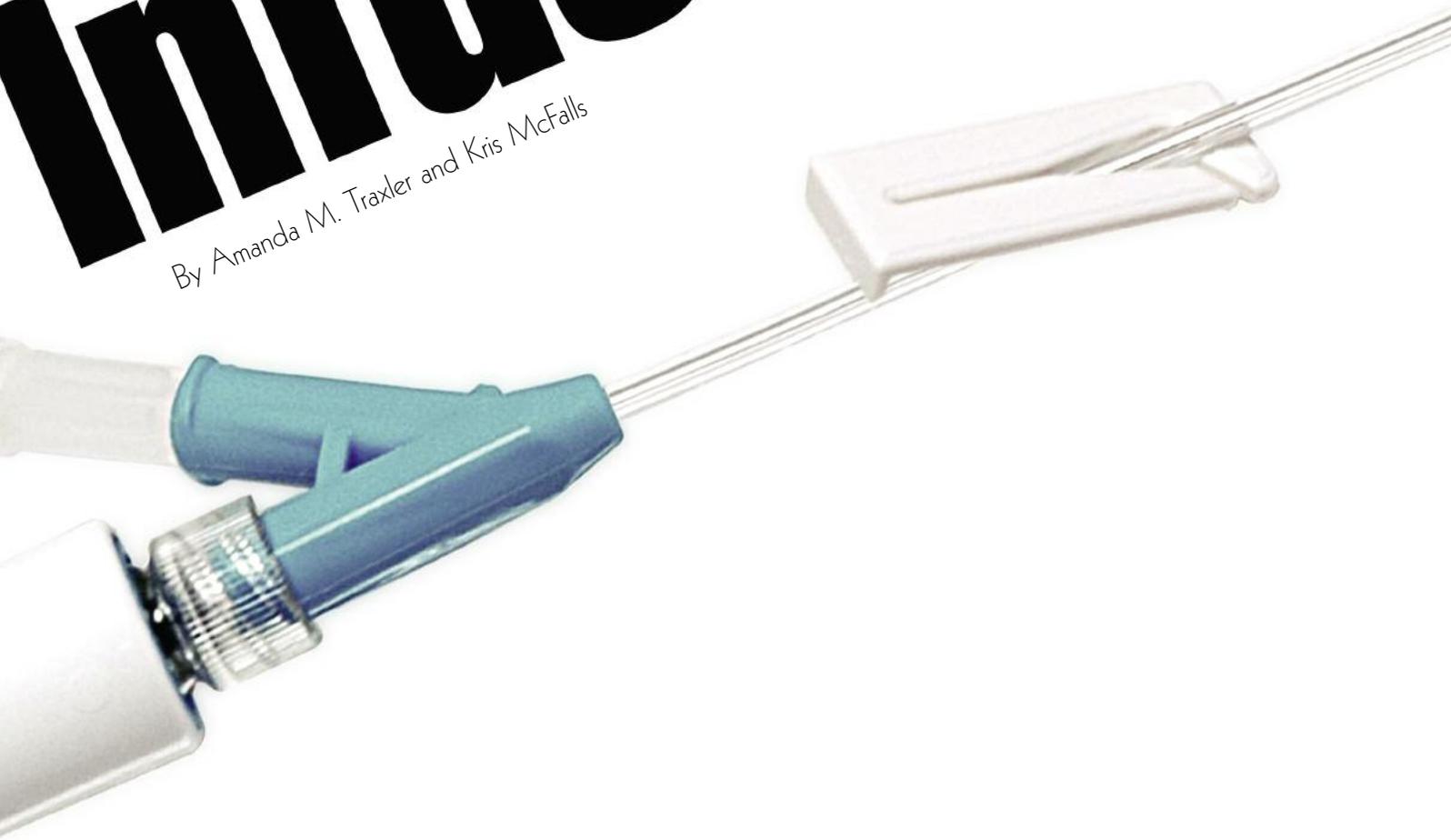
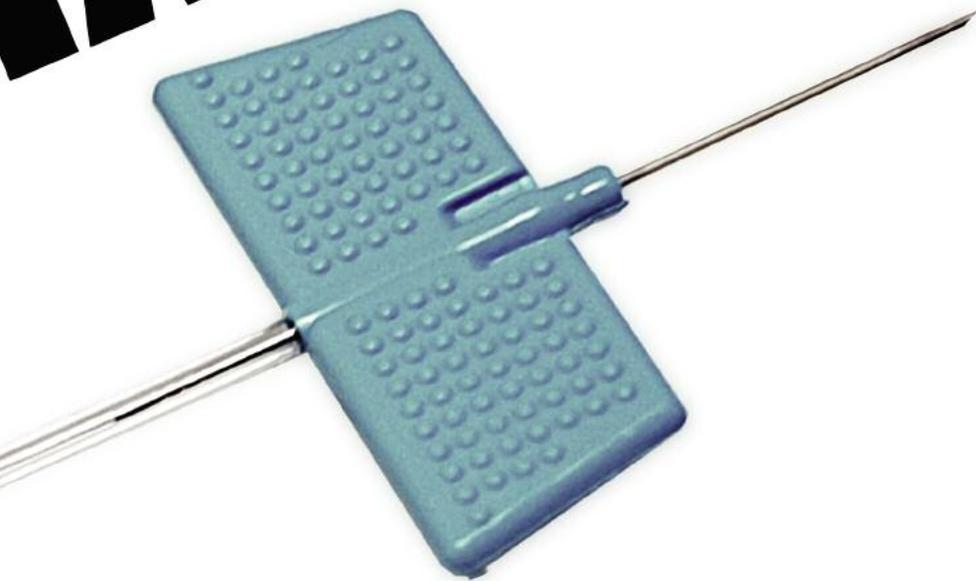


