


Take home message:

Staff safety and patient safety are no longer mutually exclusive.



**TODAY'S THINKING**



**TOMORROW'S THINKING**



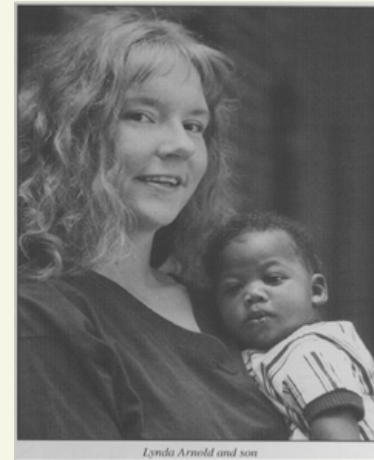


A person's head and arm are visible behind a dark blue text box. The person has dark, curly hair and is wearing a light-colored shirt. The background is a solid dark blue color.

**What is the WORST thing  
that can happen to you  
from a sharps injury?**



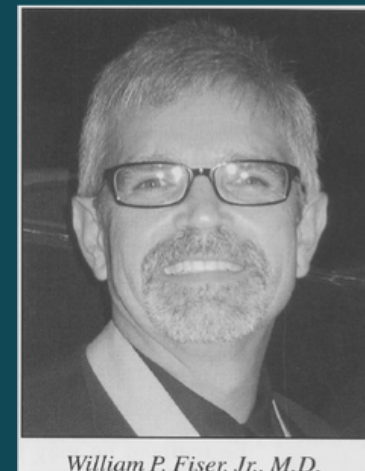
Diane Mawyer  
Virginia RN  
Diagnosed Hep C: 1993



Lisa Arnold  
Pennsylvania RN  
Diagnosed HIV: 1993




Lisa Black  
Nevada, RN  
Diagnosed HIV & Hep C: 1998



William Fisher  
US Surgeon  
Diagnosed Hep C: 2002



A person's head and arm are visible behind a dark blue text overlay. The person has dark hair and is wearing a light-colored shirt. The background is a solid dark blue color.

**What is the LEAST  
WORST thing that can  
happen to you from a  
sharp injury?**

# THE UNCOMPLICATED INJURY

## COST



The cost of even an uncomplicated injury could range from \$500 to \$2,000.

## NO SEXUAL INTIMACY



FOR 3 MONTHS.

## SEVERED TENDON, ARTERY OR NERVE



If the injury requires microsurgery, it might cost as much as \$100,000 and requires up to three months of rehabilitation.

Cost of an infection.

HOW CONFIDENT  
ARE YOU THAT  
THE HOSPITAL  
WILL PAY?

## WHAT DOES CO-INFECTION COST?

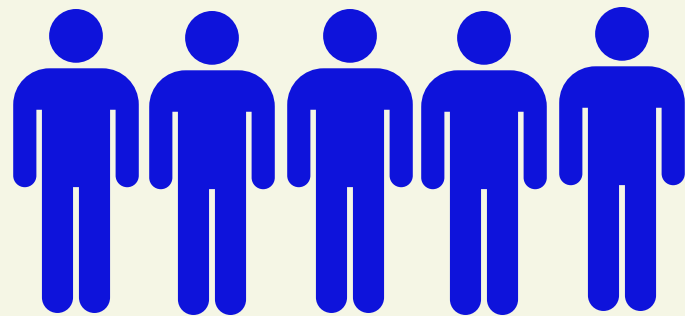
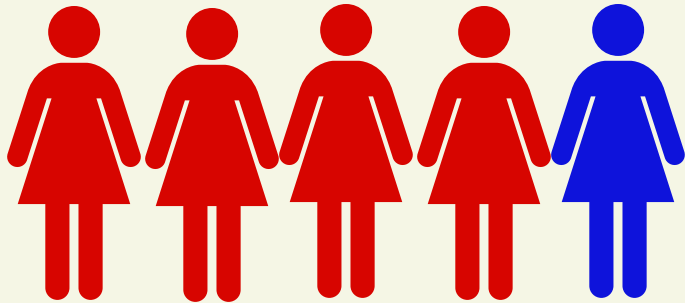
### *Cost of Drugs to Treat A Healthcare Worker Occupationally Infected with HIV and HCV*

