

When IV practice spells *malpractice*

More and more nurses are finding themselves on the witness stand in IV-related malpractice cases. That's not surprising given some recent trends: Intravenous equipment and therapies have become more complex, many IV teams have been disbanded, and the ranks of those receiving IV therapy have swelled to eight patients in 10.¹

In my experience, what lands nurses in legal hot water most often—and the focus of this article—is infiltration and extravasation. Extravasation is the inadvertent administration of a vesicant solution—like dopamine or many chemotherapeutic agents, which cause blisters, necrosis, and sloughing—into the surrounding tissue instead of the vein. Infiltration is the inadvertent administration of a *nonvesicant* solution into the surrounding tissue.

Other complications that provoke lawsuits include phlebitis, air embolism, breakage of peripherally inserted central catheters (PICCs), and hematomas that cause nerve compression injuries.

If you care for patients receiving IV therapy—in a hospital, clinic, doctor's office, or the home—you need to know what the liability risks are, and how to defend yourself if something does go wrong.

Preventing molehills from becoming mountains

The occurrence of either infiltration or extravasation doesn't in and of itself amount to negligence. That determination hinges on how much solution has entered the tissue, how quickly you detected the problem, and what you did to correct it.

If, for example, you observe swelling right after a solution begins infusing, and you stop the infusion

IV therapy presents liability risks for nurses both in and out of the hospital. You'll want to avoid the mistakes that could come back to haunt you.

immediately and remove the vascular access device, you'd be doing as a prudent nurse should.

On the other hand, if the first sign of trouble you see is 2+ pitting edema from the patient's wrist to the forearm, a plaintiff's attorney can make a strong case for nursing negligence if injury results. Accumulation of a large amount of fluid over a long period of time—and there are equations that attorneys will use to determine exactly how long—suggests that neither the patient nor the infusion were being monitored properly.

With vesicants, escape of even a small amount of fluid into surrounding tissue can be harmful, and the damage permanent. Damage from nonvesicants—which can also be permanent—often depends on how much has infiltrated. A large amount can cause nerve compression, resulting in numbness or paralysis in an extremity. In addition, a fasciotomy may be needed to relieve fluid pressure in the tissue. The surgery will result in scarring.

To prevent injury, inspect the IV site regularly in accordance with your employer's policy, and routinely ask the patient how the IV site feels. While swelling is the hallmark of infiltration and extravasation, pain or discomfort around the vascular access device is also common. The accumulation of fluid may also produce numbness and tingling in the



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arm, often radiating down to the fingers.

Be sure to troubleshoot all patient reports of pain or discomfort. They may also signal one of the other IV-related complications that trigger lawsuits. Pain around the cannula, for instance, is usually a precursor of phlebitis.²

Air embolism, another preventable IV-related complication, can result from failing to properly occlude the insertion site after removing a central line. In one case involving a hospital in Pennsylvania, an RN removed a patient's central line at her supervisor's request—then simply applied a gauze pressure dressing.

The patient fell out of bed as he was being turned, and then quickly coded: Air had been sucked into his circulatory system through the gauze, causing a stroke that proved fatal. The hospital ultimately paid a \$3 million settlement.

Are your practices up to snuff?

Regardless of which IV-related complication triggers a lawsuit, the jury will be trying to determine one thing if you are sued—whether you upheld the standard of care.

If you are the one who inserted the vascular access device, be prepared to explain the clinical criteria you used for choosing the insertion site. Answers like, "I could not find any other vein," or "That's the vein I always use," won't hold up in court.

According to the standards of the Intravenous Nurses Society (INS)—and you will be expected to know them—vein selection should be based on an assessment of the patient's condition, age, and diagnosis; vein condition, size, and location; and the

type and duration of therapy.²

You will also be expected to know the venous anatomy and physiology of the hand, arm, and chest, and to name the vein you accessed—cephalic, basilic, or median antebrachial, for example. Be prepared to justify the type and gauge of device you selected, as well.

If you were responsible for monitoring the infusion, you will have to explain how you determined that the vascular access device was working properly. Any nurse caring for a patient receiving IV therapy must be able to recognize and troubleshoot equipment problems. That ability is especially important with infusion pumps, since most pumps continue to infuse solution even after the surrounding tissue becomes filled with fluid.

If you're asked to work with an electronic infusion device that you are not familiar with, request training from your employer or the manufacturer of the device.

