

## Insulin and Non-Insulin Pen Quick Reference Guide

*Healthcare providers are increasingly using injectable insulin and non-insulin pens, and proper use of these injectable pens is crucial*

Injectable “pens” containing insulin and non-insulin medications have become commonplace in the healthcare industry, but nurses need to be aware of the differences between the pens and how to correctly use these devices to avoid medication errors.

This resource will assist your nursing staff to identify:

- Manufacturer required steps, which also avoid survey citations
- Pen safety guidelines
- In-use pen storage guidelines

Other Important Information for the nurse to be aware:

1. If “puddling” of the medication is observed on the skin it could be due to:
  - Pushing the pen plunger before injecting the medication
  - Not holding the pen in skin for the recommended time after pushing the plunger to inject the medication
  - Bumping the safety sheath against the skin causing a premature locking of the safety sheath and not allowing the needle to penetrate the skin**Key Point: Don’t press pen plunger until needle is in the skin!**
2. ALWAYS date pen upon opening and/or removing from refrigerator.
3. ALWAYS use a new needle for each injection.
4. Pens must be clearly labeled with the resident name or other identifiers.
5. Pens are for single resident use only and must NEVER be used on more than one resident even if the needle is changed.
6. NEVER draw medication out of the pen as this will damage the pen making it unusable.

# Insulin Pen Quick Reference Guide

Insulin Pen Name	Manufacturer	Roll/Shake	Safety Info	Clean Pen Tip with Alcohol*	Air Shot Before Each Use*	Repeat Air Shot if Needed	Dial to Dose	Hold Pen in Skin*	Discard Before Pen Empty	In Use Storage**
Levemir (detemir) FlexPen	Novo Nordisk	NA	Use only if clear and colorless with no visible particles	Yes	2 unit	Up to 6 times	Yes	6 seconds	NA	Room temp x 42 days
Novolog (aspart) FlexPen	Novo Nordisk	NA	Use only if clear and colorless with no visible particles	Yes	2 unit	Up to 6 times	Yes	6 seconds	NA	Room temp x 28 days
Novolog (aspart) Mix 70/30 FlexPen	Novo Nordisk	Roll and gently shake 10 times each	Once mixed, Insulin should be white and cloudy with no visible particles	Yes	2 unit	Up to 6 times	Yes	6 seconds	Discard when less than 12 units remaining in pen	Room temp x 14 days
Lantus (glargine) SoloSTAR Pen	Sanofi	NA	Use only if clear and colorless with no visible particles	Yes	2 unit	Up to 2 times	Yes	10 seconds	NA	Room temp x 28 days
Apidra (glulisine) SoloSTAR Pen	Sanofi	NA	Use only if clear and colorless with no visible particles	Yes	2 unit	Up to 2 times	Yes	10 seconds	NA	Room temp x 28 days
Humalog (lispro) KwikPen	Eli Lilly	NA	Use only if clear and colorless with no visible particles	Yes	2 unit, hold dose knob for 5 secs	Up to 4 times	Yes	5 seconds	NA	Room temp x 28 days
Humalog Mix (lispro) 75/25 and 50/50 KwikPen	Eli Lilly	Roll and gently shake 10 times each	Once mixed, Insulin should be white and cloudy with no visible particles	Yes	2 unit, hold dose knob for 5 secs	Up to 4 times	Yes	5 seconds	NA	Room temp x 10 days
Humulin N KwikPen	Eli Lilly	Roll and gently shake 10 times each	Once mixed, Insulin should be white and cloudy with no visible particles	Yes	2 unit, hold dose knob for 5 secs	Up to 4 times	Yes	5 seconds	NA	Room temp x 14 days
Humulin 70/30 KwikPen	Eli Lilly	Roll and gently shake 10 times each	Once mixed, Insulin should be white and cloudy with no visible particles	Yes	2 unit, hold dose knob for 5 secs	Up to 4 times	Yes	5 seconds	NA	Room temp x 10 days

