

INSULIN PUMP POLICY

Policy outcomes:

The following policy of continuous sub-cutaneous insulin infusion (CSII) therapy are:

1. Improved glycemic control (reduced hemoglobin A1c "HbA1c");
2. Reduced rate of hypoglycemia; and
3. Reduced rate of diabetic ketoacidosis.

1. Purpose:

1.1 Aims and objectives

An insulin pump therapy needs to:

- Be effective and efficient.
- Be responsive to the needs of patients with type 1 diabetes mellitus (T1DM), their parents and caregivers.
- Provide treatment and care based on best practice, as defined in policy eligibility criteria for T1DM.
- Deliver the required capacity by providing insulin pump therapy for appropriate patients who meet the criteria in this policy.
- Be integrated with other elements of care and services for patients with T1DM.
- Define agreed criteria for referral, and follow local protocols and care pathways for patients with T1DM.
- Be patient-centered and provide equitable access, ensuring that patients are treated with dignity and respect, are fully informed about their care and are able to make decisions about their care in partnership with healthcare professionals.
- Audit the provision of insulin pumps.
- Monitor the number of patients on insulin pump therapy.

2. Policy Scope

2.1 Policy Description:

This policy provides a high-quality insulin pump therapy. CHI defines the key components of a high-quality insulin pump therapy as:

- Identifying patients suitable for insulin pump therapy; and
- Ensuring appropriate composition of the healthcare professional team.

2.1.1 Identifying patients suitable for insulin pump therapy:

Consultant endocrinologist or consultant diabetologist will prescribe insulin pump therapy in line with the criteria based on this policy.

Insulin pump therapy (CSII) is recommended as a treatment option for **adults and children 12 years and older with T1DM** provided that:

1. Documented attempts of treatment with multiple daily injections (MDIs) of insulin (\geq three injections daily) for at least six months before initiation of the insulin pump; and
2. Follow-up with physician with documented frequent blood glucose monitoring frequency during the last two months before initiation of the insulin pump; and
3. Documented multiple adjustments to insulin administration and self-monitoring regimens; and
4. Frequent self-adjustment of insulin dose; and
5. Completed a satisfactory diabetes education-training program including self-care processes and follow-up; and
6. HbA1c levels have remained high (8.5% (69 mmol/mol)) or above on two consecutive readings that include a test taken in the past three months (patients was on MDI therapy including, if appropriate, the use of long-acting insulin analogues).

in addition to meeting **one or more** of the following criteria:

- ✓ Patients experiencing disabling hypoglycaemia (repeated and unpredictable occurrence of hypoglycaemia is associated with a significant impact on patient quality of life); or
- ✓ Documented history of recurring hypoglycaemia or diabetic ketoacidosis (DKA) resulting in patient hospitalization; or



- ✓ Documented wide fluctuations in blood glucose before mealtime; or
- ✓ Documented dawn phenomenon (frequent early morning blood glucose increases) with fasting blood glucose frequently >200 mg/dL; or
- ✓ Documented history of severe glycaemic excursions.

Insulin pump therapy is recommended as a treatment option for **children younger than 12 years with T1DM** provided that:

1. MDI therapy is considered impractical or inappropriate; and
2. Children on insulin pumps would be expected to undergo a trial of MDI therapy.

2.1.2 Ensuring appropriate composition of the healthcare professional team:

Insulin pump therapy can be requested and initiated only by consultant endocrinologist or consultant diabetologist who manages multiple patients using insulin pumps and works closely with a highly trained specialist team, which should normally comprise nurses, diabetic educators, and dietitians who are knowledgeable in the use of insulin pumps.