Government of Western Australia
Department of Health

Self-management of diabetes in WA hospitals: A suggested approach

This Information Guide was developed by the Diabetes Health Network in partnership with the Diabetes Lived Experience Working Group and the Diabetes Integrated Care Working Group.

This document primarily refers to adult (over 18 years) patients admitted to a Western Australian (WA) hospital with type 1 diabetes or those with type 2 diabetes who require insulin as part of their treatment. There may also be patients who are non-insulin treated and who wish to self-inject glucagon-like peptide-1 (GLP-1) agonists and self-monitor their glucose levels.

Principles

1. At the time of admission, or in the case of elective surgery at the pre-operative assessment, each hospital will provide written information that explains the responsibilities and implications of self-management for both patients and hospital staff.
2. Once the patient has read and understood the information, the responsible clinical team (including doctors, nurses, and pharmacists) and the patient should agree the circumstances under which the patient can self-manage. An agreement form should be signed by both the patient and a doctor.
3. During the admission, the patient's circumstances, including cognitive and functional abilities, should be assessed weekly (or more regularly if the patient's clinical or cognitive circumstances dictate) to ensure that his/her ability to self-manage has not been compromised by their clinical condition.
4. If there is disagreement about the patient's ability to self-manage, or if glycaemic control proves problematic, the diabetes inpatient team (or a senior physician experienced in diabetes management) should be consulted and involved in support of day-to-day care.
5. The agreement should cover the patient's ability to a) self-monitor their blood glucose (the results should be recorded on the appropriate hospital charts by a nurse). If using their own blood glucose meter it will be appropriately calibrated and cross-referencing against ward meters b) self-determine and self-administer insulin doses within ranges agreed with the clinical team (the doses should be recorded on the patient's medication chart by a nurse).
6. The hospital should ensure that the timing and content of meals are suitable for the patient with diabetes.
7. Facilities should be available for the secure storage of, and ready access to, the patient's insulin in the ward environment, including respecting hospital requirements for security of pharmaceuticals.

Rationale

Insulin therapy remains amongst the most frequent causes of medication-related adverse events in hospitals. These arise because of errors in prescription and administration of insulin, and timing of doses in relation to meals. They are more likely to occur when there is a lack of knowledge among medical and nursing staff managing patients with diabetes and a lack of access to specialist diabetes management advice.

Many insulin-treated patients have greater knowledge and experience of their individual insulin requirements than the medical and nursing staff responsible for their care. Outside hospital, patients typically routinely monitor their blood glucose and decide on the insulin dose to be administered that is appropriate to their circumstances. This multi-faceted self-management includes self-administration of insulin by subcutaneous injection or, in the case of pump therapy, by continuous subcutaneous infusion. Most patients will have regular access to specialist medical, nursing and/or allied health input which assists them to optimise their self-management.

Self-management of diabetes by patients who are both willing and able should be an important part of the strategy to improve the safety of insulin use in hospital. There should be a specific hospital self-management policy which is easy to understand, patient-centred, and flexible when the clinical situation changes.

Written information explaining staff responsibilities in the process of agreeing to self-management should be provided for medical and nursing staff. The key principle is that patients should be respected as having primary responsibility for making the decision about whether and how they should self-manage their diabetes while in hospital.

Self-management criteria

A patient and their treating team should be able to demonstrate the following before a self-management agreement can be finalised.

1. Evidence of effective self-management prior to admission which justifies continuation of diabetes-related self-care during the admission (this would exclude those with evidence of poor glycaemic control).
2. Agreement with the treating clinical team that the patient's wishes to self-manage will be respected unless the patient's cognitive and/or functional abilities mean that his/her well-being and safety are compromised or where it is no longer appropriate as deemed by the treating team or diabetes team. This includes, but is not restricted to, circumstances outside of those encountered in the community such as after general anaesthesia, diabetes- related emergencies, medical conditions that can underlie significant glycaemic instability such as severe infections, protracted vomiting and high-dose corticosteroid treatment, and lack of capacity to self-administer insulin due to visual or upper limb functional restrictions. Under these circumstances, clear guidance should be provided to allow for temporary or permanent changes in responsibility for diabetes management.
3. No conditions that would preclude effective inpatient self-management such as lack of relevant capacity as verified by a relative or carer, or mental health issues including a history of drug misuse or the risk of self-harm.

