

Evidence Based Intervention

Hybrid Closed Loop Systems for Adults

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Change and Approval History:

Version	Revision Description	Reviewer / Approval Group	Date of Review / Approval
V2.0	Clarified that adults newly starting on pump therapy can start on HCL if the criteria are met.	S. Chepkin	January 2025
V2.1	Clarification of policy for new pump starters - must meet local Insulin Pump policy	P. Duffy	March 2025



Background

This policy should be considered alongside the HWE ICB EBI policies:

- [Continuous Glucose Monitoring – Adults 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.

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 and a phased roll-out over 5 years is required. NHSE has identified the following priority groups: children and young people, pregnancy and planning pregnancy, and adults already on insulin pumps.

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.

Eligibility Criteria

HWE ICB and the local adult diabetes teams have agreed the following priority groups and priority order for adults with type 1 diabetes for the early stages of implementation:

1. Young people and adults already on HCL transitioning into adult diabetes services or transferring into local diabetes services so that they are able to continue on HCL
2. Pregnant people already on either
 - a. insulin pump, OR
 - b. CGM where the specialist diabetes team consider CGM has not been sufficient to achieve adequate control of their diabetes.
3. Adults (including those planning pregnancy) already on an insulin pump or, newly starting an insulin pump (as meets local Insulin Pumps criteria and recommended by specialist diabetes teams)

AND



- a. HbA1c 58 mmol/mol (7.5%) or more, OR
- b. disabling hypoglycaemia

As per NICE TA943:

Only use HCL systems in secondary care 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 pregnancy. HWE ICB would therefore expect a compatible HCL system incorporating CamAPS FX to be used in pregnancy or for those planning pregnancy.

A Hybrid Closed Loop system should only be continued if it results in a sustained improvement in glycaemic control, evidenced by a fall in HbA1c levels, or a sustained decrease in the rate of hypoglycaemic episodes. Appropriate targets for such improvements should be set by the responsible physician, in discussion with the person receiving the treatment or their carer.

This policy 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.

Patients who are not eligible for treatment under this policy may be considered on an individual basis where their GP or consultant believes exceptional circumstances exist that warrant deviation from the rule of this policy. Individual cases will be reviewed as per the ICB IFR policy.

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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