

Final report for Hypoglycaemia Assessment and Intervention for Positive Outcomes (HAIPO) Joint Working Project

Project Title	Hypoglycaemia Assessment and Intervention for Positive Outcomes (HAIPO) Project 2021-2023
Project Timeframe	Project started in September 2021 and concluded in September 2023
Project Partners	University Hospitals Plymouth NHS Foundation Trust (UHP) Novo Nordisk Ltd.
The Challenge	<p>Hypoglycaemia is a complication of diabetes management. The UHP Diabetes Lead Diabetes Specialist Nurse identified several gaps in the system that needed to be addressed to effectively improve the lives of people living with diabetes by reducing the incidence and frequency of hypoglycaemia episodes. This would also reduce activity-based costs for the NHS in both NHS Devon Clinical Commissioning Group (CCG) and South Western Ambulance NHS Foundation Trust. Specifically, the group identified the following:</p> <ul style="list-style-type: none"> • Absence of a hypoglycaemia pathway/referral process • Frequent numbers of hypoglycaemia ambulance call outs • Lack of follow up of people post hypoglycaemia • A number of people requiring repeat ambulance call outs
The Objectives	<p>The project aimed to proactively identify people living with diabetes and experiencing recurring episodes of hypoglycaemia, within the catchment area of University Hospitals Plymouth.</p> <p>The objective was to conduct clinical reviews of these patients and optimise therapy to reduce the number of hypoglycaemia episodes and improve overall diabetes control. The project also aimed to improve efficiency across the system through the creation of a new pathway and provision of an evidence-based model for potential adoption across the Southwest of England.</p> <p>Expected outcomes and patient benefits of the Joint Working Project:</p> <p>Expected benefits to people living with diabetes:</p> <ul style="list-style-type: none"> • Reduction in hypoglycaemia events and/or severity of events • Reduction in number of ambulance call outs for hypoglycaemia • Reduction in number of admissions and conveyances due to hypoglycaemia • Reduced impact on employment • Improved quality of life <p>Expected benefits to the NHS:</p> <ul style="list-style-type: none"> • Efficiency gains across the local system • Potential business case with outcomes to justify funding for system change

	<p>Measuring the project outcomes – key performance metrics for patients referred to the HAIPO team due to hypoglycaemia:</p> <ul style="list-style-type: none"> • Numbers of annual ambulance call outs historically versus post intervention follow up • Numbers of annual admissions historically versus post intervention follow up • Number of patients conveyed to the Emergency Department (ED) versus those not referred to the HAIPO team
<p>What We Did</p>	<p>Novo Nordisk provided project management support:</p> <ul style="list-style-type: none"> • Baseline data analysis of activity-based costs through publicly available NHS performance data • Facilitated meetings to establish the scope of the project • Drafted the Project Initiation Documentation and subsequent project materials • Funded the project secondment band 6 staff nurse for two years • Facilitated meetings to assess the project progress versus agreed milestones • Stakeholder management • Designed the data capture tools • Designed clinical area posters to raise awareness of referral option. <p>UHP provided:</p> <ul style="list-style-type: none"> • Designed referral route <ul style="list-style-type: none"> ○ Established a dedicated email and phone number ○ Established signposting on ambulance service clinical assist iPads ○ Established NHS referral service database link • Recruited a dedicated staff nurse Band 6 to receive referrals and conduct and route for clinical review • Sourced baseline data collection of referred caseload • Data collection of review outcomes and post review activity
<p>Outcomes</p>	<p>There were 403 ambulance call outs for hypoglycaemia during the life of the project in the UHP catchment area.</p> <p>Of these 103 were referred to the HAIPO project team due to the system pressures of COVID pandemic that the ambulance crews were working under.</p> <p>Numbers of ambulance call outs for patients referred to the HAIPO team at follow up versus baseline:</p> <p>There were 43 patients for whom we have historical ambulance call out data. Of these there was a history of multiple ambulance call outs amounting to 73 across the population. Post intervention and follow up this reduced to 8 across the population. This represented an 89% reduction in the frequency of ambulance call outs in this population.</p> <p>Numbers of annual admissions for hypoglycaemia in the patients referred to the HAIPO project versus historical trend at baseline:</p> <p>There were 7 admissions for hypoglycaemia across the 103 referred population prior to referral to the HAIPO team. Post follow up this reduced to zero across the 103 people referred.</p>

	<p>Numbers of people conveyed to the ED among the 403 ambulance call outs versus those 103 referred to the HAIPO team:</p> <p>Of the 103 patients referred to the HAIPO team 8 people (7.7%) were conveyed to the ED.</p> <p>Of the 300 people not referred to the HAIPO team, 91 people (30%) were conveyed to the ED.</p>
<p>Lessons Learned</p>	<p>Challenges to the HAIPO project</p> <p>The project suffered from a lack of referrals. The steering group considered this to be a result of the unprecedented pressures on ambulance crews due to the COVID pandemic and adopting a new referral pathway, despite all the technical communications tools deployed, was difficult. The decision was made to explore an automatic referral system that when a patient is being attended to by an ambulance crew for a hypoglycaemia event, a referral to the HAIPO team is automatically generated by the system.</p> <p>Successes of the HAIPO project</p> <p>The HAIPO project showed that routine follow up for people who had called out an ambulance for hypoglycaemia was variable across the Western Devon locality. The proactive clinical review did reduce the number of subsequent ambulance call outs, admissions, and conveyances. It was considered a full referral to the HAIPO service could have had significant additional benefit to ambulance call out volumes, admissions, and conveyances. As such, a new workstream has been developed to look at automating referral to specialist teams post ambulance call out.</p>