Insulin Initiation and Administration

Insulin Basics

- Insulin works best when injected into the fat just under the skin, not into the muscle. Use the picture to see where to inject insulin.

  ![Insulin Injection Sites]

- Injection site rotation - Injecting in the same spot causes hard lumps or fatty deposits and affects your body's ability to absorb the insulin. Rotate the injection site with every injection at least a finger-width away from your last injection.

- Do not inject insulin near moles or scars, in areas that look red, infected, have a rash or within two inches of the navel (belly button) in any direction.

- A bolus insulin is specifically before meal times to keep blood glucose levels under control following a meal. Bolus insulin needs to act quickly so short acting insulin or rapid (fast) acting insulin will be used.

- A basal insulin works in the background to keep blood glucose levels under control throughout the day lasting up to 24 hours. They are called long-acting or background insulins.

  Patient Initials: ____________

**Insulin Vial Injection Training**

1. Wash and dry your hands.
2. Choose a clean and dry site for injection. Wipe site with alcohol pad.
3. Check the bottle to be sure you are using the right insulin.
4. If your insulin is cloudy, roll it gently between your hands. Do not shake it.
5. Take caps off the insulin needle and the plunger.
6. Pull the plunger back to the number of units you use to fill it with air.
7. Put the needle in the insulin vial and push the plunger down completely so the air goes into the bottle.
8. Turn the syringe and bottle upside down, keeping the needle tip below the level of insulin in the bottle. Pull back on the plunger to pull out the number of units you need.
9. Check for air bubbles in the syringe. Tap the syringe to move any air bubbles to the top and gently push them out with the plunger.
10. Use the insulin immediately.
11. You may gently pinch a fold of fatty skin between your fingers.
12. Push the needle quickly, straight into the skin, relax the pinch and push plunger down to inject the insulin.
13. Wait a few seconds and then pull the needle straight out.
14. Do not rub the site.

**Insulin Pen Injection Training**
1. Wash and dry your hands.
2. Choose a clean and dry site for injection. Wipe site with alcohol pad.
3. For a new pen, look at the dose window and turn the dosage knob to ‘2’ units. Holding the pen with the needle point upwards, press the button until a drop of insulin appears. This is the “air shot” or safety shot. Repeat this step if needed until a drop of insulin appears. Ask your healthcare provider to show you how to do this.
4. Turn the dial on your insulin pen to your dose of insulin.
5. You may gently pinch a fold of fatty skin between your fingers.
6. Push needle into the skin, and then relax the pinch.
7. Press down on the plunger to inject the insulin.
8. Hold the pen in the skin for a count of 5-10 seconds (larger doses may require the whole ten seconds). Withdraw from the skin. Practice injections in front of your healthcare provider to help learn this skill.

**Patient Initials: ____________**

**Insulin Storage Requirements**
*General guidelines are provided below. Specific insulin storage recommendations are provided by the manufacturer, can be located on the medication package insert and should be strictly followed.*

**Rapid Acting Insulin – Novolog, Humalog, Apidra**
Storage: Unopened vial, pen, or cartridge store in refrigerator.Opened vial, pen, or cartridge can store at room temp for 28 days. Protect from light.

**Short Acting Insulin – Humulin R, Novolin R**
- **Humulin R**: Unopened vial store in refrigerator. Opened vial can store at room temp for 28 days. Protect from light.
- **Novolin R**: Unopened vial store in refrigerator. Opened vial can store at room temp for 42 days. Protect from light.

**Intermediate-Acting Insulin – Insulin NPH (Humulin N) (Novolin N), Regular U-500 (Humulin R U-500)**
Storage: Unopened vials, pens, or cartridges store in refrigerator. Protect from light.
- **Humulin N**: Opened vial can store at room temp for 31 days. Opened pen/cartridge can be stored at room temp for 14 days.
- **Novolin N**: Opened vial can store at room temp for 42 days.
- **Humulin R U-500**: Opened vial can store at room temp for 40 days. Opened pen can store at room temp for 28 days.

**Long Acting Insulin – Levemir, Lantus, Toujeo, Tresiba**
Storage: Unopened vials, pens, or cartridges store in refrigerator. Protect from light.
- **Levemir**: Opened vial or pen can be stored at room temp for 42 days.
- **Lantus**: Opened vial, cartridge, or pen can be stored at room temp for 28 days.
- **Toujeo**: Opened pen should be stored at room temp only for 42 days.
- **Tresiba**: Opened pen can be stored at room temp for 56 days (8 weeks).
Premixed Insulin - Humulin 70/30, Novolin 70/30, Humalog Mix 50/50, Humalog Mix 75/50, Humalog Mix 75/25, Novolog Mix 70/30
Storage: Unopened vial, pen, or cartridge store in refrigerator. Protect from light.
  **Humulin 70/30**: Opened vial can be stored at room temp for 31 days. Opened pen/cartridge can be stored at room temp for 10 days.
  **Novolin 70/30**: Opened vial can be stored at room temp for 42 days.
  **Humalog Mix**: Opened vial can be stored at room temp for 28 days. Opened pen/cartridge can be stored at room temp for 10 days.
  **Novolog Mix**: Opened vial can be stored at room temp for 28 days. Opened pen/cartridge can be stored at room temp for 14 days.

**Patient Initials: ____________**

**Timing of Doses**
It is very important to follow your healthcare provider’s recommendations on timing of insulin injections as each type varies on how fast or slow they begin to work. You should also follow recommendations on when to take insulin at meal times or with food in order to maximize the benefits of the medication and avoid potential side effects like low blood sugar episodes.

I verify training on insulin initiation and administration has been completed.

Verified by (LC Staff member):

_________________________  AND  _______________________
Print Name  AND  Signature

Completed by Patient

_________________________  AND  _______________________
Print Name  AND  Signature

Date: ______________________