Government of Western Australia
North Metropolitan Health Service
Women and Newborn Health Service

ADULT MEDICATION GUIDELINE	
Insulin	
Scope (Staff):	All WNHS Staff
Scope (Area):	Obstetrics and Gynaecology
This document should be read in conjunction with the Disclaimer.	

Quick Links

Dose	Administration	Monitoring	Pregnancy and Breastfeeding

Restrictions

Formulary: Unrestricted

HIGH RISK Medication ⚠

Different brands of insulin are not bioequivalent. Do not substitute brands.

Medication errors have occurred when the wrong insulin has been given. Check the drug chart and product selection carefully.

Medication Class

Insulin

Presentation

All products contain 100 units of insulin per mL (except Toujeo® Solostar, which contains 300 units per mL):

Insulin Type	Insulin	Form and Brand (Volume)
Ultra-short acting	Insulin aspart (analogue)	**Pen:** NovoRapid FlexPen®, Fiasp FlexTouch® (3mL) **Cartridge:** NovoRapid Penfill® (3mL); Fiasp Penfill® (3mL) **Vial:** NovoRapid® (10mL)

	Insulin lispro (analogue)	**Cartridge:** Humalog Penfill® (3mL)
	Insulin glulisine	**Pen:** Apidra SoloStar®
Short acting	Neutral insulin (human)	**Cartridge:** Actrapid Penfill®, Humulin R® (3mL)
Long acting	Isophane insulin (human)	**Cartridge:** Humulin NPH®, Protaphane Penfill® (3mL)
	Neutral insulin with Isophane insulin (human)	**Cartridge:** Humulin 30/70 Penfill (3mL) **Innolet:** Mixtard 30/70 InnoLet® (3mL)
	Insulin aspart with Insulin aspart protamine (analogue)	**Cartridge:** NovoMix 30 Penfill (3mL) **Pen:** NovoMix 30 FlexPen® (3mL)
	Insulin detemir (analogue)	**Pen:** Levemir FlexPen® (3mL)
	Insulin glargine (analogue)	**Cartridge:** Optisulin (3mL)**Pen:** Optisulin Solostar® (3mL), Toujeo Solostar® (1.5mL)
	Insulin aspart with insulin degludec	**Cartridge:** Ryzodeg Penfill® (3mL)

Storage

Pre-filled pens/ Innolet/ Cartridges/ Vials

Protect from light

Unopened insulin: Refrigerate (2 to 8°C), do not freeze. Discard if frozen.

Once in use: Store at room temperature, below 30 °C.

Discard insulin within 28 days after first use (21 days for Humulin cartridges).

IV infusion

Store at room temperature, below 25°C.

Discard after 24 hours.

For more information, refer to Clinical Practice Guideline: Storage and Handling of Insulin

Dose

Refer to relevant **WNHS Clinical Guidelines** for appropriate dose regimes (links below)

Administration

Different brands of insulin are not bioequivalent. Do not substitute brands.

Some insulins are not suitable for use in insulin infusion pumps

Medication errors have occurred when the wrong insulin has been given. Check the drug chart and product selection carefully.

Refer to the Australian Injectable Drugs Handbook

SUBCUT Injection:

Preferred route. Inject into the abdomen (preferred), upper arm, thigh or buttocks. Rotate site of injection – avoid using the same site no more than once a month. Do not massage site after injecting.

IV Infusion:

Step 1 Dilution*:* Dilute 50 units of short acting insulin in 50mL Sodium Chloride 0.9%. Final concentration is 1 unit/mL.

Step 2 Administration*:* Infuse via syringe pump

SUBCUT infusion

Refer to the Australian Injectable Drugs Handbook

Monitoring

Blood glucose levels, glycosylated haemoglobin (HbA1c)

Pregnancy

First trimester	**Safe to use** Insulin aspart (Novorapid®, Fiasp®) Insulin isophane (Protaphane®, Humulin NPH®) Insulin lispro (Humalog®) Insulin neutral (Actrapid®, Humulin R®) **Considered safe to use** Insulin glargine (Optisulin®, Toujeo®) Insulin detemir (Levemir®) **Limited information*** Insulin degludec/insulin aspart (Ryzodeg®), Insulin glulisine (Apidra®)

*Insulin glulisine and insulin degludec have not been associated with an increased risk of congenital malformations or other adverse pregnancy outcomes in limited post-marketing and clinical trial safety information currently available. Consider alternative insulins with more pregnancy data available.

Second trimester	As above
Third trimester	As above

For more information, please contact KEMH Obstetric Medicines Information Service.

Breastfeeding

Safe to use

For more information, please contact KEMH Obstetric Medicines Information Service.

Comments

WA Health Medication Safety Notification 2025: Discontinuation of multiple insulin products

Related Policies, Procedures & Guidelines

WNHS Policies:

WNHS Medication Management Framework

KEMH Clinical Guidelines:

Clinical Practice Guideline - Diabetes

Corticosteroids: Management in Pregnancy with Diabetes

Western Australia Department of Health: Know your insulins

KEMH Pharmaceutical & Medicines Management Guideline:

Medication Administration

Storage and Handling of Insulin

Pre-operative Medication Management

Prescribing Procedure

References

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Keywords	Insulin, Diabetes, Diabetes Mellitus, Gestational Diabetes, T1DM, T2DM, Hyperglycaemia, GDM, glucose intolerance				
Document Owner:	Chief Pharmacist				
Author/ Reviewer	KEMH Pharmacy Department				
Version Info:	3.0				
Date First Issued:	Jun 2015	Last Reviewed:	Nov 2025	Review Date:	30/11/2030
Endorsed by:	Medicines and Therapeutics Committee			Date:	02/12/2025
NSQHS Standards Applicable:	☒ Std 1: Clinical Governance ☐ Std 2: Partnering with Consumers ☐ Std 3: Preventing and Controlling Healthcare Associated Infection ☒ Std 4: Medication Safety			☐ Std 5: Comprehensive Care ☐ Std 6: Communicating for Safety ☐ Std 7: Blood Management ☐ Std 8: Recognising and Responding to Acute Deterioration	

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