WHEN MY PATIENTS arrive for an intravenous immune globulin (IVIG) infusion, the first question I ask is: “How did you feel after your last infusion?” Several patients tell me they either didn’t experience any side effects or they felt a little tired for the next couple of days. These patients have the amazing benefits of IVIG without the sometimes debilitating side effects. Others, however, aren’t so lucky. As an infusion nurse, I aim to provide a safe delivery of the prescribed therapy so my patients will receive the most benefits with the fewest side effects.

Side Effects and Adverse Reactions

Immune globulin (IG) is derived from the human plasma of thousands of donors and includes essential antibodies. Some of the common side effects of IG include headache, migraine, fever, fatigue, itching, rash/hives, cough, chills/shaking chills, dizziness, nausea/vomiting, faster heart rate, upper abdominal pain and increased blood pressure. In comparison, the much more serious adverse reactions include renal failure, anaphylactic shock, blood clots, aseptic meningitis (especially with large doses or rapid infusion) and volume overload.

The most common side effects I observe in my patients are headache, flu-like symptoms, increased blood pressure and, occasionally, decreased blood pressure. Fortunately, many side effects can be controlled with careful monitoring of vital signs, as well as personalizing the infusion rate for each patient. For example, I have one patient who can tolerate the infusion at 200 ccs per hour and another who can tolerate only 30 ccs per hour.

For those patients who experience a post-infusion headache, I remind them to stay hydrated. Hydration is so important during IVIG infusions that I advise them to start drinking the day before and continue drinking during and after the infusion. Oftentimes, staying hydrated can make a significant difference in reducing the post-infusion headache. For other patients who experience severe headaches that require medication stronger than the ordered pre-meds, we discuss the importance of decreasing the rate and increasing titration times.

During the Infusion

Patients can expect to have their baseline blood pressure checked at the beginning of the infusion, before each titration and then hourly. They need to understand the importance of informing the nurse immediately if they experience any discomfort, including headaches. As soon as I know patients are beginning to get a headache, I assess the situation and determine the best course of action. Every patient is different. Some might
say the headache isn’t too troublesome and they will drink more water. Depending on the circumstances, I might decrease the rate of infusion while they hydrate and, once the headache begins to decrease and if the vital signs allow, I will increase the rate again.

Most doctors will order medications for patients to take prior to the infusion (pre-meds). Some examples of pre-meds are acetaminophen (Tylenol), diphenhydramine (Benadryl), and/or a steroid, to name a few. Patients should plan to take the oral pre-meds approximately 30 minutes prior to the infusion, and if a steroid is ordered, patients need to follow the instructions provided by the doctor. Sometimes an injectable steroid is given by the nurse prior to the infusion. Pre-meds are crucial as they help to avoid allergic reactions.

During their initial infusions, patients should plan on having someone drive them to and from the infusion center because Benadryl tends to make people sleepy and may make the patients too tired to drive home safely.

**After the Infusion**

Pre-meds often can be repeated after infusing, according to the physician order. I like to remind my patients who experience side effects such as headaches to continue hydrating, as well as to take acetaminophen and diphenhydramine again before going to bed the night of the infusion. Some patients are prescribed a steroid that can often decrease or eliminate post-infusion headaches that have been described to me as similar to a migraine. If patients continually suffer with severe headaches despite adjusting the infusion rate, hydration status and repeating pre-meds, I suggest they discuss this with their provider to explore other options.

**Tips for Success**

If patients fall asleep during the infusion (Benadryl often has that effect) and they are afraid the nurse will turn up the infusion rate, they should bring a friend or family member who will speak up for them. It’s important that patients know the rate they can tolerate. Over time, patients may have multiple nurses who may not be familiar with their case and who will infuse patients at the pharmacist’s recommendation, which may be too fast for some patients. If this happens, patients who know their rate can notify the nurse right away if they need the infusion to run slower than the recommended rate.

Patients also should try not to schedule anything after their infusion because it may run longer than usual due to side effects. I will not speed up the infusion because patients have somewhere to go afterward. Finally, be prepared for a long day. Even if the infusion usually takes only three hours, it may run six hours due to side effects, so patients should bring things to entertain themselves, as well as food and drink.

**Be Proactive**

To be proactive in their care, patients need to know their rights and their options, and they shouldn’t be afraid to speak up to their doctors or nurses. Remember: Patients are important members of the healthcare team. Still, many patients mention in blogs and conversation that the infusion nurse turns up their rate of infusion despite being told that it causes side effects. If that’s the case, they need to speak up! Call the infusion center, report the situation and request that nurse not be sent again. Asking to speak with a supervisor may be necessary to ensure the request is honored.

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