Minimizing Infusion An

By Amanda M. Traxler and Kris McFalls



Anxiety



Jim Potter has never liked needles. According to the Eugene, Ore., resident, who has hypogammaglobulinemia, others usually comment that there would be something wrong with him if he did.

That's why every three weeks, when the time comes for his intravenous immune globulin (IVIG) infusion, Potter says that he tries to not think about it.

"It's just something that has to happen," Potter said. "You just turn your head and let it happen."

His aversion puts Potter in good company, as "a dislike or mild fear of needles is very common."¹

For some, though, the fear of needles may be much more severe. Up to 10 percent of the population may experience needle phobia, a condition that is neither confined to children nor emotion-driven, and which can be "more rigorously defined by objective clinical findings in addition to subjective symptoms."²

For others, especially when it comes to the immune globulin (IG) community, anxiety and fear around infusion time can develop for reasons that aren't directly related to a fear of needles. Some individuals simply do not have veins that are easily accessible. Though an adult can at least rationally come to terms with the need for repeated pokes, it's understandable that someone who may not be initially bothered by needles could become anxious if difficult-to-access veins make infusion time uncomfortable or even painful. And for a child, who may not be old enough to comprehend the situation, those circumstances can be extremely challenging. Along these lines, recurring side effects with IG treatments, such as headaches after an infusion, can also contribute to unease developing around infusion time in general, and needles in particular.

Given the range of circumstances and reasons that can be associated with an aversion to needles, the following survey of solutions can make infusion time as comfortable as possible for everyone involved. ➤

Needle Phobia

According to its clinical definition, “the etiology of needle phobia is rooted in an inherited vasovagal [relating to the vagus nerve and blood vessel dilation and heart rate] reflex that causes shock with needle puncture. With repeated needle exposure, those with an inherited vasovagal shock reflex tend to develop a fear of needles. Unlike most other phobias, in which exposure to the feared object excites tachycardia [rapid heartbeat], victims of needle phobia typically experience a temporary anticipatory tachycardia and hypertension [high blood pressure], which on needle insertion turns into bradycardia [slow heartbeat] and hypotension [low blood pressure].”³

Clinically, needle phobia presents physically as syncope (fainting), near-syncope, lightheadedness, or vertigo upon needle exposure, along with other autonomic symptoms, such as pallor; nausea; cardiovascular depression with a drop in blood pressure or pulse or both (with or without an initial rise in blood pressure or pulse or both); electrocardiogram anomalies of virtually any type; and rises in any combination of several stress hormones (antidiuretic hormone, human growth hormone, dopamine, catecholamines, corticosteroids, renin, endothelin, and beta-endorphin).⁴

“... I was so unbelievably frightened by needles, if I saw someone getting a shot on the news when they were talking about the flu, I had to leave the room.”