Practical implementation

The following covers details that should be considered when writing policy and implementing changes to support patients to self-manage insulin during a hospital admission. Practical implementation may require additional staff training and the development of forms or

documentation, including changes to information provided to the patient at pre-operative assessment or the time of admission (under Principles, point 1).

1. Assessment of effective prior self-management:
    a. Evidence of self-monitoring practices (home blood glucose testing, and/or use of Flash Libre or continuous subcutaneous glucose monitoring)
    b. Evidence of acceptable glycaemic control (including glucose monitoring results, recent HbA_{1c} results, lack of frequent or recent hypoglycaemic episodes/diabetic ketoacidosis)
    c. Evidence of adequate insulin self-administration (including appropriate dose calculation and injection technique)

2. Exclusion of potential circumstances that might interfere with self-management:
    a. Clinical state at the time of admission (conscious level, cognitive functioning, physical limitations that could impact glycaemic monitoring and/or insulin self-administration)
    b. Need for general anaesthesia, sedation or medications (such as opiates) that may interfere with cognitive/functional abilities
    c. Likelihood of clinical deterioration or improvement based on the condition prompting hospitalisation

3. Ensuring that appropriate diabetes-specific menus are provided:
    a. Ideally with access to dietetic input if required
    b. Ready access to carbohydrate (both simple and complex) if meals are delayed or hypoglycaemia is suspected/confirmed

4. Agreement on insulin storage/availability:
    a. Patient identification label to be affixed on containers/vials/pen devices/cartridges and patient's own medication assessed for suitability of use (confirm correct medication, storage and expiry)
    b. Appropriate security - kept in locked bedside drawer or in ward storage
    c. Ward staff to respond promptly to requests for supply of insulin preparations
    d. Ward nursing staff to ensure access to sharps container for safe disposal of needles and consumables.

5. Nurse witnessed dosing and injection of insulin and safe disposal of needles.

6. Ensure appropriate documentation:
    a. An insulin prescription is still required to be written by a Doctor on a medication chart, with brand and doses ranges that allow for dose adjustment.
    b. Nurse documentation of BGLs and insulin doses administered on the hospital chart.
    c. Regular review of BSLs and doses as per standard medical inpatient care

7. Agreement that the diabetes inpatient team is consulted:
    a. If there are issues with adequacy of self-management
    b. If glycaemic control is suboptimal during self-management

Dedicated to Nancy McKenna and her lifelong advocacy for people's right to safely manage their own diabetes in hospital.

For further information on the development of this guide

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Suggested template for agreement to self-manage diabetes during hospital admission

I, _____, wish to take responsibility for managing my own diabetes (glucose monitoring and insulin administration) during my admission to [hospital name] and declare that prior to admission I had good diabetes control and am competent in insulin administration and dose titration.

I agree that I will:

- ☐ Keep my medication secure and inaccessible to other patients or visitors
- ☐ Check my blood glucose regularly and/or as agreed with the treating clinical team
- ☐ Allow nursing staff to witness my insulin dosing and administration.
- ☐ Allow nursing staff to record my blood glucose and insulin dose on the hospital chart.
- ☐ Allow medical and/or nursing staff to make decisions on my behalf if I am unable to effectively self-manage for any reason, until I can resume self-management

Patient

Signature: _____

Name (print): _____

Date: _____

Treating healthcare professional

Signature: _____

Name (print): _____

Position: _____

Any change in circumstances that may affect this agreement should be documented in the medical record.