Subcutaneous Insulin Administration in Hospital Guideline

**THINK:** Does this patient self-administer insulin at home and/or will be self-administering insulin on discharge from hospital?

---

**CHECK:** Is this patient currently well enough to self-administer subcutaneous insulin safely using an insulin device/syringe?

---

**CHECK:** Assess self-administration of subcutaneous insulin under nurse supervision/observation - is this patient currently competent to safely administer insulin without supervision?

---

### LEVEL 1: Nurse administered

**ACT:** Nurse administers insulin as prescribed with an insulin syringe and vial of insulin

- Monitor blood glucose using quality controlled hospital meter
- Ensure prescribed Insulin is on the main drug chart and on the appropriate insulin prescription chart
- Use an insulin syringe and a vial of insulin (see overleaf)
- Review glycaemic control daily with medical staff to assess efficacy of management
- At discharge:
  - Arrange appropriate support for insulin administration /refer to district nursing service
  - Supply insulin syringes, prescribed insulin in a vial and appropriate sharps disposal

### LEVEL 2: Supervised self-administration

**ACT:** Facilitate self-administration of insulin as prescribed under nurse supervision/observation

- Monitor blood glucose using quality controlled hospital meter
- Ensure prescribed Insulin is on the main drug kardex and on the appropriate insulin prescription chart
- Provide sharps disposal unit and a safe repository for insulin storage in patient own drug (POD) locker
- Observe and document all insulin administration
- Review glycaemic control daily with medical staff to assess efficacy of management
- Refer to Diabetes Specialist Nurse for education and follow up as required
- Complete nurse patient partnership agreement overleaf
- At discharge:
  - Arrange ongoing support, supply pen needles, inform Diabetes Specialist Nurse Team

### LEVEL 3: Self administration

- Review daily, more often if clinically indicated.
- Check the patient is currently well enough to self-administer insulin
- Monitor blood glucose using quality controlled hospital meter
- Review insulin management if blood glucose levels are not within 4 – 12 mmol/L.
- Ensure prescribed Insulin is on the main drug kardex and on the appropriate insulin prescription chart
- Provide sharps disposal unit and a safe repository for insulin storage in POD locker
- Document all insulin administration
- For antenatal women: Is blood ketone level < 0.6 mmol/L?
- Complete nurse patient partnership agreement overleaf

### LEVEL 3: CSII

**LEVEL 3**

**CSII**

Continuous subcutaneous Insulin Infusion (CSII) is self managed by the patient

Mealtime insulin/carbohydrate (CHO) ratio is ...............units/...............grams CHO

The following should be available for use in hospital:

- A vial of prescribed insulin
- Infusion sets and reservoirs for insulin pump
- Spare batteries for insulin pump (supplied by pump manufacturer)
- Blood ketone monitoring
- Contact details for the diabetes team
- Basal insulin and appropriate device in case conversion to subcutaneous insulin is necessary
- Rapid acting insulin and appropriate device in the event of conversion to subcutaneous insulin

**ACT:** Facilitate self-administration of prescribed insulin
Practical advice for administration of subcutaneous insulin

- Insulin pen devices and Continuous Subcutaneous Insulin Infusion pumps (CSII) are designed for 'self use' only.
- *Pen needles with automatic protective shields are available for use to reduce risk of needle stick injury.
- *Nurses should not administer insulin using an insulin device due to the risk of needle stick injury unless insulin safety pen needle is used.
- Do not extract insulin from prefilled insulin devices and cartridges with a syringe. This will damage the plunger mechanism. Also, if insulin is extracted from a pen device containing high strength insulin preparations (U200 per m/L and U300 per mL preparations) will lead to significant overdose.
- Patient’s own insulin should be appropriately labelled with their name, DOB and CHI.
- Insulin pen needles and syringes should be used once only and disposed of in a sharps box.
- Cartridges are not interchangeable with different pen devices.
- Patient education must be facilitated if insulin device or insulin preparation is changed as devices often differ.
- Refer to Diabetes Nurse Team as required

Storage of insulin

- Identification of a safe insulin storage and sharps disposal is the responsibility of the registered nurse.
- Specific storage guidelines for each insulin preparation are available in the product package insert.
- ‘In-use’ prefilled insulin pen devices and cartridges can be stored at room temperature / in POD locker for a maximum of 28 days.
- Always document ‘date of first use’ on insulin vials and discard after 28 days.
- Do not store ‘in use’ insulin devices in ward fridge (there is a risk of cross infection if pens or devices are inadvertently used for more than one patient).
- Store unopened vials, pen devices and cartridges in the ward medicine fridge (2 – 8 °C).

Nurse Patient Partnership for Insulin Administration

Once a patient has been identified as being suitable to self-administer insulin at either Level 2 or 3 then agreement with the patient on roles and responsibilities and consent must be obtained.

Roles and Responsibilities

1. Insulin preparation, doses and times will be prescribed on the hospital drug prescription record and insulin prescription chart by us and agreed with yourself
2. You will be responsible for administration of your insulin and for telling the nurse when and what you have taken to allow an accurate update of your records
3. You will inform us if you are unsure, or have any problems with your insulin
4. You will keep your insulin in a safe place, in a patient own drug (POD) locker
5. You will be responsible for disposal of sharps/needles in a sharps disposal unit
6. We will ensure a sharps disposal unit is available and witness disposal if appropriate
7. We will measure your blood glucose regularly, and if you request it, using the hospital meter system
8. We will be responsible for recording the insulin you have taken along with your blood glucose levels
9. We will both ensure a supply of appropriate insulin is available in hospital, on discharge or transfer to another ward
10. We will assess and discuss your ability to self administer daily
11. Please record Level of Administration (level 1, 2, 3, 3CSII) on the Ongoing Record of Care under Additional Care Need or equivalent care planning documentation. This should be evaluated accordingly if the condition of the patient changes i.e. if they develop delirium/confusion or problems with dexterity, review Level of Administration.

Nursing and Medical staff should continue to monitor and evaluate the appropriate level of insulin administration and document in the patient record.