*These costs were reported by Lisa Black, RN, as of May 2001, when she was taking drugs to treat both HIV and HCV. In 2002, after four years of combination therapy for HCV—with constant, debilitating side effects—she stopped treatment. Since then, her HCV viral load, while not undetectable, has remained stable. She continues to take combination therapy for HIV (she now takes Combivir and Sustiva). Her HCV is monitored with annual liver biopsies, since viral load and ALT/AST measures are not always indicative of disease progression. If a biopsy shows progression, she will resume therapy. (Lisa states that biopsies performed since she stopped combination therapy for HCV have shown less inflammation than those done when she was taking the drugs and her viral load was undetectable—suggesting the benefit of therapy, despite viral relapse.)*

<b>Cost:</b>	<b><u>Monthly</u></b>	<b><u>Annual</u></b>
HIV—3-drug cocktail (AZT, 3TC, Nelfinavir) [Nelfinavir is a protease inhibitor]	\$2,500	\$30,000
HCV		
- Interferon/ribavirin combination treatment	\$2,000	\$24,000
- Neupogen injections 2x's week to maintain white blood cell count @ \$300/dose	\$2,400	\$28,800

**Total approximate annual cost for treatment  
of HIV and HCV co-infection:**

**\$82,800**



44%

NURSES ARE MOST AT RISK  
OF SHARPS INJURY



# INJURY FREQUENCY

**1M**

sharps injuries reported  
per year.

**70%**

Sharps injuries go  
unreported. Means the actual  
figure could be 3 millions.

**41%**

Sharp injuries occur after  
use and prior to disposal  
of a sharp device

# SCALPEL BLADE INJURIES



Scalpel blade injuries are the second most common type of sharps injury, second only to suture needles



# FREQUENCY VS. INCIDENCE

## SCALPEL VS. NEEDLESTICK

662

scalpel incidences / 100,000 scalpel blades

3.2

Syringe & loose needle incidences / 100,000  
Disposable syringes and loose needles.

A study conducted by Eisenstein and Smith showed that the incidence rates of scalpel blades is much higher than disposable syringes and loose needles when compared to their respective volume

# RISK OF INFECTION FROM SCALPEL INJURIES



1 in 3 contract Hepatitis B.  
Post-exposure prophylaxis with  
hepatitis B immunoglobulin and  
initiation of hepatitis B vaccine  
is highly effective in preventing  
infection

# RISK OF INFECTION FROM SCALPEL INJURIES



**HEP C**

1 in 30 contract Hepatitis C.  
Currently no vaccine for HCV.



**55K**

New treatment is very  
expensive approximately  
£55,000 / treatment.



