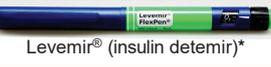
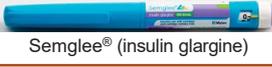


Know your insulins

| Duration of action | Appearance | Insulin brand name (active ingredient name) 100 units/mL unless otherwise stated | When to administer |
|---|------------|---|---|
| Ultra short acting | Clear |  NovoRapid® (insulin aspart)#^  Fiasp® (faster-acting insulin aspart)#^  Apidra® (insulin glulisine)^  Humalog® (insulin lispro)^  Humalog® U200 (insulin lispro) 200 units/mL (high concentration) | (immediately before meals) |
| Short acting | Clear |  Actrapid® (insulin neutral)^  Humulin® R (insulin neutral)^ Insuman® Infusat (insulin neutral): available via SAS | (up to 30 minutes before meals) |
| Intermediate acting | Cloudy |  Humulin® NPH (insulin isophane)^  Protaphane® (insulin isophane)^  Protaphane® Innolet® (insulin isophane) | ONCE or TWICE daily (with/without food) |
| Mixed long and short acting | Cloudy |  Humulin® 30/70 (insulin neutral 30% + insulin isophane 70%)^  Mixtard® 30/70 (insulin neutral 30% + insulin isophane 70%)  Mixtard® 30/70 Innolet® (insulin neutral 30% + insulin isophane 70%) Other less commonly used product: Mixtard 50/50® (insulin neutral 50% + insulin isophane 50%) cartridge | ONCE or TWICE daily (up to 30 minutes before meals) |
| Mixed long acting with ultra short acting | Cloudy |  NovoMix® 30 (insulin aspart 30% + insulin aspart protamine 70%)*  Humalog® Mix25 (insulin lispro 25% + insulin lispro protamine 75%)* (Less commonly used) Humalog Mix50® (insulin lispro 50% + insulin lispro protamine 50%)* | ONCE or TWICE daily (immediately before meals) |
| Mixed ultra long acting with ultra short acting | Clear |  Ryzodeg® 70/30 (insulin aspart 30% + insulin degludec 70%)* | ONCE or TWICE daily (immediately before meals) |
| Long acting | Clear |  Levemir® (insulin detemir)* | Usually ONCE daily ^x (sometimes large doses prescribed TWICE daily) ^x (with/without food) |
| | Clear |  Optisulin® (insulin glargine)*  Semglee® (insulin glargine) | |
| | Clear | <div style="background-color: red; color: white; padding: 5px; text-align: center;"> Different concentrations of insulin glargine are NOT directly interchangeable. Continue the patient's usual insulin glargine product whilst in hospital, whenever possible. </div>  Toujeo® (insulin glargine) 300 units/mL (high concentration) | |

*Cartridges or ^vials may be available for various subcutaneous/intravenous routes of administration to inpatients, e.g. infusions, non-disposable pens or insulin pumps. Refer to local policy.

#The ultra short acting insulin aspart products, Fiasp® and NovoRapid®, are NOT directly interchangeable; see local policy/endocrinology team if brand change required.

Key practice points when prescribing or administering insulin (A HIGH RISK MEDICINE) in hospital

- Prescribe as 'units', not 'U'.
- Prescribe insulin by brand name, with the addition of the active ingredient(s) whenever possible, to reduce risk of errors.
- Continue patients on their usual insulin brand. See local policy/endocrinology team for exemptions & monitoring needs.
- If a patient is fasting, ask the doctor to review the prescription prior to insulin administration.
- Visually inspect pens for manufacturing defects. Report any faulty pens to your Pharmacy Department.
- Prior to each injection, prime each pen (with needle) using 2 units of insulin to avoid injection of air and ensure proper dosing.
- In-use insulin pens & cartridges may be kept at room temperature for 21-28 days as per the product information.
- NEVER withdraw insulin from a pen– this increases the risk of overdose and may cause pen malfunction & potential insulin contamination.
- **High concentration** insulin is widely available - ALWAYS CHECK appropriate product selection. Products include:
 - 200 units/mL: Humalog® U200 KwikPen® (insulin lispro)
 - 300 units/mL: Toujeo® Solostar® (insulin glargine)
 - Others may become available in the future.
- Do not store insulin pens with needles attached.
- Pens, cartridges and Innolets® are for single patient use only. Label with patient's details.
- Check discharge medicines to ensure insulin product supplied for home use is appropriate and correct.



Contact your pharmacist or diabetes educator for more information.

ACI clinical decision support app [Thinksuln](#):