Exposure of Patients to HIV and Hepatitis C During Surgical Procedures

Mark S. Davis, MD

Operating Room Safety Consultant

www.Irresponsiblethebook.com

msdavismd@aol.com

Author, *"Irresponsible; What Surgeons Won't Tell You and How to Protect Yourself"*

(Available: Amazon.com Kindle Download for All Devices)

A Hidden Risk of Surgery

- Potentially deadly BBP infections
- Preventable - how?
- Knowledge and technology available to surgeons to reduce risk but often choose not to act; why?
- What patients can – and must – do to protect themselves
- Informed patients and consumer pressure can change what our system has failed to do

Public Needs to Know: You Could Become infected with HIV, Hepatitis C During Surgery

- HIV and hepatitis C commonly found in surgical patients; many of whom don't know they are infected
- US surgeons and assistants are injured with needles, scalpels and other sharp object 1000 times a day, exposing them to blood of potentially infected patients
- As a result, surgeons may become infected with HIV and/or Hepatitis C – and not know it for months or years
- Infected surgeons can transmit HIV and/or Hepatitis C/B to healthy surgical patients during surgical procedures
- HIV and Hepatitis C can also be transmitted to healthy patients via contaminated instruments and devices, such as colonoscopes and dialysis equipment

Costs of 1000 Daily *Preventable* Sharp Object Injuries and Exposures to Blood

- Care providers and patients may become infected
- Anxiety, stress, shock, pain, suffering from an exposure (whether or not infection occurs)
- Blood testing can take up to 6 months to find out if you have been infected with HIV
- These sharp object injuries cost the healthcare system more than $1 billion annually for lab tests, medications, counseling and staff replacement

Almost Everyone Will be a Surgical Patient

- According to a recent study by the American College of Surgeons, the average American will have over 9 surgical procedures in a lifetime – not a question of ***if***, but ***when.***
- Potentially deadly surgical infections and errors are common
- You, the public, can prepare yourself with knowledge and become an empowered safety advocate for yourself or a loved one
- As a consumer of health care, *you have the power to protect yourself. Will you use that power?*

The OR: a Risky Place for the Patient and the Surgical Team

- HIV, hepatitis C & hepatitis B in one urban surgical practice = 38%

  (HIV 26%, HCV 35%, HIV+HCV 17%, HBV 4%)
- Surgeons usually fail to report their injuries, depriving themselves of the opportunity to receive post-exposure prophylaxis to prevent HIV and diagnose HCV early
- After a surgeon becomes infected, and subsequently is injured again, and his bleeding hand ***re-contacts*** that healthy patient's internal tissues, that patient may become infected. This risk does not appear on surgical consent forms and is not discussed pre-op with patients

Known Reported Cases

- 1987 – 1989: Florida dentist infected with AIDS transmitted HIV to 5 patients
- 1999: French orthopedic surgeon infected with AIDS transmitted HIV to a patient during a hip replacement
- 2003: Obstetrician in Spain infected with AIDS transmitted HIV to a patient during a cesarean section
- 1991 -2005: worldwide, 11 surgeons infected with hepatitis C transmitted their infections to 38 patients, including 14 in the United States, and 12 surgeons infected with hepatitis B transmitted their infections to 91 patients, including 19 in the United States
- Tip of the iceberg ? What don’t we know?

Additional Reports of Exposures

- 2005 – 2015: In multiple reported exposure incidents, hundreds to thousands of patients were, or may have been, exposed to HIV and/or hepatitis C during colonoscopy, dialysis and major surgical procedures, due to improper cleaning and sterilization of equipment and sharps injuries to surgeons

Most Exposures are *Preventable;* Therefore "Never Events"

- ***Safety Devices*** have been shown to prevent most sharp injuries and exposures to blood
- As required by federal law (*Needlestick Safety and Prevention Act* of 2000), employers (surgical/medical facilities) must provide for employees: safety designed injection needles / blood draw needles / IV catheters, **safety scalpels* & blunt tipped (safety) suture needles***
- ***Surgeons may choose not to use these if *"in their opinion, they interfere with patient care"* (In most cases they don't interfere, **yet only 5 to 10% of surgeons use them**)

Proof of Effectiveness of Safety Devices in Prevention of Injury and Blood Exposure 1

