Implementing the Integrated Hypoglycaemic Pathway
Foreword

The London Ambulance Service NHS Trust (LAS) attends approximately 20,000 diabetic emergencies per year. This represents a significant number of patients for the LAS, and highlights significant issues in the care and management of Diabetes. Hypoglycaemic and hyperglycaemic events are serious diabetic emergencies and may result in long term complications. Hypoglycaemia is a major cause of morbidity, often requiring third party involvement, Emergency Department attendances and hospitalisation. The cost to the individual is hard to capture and may include economic, psychosocial and in some cases significant health implications.

The Health Innovation Network and London Ambulance Service NHS Trust have worked in partnership to develop and implement an improved referral pathway for people who require LAS assistance for a hypoglycaemic episode and are not conveyed to hospital following treatment at the scene.

This integrated hypoglycaemic pathway met the NICE guideline Diabetes in Adults Quality standard 15 (2011). ‘People with diabetes who have experienced hypoglycaemia requiring medical attention are referred to a specialist diabetes team.’ Quality measure ‘Evidence of local arrangements to ensure that people with diabetes who have experienced hypoglycaemia requiring medical attention are referred to a specialist diabetes team.’ Specialist diabetes teams have the required skills and experience to provide the right clinical advice and interventions for people who are experiencing episodes of severe hypoglycaemia.

The Health Innovation Network and the London Ambulance Service NHS Trust thank the following diabetes specialist services and CCGs for being involved in the project and contributing to the design of the implementation resources.

Hounslow and Richmond Community Health Care NHS Trust and Richmond CCG

Guys and St Thomas’s NHS Foundation Trust, Southwark and Lambeth CCG

This guide has been designed to assist all London CCGs and diabetes specialist providers to implement the LAS Hypoglycaemic Pathway within their borough, using the tools and resources that were designed and tested during the pilot project.

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The Integrated Hypoglycaemic pathway

Between 2014 and 2016 the Health Innovation Network (HIN) and London Ambulance Service NHS Trust (LAS) collaborated on a project to improve the integration of care pathways for the management of hypoglycaemia. The project was supported by joint working arrangements between HIN and MSD pharmaceutical company. The joint working was conducted in line with ABPI guidance for joint working between pharmaceutical companies and the NHS.

This project led to the development of an integrated hypoglycaemic pathway for use by all LAS ambulance clinicians, which is shown in Figure 1. The aim of the pathway is to provide an integrated care service that contributes to the reduction of serious hypoglycaemic episodes. LAS, with support from HIN, has worked with staff internally to promote and embed this pathway.

The focus of this project was on improving the quality of follow up that patients managed at home by ambulance clinicians receive. Using the recommendation of NICE Quality Standard 15 (2011) we worked with CCGs to change the referral pathway in order that specialist diabetes teams could receive direct referrals from the LAS relating to patients who were not conveyed to hospital following treatment for hypoglycaemia. In CCGs which have not yet adopted the pathway, LAS practice is to refer patients to their GP.

Information from the 2015/16 pilot indicated that referrals did not exceed 2 patients a week per CCG. Other CCGs considering implementation of similar pathways are advised to review local LAS data relating to hypoglycaemic events managed at home by ambulance clinicians.

Hypoglycaemia is preventable. This integrated Hypoglycaemic Pathway enables healthcare professionals to support anyone who experiences an event and prevent future occurrences. Dr Natasha H Patel Consultant in Diabetes, Guys and St Thomas’ NHS Foundation Trust
Figure 1

Known Diabetic Hypoglycaemic referral flowchart

**TREAT HYPO**

- **Pt Conveyed**
  - YES: Convey No referral
  - NO:
    - **Capacity**
      - NO: Reconsider conveyance
      - YES: **Special risk?**
        - NO: **Alone**
          - YES: RST referral & welfare ringback
          - NO: RST referral only
        - YES: Refusing conveyance
          - **Refusing ringback**
            - YES: Convey No Referral
            - NO: Convey No Referral
      - YES: Refusing conveyance

**Special Risks:**
- Oral Glycaemic Agents
- Signs of Infection
- Recent increased frequency of hypoglycaemic episodes
- No prodromal warning

Crews are still able to make a direct referral to a GP if this is appropriate. This should be fully documented on the PRF.
Hypoglycaemia Referral Pathway FAQs

Who should I refer?
Insulin-dependent patients who have had an episode of hypoglycaemia, have recovered and are not being conveyed to hospital.
Patients who are on oral glycaemic agents and refusing conveyance to hospital.