From a layperson’s perspective, Garret Moore, a resident of Lakeland, Fla., who has primary immune deficiency disease (PIDD), appeared to have many of the symptoms of needle phobia, including sweating, shaking, lightheadedness, paleness and queasiness.

“In the beginning, I was so unbelievably frightened by needles, if I saw someone getting a shot on the news when they were talking about the flu, I had to leave the room.”

Eventually, with the help of a supportive nurse, Moore has become used to needles and infusions. One of the things he knows well, however, is that tensing up only made things worse.

“Heather [Moore’s nurse] would always tell me to calm down and breathe,” Moore said, “or it’s going to make it a lot harder.”

According to Teresa Gettman, a registered nurse for the Seattle Children’s Hospital Research Foundation, fear and anxiety do make infusions more difficult.

“Basically, hormones come into play and they’re [patients] in the fight-or-flight response,” Gettman said. “All of their blood rushes to their heart and chest, so their veins go absolutely flat, which makes them very hard to access.”

And, Gettman continued, veins can seem to disappear quickly.

“I’ve seen a teenage boy where from across the room you could literally see his veins, and as soon as he knew what I was doing, you could literally see them shrinking,” Gettman said. “His veins tightened, and they were gone, just absolutely gone. And if they’re totally flat, there’s just no way you can get into them.”

Dealing With a Phobia

When Moore was diagnosed with PIDD, one of the first things he felt was relief.

“I had been constantly sick,” Moore said, “and it was making it difficult for me to do the things I wanted to do. So when they actually diagnosed it and I knew I was going to begin treatments to get better, it was a huge relief.”

Then Moore learned that needles would be part of his treatment.

“When I found out I was going to have to get IVs,” Moore said, “I figured I’ve got to get a hold on this and figure out what to do.”

Seeking help, Moore enlisted a key figure, his nurse.

“You know that you’re going to have to do it, and it’s going to be with you your entire life, so you should just try to get as comfortable as you possibly can, realize that you’re going to have to work with your nurse,” Moore said. “When I told Heather, she automatically wanted to help me, so just being honest and talking to your nurse is probably the best thing.”

Even before the first infusion, Moore worked with his nurse to ease his fright.

“Heather started off by having me help her set up everything and put all the equipment out. Then we worked on getting comfortable with needles. She just let me hold the needle and get comfortable with knowing it’s not going to hurt me, and I’m going to be OK. Then she let me get comfortable watching people get IVs.”

According to Moore, repeating the above steps helped him become comfortable with the procedure. And when it came to his first infusion, Moore used another tool to help himself cope.

"I had every single possible spot that could get an IV covered in EMLA, like four or five spots. It completely numbs wherever you put it," Moore said of the topical anesthetic that contains lidocaine and prilocaine to numb the skin.

Gettman concurs: "And as an adult, if you're really afraid, there's no reason you shouldn't have any numbing cream."

Over time, Moore has become much less anxious about infusions. Though he admits that he's always going to be nervous, "because needles are needles," the trust he's developed with his nurse is key.

"I know if I wasn't with Heather, I'd be a lot more nervous, but you just get comfortable with your nurse," Moore says. "Heather's never had to stick me more than once."

Clearly, the confidence Moore has in his nurse's skill is crucial to alleviating his anxiety.

"A nurse's skill level will help establish trust. ...With each successful event, the patient won't even think about the IV," Gettman says.

According to Gettman, not all homecare nurses are equally skilled. That means that finding a good one is the responsibility of the patient, who may need to do some interviewing.

"I would ask them what their IV experience is, especially their most recent experience," Gettman said. "They may have 10 years' experience, but it may have been five years since they've started an IV because they've been out being a mom or doing something else with their career."

Those who receive infusions at a clinic, though, may not have a choice of nurses. Such is the case with Potter.

"I go to an infusion center," Potter said. "The last treatment I had, it took three times to get the IV in. After the second one, the nurse got someone else to come in and do it. It was kind of a comedy of errors that day."

Normally, though, Potter finds he is able to trust the healthcare professional on hand.

"I just turn my head and put all my trust and confidence into the healthcare professional who is putting the straw into my vein. There is a fair amount of discomfort, sometimes it hurts worse than others, but I know it's something I need to do."

