






























## Stability of Common Insulins in Pens and Vials<sup>1,2</sup>

| Insulin Vials                            | Stability Unopened and Stored in the Refrigerator | Opened at Room or Refrigerator Temperature (days) <sup>1</sup> | Unopened at Room Temperature (days) <sup>1</sup> | Image   |
|--|---|--|--|---|
| <b>Rapid-acting Insulin</b>              |   |  |  |   |
| Novolog (Aspart)                         | The expiration date on the label                  | 28   | 28   |    |
| Humalog (Lispro)                         | The expiration date on the label                  | 28   | 28   |    |
| Apidra (glulisine)                       | The expiration date on the label                  | 28   | 28   |    |
| <b>Short-acting Insulin</b>              |   |  |  |   |
| Humulin R (Regular)                      | The expiration date on the label                  | 28   | 28   |    |
| Novolin R (Regular)                      | The expiration date on the label                  | 42   | 42   |    |
| <b>Intermediate-acting Insulin (NPH)</b> |   |  |  |   |
| Humulin N                                | The expiration date on the label                  | 28   | 28   |  |
| Novolin N                                | The expiration date on the label                  | 42   | 42   |  |
| <b>Pre-mixed insulin</b>                 |   |  |  |   |
| Humulin 70/30                            | The expiration date on the label                  | 28   | 28   |  |
| Novolin 70/30                            | The expiration date on the label                  | 42   | 42   |  |
| Humalog 75/25                            | The expiration date on the label                  | 28   | 28   |  |
| Humalog 50/50                            | The expiration date on the label                  | 28   | 28   |  |
| Novolog 70/30                            | The expiration date on the label                  | 28   | 28   |  |
| <b>Long-acting Insulin</b>               |   |  |  |   |
| Lantus (glargine)                        | The expiration date on the label                  | 28   | 28   |  |
| Levemir (detemir)                        | The expiration date on the label                  | 42   | 42   |  |

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## Stability of Common Insulins in Pens and Vials<sup>1,2</sup>

| Insulin Pens                             | Stability Unopened and Stored in the Refrigerator | Opened at Room or Refrigerator Temperature (days) <sup>1</sup> | Unopened at Room Temperature (days) <sup>1</sup> | Image   |
|--|---|--|--|---|
| <b>Rapid- acting Insulins</b>            |   |  |  |   |
| Humalog KwikPen (Lispro)                 | The expiration date on the label                  | 28   | 28   |    |
| Novolog FlexPen (aspart)                 | The expiration date on the label                  | 28   | 28   |    |
| Apidara Solostar (glulisine)             | The expiration date on the label                  | 28   | 28   |    |
| <b>Intermediate-acting Insulin (NPH)</b> |   |  |  |   |
| Humulin N pen                            | The expiration date on the label                  | 14   | 14   |    |
| Novolin N pen                            | The expiration date on the label                  | 14   | 14   |    |
| <b>Long-acting Insulin</b>               |   |  |  |   |
| Lantus SoloStar                          | The expiration date on the label                  | 28   | 28   |    |
| Levemir FlexPen                          | The expiration date on the label                  | 42   | 42   |    |
| Novolog Mix 70/30 Flexpen                | The expiration date on the label                  | 14   | 14   |    |
| <b>Pre-mixed Insulin</b>                 |   |  |  |   |
| Humalog Mix KwikPen 50/50                | The expiration date on the label                  | 10   | 10   |  |
| Humalog Mix 75/25 KwikPen                | The expiration date on the label                  | 10   | 10   |  |
| Humulin 70/30 Pen                        | The expiration date on the label                  | 10   | 10   |  |
| <b>Miscellaneous Non-Insulin Agents</b>  |   |  |  |   |
| <b>Incretin Mimetic</b>                  |   |  |  |   |
| Byetta (exenatide)                       | The expiration date on the label                  | 30   | 30   |  |
| Victoza (liraglutide)                    | The expiration date on the label                  | 30   | 30   |  |
| <b>Amylin analogs</b>                    |   |  |  |   |
| Symlin (pramlintide)                     | The expiration date on the label                  | 30   | 30   |  |
| Symlin pen (pramlintide)                 | The expiration date on the label                  | 30   | 30   |  |

1. Room temperature considered 15-30°C (59-86°F)

Chart adapted from Dipro and Pharmacist letter

### References:

1. Triplitt CL, Reasner CA, Isley W. Diabetes Mellitus. In: DiPiro JT, Talbert RL, Yee GC, eds. Pharmacotherapy: A Pathophysiologic Approach, 7<sup>th</sup> ed. New York, NY: McGraw-Hill;2008:1205-41.
2. Comparison of Insulins and Injectable Diabetes Meds. Pharmacist's Letter/Prescribers Letter. Stockton, CA. March 2010;26(260304):1-10.

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