AUSTRALIAN COMMISSION
ON SAFETY AND QUALITY IN HEALTH CARE

Safer insulin prescribing

FACT SHEET
for clinicians

Guidance for Australian pharmacists

Purpose

To highlight best practise dispensing to support safe and quality use of insulin, within the context of active ingredient prescribing.

Key points

Insulins are high-risk medicines with a high incidence of medication error and related harm when used incorrectly.

There is a risk of fatal hypoglycaemic events should an individual inadvertently take the wrong dose, formulation or brand of insulin.[1,2]

Safe and quality use of insulins requires clear information transfer from initial prescribing to dispensing to administration by consumers and/or their carers.

To safely dispense insulins, always include the following on the dispensed label:

- Active ingredient name
- Strength with 'units' written in full
- Brand name
- Formulation
- Route
- Dose with 'units' written in full
- Frequency and timing of dose.

Background

Insulin products come in multiple strengths, different formulations, and mixed combinations of active ingredients with look-alike, sound-alike names. There is a high risk of confusion and incorrect product selection, leading to patient harm.[3]

Medication errors involving the wrong name or wrong dose of insulin are common, compounded by similar looking packaging and delivery devices.[1,2]

Always check the brand name

Describing medicines using the active ingredient name is safe in most situations and an important part of understanding how to use medicines. However, insulin products cause confusion. The insulin brand name and the active ingredient name need to be included on the prescription. The brand name should be confirmed if it is omitted to ensure the correct medicine is dispensed and administered.

Double check information transfer

Information transfer from prescription to dispense system to label should be double checked at each step.

1. The prescription

Clarify which brand, strength and formulation of insulin to dispense. Check with the patient, review their dispensing history and confirm with the prescriber if there is any ambiguity. The example in **Box 1** highlights the importance of checking the insulin brand name.

Box 1: Insulin aspart formulations

Fiasp is a novel formulation of insulin aspart. The inclusion of nicotinamide allows a faster onset of action and a greater early glucose-lowering effect compared to the originator brand of insulin aspart, NovoRapid.[4] Fiasp has a greater risk of hypoglycaemia with delay in food intake.[5]

Fiasp and NovoRapid brands of insulin aspart are not equivalent or interchangeable.

Fiasp and NovoRapid are available in the same strength, with similar delivery systems. They are both described as **insulin aspart 100 units/mL injection**, when prescribed by active ingredient.

While the different device formulations of NovoRapid (vial, cartridge, pen) may be interchangeable, they are not interchangeable with Fiasp (vial, pen).

The **brand name** must be checked to ensure the correct medicine is dispensed.[5]

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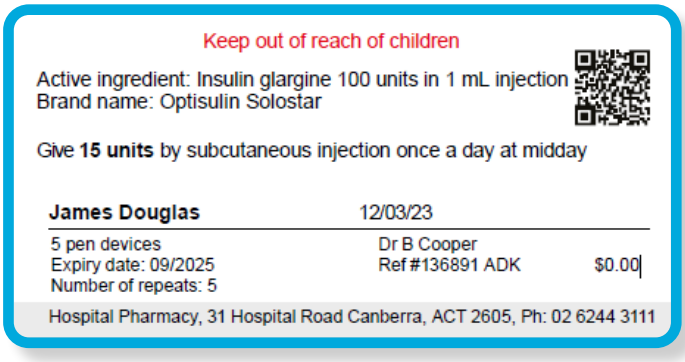
2. The dispense label

Clearly display the brand, strength and form of insulin with instructions for administration. Confirm the consumer and/or their carer know the instructions and ensure the label is appropriately applied to the product. The example in **Figure 1** follows best practice guidance set out in the ***National standard for labelling dispensed medicines***.[6]

Figure 1: Insulin dispense label example



General practice software and active ingredient prescribing

Prescriptions are generated with the active ingredient name for most medicines, including those on the **List of Medicines for Brand Consideration (LMBC)**. Prescribing software has been developed to alert prescribers to include the brand name for medicines on the LMBC including insulin so that the brand name has been included on all prescriptions for insulin.

However, systems differ, and alerts are not always active or may be overlooked. Pharmacists need to be vigilant and confirm the intended brand of insulin where the brand name has not been specified by the prescriber.

See ***Active ingredient prescribing – User guide for Australian prescribers***.

Stop, Think, Check!

Stop and review the active ingredient name, brand name, strength and formulation when selecting and dispensing an insulin product for your patient

Insulins have similar looking and sounding names, strengths, and forms, which may be easily misread in a medicine selection list.

Think about the clarity of the dispense label to support your patient to use, or the nurse/carer to administer the insulin

An unclear or incomplete dispense label can impact the safe use and administration of insulin.

Think about your patient's understanding of their insulin. For instance:

- Is this a new insulin for them? Do they use more than one insulin?
- Do they know the active ingredient name and brand name of their insulin?
- Do they know what the delivery device looks like and how to administer correctly?
- Do they know what dose to administer, how often and at what time? Is this clear on the dispensed label?

Double check the correct brand of insulin is dispensed

Double check the prescription includes the brand name and you have selected the right brand of insulin to dispense. Confirm your patient and/or their carer know the brand name, and that they double check they have the right brand before administering, particularly if they are using more than one form of insulin.[7]

Useful resources

- New South Wales Therapeutic Advisory Group. Know your insulins – version 1.3, March 2022
- Western Australia Health. Know your insulins. September 2020. Western Australia Medication Safety Collaborative.

Questions

For more information, please visit: **safetyandquality.gov.au/our-work/medication-safety**.

You can also contact the Medication Safety team at: **medsafety@safetyandquality.gov.au**.

References

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5. South Australian Department of Health. Medication Safety Notice – New Insulin aspart formulations – Fiasp and NovoRapid brand awareness and medication safety considerations. No. SA 21/03 Published June 2021.
6. Australian Commission on Safety and Quality in Health Care. National standard for labelling dispensed medicines. Sydney: ACSQHC; 2021. [Accessed 8 March 2023]. Available online: **www.safetyandquality.gov.au/publications-and-resources/resource-library/national-standard-labelling-dispensed-medicines**.
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