

Case Study: Type 1 Diabetes – Hybrid Closed Loop (HCL) Adoption

The London-wide Hybrid Closed Loop Adoption Programme (designed with national and regional support) demonstrates the impact of a large-scale coordinated approach to regulation, procurement, deployment support, data collection and sharing learning – as outlined in the London Life Sciences Strategy

Starting point in 2024

- There were **~23,000 people in London living with type 1 diabetes** and ~284,000 across England¹
- The condition carries **significant risk of medical complications** – leading to a burden for the patient & costs to the health system
- **Hybrid Closed Loop (HCL) technology represents a significant advancement in type 1 diabetes care** by combining continuous glucose monitoring with automated insulin delivery from pump and algorithm dosing



- National Institute for Health and Care Excellence (NICE) approved HCL roll-out (Dec 2023)
- NHS England supported the local adoption by:
 - **Funding:** reimbursement where providers provided data on adoption as part of diabetes national audit
 - **Contracting & procurement:** National framework procurement for the technologies (multiple providers)
- Local systems had an **opportunity to redesign care to improve patient care and outcomes and reduce costs of care**

South London roll-out 2024-25

- A south London-wide **Type 1 Diabetes(T1D) Outpatient Transformation launched in 2024³** to implement the NICE recommendation rapidly and equitably across the region (~12,000 patients):
 - Allocation of resources to all diabetes centres – to avoid smaller centres being left behind
 - Local product selection and procurement - using national framework
 - Developing competencies for staff to prescribe and monitor patients using the technology
 - Supporting teams with audit data and securing reimbursement
- Elements of the programme such as the workforce modelling tools for providers which enabled them to forecast demand and develop business cases for new services were **funded from 3 medical technology⁵ companies** (unrestricted funding)
- The **programme led to rapid HCL adoption** (22% of T1D patients had started HCL in the first year of the programme) and exceeded national targets– It received praise from patients and in the media for the impact on health inequalities⁴
- Other parts of London were initially supported through the London-wide diabetes clinical network and **the programme is now formally being rolled-out to the rest of London and across England** led by the Health Innovation Network (south London) in 2026⁶

How the London Life Sciences strategy would help further...

- **Innovation Funding:** This example showcases the type of funding proposed in the London Life Sciences Strategy providing working capital funding and using industry funding to accelerate adoption.
- **Health Innovation Procurement & Contracting:** The current products were contracted nationally which simplified adoption by providers and offered value in procurement. (The products will need to be reprocured at a London-wide level in 2029)
- **OneLondon Integrated Health Data:** The reimbursement model used was contingent on demonstrating impact via a national diabetes audit. While possible for this condition, such data is now available for other value-based contracting via the OneLondon dataset
- **Piloting / Sharing learning:** between the diabetes service providers was possible in this example due to a Health Innovation Network support programme – and will be done by adoption hubs in future programmes