

# Choosing an Infusion Environment

Patients need to consider a number of factors, including cost, convenience and safety, when determining which environment is best for them.

By Heather Claverie

**LAURA ROHE KNOWS** a thing or two about infusion options. At age 14, the Omaha, Neb., resident was diagnosed with common variable immunodeficiency. She counts herself as one of the lucky few to receive such a quick diagnosis since, on average, a patient will spend 12 years waiting for one.<sup>1</sup> Now 40, Rohe has spent the vast majority of her life receiving intravenous immune globulin (IVIG) infusions to maintain adequate antibodies to prevent infections. For 22 of those years, she first received IVIG in a hospital, then at home and then in a doctor's office. Four years ago, she switched over to subcutaneous IG (SCIG) therapy, and she infuses in the comfort of her own home. "I feel like my health is better because I'm getting the steady infusion every week, with the convenience of doing it at home and less side effects," says Rohe, who is also a registered nurse for Allergy, Asthma and Immunology Associates in Omaha.

## Types of Infusion Environments

Home, hospital, outpatient infusion clinic or doctor's office? Those are the choices facing patients who are treated with IG.

Until the 1980s, patients were required to remain in a hospital setting for infusions. But when expenses became a major factor for insurance companies, they began looking for alternatives to the costlier hospital infusions.<sup>2</sup> That's the main reason for such significant growth in home-based infusions, says Leslie Vaughan, senior vice president of clinical programs for NuFACTOR Specialty Pharmacy.

Individuals may receive infusions in their homes, an option that, unlike clinical settings, offers convenience, privacy and flexibility. For example, home infusions eliminate the need to drive long distances for treatment for those living in remote locations. In addition, they allow patients to schedule their infusions at their convenience.

Most SCIG patients can receive infusions at home without supervision because the risk of serious adverse reactions is



reduced compared with IVIG infusions. However, medical status will play a role in the site-of-care decision. Some physicians prefer the hospital or clinical setting for those who receive IVIG for proximity to medical supervision in the rare case of adverse events such as anaphylactic reaction. In addition, some IVIG patients have a higher risk of thrombosis because the infusion is administered through the vein. That risk is further increased for those with a health history of diabetes, age (65 or older), coronary artery disease, hypertension, hyperviscosity disorder (including multiple myeloma, macroglobulinemia and polycythemia), thrombotic events and peripheral vascular disease.<sup>3</sup>

In clinical settings, doctors and nurses are able to interact with patients on a monthly basis, while supervising and monitoring their health and response to treatment. This can be especially important for patients living with a chronic disease who may be so accustomed to being sick that they may fail to notice red flags signaling possible infections or worsened disease states. With the monthly contact inherent in a clinical setting, a physician or an experienced infusion nurse will be more likely to notice a change in a patient's health.

## Cost Considerations of Environments

Since the price tag for hospital infusions may be higher than infusing at home, many insurance companies are now trying to identify the best clinical and financial site of care, which in many instances is the home setting, says Vaughan. "It's a matter of economics for insurance companies," she explains.

Costs can be cut significantly with home-based infusions due to lower contracted reimbursement and fewer ancillary charges

such as facility fees. Patients who are taught to become independent with self-administration of SCIG have significant reduction in nursing expense for a payer. They receive several training visits, and once independent, are typically monitored via monthly telephone interaction with the pharmacy dispensing their medication. Most patients receiving IVIG require a nurse. In the case of home infusion, industry standard is for the nurse to remain in the home for the duration of the infusion. In an infusion center or physician office setting, nursing cost may be leveraged by having one nurse attend to several infusions concurrently.

Unfortunately, reimbursement may prohibit some patients from being treated at home. Medicare Part B has limited coverage for IG in the home setting. Medicare Part B only covers five primary immune deficiency (PI) ICD-9 codes under the IVIG benefit, and there is no additional payment for a pump or supplies. Nursing services are only covered if a patient is certified as homebound, and a Medicare-certified agency provides the nursing care. For SCIG patients, these five PI codes have a more favorable reimbursement rate than IVIG, with Medicare even covering the cost of the mechanical pump that is needed for SCIG therapy under the durable medical equipment benefit.<sup>3</sup> With SCIG, the patient is taught how to self-administer and typically becomes independent with care.

Patients with diseases other than the five PI diagnoses may receive coverage under Medicare Part D; however, once again, supplies and nursing are still not covered and become the patient's responsibility.

### **Advantages and Disadvantages of Environments**

The trend toward home-based infusions, like all infusion environment options, comes with both pros and cons. While the site of care is often a personal decision, it is made on the basis of a variety of factors, including convenience, privacy, safety and reimbursement.

For many patients, the home setting is “a more comfortable environment,” Vaughan says. Patients don't have to travel and are able to receive the treatments in the comfort of their own home with all the privacy that allows. In addition, eliminating the need for the individual to drive after treatments is much safer, since they may receive premedications that cause drowsiness prior to and during the infusions. “Safe driving after infusions should be a consideration of the infusion suite or prescriber,” says Vaughan.

Some patients prefer the privacy of their home to a hospital or infusion clinic, where infusions typically occur in one large room screened off by curtains. On the other hand, others prefer the

clinical setting because they enjoy the camaraderie and the ability to connect with others with their same condition. However, in clinical settings, there are more people. And more people translates to more germs — not the best situation for individuals with compromised immune systems.

When Donna Hobson caught a cold from one of the tots at her home-based preschool, she assumed it was just that — a common cold. Yet, after spending more than a month in the hospital and losing 25 pounds, she knew something was seriously wrong. “From then on, it was just a downhill battle; the staph just spread,” she says. Hobson was eventually diagnosed with PI. She initially received IVIG at home with a nurse. She was then trained to do the infusions herself, a process Hobson describes as “kind of scary, when you're not medically trained.”

## **UNFORTUNATELY, REIMBURSEMENT MAY PROHIBIT SOME PATIENTS FROM BEING TREATED AT HOME.**

Then the insurance factor fell into place. Insurance was covering the infusions at \$3,000 a month. But when she switched over to Medicare, Hobson was told to head to the hospital. Her first infusion bill from the hospital was \$8,700 — nearly triple that of the home infusion price tag. “It was all a matter of insurance,” she says. Hobson switched to SCIG and now administers her treatments herself at home. “Sub-q is wonderful because it gives me the freedom to do it at 9 a.m. or noon,” she adds. “I actually did it on Christmas Eve.”

### **Making the Choice**

When choosing an infusion environment, all factors need to be considered — from cost to convenience to safety. All infusion environments have positives and negatives, and only patients and their doctors can decide which is the best for them. ■

**HEATHER CLAVERIE** is a contributing writer for *IG Living* magazine.

### **References**

1. TreatingPI.com. About Primary Immunodeficiency. Accessed at [www.treatingpi.com/primary-immunodeficiency.aspx](http://www.treatingpi.com/primary-immunodeficiency.aspx).
2. National Home Infusion Association. Infusion FAQs. Accessed at [www.nhia.org/faqs.cfm#faq1](http://www.nhia.org/faqs.cfm#faq1).
3. McFalls, K, and Rhodes, RT. Infusion Environments: Comparing Costs, Safety and Privacy. *IG Living*, February-March 2010. Accessed at [www.igliving.com/magazine/articles/IGL\\_2010-02\\_AR\\_Infusion-Environments-Comparing-Costs-Safety-and-Privacy.pdf](http://www.igliving.com/magazine/articles/IGL_2010-02_AR_Infusion-Environments-Comparing-Costs-Safety-and-Privacy.pdf).