

# Portsmouth Pathfinder: lessons learned

## Diabetes in community and care home settings



# Introduction

The Portsmouth Pathfinder was a pilot to see whether we could improve the experience of people living with diabetes in a vulnerable community by providing clear and easily follow able advice regarding hypoglycaemia management.

Hypoglycaemia is the most common diabetes related cause of paramedic call out and increases morbidity and mortality.

Hypoglycaemia in older people does not present with the same symptoms and can be harder to recognise and sometimes treat.

3 CCGs work in and around Portsmouth. Specialist diabetes services are provided through Queen Alexandra Hospital via the 'Super 6' model of diabetes care. Most people with Type 2 diabetes have annual routine checks through primary care teams. Support then comes from secondary care if needed via virtual clinics, face to face education sessions, etc. A Hypoglycaemic Hotline which was introduced in 2013 to allow paramedics to inform the specialist team of 999 calls in the area. This resulted in reduced admissions for hypoglycaemia.

With an ageing population, it becomes increasingly important to be able to identify, treat and prevent hypoglycaemia in settings in the community (be it people in their own residences, a residential or nursing home or somewhere else) using information that is accessible and clear. Engaging in this way may reduce the risk of people needing paramedic call outs or visits to hospital that may be unnecessary.

**“How can digital technology reduce the risk of unnecessary paramedic call-outs or hospital visits among older people having hypoglycaemia in their own homes or in care homes?”**

Four possible areas to explore were identified but some were not achievable in the time available and presented governance concerns for which there were no immediate solutions. So this pathfinder focused on producing a hypoglycaemia treatment guideline using pictures and simple step-wise instructions suitable for use by people with diabetes, their carer and healthcare professionals too.

# Intervention model

The Portsmouth Pathfinder looked at the value of empowering people living with diabetes, their carers and healthcare contacts to more readily identify, treat and potentially prevent hypoglycaemia.

Most hospitals will have inpatient guidelines on the treatment of hypoglycaemia, but these will be based on the assumption that they are exclusively for the use of healthcare professionals who will have some training in diabetes and/or have access to those who do with the added layer of support, e.g. doctors on call.

The idea of the pictorial document was to acknowledge that in an event of a hypoglycemic event in the community, it was important that any instructions were clear and simple and relevant to the environment that person was in and usable for those who may not have witnessed a hypoglycaemic event or been specifically trained in its treatment.

Adding links at the end would enable people to go on to use online learning resources to improve their knowledge further.

## **The four main steps in the pathfinder were as follows:**

Step 1 – Identifying the population who would most benefit from improved information about hypoglycaemia and the people and professionals they have contact with

Step 2 – Understand what information might be helpful for this group of people and where existing resources may not bridge this gap

Step 3 – Produce and provide easily accessible and understandable information to be used in the community to describe, treat and understand hypoglycaemia

Step 4 – Signpost to reliable digital resources

# Example: Journey for carers

We identified the ideal journey that Carers go on when caring for a patient with diabetes, the challenges they face and the things that they need to improve the care they're providing.

<b>Touchpoint</b>	<b>1</b> Caring for Mrs B	<b>2</b> Recognises that she's not right ('Fifty Bity')	<b>3</b> Finds that she has a low blood sugar level	<b>4</b> Takes immediate action	<b>5</b> Reviews why it happened	<b>6</b> Follows up to help prevent further episodes		
<b>Challenges</b>				Inconsistent approach to taking immediate action	Not knowing who to ask for expert support and advice	Not knowing the impact of a 'hypo' on the patients wider health		
<b>Needs</b>		To know the symptoms and that diabetes may be the cause	To know what 'low' is for their patient	To know what the options are and help to choose the right one	To know who to notify and how and any concerns will be addressed	To understand the benefits to them and their patient		

# Step by step

**Stage 1 – Identifying the population:** Older people with any form of diabetes should have planned regular contact with the healthcare team looking after this long term condition (most likely to be primary care). Other healthcare professionals include: podiatry, community nursing teams, care workers in homes or other NHS facilities including an acute trust. This 'other contact' may not be about their diabetes, but it is sensible that these individuals should be capable of identifying and treating a hypoglycemic episode and understanding any follow-up action that might be required as a consequence.

**Stage 2 – What information is needed:** Although some points of contact are with professionals with a more in-depth knowledge of diabetes, people with diabetes themselves, their friends and family and non-specialist healthcare workers may not have this understanding. We approached healthcare workers based in the community setting and asked what they understood of hypoglycaemia, especially in reference to the elderly population, and what education gaps they felt existed and therefore we could rectify.

