

It could happen to you: Accidental blood exposures call for swift action

“MINE WAS A FREAK ACCIDENT THAT COULD HAPPEN TO ANYONE.” HUMBLING WORDS FROM A DISTINGUISHED RESEARCHER WHOSE RESUME BOASTS THREE PATENTS, THE DIRECTORSHIP OF TWO PROMINENT URMC CENTERS (THE JAMES P. WILMOT CANCER CENTER, AND THE CENTER ON AGING), MORE THAN 100 SCIENTIFIC ARTICLES AND THREE BOOKS.

But the words are heartfelt. After a needle stick left him ill with hepatitis B, George Abraham, M.D., minces no words about the importance of fast follow-up in the event of an accidental exposure.

“My accident occurred thirty years ago, in my research lab,” he said. “It was 1981 and we handled blood samples from cancer patients. Naturally, we were fanatical about scrubbing, hand hygiene, safe disposal, everything.”

Even so, one afternoon, while bending and re-capping an 18-gauge needle for disposal, it punctured his palm.

“I bled it,” Abraham said. “Then I washed the wound thoroughly, and moved on. I wasn’t trying to be cavalier; it’s just that I only partly appreciated the risks my injury might have conferred.”

Over the next few months, even Abraham’s daily work and racquetball games were leaving him winded.

After six months of fatigue, he sought medical attention; the physician ordered a battery of tests, one of which showed Abraham’s liver function to be extremely abnormal. As it turned out, he was a “smoldering case” of chronic, active hepatitis B. The virus might one day give way to dangerous scarring damage (cirrhosis), or even cancer.

“At that point – half a year from the accident – I actively researched the source patient,” he said. “I know that’s a lifetime compared to the two-hour protocol we now observe, but again, those were different times.”

The findings? The needle came from a leukemic patient who’d received multiple transfusions and ultimately died of liver failure.

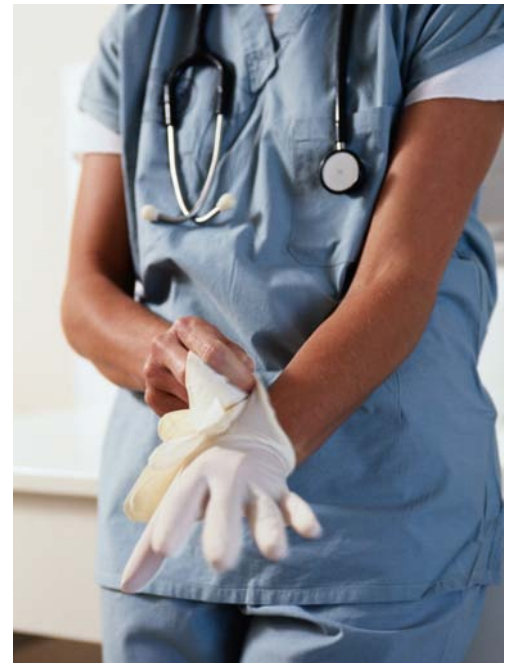
Abraham resigned to be a chronic disease carrier.

Six years later, though, after seeking pain medicine for an achy shoulder, his doctor ordered another liver test. The enzyme levels came back high, prompting a biopsy that revealed inflammation – a harbinger of cirrhosis.

“At that point, I knew I was headed down a dark path,” he said. “I got on the phone with a nurse in St. Louis, who has experienced a similar needlestick accident and had tried a new, controversial therapy. It had worked for her, and I was willing to try anything.”

Miraculously, the treatment, which was only effective in a tenth of patients, worked – but only after Abraham spent months slogging through exhausting days, losing almost 40 pounds.

“I was borderline amnesic during that



period,” he said. “I’d get into the lab, spend an hour reviewing the day’s progress and writing directives for the next day, and then go home to sleep. It was day after day of injecting myself with a medicine I knew would sicken me. After about six months, though, came the textbook resolution of my symptoms.”

Thankful, Abraham now revels at how far medicine has come.

“Today’s health care providers have the benefit of new safety devices, an enlightened understanding of how viruses replicate, how we detect them – not to mention good

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vaccines and more vigilant protocols,” he said.

But accidents still happen, and providers too often wave them aside.

“Unfortunately, if a health care provider shrugs off a needle stick or cut, they’re undermining the wealth of insights science has achieved in the past few decades,” Abraham said. “Frankly, it’s knowledge and technology I wish I’d had access to. Having lived through my ordeal, I can’t fathom ignoring it.”

The truth about exposures

In a busy health care environment, it can be all too easy to let safety slide. But it’s costly; one drop of blood, one slip of the hand could be all it takes to infect yourself – or your patient – with a dangerous pathogen.

Over the past few years at Strong Memorial, 13 percent of all reported exposures contained a bloodborne pathogen (roughly 10 percent HepC, 2.5 percent HIV, and 0.5 percent HepB).

“Simple math means that, out of the 338 exposures phoned-in last year, 45 contained a pathogen,” said Laura Caruso, nurse manager for Occupational & Environmental Medicine at Strong Memorial. “What’s more, of these 45 instances where the source indeed tested positive for a virus, 25 percent were surprises. The patient – and their provider – both were shocked by the findings. It just shows that you can’t predict who might be carrying what.”

That’s why universal precautions – an approach to safety that assumes every

patient is a potential carrier of every virus – are so important.

“Prevention can’t be emphasized enough,” agreed Occupational Safety Specialist Anne Schmidlin. “Twenty percent of exposures occur when blood splashes from a patient to a care provider, entering a mucus membrane – but double-gloving, gowning, using splash guards and wearing goggles can dramatically reduce such risk.”

Risks further amplify when caregivers fail to immediately activate built-in safety features, or if they cram too many sharps in the disposal container. Or, they might not bother passing a tray, but instead just pass the needle.

“These may be time-savers,” Schmidlin said. “But when accidents happen, we’ll wish we’d taken those extra few seconds to be careful.”

She and Caruso are taking their safety gospel on the road, talking to incoming residents and offering special lectures to work areas with a history of frequent (or repeat) exposures.

“We hope we don’t sound like broken records,” Caruso said. “We just really need staff to report these accidents. We want to keep them safe.”

If you do get stuck: New OEM reporting, care procedure

Another reason for Caruso and Schmidlin’s amped up efforts around blood exposures: Occupational and Environmental Medicine recently assumed responsibility for directing the source testing and follow-up care

connected with such accidents (a role formerly administered by University Health Service before the two groups reorganized last year).

If you are exposed, Caruso says, your first steps are the same: basic first aid (washing or flushing the wound or exposed area) and calling the 24-7 Blood Exposure hotline (275-1164) as soon as possible.

“The only difference is that now, since our main OEM offices are offsite, a representative (or if after hours, an on-call nurse) will work with someone at your end over the phone to assist you with consenting a source patient for urgent testing,” Caruso said. “The person at your end will also help the OEM phone representative by actually drawing the blood.”

Depending on those test results, the OEM representative may work with the exposed health care worker to begin a prophylactic regimen.

“The care is all the same, it’s just managed by phone,” Caruso emphasized. “That’s why it’s so important that you call immediately. We can’t start caring for you until you do.”

Not convinced? You might want to chat with George Abraham.

To download a poster detailing the “Clean-Call-Report” protocol, visit: www.safety.rochester.edu/safetyinfo/blood-drop_poster.pdf.

Blood exposures by caregiver type (first quarter 2011)

