



# QUM Blast



## INSULINS

### WHAT IT DOES:

Insulin is a pancreatic hormone secreted by the beta-cells of the islets of Langerhans. It increases or restores the ability to metabolise glucose by:

- Enhancing cellular glucose uptake
- Inhibiting endogenous glucose output
- Inhibiting the breakdown of fat

### WHEN TO USE:

Insulin is required in all type I diabetic patients and in some type II diabetic patients when lifestyle modifications and oral medications are insufficient to control glucose levels.

### WHAT CAN GO WRONG:

The main risk when giving insulin is of a hypoglycaemic event. Signs of such include sweating, hunger, faintness, palpitations, tremor, headache, visual disturbance and altered mood. Beta-blockers can mask some of these signs and thus increased care is required in residents also treated with a beta-blocker.

Other adverse effects with insulin include:

- ❖ Weight gain
- ❖ Skin redness and itching

### HOW TO ADMINISTER:

Ultra-short acting – give immediately before a meal.  
Short acting – give 30mins before a meal.  
Intermediate / long acting – usually given 1-2x daily.  
Mixed insulin – combination of short / ultra-short acting with intermediate acting insulin – usually given 1-2x daily.

Gently rotate intermediate acting insulin vials and cartridges to ensure resuspension.

Inject subcutaneous (usually abdomen, less commonly thigh, upper arm or buttock). Pinch the skin to reduce the chance of injecting into a blood vessel – if the skin is not pinched, inject at a 45° angle. Rotate the injection site.

Ensure a PRN Glucagon injection is available in case of hypoglycaemia.

Insulin preparations not currently in use should be stored in a refrigerator (between 2 and 8°C). Do NOT freeze.

After first use, insulin may be kept at room temperature (below 25°C) for 4 weeks.

### QUALITY USE OF MEDICINES:

#### JUDICIOUSLY

- ✓ Encourage lifestyle modifications – low sugar diet, regular exercise...
- ✓ Consider other risk factors that could be modified e.g. blood pressure.

#### APPROPRIATELY

- ✓ Elderly residents may be allowed to run at higher BSLs, than would otherwise be acceptable, due to the atypical presentations and dangers of hypoglycaemia.
- ✓ Monitor for other risks associated with diabetes (e.g. foot problems – be vigilant for any loss of feeling, pain, broken skin or sores on the feet).

#### SAFELY

- ✓ Monitor for adverse effects, especially hypoglycaemia.
- ✓ Have a plan involving quick fixes for residents with mild hypoglycaemia (e.g. a rapid acting source of carbohydrate such as jelly-beans, orange juice...)

#### EFFECTIVELY

- ✓ Monitor BSLs – the doctor may initiate a diabetes management plan which outlines the level of 'highs or lows' that would warrant contacting the GP.
- ✓ The doctor may take regular blood tests to monitor HbA1c (a long-term indication of blood glucose control).



# CHOICE AGED CARE