You must also be familiar with the type of medication being infused, including possible side effects and specific interventions. Some solutions are, in and of themselves, harmless if they enter the tissue; others require an antidote to prevent damage such as tissue sloughing. In an Oklahoma case involving dopamine extravasation, the hospital had to pay millions of dollars in damages because the nurses did not know the antidote—phentolamine (Regitine)—or that it had to be administered within 12 hours of the extravasation.³

In addition to knowing the INS standards, make sure that you are familiar with and follow the IV therapy policies and procedures of your employer. If those policies do not reflect the standards of nurs-

ing practice, request an update.

Document your request—to whom you made it and when—in a memo to yourself. This memo could prove valuable if a problem arises because you weren't supplied with an appropriate policy statement.

Your documentation: Concise is better

Whenever you start an IV, document the date and time that you did so and name the vein that you accessed. In one malpractice case I consulted on, the nurse had just charted "upper left arm," leaving doubts about which vein had been accessed—and her abilities.

Also chart the gauge, length, style, and brand of the needle or catheter, and whether the solution was being delivered by gravity infusion or a pump. Note the rate of flow.

Document each insertion attempt. A record of repeated unsuccessful attempts can indicate that the patient has poor peripheral vein access.

Use the patient's own comments about discomfort—or lack of it—in your charting. Words like "my arm feels fine" will provide a much stronger defense than your opinion that "the patient tolerated the procedure well."

Chart each one of your assessments. Describe all of the signs and symptoms in detail. If an infiltration occurs, for example, estimate the amount of fluid that entered the tissues if at all possible. If you are not sure, measure the area of infiltration, or use objective comparisons such as "area swollen the size of a quarter."

Document the location of the infiltration, too, either in words—"swollen from fingers to antecubital fossa"—or by drawing the limb

and shading the affected area. Take care to be accurate, though.

Chart all actions you took in response to indications of a problem, including notification of the physician. Whenever you remove a device, document why.

Watchwords: Education and preparedness

Home care nurses need to do more than nurse their patients who are on IV therapy; they also need to be risk managers. Education of the patient and his family is paramount.

Make sure they know the signs and symptoms of possible complications, the appropriate interventions, and emergency procedures. Be certain they know how to contact health care personnel 24 hours a day. Reevaluate their knowledge on a periodic basis.

Reinforce your teaching by giving the patient written reference material; attorneys in IV-related home care malpractice cases often request this information. If your home care agency does not provide written instructions—and many do not—request that it do so.

Document your teaching, ideally by using a checklist form that both you and the patient sign. Also document your assessment of the level of understanding exhibited by the patient and his family members. If you think a patient's abilities or level of comprehension disqualifies him as a candidate for home infusion therapy, document this judgment and notify your supervisor.

Make certain that you know how to contact your supervisor at all times, and—in case it ever becomes necessary—how to move a concern upwards through the chain of command. Keep a copy of your employer's policy

and procedure manual with you.

Also be mindful of clinical strategies that may be inappropriate. For example, administering a vesicant solution through a peripheral line may be an option for hospitalized patients who have pumps. But, for patients at home, the high risk of extravasation and the lack of continuous nursing supervision make a central line the safest choice in this situation.

Although there are no definitive guidelines on the need for home care nurses to get informed consent,⁴ I'd advise any home care nurse who's accessing the venous system to obtain it. This is the general practice among nurses who perform PICC insertions, and is

increasingly becoming so among those who do routine peripheral IV insertion site rotations.

The legal risks associated with IV therapy can be high. But concise documentation, thorough patient teaching, and a working knowledge of the standards of care can knock those risks down considerably. □

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ADVICE OF COUNSEL

WHEN THE NURSE WITH AN ADDICTION IS YOUR BOSS

I suspect that my supervisor has a drug problem, even though I do not have any hard evidence. I am concerned about the safety of patients—but also my job. What should I do?

Some states *require* you to report professional misconduct. If you live in one of them, you have little choice. The American Nurses Association's code of ethics also requires nurses to take steps to protect patients from coming to harm at the hands of an impaired colleague. So you are ethically bound to report an impaired co-worker, as well.

Because it is risky to accuse your supervisor of something, though, discreetly talk to your co-workers to see if they have been entertaining the same suspicions. It's generally safer to act in con-

cert, and checking with others can help verify or negate your concerns.

If no one else thinks that your supervisor has a substance abuse problem, you should consider a course of watchful waiting: The signs of drug addiction are usually apparent to more than one person.

If your colleagues share your suspicions, however, or if you have a valid reason to believe that your supervisor could be endangering patients, set up a meeting with *her* boss right away. Be certain that you stick with the facts and be careful not to make any statements that could be construed as being accusatory or defamatory.

Be careful if you are thinking of confronting your supervisor; if she is addicted, she may not be ready to deal with the problem herself.

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