

Lessons from an HCV-infected surgeon

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The International Health Care Worker Safety Center at the University of Virginia, Charlottesville, is devoted to the prevention of occupational exposures to blood-borne pathogens in the health care workplace. Recently, a plastic surgeon contacted us who was occupationally infected with hepatitis C virus (HCV) from a sharps injury he sustained during his residency. At our request, he consented to be interviewed about his exposure and infection.

The surgeon, who prefers to remain anonymous, is chief of plastic and reconstructive surgery at an academic medical center in the U.S. He is married and the father of four children. His experience sheds light on the personal and professional realities confronting an infected surgeon. “Dr. Jones,” as we call him in this article, hopes to educate surgeons about the potential consequences of sharps exposures and the need to make the operating room as safe as possible—both for patients and the operating room personnel who care for them.

Exposure and infection

Dr. Jones began performing surgery in 1979, during his residency. He went through five years of residency training, then started his own practice in 1984. The time frame is significant because measures to prevent occupational exposures were implemented gradually in the late 1980s and early 1990s, and a test for hepatitis C wasn’t available until 1989.

He remembers that, at the beginning of his residency, he often came out of the operating room soaked in blood from the waist down. “You were bathed in blood regularly, got stabbed with instruments. You just changed the instrument and got back to work. There was little protection.”

Because it was rare to report sharps injuries at that time, he did not have a documented exposure incident he was able to correlate to his infection. However, he suspects that his infection occurred in 1980: “There was one particular patient I remember vividly. She had elevated liver enzymes; we tested her for hepatitis B, but she was negative. We concluded she had non-A non-B hepatitis. While performing surgery on her, I sustained a deep injury from a large retention needle. That could have been the event that led to my hepatitis C infection, but no test was available then.”

Safety checklist for the OR

The list below can be used to help bring ORs into compliance with the requirements of the 2001 Bloodborne Pathogens Standard developed by the Occupational Safety & Health Administration (OSHA).¹

The standard was revised in 2001, as mandated by the Needlestick Safety and Prevention Act, and became fully effective July 18, 2001. The revised standard has several new requirements. Health care employers must now: (1) document annually in their exposure control plan that they have evaluated and implemented “safer medical devices designed to eliminate or minimize occupational exposure” to HIV, HCV, and other blood-borne diseases, *and* review and update their exposure control plans at least annually to reflect changes in sharps safety technology; (2) solicit input from nonmanagerial (front-line) health care workers in identifying, evaluating, and selecting safety-engineered sharp devices, and document input in the exposure control plan; and (3) maintain a sharps injury log with detailed information on percutaneous injuries to employees.

- Are blunt suture needles, stapling devices, adhesive strips, or tissue adhesives used whenever clinically feasible in order to reduce the use of sharp-tip suture needles?
- Are scalpels with safety features, such as round-tipped blades, retracting blades, and shielded blades, used?
- Are alternative cutting methods, such as blunt electrocautery devices and laser devices, used when appropriate?
- Is manual tissue retraction avoided through the use of mechanical retraction devices?
- Has all equipment that is unnecessarily sharp been eliminated? (Example: towel clips have been identified as a cause of injury in the operating room, yet blunt towel clips are available that do not cause injury and are adequate for securing surgical towels and drapes. Other examples of devices that do not always need to have sharp points include surgical scissors, surgical wire, and pick-ups.)
- Is double-gloving employed in the surgical suite?
- Do circulating nurses and other personnel close to the surgical site wear eye protection, such as goggles or face shields, that have a seal above the eyes to prevent fluid from running down into the eyes?

In 1981, about a year after this incident, Dr. Jones became very ill and was unable to work. His liver enzymes were significantly elevated, but he tested negative for mononucleosis and hepatitis B and was not icteric. After a month, he recovered from his illness. He finished his residency several years later, and went into private practice.

In 1992, he became ill again. His liver enzymes were checked and were twice the normal level. By that time, a marker for hepatitis C had been discovered, and he was given an HCV antibody test; the results were positive. A confirmatory polymerase chain reaction test was performed; it was positive as well. He was infected with hepatitis C.