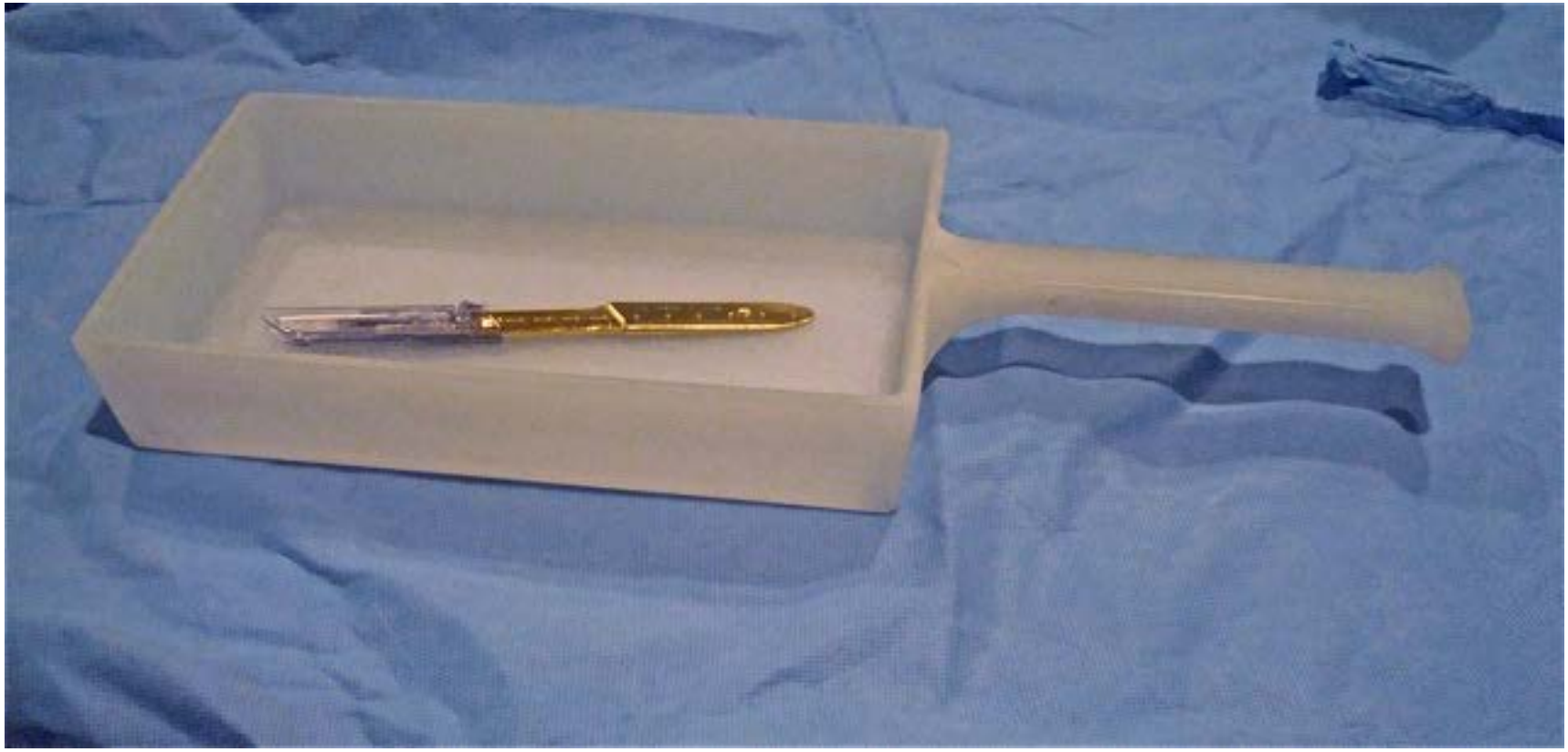
- **1. Blunt tipped suture needles** CDC study: **zero %** needle-stick injury rate, compared to **6%** rate with traditional sharp suture needles
- American College of Surgeons (ACS) 2005 Bulletin - *Statement on Blunt Suture Needles*: "All published studies to date have demonstrated that the use of blunt suture needles can substantially reduce or eliminate needle-stick injuries from surgical needles. The ACS supports the universal adoption of blunt suture needles as the first choice for closing incisions (fascia & muscle)". Similar endorsements by American Academy of Orthopaedic Surgeons, Association of Perioperative Registered Nurses (AORN), Association of Surgical Technologists, the Association of Surgical Physician Assistants, OSHA, and the FDA.
- **SURGEON COMPLIANCE: 5%**

Blunt-tipped Suture Needle

Proof of Effectiveness of Safety Devices in Prevention of Injury and Blood Exposure 2

- **2. Passing sharp instruments using a "neutral zone"**, instead of passing them hand-to-hand
- ½ of all scalpel injuries (the 2nd most common type of injury) and ¼ of all suture needle injuries (the ***most*** common type of injury) occur when these sharps are passed from hand-to-hand
- Neutral Zone shown to reduce collisions & sharp object injuries significantly (Stringer B, et al)
- **SURGEON COMPLIANCE:** sporadic

Neutral Zone (Hands-free Transfer Tray)



Proof of Effectiveness of Safety Devices in Prevention of Injury and Blood Exposure 3

