Insulin – Safety Tips

These safety tips are part of SA Health's High Risk Medicines safety initiative to raise awareness of how insulin errors occur and how they are prevented.

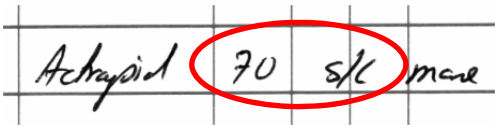
About 31% of Australia's one million diabetics use insulin to control their disease and prevent long term complications. Highly effective when used appropriately, insulin is also recognised as a high risk medicine being one of the top five medicines reported in global incident monitoring systems.

Errors with insulin therapy cause serious harm and can be fatal.

Access e-Learning modules for high risk medicines, including insulin at: http://digitalmedia.sahealth.sa.gov.au

1. Avoid abbreviations

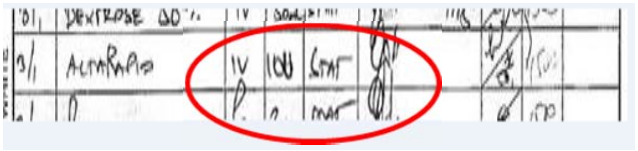
10 fold errors are common



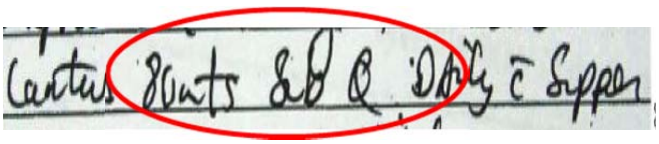
- write 'units' not 'U' or 'IU' and leave a space after the number, for example, 10 units

2. Unclear doses and instructions

Do not administer an unclear order



- cease the order and rewrite clearly
- do not use trailing zeros, for example, write 5 units not 5.0 units
- if less than one unit, for example write 0.5 units not .5 units

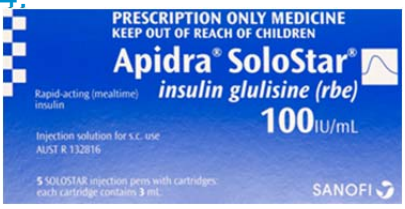


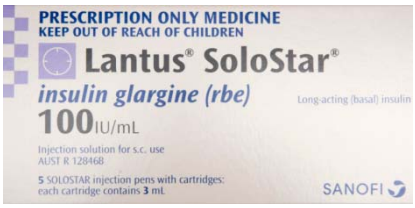
- specify the time of dose clearly in relation to food or blood sugar level, for example, within 30 minutes prior to the meal.

3. Look-a-like and sound-a-like names and packaging

- physically separate look-alike or sound-alike products
- use tall-man lettering for labelling storage areas; eg NovoMIX
- rationalise the range of insulin in clinical areas.

4.





4. Use insulin syringes

Insulin syringes are calibrated in units to correspond with the dose prescribed in units.

- calculation from units to millilitres is prone to 10-fold error
- use the smallest size of insulin syringe available.

5. High doses

High doses can be difficult to assess as a dose within a seemingly ‘acceptable’ range can be harmful to some patients.

- clearly communicate doses at every transition and on every order and verify if uncertain, for example, with the patient or another source.

6. Prescribe by trade name and device

Generic names are confusing.

- write the full trade name; eg Humulin 30/70 not just Humulin
- specify the device, for example, disposable pen.

7. Insulin preparation

- roll or invert insulin suspensions ten times immediately prior to administration - do not shake
- insulin glargine (Lantus®) or detemir (Levemir®) cannot be mixed or diluted
- mixing other insulins is not recommended.

8. Engage patients and carers

Encourage them to seek advice immediately if the unexpected occurs, seek clarification any time and ensure there is a clear understanding of:

- signs, symptoms and treatment of hypoglycaemia and hyperglycaemia
- insulin use in relation to meals and illness
- the differences between insulins.

For more information

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