A liver biopsy showed moderate inflammation with signs of chronic, persistent HCV infection. Dr. Jones had no risk factors for HCV other than a history of occupational blood exposures. He had never undergone surgery requiring a blood transfusion, gotten a tattoo, or taken intravenous drugs.

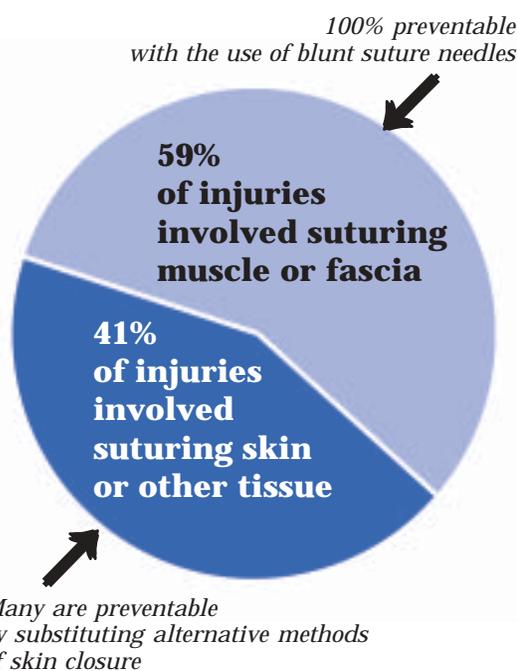
Struggle to practice

Over the next several years, Dr. Jones struggled to maintain his practice. He experienced severe fatigue, sweating, nausea, diarrhea, and loss of appetite. His doctor suggested treatment with interferon, which was considered experimental at the time. He took it for three months while continuing to practice. At the end of treatment, his liver enzymes were normal, but six months later he was symptomatic again. He further reduced his work schedule, and his health improved for about a year, although his liver enzymes again became elevated. Another liver biopsy was performed and showed some fibrosis, and a second course of interferon was recommended. He decided to leave his practice for three months and undergo treatment in another part of the country, because he did not want his colleagues to know about his illness. However, he had been getting his interferon from the hospital pharmacy, and after he left, word got out that he had hepatitis C.

When he returned, his colleagues told him they didn't feel comfortable referring patients to him. They were worried about the liability implications. They said they would only refer patients if he was willing to disclose his HCV status. Later, a hospital committee met to formally consider the issue

Potentially preventable suture needle injuries

**Six hospitals, 15 months,
suture needle injuries = 197**



Source: Jagger J, Bentley M, Tereskerz P: A study of patterns and prevention of blood exposures in OR personnel. *AORN J*, 67(5):979-996, 1998.

of informed consent, and reached the same conclusion: he should inform patients of his serostatus. Dr. Jones complied but found he quickly lost patients. They refused to allow him to perform surgery once they learned he was infected with hepatitis C.

During 1992 and 1993, he was a defendant in two lawsuits. One related to a scar from an abdominoplasty procedure, the other to a silicone breast implant. During the course of the litigation, the patients' attorneys discovered Dr. Jones was infected with hepatitis C and added claims for emotional distress due to lack of informed consent. They said that their clients were now afraid they might have contracted hepatitis C during surgery. One of the lawsuits cited a case in which a surgeon, a member of Alcoholics Anonymous, was successfully sued on the grounds that the patient had a right to know that the surgeon was a recovering alcoholic. (The state supreme court upheld this decision.) The lawsuits were eventually dropped. The patient who brought the silicone breast implant suit decided to sue the implant manufacturer instead. Neither patient developed HCV, but Dr. Jones, of course, had to pay the legal fees for his defense.

By 1995, Dr. Jones was forced to close his practice: he didn't have enough patients to remain financially viable, and his illness made it difficult for him to work on a regular basis. He began giving serious thought to changing specialties or even leaving medicine altogether.