**\*Surveyors observe for these steps to be followed.**

**\*\*Unused insulin pens can be used until mfr. exp. date if stored in refrigerator.  
In-use pens should be protected from heat light but NOT stored in refrigerator.**

# Non-Insulin Pen Quick Reference Guide

Non Insulin Pens	Manufacturer	Safety Info	Clean Pen Tip with Alcohol*	Air shot Before First Use*	Repeat Air Shot if Needed	Dial to Dose	Hold Pen in Skin*	In Use Storage**
Victoza (liraglutide)	Novo Nordisk	Use only if clear and colorless with no visible particles	Yes	1. Dial to "check flow symbol" and turn dose selector until flow check symbol lines up with pointer. 2. Press dose button until "0" lines up with pointer.	Up to 6 times	Yes	6 seconds	Room temp or fridge x 30 days
Byetta (exenatide) 5 mcg	Amylin Pharmaceuticals	Use only if clear and colorless with no visible particles	Yes	1. Assure arrow visible in dose window. 2. If not, turn dose knob clockwise until it stops and arrow pointing "right" in dose window. 3. Pull dose knob out until it stops and arrow pointing "up" in dose window. 4. Push injection button in until it stops and hold for 5 seconds. 5. Turn dose knob counterclockwise until it stops and arrow pointing "right" in dose window.	Up to 4 times	1. Assure arrow visible in dose window. 2. If not, turn dose knob clockwise until it stops and arrow pointing "right" in dose window. 3. Pull dose knob out until it stops and arrow pointing "up" in dose window. 4. Turn dose knob counterclockwise until it stops at "5". 5. Perform injection 6. Reset Pen- turn dose knob counterclockwise until it stops and arrow pointing "right" in dose window.	5 seconds (Dose complete when arrow pointing "up" in center of dose window)	Room temp or fridge x 30 days
Byetta (exenatide) 10 mcg	Amylin Pharmaceuticals	Use only if clear and colorless with no visible particles	Yes	1. Assure arrow visible in dose window. 2. If not, turn dose knob clockwise until it stops and arrow pointing "right" in dose window. 3. Pull dose knob out until it stops and arrow pointing "up" in dose window. 4. Push injection button in until it stops and hold for 5 seconds. 5. Turn dose knob counterclockwise until it stops and arrow pointing "right" in dose window.	Up to 4 times	1. Assure arrow visible in dose window. 2. If not, turn dose knob clockwise until it stops and arrow pointing "right" in dose window. 3. Pull dose knob out until it stops and arrow pointing "up" in dose window. 4. Turn dose knob counterclockwise until it stops at "10". 5. Perform injection 6. Reset Pen- turn dose knob counterclockwise until it stops and arrow pointing "right" in dose window.	5 seconds (Dose complete when arrow pointing "up" in center of dose window)	Room temp or fridge x 30 days
Symlin (pramlintide acetate) 60 mcg	Amylin Pharmaceuticals	Use only if clear and colorless with no visible particles	Yes	1. Turn dial until 15 appears in window. 2. Pull out knob as far as it will go; will hear "clicking" as knob is pulled. 3. Push in knob all the until it stops; will hear "clicking" as knob is pushed	Up to 6 times	1. Dial to dose. 2 "Load"- pull out knob as far as it will go. 3. Use line on "Dose Check" to confirm full dose is loaded.	10 seconds	Room temp or fridge x 30 days
Symlin (pramlintide acetate) 120 mcg	Amylin Pharmaceuticals	Use only if clear and colorless with no visible particles	Yes	1. Turn dial until 60 appears in window. 2. Pull out knob as far as it will go; will hear "clicking" as knob is pulled. 3. Push in knob all the until it stops; will hear "clicking" as knob is pushed	Up to 3 times	1. Dial to dose. 2 "Load"- pull out knob as far as it will go. 3. Use line on "Dose Check" to confirm full dose is loaded.	10 seconds	Room temp or fridge x 30 days

\* Surveyors observe for these steps to be followed.

\*\*Unused pens may be used until mfr expiration date if stored in refrigerator.

In-use pens should be protected from heat and light.