How do I make a referral?
Call RST via the radio handset

What will RST do with the information?
They will arrange for the Clinical Hub to contact the patient by telephone in two hours if needed. A referral will be sent to the patient’s GP or specialist team.

Is it more beneficial to contact the patient’s GP directly during office hours?
In some situations it may be appropriate to make a same day referral direct to the patient’s GP or OOH provider. This should be documented on the PRF. This may be of benefit for a patient with special risks who is refusing conveyance.

Can I refer a patient who is taking oral medication for their diabetes?
These patients should always be conveyed to hospital. However, if they refuse conveyance, they should be referred. They should also have a welfare ringback from the Clinical Hub.

If the patient has recovered and is left in care, should I still make a referral?
Yes – This can be completed via RST. It is important that any patient who has had a hypoglycaemic episode and is not conveyed has a referral to their GP or specialist team. This should help to prevent future episodes.

Should patients considered high risk or at special risk be conveyed?
Yes – these patients are at greater risk of further hypoglycaemic episodes.

If the patient does not give consent for a referral, am I allowed to make one anyway?
Yes – Caldicott 2 allows us to make a referral in this situation if the clinician thinks it is appropriate.

Should I make a referral if the patient has already recovered on our arrival?
Yes – It is still important that the GP/specialist team is made aware as the patient’s medication may require a review.

Should I make a referral if the patient has refused transport against our advice?
Yes – Patients should be made aware of the risks of not attending the ED. It is important that a GP referral is made so that the patient’s condition can be reviewed by a GP or specialist team.
Implementation of the Hypoglycaemic Pathway for London CCGs and diabetes specialist providers

**Step 1: Identify key stakeholders**
Identifying the relevant organisation leads is the first step to successful implementation of the Hypoglycaemic Pathway.

The following list provides the key representatives required and can be adapted to add other relevant local key organisations/individuals:
- CCG diabetes commissioner
- CCG diabetes lead GP
- Single Point of Access Service
- Diabetes specialist service
- Local LAS lead for Operations and Medical Directorates

Identify the CCG lead who holds responsibility for signing off the completed Hypoglycaemic Pathway Checklist prior to commencement.

**Step 2: Planning meeting with key stakeholders**
1. Arrange a face to face meeting with all of the key representatives present.
2. Use the Checklist (see resources) to inform the meeting.
3. Assign leads for each element of the checklist and agree a timeframe for completion, our suggested timeframe is 6 weeks.
4. Inform the Local LAS lead for Operations and Medical Directorates of your intention to implement the Hypoglycaemic Pathway, including the anticipated time frame.

**Step 3: Preparation for launch**
Completion of the tasks within the checklist takes place at this time. The success of the pathway is reliant on good communication. The following resources (see resources section) have been made available from the pilot CCGs and providers for use and adaption and include:
- GP Communication & local pathway algorithm
- LAS referral form
- Data collection template
- Diabetes Specialist Nurse feedback to LAS template
- Signed Agreement

**Step 4: Final checks**
Complete the final requirements of the Hypoglycaemic Pathway Checklist
- Ensure the LAS lead for Operations and Medical Directorates receive the completed signed agreement for approval at least 2 weeks prior to the go live date
- The LAS lead for Operations and Medical Directorates will liaise directly with the LAS referral support team to embed and commence the new pathway for the agreed start date

**Step 5: Monitoring and Evaluation**
The pathway is now live, continue to work together to inform any future improvements in the pathway
- Monitor the referrals and feedback to the LAS
- Consider staff and patient feedback on the effectiveness of the pathway
- Capture the data to inform future commissioning
Resources

These resources are provided to assist CCGs and Ambulance services to develop their own local versions.

- Hypoglycaemia Pathway Checklist
  - Download

- LAS referral form
  - Download

- Signed agreement
  - Download

- Hypoglycaemia referral pathway: signed agreement

- Hypoglycaemia referral feedback form

- Example of GP communication and local pathway algorithm
  - Download

- Data collection template
  - Download

- DSN feedback to LAS template
  - Download