

# OVERCOMING SCIG NEEDLE ANXIETY

Anxiety and discomfort are common occurrences when transitioning to SCIG therapy, but these issues can be minimized or resolved.

By Amy Ehlers, BS, PharmD, BCPS

When considering the transition from intravenous immune globulin (IVIG) therapy to subcutaneous IG (SCIG) therapy, patients commonly experience needle anxiety. With IVIG infusions, patients may have used a port or have had a skilled infusion nurse who was able to start a peripheral IV quickly, easily and with minimal discomfort. But to obtain the benefits of SCIG, patients need to be responsible for placing their own needles, the number of which can range anywhere from one to six. Considering this, patients often question if SCIG is right for them. Yet, while anxiety about needles and any discomfort that may arise is common, there are multiple options to address these concerns to allow for a successful conversion from IVIG to SCIG therapy.

### Talking About Anxiety

First and most importantly, patients need to have an open dialogue with their healthcare team about their concerns regarding needles. Even when initiated and desired by patients, transitioning to SCIG therapy can be overwhelming. For some, being able to talk through their apprehensions may be helpful. Patients who are stressed, anxious and fearful may be more likely to experience pain than those who have a relaxed and positive outlook. And, with children, it may be a little more of a challenge. If children are old enough, allowing them to touch and handle the supplies should be considered. Some of their fears may be eased when they discover an SCIG needle is different from a peripheral or port needle. SCIG needles are of a higher gauge (27 gauge), which is thinner or finer than a peripheral or port needle (for example, a 22 gauge or 24 gauge). They also are shorter in length, which often results in less discomfort upon insertion. Caregivers of children should consider using a proven distraction when possible and try to not allow their own fears to transfer to children. If caregivers don't appear anxious or concerned, children's anxiety levels likely will also be low.

### Learning Proper Technique

Proper needle placement technique is critical for minimizing needle discomfort. Patients transitioning to SCIG often are scheduled for three to four teaching and training visits during which they will learn about needle placement, among other things. Learning to place the needle swiftly and at the appropriate angle will help ensure the needle goes into the desired subcutaneous space. It also is important to allow the antiseptic skin prep to dry, especially if an

alcohol pad is used. If the skin is still wet with alcohol when the needle penetrates, there is a higher likelihood of stinging and burning.

If needle technique assessment is correct and other external factors have been addressed, using a topical skin anesthetic such as EMLA cream (lidocaine 2.5%/prilocaine 2.5%) is a standard first-line therapy to medically manage needle discomfort. To receive maximum benefit, it is important to use the correct method. Patients should apply the cream at least one hour prior to needle placement. While some numbing effect may be noticed as early as 15 minutes after its application, this is typically only the surface layer of the skin; it takes time for the medication to reach the underlying tissues. In most patients, the level of analgesia achieved at one hour is sufficient to place the SCIG needles without pain. If this is not the case, patients should attempt leaving the cream on longer; the maximum effect of EMLA is usually seen two to three hours after its application.

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A thick layer of cream should be applied to the planned needle sites, and it should not be rubbed in. The area(s) with an occlusive dressing such as Tegaderm should be covered to allow for maximum penetration of the medication. Just prior to inserting the needles, the occlusive dressing is removed, the cream is wiped with a gauze pad, and the area is cleaned with an antiseptic skin prep. By following these steps, the most benefit from the analgesia will be had, since the effects last approximately one to two hours after the cream is removed from the skin.

If patients are unable to use a topical anesthetic cream, another option is to apply ice to the infusion site prior to needle insertion. The drawback to icing the area is that it may slow the absorption of the medication into the subcutaneous tissue.

## Managing Infusion Effects

Needle anxiety also may develop over time due to the discomfort or irritation that occurs during the SCIG infusion. Again, patients should be encouraged to have open and prompt communications with their pharmacist or physician to discuss the specific concerns and possible solutions. Assessing and adjusting the SCIG needle length, the specific sites of infusion and the total number of infusion sites can minimize or eliminate needle discomfort.

SCIG needles are available in several lengths: 4 mm, 6 mm, 9 mm and 12 mm. The longer the needle, the deeper into the skin and subcutaneous tissue it is able to go. The length of the needle should be long enough to reach the subcutaneous tissue but not so long as to reach and irritate muscle or nerves. The size of the patient and preferred infusion sites often are the biggest influences on needle size. For example, a patient who is 5 feet 4 inches, weighs 160 pounds and prefers to infuse in the abdominal area needs a longer needle than a patient who is 6 feet 2 inches, weighs 160 pounds and prefers to infuse in the upper arms. The first patient would benefit from a longer needle (9 mm or 12 mm) because the subcutaneous layer is thicker in the abdominal area and the shorter needle may irritate the intradermal layer of the skin, in addition to causing some site leakage. The second patient would not benefit from these longer needle lengths because the patient has a leaner build and a 9 mm or 12 mm SCIG needle has a higher risk of entering muscle or nerve tissue in the upper arms.

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Patients are typically able to infuse in almost any place they can “pinch an inch,” with common areas being the abdomen, hips, thighs and upper arms. The more subcutaneous tissue that is available, the less the risk of needle discomfort. Care should be taken to avoid areas with scars,



stretch marks or other types of skin breakdown. When selecting sites in the abdominal area, a comfortable distance should be kept from the belly button. Spacing needles at least two inches apart and rotating sites also are important. Patients sometimes use a birthmark, mole or other identifying feature on the skin for a reference point and unknowingly use the same sites infusion after infusion. Over time, this may cause the subcutaneous tissue to become irritated or damaged.

The total number of infusion sites also should be considered. Patients should use the number of sites that allow the best absorption of the SCIG medication in the desired infusion time. This is highly patient-specific and may take several weeks or months of infusions to determine. It is best to start with the recommended number of sites determined by the healthcare team and then adjust up or down based on response.

## Ensuring SCIG Success

Needle anxiety is an understandable concern for patients new to SCIG therapy, and discomfort sometimes can be experienced. What is important for patients to know is that with open and honest conversations with their physician, nurse or pharmacist, many if not all issues can be resolved or minimized. Addressing these concerns either initially or as they occur will allow patients the best chance for success to enjoy the benefits of using SCIG therapy to manage their disease. ■

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