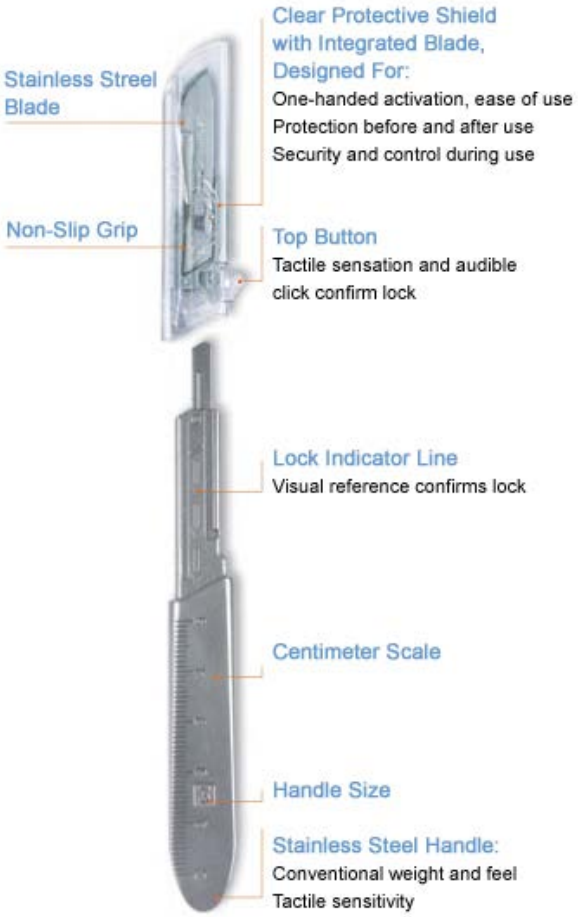
- **3. Double gloving** reduces risk of exposure to patient's blood in multiple studies by as much as 87 percent
- ACS recommends the universal adoption of double gloving

- **SURGEON COMPLIANCE:** varies

Proof of Effectiveness of Safety Devices in Prevention of Injury and Blood Exposure 4

- **4. Safety Scalpels**
- Few studies, but intuitively and anecdotally helpful (Ten years of OB/Gyn practice)
- Do not interfere with patient care in *most* situations
- Resistance by surgeons: “They don’t feel the same” as the traditional (less safe) ones
- **SURGEON COMPLIANCE:** 5% or less

Safety Scalpel



Missed Opportunities to Protect the Patient and Surgical Team

- Safety scalpels and blunt (safety) suture needles have been available for 2 decades; they can prevent a majority of the 1000 injuries that occur daily

Why do only a minority of surgeons use them?

- Surgeons' resistance to change
- Infrequent and sporadic enforcement of OSHA regulations (too few OSHA inspectors), few penalties
- Facility administrators and hospital executives don't confront surgeons (lack of a strong culture of safety)
- ***THE ONLY SOLUTION LEFT:*** **CONSUMER PRESSURE**

What Patients Need to Do: Find Transparency (learn about the risks); Apply Consumer Pressure

- **Speak up**, ask questions
- **Challenge** care providers to follow safe practices
- **Demand** safe care: ***"In addition to washing your hands*** (It works; care providers are more likely to wash hands when they know patients are watching)***, I'd like you to use the following safety devices during my surgery:"***
- **Be your own safety advocate** - and bring another one with you for backup, to Dr's office, hospital, surgery center or clinic to prevent deadly medical errors
- **Use safety checklists** of your own, because surgeons don't always use them

Checklist (1 of 6): What You Must Ask a Surgeon the *First* Time You Meet*

- 1. Do you use blunt tipped suture needles to close your incisions?
- 2. Do you use a neutral zone for passing your sharps?
- 3. Do you double glove?
- 4. Do you and your OR team all use protective eyewear?
- 5. Do you use safety scalpels?

***Once you're scheduled for surgery, its too late!**

For Mutual Protection of Surgeon (s), other Care Providers and the Patient:

Surgeon agrees to use*:

- Blunt tipped suture needles for wound closure
- Double gloves
- Neutral Zone
- Safety Scalpels
- Appropriate PPE

* (except where could interfere with care)

A Hidden Risk of Surgery Revealed:

- The risk: exposure to HIV and hepatitis C in surgery
- It is mostly preventable
- Surgeons must change dangerous behavior but the healthcare system has failed to make that happen
- The only remaining solution: informed patients and consumer pressure
- Patients (i.e. ***the public*** – ***all of us will be patients***) need to know what to ask
- Ask the right questions, speak up to protect yourself, your family member, and your surgeon! Your surgeon should, and hopefully will, say, “thank you” !

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Preoperative Patient and Surgeon Mutual Protection Agreement

- Developed by a coalition of surgeons & safety advocates at HWUSA
- Protect patients from preventable harm
- Avoid exposure to bloodborne pathogens
- Improve Occupational Safety
- Protect surgical care providers from professional liability

Surgeon attests:

- Board certified and credentialed
- Will personally perform the surgery; if unable, permission will be obtained
- Present for Time Out & marking
- All alternatives have been discussed
- If medical device implanted, name, brand, serial number and manufacturer provided
- Divulge non-hospital employee to be present

If Sharps Injury with “re-contact”:

- Both the patient **and** the injured Care Provider will be tested for HIV, hepatitis C and hepatitis B, and other pathogens where appropriate
- Results will be given to the patient and the injured Care Provider
- Results shall remain privileged & confidential

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