Move to academia

Within a month of closing his practice, however, he was contacted by the chairman of the surgery department at a nearby state university who was sympathetic to his situation. He invited Dr. Jones to join the faculty in a teaching role. Dr. Jones would oversee and instruct the residents under him, providing knowledge, resources, and direction, while the residents would perform the actual surgery.

This opportunity meant he could still be involved in medicine in some capacity, using his experience to teach others. In March 1995, he joined the faculty at the university and continues in that position today. He supervises upper-level residents in plastic surgery, diagramming operations beforehand and giving residents direction with a laser pointer during the actual procedure. He is always double-gloved. Occasionally he scrubs in and uses a blunt hemostat to direct the residents within the surgical site

ACS Insurance Program and communicable disease

The ACS Long-Term Disability Plan does provide coverage for "communicable diseases." This is how the coverage is described in the brochure:

If you contract a "communicable disease," you may be eligible for residual disability benefits even though you are not totally disabled. In order to be eligible for the residual disability benefit, you must be under 65 and earning less than 75 percent of your average net monthly income due to contracting the communicable disease. Benefits will not begin until the applicable elimination period has been satisfied. The amount and duration will be determined in the same manner as the Residual Disability Benefit [described in brochure].

A "communicable disease" means any of the following conditions, but only if the applicable medical profession recommends or appropriate governmental agency requires the disclosure of the diagnosis of the disease and it results in a limitation of your practice due to contracting the disease: Acute Viral Hepatitis of the non-A type, Human Immunodeficiency Virus (HIV), Acquired Immune Deficiency Syndrome (AIDS), or tuberculosis.

To clarify: This coverage applies to insured individuals who have contracted a communicable disease but are not totally disabled and the applicable medical profession recommends or appropriate governmental agency requires the disclosure of the diagnosis of the disease and it results in a limitation of their practice due to contracting the disease. If an insured individual with a communicable disease is totally disabled, he or she would be eligible for benefits under the regular disability provisions of the plan.

For further information, contact the ACS Insurance Plan Administrator at 800/433-1672, or e-mail usia-ac@usi-administrators.com.

itself, but they perform all the cutting and suturing. The medical center in which he now works does not have an explicit policy about infected surgeons, but remains comfortable with this informal arrangement.

His greatest fear now in the operating room

is getting stuck by the residents, who are relatively new to surgery. Hepatitis C has several variants, of course, and there are other pathogens of concern, including HIV and hepatitis B. Since he began teaching, he has sustained two injuries from residents handling sharp devices under his direction. One involved a needle-tip Bovie coagulator (the device was plugged in, so he also received an electrical shock). In the second incident, a resident was using a retractor rake to pull aside a piece of tissue. The rake went through the tissue and stuck Dr. Jones' finger. Both of these injuries were preventable, because blunt alternatives exist for both devices. Dr. Jones stresses that many unnecessarily sharp instruments are used in the OR, endangering health care workers. He cites sharp towel clips as a prime example.

Sharp-tip suture needles are the leading cause of injury in the OR, according to a study conducted jointly by the International Health Care Worker Safety Center and the Association of Operating Room Nurses, yet use of this device is rarely necessary.² Blunt-tip suture needles can be substituted for suturing muscle and fascia; for cutaneous closures, staples and tissue adhesives or adhesive strips often can be employed. (Dr. Jones notes, however, that staples and tissue adhesives cannot be used around the eyes and mouth.) The OR study found that substituting blunt-tip suture needles for sharp-tip ones wherever clinically feasible could potentially reduce sharps injuries in surgical settings by as much as one-third overall (see figure, p. 10).



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Lifetime difficulties

Dr. Jones' life today is far different from the one he enjoyed 10 years ago.

In addition to losing his surgical practice, he continues to have active symptoms of HCV. About once a month, he experiences debilitating attacks of fatigue with flu-like symptoms; these episodes last between 24 to 48 hours and are well-documented in the literature on hepatitis C. He also suffers from night sweats and myalgia. His illness has had a profound impact on his family. His children, ages 11, 16, 18, and 20, all have jobs, and have had to adapt their lifestyle to his changed financial circumstances.