The main themes that came from this were:

- Most recognised '4 is the floor' for hypoglycaemia
- General principles of treating a hypoglycemic episode with a quick-acting carbohydrate were understood but not the amount, options, or follow up with a long-acting carbohydrate
- Actions taken after a hypo had occurred were variable
- Range of symptoms for an older person was not appreciated
- Clear desire for extra resources or training, especially if these could be **visual and easily accessed** at point of need

## **Insights from healthcare professionals included:**

- 'we call the community nurse and do whatever instructed on the phone and call out the paramedics if needed'
- 'I have had no formal training or education (in hypoglycaemia)'
- '(something visual).. would be very helpful in that situation.'
- 'be great to have something easy to access when visiting patients in their homes'

# Step by step

## **Stage 3 – Producing the information / resources:**

Using widely available hypoglycaemia advice including our local inpatient hypoglycaemia guideline we produced a document that could be downloaded and put on to laptops, other mobile devices and could also be printed out if desired. The principle of the document was to lay out easy to understand information on:

- What is hypoglycaemia?
- Symptoms
- Treatment
  - Examples of quick-acting sugar sources (pictorial)
  - Examples of long acting carbohydrate sources (pictorial)
- Guidelines for mild/moderate/severe events
- What to do next
- Where online to find other sources of information

The pictorial guidelines were designed to be relevant to food items that would be found in the community in a nursing home or a person's own home. For example, 200ml of juice would be one possibility for a quick-acting sugar source and we took pictures of 200ml of juice in a range of different glasses so it would be easier to see what this would look like. A range was offered to take in to account also how well an individual might be able to swallow (either due to pre-existing medical issues or due to the hypo itself).

**Feedback** was sought from people with diabetes, carers and professionals on: (1) the content of the hypoglycaemic guideline; (2) how people had used it and how they felt about it. In terms of the content, some comments were made about including other pictorial examples of quick-acting sugar sources (milk, lemonade, carton of fruit juice) and correcting portion size of jelly beans versus jelly babies. It was also suggested that the wording of mild, moderate and severe could be made simpler.

# Pathfinder reach and impact

The total number of health and care professionals who participated was 138 people, spanning GP practices, nursing homes, community based patients, acute trust and mental health facilities.

- Nursing home staff – 39 staff in total across 4 homes (each has a population of 50-60 residents)
- Adult Mental Health Nurses working in the elderly care ward in the community – 3
- Care nurses working in the acute hospital – 15 (around 200 elderly care inpatient beds with around 20% occupied by a person with diabetes at any time)
- Other healthcare professionals – 10
- Community healthcare assistants – 22
- Community nurses – 19
- Practice nurses – 6 (in six different practices across Portsmouth City)
- 19 'frontline' carers and 5 office based staff working across whole of Portsmouth (private care agency)

Stakeholders engaged

138

'Great to see a visual guide, in particular portion sizes and quantities at a glance' (healthcare professional)

'This is just what people need if they are caring for people with diabetes. Something they can relate to in reality and at a glance' (healthcare professional)

'Seeing the pictures within the guide has given me a better understanding of how to treat a hypo' (carer)

'Has increased my confidence in caring for my clients with diabetes. It has made me more aware of the symptoms to look out for and what to give to treat a hypo' (carer)

# Case Study

Mrs. J, age 77, lives alone and has insulin given once a day in the morning by a healthcare assistant. On arrival Mrs. J felt non-specifically unwell. The healthcare assistant had recently been shown the pictorial guidelines and had it downloaded on her laptop. On checking it, she took Joan's blood sugar which was 3.8.

The healthcare assistant went into Mrs. J's kitchen, went through the cupboard and found jam and measured it out - as shown in the picture. She followed it up with a slice of toast.

The healthcare assistant reported that if she had not had this information, she would not have known how to treat the hypo and may have had to call a colleague or an ambulance.

Mrs J recovered without any problems and remained well at home.



# Things we've learned

- Health and care workers in the community can feel quite isolated from their primary and secondary care colleagues.
- Staff in care homes in particular lacked confidence with caring for people with diabetes.
- Community nurses and healthcare assistants do not routinely carry hypo treatment with them e.g. hypogel/hypostop. So knowing what could be used in someone's home to treat a hypo was very helpful as it avoided a paramedic call-out.
- Visiting community sites such as nursing homes revealed a reliance on paper print-outs of diabetes education and information that had not been updated. These community-based teams found it difficult to find reliable sources of information online; and the opportunity to look for this during the working day was limited.
- So any action people took for hypoglycaemia was based on past training or observing what others did and replicating this.

OUR BIG QUESTION...

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CAN DIGITAL HELP  
TO REDUCE  
LOW BLOOD SUGAR  
LEVEL EPISODES

(WHICH RESULT IN HOSPITAL  
ADMISSIONS)

WITHIN CARE HOMES?

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OR PEOPLE  
BEING CARED  
FOR IN  
THEIR HOME?

# Next steps

1. Following visits related to the pathfinder project, care home agencies asked for scheduled teaching from the community diabetes team which has strengthened links and should help to improve the care offered to people with diabetes.
2. Building on the positive feedback received, the plan is to update the pictorial guideline and explore creating an app that could be downloaded onto smartphones by anyone who wants to know how to treat hypoglycaemia. This would be easy to update to ensure it is in line with best evidence.
3. Longer term, the plan is to review data regarding admissions and hypoglycaemia in older people as well as paramedic call-outs to see if there has been any noticeable impact.
4. Doing an audit on which diabetes medications are being prescribed would also be helpful to see if the advice around avoiding hypoglycaemia is changing the agents being used in the population.

## **For more information:**

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