

Evidence Based Intervention

Hybrid Closed Loop Systems for Children and Young People aged under 19 years

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Change and Approval History:

Version	Revision Description	Reviewer / Approval Group	Date of Review / Approval



Background

This position statement should be considered alongside the HWE ICB EBI policies:

- [Continuous Glucose Monitoring – Paediatric Policy](#)
- [Insulin Pumps](#)

A hybrid closed loop system, sometimes referred to as an "artificial pancreas", links an insulin pump and continuous glucose monitor (CGM) with a mathematical control algorithm that can calculate and automatically deliver the amount of insulin someone needs based on blood sugar readings. This allows the system to do some of the work to help manage blood sugar levels. Manual input is still needed to alert the system when eating or doing exercise.

A NICE Technology Appraisal (TA954) on hybrid closed loops in type 1 diabetes was published on 19th December 2023. This states that hybrid closed loop systems are recommended as an option for:

- all children and young people,
- all people who are pregnant or planning a pregnancy, and
- adults with a HbA1c of 58mmol/mol or more or who have disabling hypoglycaemia, despite best management with a pump or CGM.

However, it also states that hybrid closed loop systems are only recommended if procured at a cost-effective price agreed by the companies and NHSE and implemented following NHSE's implementation strategy.

HWE ICB Position Statement

Hertfordshire and West Essex ICB will routinely fund Hybrid Closed Loop Systems for children and young people under 19 years with type 1 diabetes and under the care of a children's diabetes team, in line with NICE TA943 Hybrid Closed Loop Systems for managing blood glucose levels in type 1 diabetes, published Dec 2023.

However, as recognised within the NICE TA and the NHSE 5 year implementation strategy, it is not possible to fully implement this NICE TA immediately. In line with Principle 1 of the NHSE 5 year implementation strategy, we will prioritise access where the need is greatest and to those who are likely to benefit most.

HWE ICB and the local paediatric teams have agreed the following priority groups for the early stages of implementation:

1. Children already on pumps
2. Children already on CGM who continue to have difficulties managing their diabetes.
3. Newly diagnosed under 5yrs
4. Young people transitioning to adult services

There will be some flexibility allowed to maximise use of available capacity on group diabetes technology starter sessions.



As per NICE TA943:

Only use HCL systems with the support of a trained multidisciplinary team experienced in CSII and continuous glucose monitoring in type 1 diabetes.

Only use HCL systems if the person or their carer:

- is able to use them, and
- is offered approved face-to-face or digital structured education programmes, or
- is competent in insulin dosing and adjustments.

Where patients are eligible for a hybrid closed loop system, clinicians must choose the lowest cost system that is clinically appropriate for the patient and is included on the NHSE national framework.

Currently, CamAPS FX is the only HCL algorithm licensed in children aged 1-2 years. HWE ICB would therefore expect a compatible HCL system incorporating CamAPS FX to be used in this group.

This position statement will be reviewed annually, or more frequently if new guidance is published or as required as part of the local phased roll-out of the relevant NICE TA and NHSE HCL 5 year implementation strategy.

References

National Institute for Health and Care Excellence (2023) [TA943] Hybrid closed loop systems for managing blood glucose levels in type 1 diabetes <https://www.nice.org.uk/guidance/ta943>

NHSE (2024) Hybrid closed loop technologies: 5-year implementation strategy <https://www.england.nhs.uk/long-read/hybrid-closed-loop-technologies-5-year-implementation-strategy/>

NHS Supply Chain National Framework: Insulin Pumps, Continuous Glucose Monitoring and Associated Products <https://www.supplychain.nhs.uk/product-information/contract-launch-brief/insulin-pumps-and-associated-products/>

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