**85%**

Of those infected with HCV,  
85% develop an infection,



**70%**

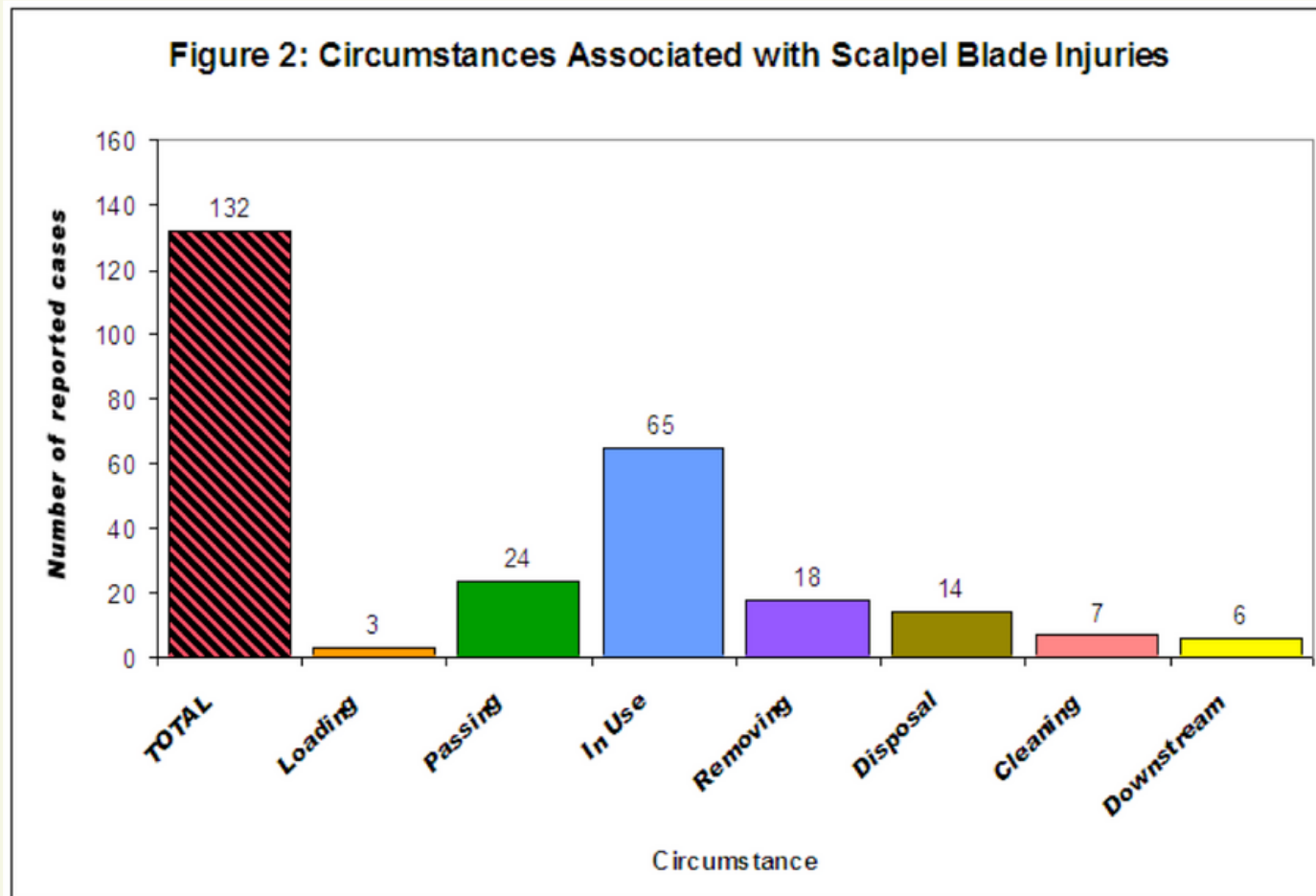
70% of whom develop liver  
disease which often leads to  
cirrhosis and liver transplants

# RISK OF INFECTION FROM SCALPEL INJURIES



1 in 300 develop HIV.  
Currently there is no vaccine or  
treatment available to either  
prevent or cure HIV.

# HOW MANY SCALPEL INJURIES ARE PREVENTABLE? UP TO 50%.



Adapted from Fuentes et al "Scalpel Safety": Modeling the effectiveness of different safety devices' ability to reduce scalpel blade injuries. The International Journal of Risk & Safety in Medicine 2008; 20(1-2):83-89.



# REGULATORY UPDATES



# OSHA INTERPRETS BLOODBORNE PATHOGEN GUIDELINES 29 CFR 1910.1030(D)(1) (IV)(B) IN 2005

"... that no one medical device is appropriate for use in all circumstances and that it is important to safeguard both patients and employees during medical and surgical procedures. **If the use of a particular engineering control, in this case a safety scalpel, compromises patient safety, its use would not be considered feasible.** The employer, therefore, must determine what engineering and work practice controls effectively minimize hazards without unduly interfering with medical procedures. The standard also recognizes that market availability is another limiting factor in implementing the use of engineering controls and must be considered in both your choice of an engineering control and our enforcement of their use [29 CFR 1910.1030(d)(1)(iv)(B)]. However, please be aware, exposures have been determined and **where engineering controls are commercially available and feasible, they must be used.**"

**"The use of a single-handed scalpel blade remover meets these criteria"**

In 2008, OSHA clarifies further on this subject:

"... using fingers to remove a used scalpel blade does not meet the requirements of the standard."

"Some facilities use a two-handed procedure with hemostat as a mechanical device to remove scalpel blades... Hemostats have been used as a measure which was preferable to using fingers to remove a used scalpel blade. Employers are expected to consider and use safer and more effective measures when feasible."

"... suggestion that the BBP (bloodborne pathogen) standard be changed to require that if a mechanical device is utilized, it must be a 'one-handed use of a mechanical-device' is a very good recommendation and one that would improve worker safety."

## OSHA UPDATES 2008



# AUSTRALIAN STANDARD

OSHA regulations are now equivalent to the Australian and New Zealand Standards (AS/NZS 3825:1998)



NO FINGERS



NO FORCEPS



NO  
RESHEATHING



NO INJURY



The background of the slide features a photograph of a light-colored brick wall. A window with a white frame is visible in the upper right. A 'ONE WAY' street sign is mounted on the wall, showing the words 'ONE WAY' and a white arrow pointing to the right. A dark blue horizontal bar is positioned at the bottom of the image.

