

Choosing Needles for IVIG and SCIG

By Kris McFalls



PATIENTS RARELY PUT much thought into the needle used to infuse their immune globulin (IG). In most cases, the size and brand of needles are decided by what the provider has in stock. A heightened sense of awareness about the choice of needles seems to come into play only after a patient has a problem. This is particularly the case for subcutaneous infusions (SCIG), during which the choice of supplies and the willingness to adjust can be essential to successful and comfortable therapy.

Needle Terms

Having some basic knowledge will help patients to make a choice about which needles to use.

Gauge. The gauge of a needle is its thickness or diameter. The larger the number, the slimmer the bore of the needle. Larger bore needles are needed for higher flow rates and maintaining integrity of cells.

A 27-gauge needle is commonly used for SCIG. However, a 24-gauge needle is now being produced. Because IG is a very viscous fluid, it is believed that the larger bore

should decrease resistance and, it is hoped, decrease the time and alarm problems currently experienced with some current SCIG pumps.

For intravenous IG (IVIG), most nurses use a 20-, 22- or 24-gauge needle. IV needles are universally color-coded for gauge. The most common color needles for IVIG are pink for 20-gauge, blue for 22-gauge and yellow for 24-gauge.

For port-a-catheters, a 22-gauge needle is typically used, but the gauge can be different depending on what is being infused and the size of the port.

Catheter. A catheter is a needle with a soft sleeve. The needle is used for insertion, and then removed, leaving the catheter in place. Although catheters are more commonly used for IVIG needles, they also can be used for SCIG. When used for SCIG, the needles are available with an inserter, which allows the patient to insert the needle with the push of a button instead of manually.

Length. The length of the needle is listed in inches or

millimeters. For IVIG, the length is typically determined by the nurse inserting the needle. According to Kim Duff, RN, attending patients at University Hospitals, "Some nurses prefer the smaller diameter and/or gauge [either 3/4 inch or 1 inch] because it is believed to cause less scar tissue to the inner vein."

For SCIG, the length is determined by the patient's amount of subcutaneous (fat) tissue. Depending on the manufacturer, needle lengths come in 4, 6, 9, 12 and 14 mm, and size matters! A needle that is too long can be pushed into muscle tissue, causing a painful infusion, while a needle that is too short can cause leaking. In addition, the tubing attached to the needle can come in different lengths. Longer tubing allows more flexibility for infusing at sites further apart. Shorter tubing may be preferred for pediatric patients.

The length of port-a-catheters varies, depending on the depth of the port and the amount of tissue over the port.

Needle Use

"Once a needle is placed, an infusion should not hurt," explains Nancy Creadon, RN, vice president of VaxAmerica, a subsidiary of NuFACTOR, the specialty pharmacy of FFF Enterprises, Inc. If there is pain during a peripheral infusion, the catheter needs to be replaced. If the infusion sites are painful during SCIG, patients may need to check with their nurse or pharmacist regarding how to adjust the needle length or placement.

While many factors go into choosing needles, ease of use and comfort during infusion are what will determine how successful treatment will be. ■

KRIS MCFALLS is IG Living's patient advocate.

Directory of SCIG Needles



eMedicalDevices

The family of Safety SCIG multi-needle infusion therapy products for pediatric and adult patients features ultra-flexible polyethylene tubing; a 27-gauge needle (available in 6 mm to minimize patient trauma or 9 mm for patients with thicker

skin); optimized needle contour curvature to ensure maximum flow through the needle; and a translucent wing to facilitate insertion and provide stability for long-term use. Hypoallergenic dressings are included with each needle site for ease of placement. Special accessories ensure compatibility with all major ambulatory infusion pumps. Special connectors, accessories or design adaptations are available for specific infusion pumps.

(888) 550-6500;

emedicaldevices.com/scig-infusion-sets-s.html



IntraPump

Neria Detach is a single-line infusion set that disconnects at a separate site, providing extra security and comfort. It has a 90-degree

angled needle for easy insertion and a pre-attached adhesive. Neria Detach is made from skin-friendly latex-free tubing, which reduces the risk of contact allergies commonly associated with tubing from polyvinylchloride. Infusion is still performed on multiple sites in the same period of time, just one site at a time, reducing problems with site absorption and drug waste in long tubing, and eliminating the need to search for multi-tubing occlusion issues. And, tubing does not need to be changed before each rate change. It comes with a standard luer lock connection, and it can be used with any standard luer lock syringe.

(866) 211-7867; www.intrapump.com

MarCal Medical



MarCal's Sub Q and Safety Sub Q right-angle needle infusion sets feature easier needle insertion and flexible wings for optimum viewing of insertion site; integrated wings on the needle to lay flat against the skin; and central position of the needle for stability and comfort. A variety of needle lengths and gauges are available (24- and 27-gauge, 6 mm, 9 mm, 12 mm and 14 mm), and specialty gauges and needle lengths are available. Sets come with colored side clamps for easy identification for pull pack on each site, and transparent dressing is included in a sterile package.

(800) 628-9214;

www.marcalmedical.com/subQsafetySubQ.htm



Medtronic

Medtronic Sof-set QR was originally designed for insulin therapy. The Sof-set needle is inserted with the Sof-serter device at the press of a

button, making insertions quick, easy and virtually painless. With the Sof-set, a soft cannula is all that remains in place. A special adhesive dressing inhibits bacterial growth.

(866) 948-6633; www.minimed.com



Norfolk Medical

Norfolk provides a complete line of SCIG infusion sets and extension sets. The infusion sets feature two,

three, four or five lumens that each have 36-inch microbore tubing with 24-, 25- or 27-gauge needles. There is a transparent clear disk with adhesive on each disk for placement stability. Needle lengths can be modified to 4 mm, 6 mm, 9 mm and 12 mm. Custom sets can be created to fit specific needs. Extension sets come without needles and feature 20-inch microbore tubing attached to two, three, four or five lumens, and allow for patients to use the needle set of their choice. A subcutaneous infusion set must be added to each extension set and connected to the luer lock connection. Six sets come in each box.

(847) 674-7075;

www.norfolkmedical.com/IVIG%20delivery%20sets.html



RMS Medical

RMS Medical's new Daisy Chain Needle Set connects to as many sites as needed and is engineered for maximum flow. Each needle adjusts to 6 mm, 9 mm and 12 mm lengths. The set

eliminates the need for bi, tri and quad sets. Adhesive wings attach to the patient and come together after use to prevent needle stick injury.

(845) 469-2042;

www.rmsmedicalproducts.com/administrationsets.htm