

Insulins

Match to correct answer

1. What insulins are rapid acting? **B-Novolog and Humalog**
2. What is a short acting insulin? **A- Humulin R**
3. What is an intermediate insulin? **E** **-Humulin N**
4. What are long acting Insulins? **C** **-Levemir and Lantus**
5. What is regular insulin? **D** **-Short Acting**

Use complete sentences. Must a paragraph. Please reference any sources you use

What is the importance of using the correct steps to mix two types of insulin?

The top of the vial should be cleaned with alcohol to avoid bacteria getting onto the syringe needle. Air must be injected prior to drawing to avoid the creation of a vacuum in the insulin vial. The air must be pushed into the cloudy vial first because it will be drawn up second. This prevents clear (short-acting) insulin from being pushed into the cloudy (long-acting) vial. After the air is pushed into the cloudy vial, the correct number of units to be drawn are pushed into the clear vial. Then the clear is drawn into the syringe. This needs to be drawn first so that air bubbles can be seen. They are more difficult to see in the cloudy insulin, and more air equals less insulin. Once all bubbles have been removed from the clear insulin dose, the cloudy insulin can be drawn down to the appropriate unit dose line.

There are some other sources online that state some different rationales on clear before cloudy, but this was only medical journal-backed explanation I could find on the topic. This is also what I have heard taught in pharmacy, and the only thing I can remember being told when I was mixing self-injections for 3 years.

What is the role of the nurse in preventing an incorrect insulin dose from being administered?

Nurses check the dose ordered, pull the vial, then check the dose ordered again. The vial's expiration date and name must be checked prior to drawing up any insulin. (It must have an expiration sticker indicating that it has not been unrefrigerated for more than 28 days).

After the vials have been checked, the nurse will inject air equal to the number of units to be withdrawn. Then, they draw up the correct number of units of insulin into syringes and have them checked by a second nurse. Lastly, nurses will do a third check personally before administering to the patient.

Discuss the importance of having a second nurse available to check the insulin?

Insulin dosages have to be exact. The lines on the syringes are small, and having a second nurse check it improves safety for the patient receiving it. Even a small amount of insulin too much or too little can make a huge impact on a patient. Too much insulin can cause hypoglycemia, and too little insulin can cause hyperglycemia. Both of these are dangerous for the patient.

..... Interesting side note, my pump delivers insulin to the 1/100th of a unit!!! It is extremely precise! For nearly all pump patients, insulin is dosed to the 1/10th of a unit or smaller unit size.

Reference

American Diabetes Association. (2002). Insulin administration. *Diabetes Care*, 25(1), S112-S115.
https://care.diabetesjournals.org/content/diacare/25/suppl_1/s112.full.pdf