And even Moore has successfully received an infusion

without his usual nurse.

"I had to get an IV [while I was traveling] in Georgia one time without Heather," Moore said, remembering an unexpected illness that sent him to a hospital while traveling. "I was completely fine, it just took time to get me comfortable with needles."

"...There is a fair amount of discomfort, sometimes it hurts worse than others, but I know it's something I need to do."

Infusion Difficulties

Though Potter never liked needles, he is an example of a patient whose discomfort grew over the course of receiving infusions. While many who switch to subcutaneous IG infusions prefer this method for its ease and convenience, such was not the case with Potter. In fact, Potter's decision to return to intravenous infusions may be more related to his initial lack of comfort with needles rather than anything about subcutaneous infusions per se. After giving it a try, it became clear that intravenous infusions suited him better. With this method, someone else was doing the heavy lifting.

"I decided to go back to doing the IV infusions at the hospital and let somebody else put the needle in me," Potter said.

He admits he never exactly got the hang of subcutaneous infusions.

"It was a four-site infusion with four 9-milliliter needles that I had to poke into myself. At first, it was a little difficult to do, and then it got a little easier."

Unfortunately, Potter seemed to have a susceptibility for hitting nerves during his infusions.

"It seemed as though I was hitting a nerve at least one out of the four times I was putting a needle in my body," Potter said. "I'd pull it out and then I'd have to work up the courage to put it back in again, and I knew that if I hit another nerve, it was going to hurt again."

This led to more apprehension about needles, which increased the amount of time his infusions took altogether.

"Doing the home infusions, it took two to three hours for me to do it at home, and it was once a week. ➤

And I started thinking, you know, it takes me about two to three hours to go to the hospital, and that's once every three weeks."

Finally, the camel's back broke.

"There was one time, and that was when I guess I knew that I needed to stop doing it. It took me 30 to 45 minutes just to get the needle in. And I thought, 'You know, I just can't do it anymore.' "

For Potter, the time factor, as well as hitting nerves fairly regularly, led him to switch back to intravenous infusions.

"All I have to do is just show up and sit in a chair," Potter relates, "and I get to watch cable TV, which I don't have at home. And it also gets me out of work a couple hours early, so I actually look forward to it."

Not that he's a fan of needles.

"I just kinda grin and bear it."

Tips for Children

When it comes to children who may not be old enough to verbalize a fear of needles, an earlier piece of advice warrants repeating: Find a good infusion nurse—especially one who has pediatric experience.

"I would also ask about their pediatric experience,"

“Don't tell the kid it's not going to hurt unless you absolutely know it's not.”

Gettman said, "because when we're teaching someone to start IVs who's only ever done adults, they're terrified of kids. And even though they may be a good IV starter, you still have to have a good, positive attitude. If you're afraid yourself, you're not going to be a success."

Even with a good infusion nurse, however, infusion time can be extremely difficult for children. Just ask Jeanette Weaver, of Kirkland, Wash., whose daughter, Grace, used to experience tremendous distress during infusions. Her daughter's suffering motivated Weaver to find help. According to Weaver, her research led her to virtual reality glasses, which studies show can help during procedures such as infusions. For her daughter, these glasses have been extraordinarily effective.

"They [the glasses] have made it possible for her to access without sedation," Weaver reports. "The first time we used them, it was incredible. She went from kicking and screaming and being held down by three adults to lying sedately and only saying 'ow' when she accessed. They are a coping tool."

For some children who are out of control but who are too young to understand instructions (about 1 to 2 years old), Gettman suggests bundling.

"For one child who was doing that [kicking and screaming] recently, as soon as I bundled her, she immediately stopped," Gettman said. "It was almost like she felt totally out of control, she was so anxious, but when I wrapped her up, it gave her some semblance of control."

Gettman usually considers bundling a last-resort option. In the scenario above, Gettman said that she asked the mom if anyone had tried bundling the child before. When the mom responded yes, saying that it had helped, Gettman decided to try that.

"I couldn't believe the difference with her."

For older children, however, rational communication trumps bundling.

