Insulin Delivery Devices

More and more of our patients are going on insulin as their diabetes needs more control. We are all familiar with using vials and syringes but the chances for error, especially in our older patients is great. A study done by Novo-Nordisk in 1999 showed that medical professionals have a 40% error rate in drawing up doses of less than 10 units in a 1cc syringe. Can you imagine how far off patients could be.

We have multiple choices when it comes to deliver devices, some you have and some you can learn more about.

Syringe choices can make a difference. There are 3/10cc, ½ cc and 1 cc sizes and the needles come in 28-31 gauge and different lengths. The choice of a 3/10cc syringe for a patient using 13 units allows the patient to be over 60% more accurate.

Then there are the Pen Devices. These offer your patients accuracy, convenience and anywhere use.

There are disposable devices, as well as reusable devices and knowing which one to recommend can make a difference for your patient.

Novo makes the FlexPens including Levemir, a near peakless long acting insulin Novolog, a rapid acting insulin and NovoMix 70/30 a combination of both rapid and long acting insulin.

All of these come 5 pens in a box and offer 300 units in each disposable pen. They use pen needles from either NOVO or B-D. The pens can be kept out of the refrigerator for 30 -35 days after first use.

Sanofi makes pens and refillables for both their near peakless insulin Lantus. There is no device currently available for their rapid acting insulin Apidra. The Solostar comes in a box of 5 disposal pens 300 units each. This is a great thing for patients using a low dose as each pen is good for 30 days after opening. The Opticlick pen uses a special cartridge with the plunger screw built in, and unofficially is being phased out by the company.

Eli Lilly has been making their “Turbo" pen for the past 10 years. They still make Humulin N and R as well as Humalog, Humalog 75/25 and Humalog 50/50. Since a lot of our patients are having to pay cash for their insulin the use of Humulin insulins reduces cost.

Lilly recently added 5 new pens to their lineup the first that came out is the HumaPen Memoir. This device uses the 3ml Humalog Cartridge and has a digital readout. Each dose is stored digitally with the time and date when given. The device stores the last 16 doses and is great for patients who are forgetful and might dose twice.
For patients, especially children, who need smaller doses of insulin the **HumaPen Luxura HD** is a great choice. This device uses the same 300 u cartridge and delivers accurate ½ units of insulin. The cartridges come in a box of 5 300u cartridges just like the disposable pens.

The new **KwikPen** is their brand new disposal pen. It is available in Humalog, Humalog 75/25 and Humalog 50/50. This new pen has an easier to read dial, a short throw distance and is a great improvement over the “turbo” pen. The pen is available in boxes of 5 pens with 300 units. Each pen is good for at least 30 day without refrigeration after the first use.

If your patients want to try any of the **Lilly Pens** have then just go to [http://kwikpenvoucher.humalog.com/voucher.cfm](http://kwikpenvoucher.humalog.com/voucher.cfm) and print a coupon for a 5 pack.

### Pen Needles

All pens need needles and the selection of these are varied as well. The 2 most popular brands are B-D and Novo but others are available as well. Often we assume that the smallest finest needle is the best for our patients but depending on the thickness and density of a patient’s adipose tissue a longer or thicker needle may be necessary.

BD Ultra-Fine needles come in 3 different sizes
- Mini Pen Needle at 5mm and 31 gauge
- Short Pen Needle at 8mm and 31 gauge
- Original Pen Needle at 12.7mm and 29 gauge

NovoFine Disposable Pen Needles come in 2 different sizes
- 31 Gauge x 6 mm
- 30 Gauge x 8 mm

### Infusion Ports

Many of our patients use 4-6 injections a day and even more need to increase their injections but don’t want to stick themselves due to the pain or bruising that can occur. For those patients there is the I-Port

This device is inserted in the skin every 3 days and then the shot given with a pen or a syringe is given thru the port. So whether it is 3 shots or 5 shots a day the skin is only pierced once every 3 days. To learn more about this device go to [http://www.pattonmd.com/healthcare/](http://www.pattonmd.com/healthcare/)