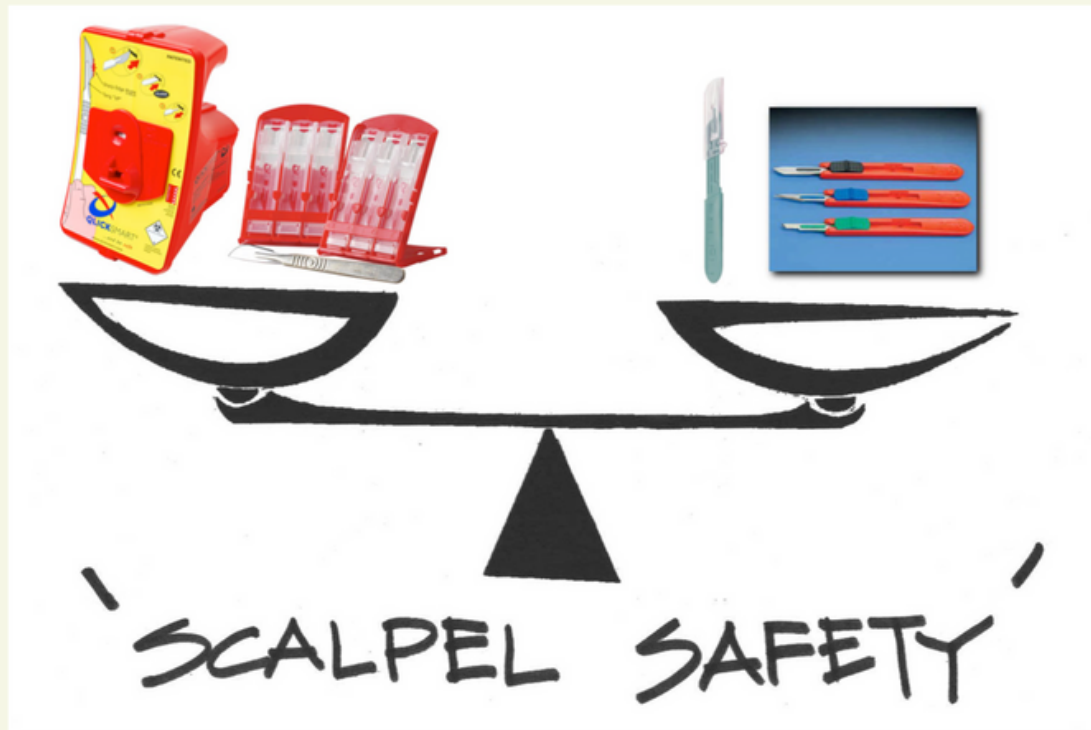
# HOW CAN WE IMPROVE SHARPS SAFETY?



**ACCEPT THE  
PROBLEM AND TAKE  
RESPONSIBILITY**

2

## PICK THE APPROPRIATE PRODUCTS





# ACTIVE VS. PASSIVE SAFETY



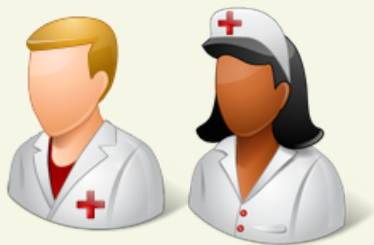
Passive Safety is “automatic” safety  
E.g. spring loaded safety syringe or single-handed blade remover.



Active Safety requires user to “manually” do something, w.g. sheath style safety syringe or safety scalpel. CDC studies show active safety devices were not activated in up to 90% of cases – failing to protect the staff using them.

PASSIVE SAFETY = SUPERIOR SAFETY

# WIN: WIN: WIN



## HEALTHCARE WORKERS

Safer for healthcare  
professionals



## PATIENTS

Benefit from improved  
"safety culture"



## HOSPITAL

Less risk of law suit  
Less risk of OSHA fine?  
Less staff turnover  
Improved staff morale



# IT'S NOT TOO HARD TO CHANGE, JUST CHANGE BEFORE IT'S TOO LATE!

**THANKS FOR READING.**

For enquiries, please contact Qlicksmart at [mjs@qlicksmart.com](mailto:mjs@qlicksmart.com).