After he became ill in 1992, he applied for and received disability benefits. (He was not eligible for workers' compensation because he never filed a claim.) In 1999, however, his disability was cut off. Although he receives a salary as a member of the medical school faculty, it is only a fraction of his former income. It covers basic living expenses for his family of six but is "not enough to put my kids through college or lead the lifestyle that I trained and struggled so hard to have."

Why did he lose his disability? The company—one of the major disability carriers in the country—reviewed its policy and decided that infection with hepatitis C was not a sufficient reason for health care workers to claim disability. To support its position, the company cited the Centers for Disease Control and Prevention (CDC). (In 1998, the CDC stated, "Currently, no recommendations exist to restrict professional activities of health care workers with HCV infection."³) The company concluded, based on the CDC position, that there was no reason, in terms of infection risk to patients, why he should not be able to continue his practice as a surgeon. Denying disability benefits to a surgeon on these grounds may be an unintended use of the CDC's position, Dr. Jones says, but the decision "will disturb any surgeon in private practice. I will contest the company's decision in court, but if the carrier ends up being successful in denying me disability on this basis, there will be more infected surgeons hiding in the closet than ever before."

Dr. Jones is troubled by the disjunction between policy statements and legal decisions on the issue of informed consent: "In courts of law, issues of

informed consent are settled in favor of patient-plaintiffs. When it comes to getting hospital privileges, neither courts nor hospital administrators are going by the CDC position regarding HCV-infected physicians—but disability carriers are. They are saying an HCV-infected physician should be able to practice without restriction, which leaves infected surgeons between a rock and a hard place. Should they inform patients of their serostatus, as the American Medical Association advises, and risk losing their practice and their disability, or should they practice without restriction and risk being sued by patients for lack of informed consent?”

He believes that if a surgeon is physically able and is asymptomatic, he or she should be permitted to practice. But he also believes that infected surgeons should avoid performing exposure-prone procedures and that patients should be informed of their surgeon’s serostatus. “I believe it is the patient’s right to know, even if it means that the surgeon loses patients.”

Switching to a specialty that is not exposure-prone is one alternative for an infected surgeon. Plastic surgeons who are infected may choose to limit themselves to noninvasive procedures, such as laser resurfacing, laser photocoagulation, children’s port wine stains, chemical peels, and microdermabrasions. For such procedures, Dr. Jones does not believe informed consent is necessary.

Other possibilities for infected surgeons might include training others in endoscopic procedures, because training is performed on animals, and robotic surgery performed by means of a computerized virtual-reality program. Dr. Jones notes that such a program is in an experimental stage at his medical center but is about 10 years away from being perfected.

Along with his support for informed consent, Dr. Jones strongly believes that a national policy is needed regarding HCV-infected surgeons and invasive procedures. He believes that many infected surgeons, in lieu of official guidelines, have developed their own, self-imposed restrictions. “At my hospital, there are two other surgeons who are occupationally infected with hepatitis C. One has chosen to limit herself to classroom teaching, and the other is doing what I do, guiding the residents while they perform the surgeries. We have chosen

these alternatives because we do not want to give the disease to anyone else.”

The irony, he says, is that “my illness could have been so easily prevented. It is all a question of awareness.” But he acknowledges that getting surgeons to take the issue of exposure prevention seriously has been difficult: “We are heading in the right direction of being more aware and better protected—but we still need to go much, much further.” □

Author’s note

The International Health Care Worker Safety Center has a sharps injury tracking program available that is designed specifically for the OR setting. It is called Access/EPINet-OR and is suitable for inpatient and outpatient surgery as well as labor and delivery suites. Tracking of sharps injuries in health care facilities is mandated by the 2001 revision of OSHA’s Bloodborne Pathogens Standard. For more information, call 434/982-0702, or e-mail gingerparker@virginia.edu.

References

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