"I do not want to bundle an 8-year-old," Gettman says, "so if they're screaming and fighting, usually I will have everyone leave. Usually that panics the child and they'll say 'I want my mom and dad.' And I say, 'No, we have to talk first.' Then I ask them, 'How many pokes do you want? Five? 10? Because you have to have at least one and there is no way I am going to get an IV in with you acting that way.'"

After conveying to a child that she will get help from as many nurses as needed, but that she is not going to let parents watch a struggle, Gettman says that the children usually let Gettman put an IV in about 99.5 percent of the time.

Gettman also advises the following for making infusion time easier for children:

- Always tell the child the truth. "Don't tell the kid it's not going to hurt unless you absolutely know it's not."
- List each step of the procedure with a child before it happens: "I usually break it up into individual steps. For example, I say, 'I'm going to wash your hands,' and then I wash their hands. Telling them beforehand what is coming next builds a short-term trust, especially if you've never met this child before. When it comes to the point where 'Now you have to have a little poke,' then I do it. And I don't usually dwell on that part until I'm ready to do it, so that way they don't have any

anxiety buildup. And that way when I say that I'm done, they also know I'm done."

- Try the "lights off" trick: "As soon as I get the IV in, I have the lights turned off. Sometimes if a child is really out of control and the lights go off, all of a sudden they'll stop mid-scream and look around. Then they can hear me when I say I'm done." The idea imparted to the child is that nothing bad is done with lights off. "I had some developmentally delayed kids who have remembered that," Gettman says. "Once I forgot to do that and the boy looked at me and said, 'Light off.'"

Improving Vein Access

No matter a patient's age, sometimes veins are difficult to access. Gettman gives the following advice to help with this issue.

- Warm the infusion site. For those who do home infusions, take a super hot bath just before the appointment. For those who go to a clinic, Gettman advises wearing gloves along with heat packs used for skiing (for both hands, too). According to Gettman: "I don't want anybody overly hot, but I want them to feel almost sweaty warm, so that way when the person goes to try to put the IV in, when they touch their hand, their hand is warm."
- Wear loose, comfortable clothing.
- Drink lots of water before the infusion.
- Make yourself laugh. According to Gettman: "It's hard to be anxious when you're laughing."
- Think of something that makes you angry. While this tip may seem odd at first (and perhaps should only be considered by those who are not watching their blood pressure), Gettman points out that "usually it is easier to have someone feel angry than to think of the ocean or try to laugh." Gettman relayed a story of a time when she used this tactic on a patient: "I tried talking to him about things that would make him angry. I asked him about school, etc. His brother was listening. And just before I was about to put in the IV, when I was cleaning the area, his brother grabbed something from him. ...He would've jumped off the bed to chase his brother around the room except that I taped his arm so well down to the board. His vein popped up,

MAKE INFUSION TIME EASIER

- Use the power of positive thinking: Try not to think of infusions as a horrendous experience. This idea can be particularly important at the time of a diagnosis.
- Use a numbing cream such as EMLA.
- Use coping tools such as listening to music, virtual reality glasses or watching TV.
- Drink plenty of water before your infusions.
- Heat the infusion site by taking a bath or using heat packs to warm the area.

so I put the IV in really quick. And his brother said: 'Did you get it?' I said, 'Yes.' The patient turned around and asked, 'You put the IV in when I wasn't looking?' He was mad, but the parents just laughed. It was very dramatic, the difference in his veins."

- Say "whoosh." Surprisingly, this can help relax the body. According to Gettman, this can work for patients who tighten their hands so an IV can be put in. About one patient, Gettman says: "His veins are so tight, the needle practically bounces off of it, so it doesn't actually go in, but the 'whooshing' makes his body relax so the needle can go in."

While infusions probably don't top anyone's list of favorite things to do, patients can take several steps to make infusion time easier. No matter the issue, whether it be a needle phobia or difficult-to-access veins, the above strategies can be immensely helpful. For many individuals, keeping the focus where it belongs—on staying healthy—may be the ultimate advice.

"I overthought everything," Moore said. "If I really just thought, 'Hey, I'm doing this to feel better,' then I would have been fine. It was actually thinking about the needles that was freaking me out." ■

¹ Hamilton, J. "Needle Phobia, A Neglected Diagnosis," *Journal of Family Practice*, August 1995.

² Ibid.

³ Ibid.

⁴ Ibid.