



DEBATE PACK

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Access to diabetes technologies

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Summary

There will be a Westminster Hall debate on, Access to diabetes technologies, on 23 November 2016 from 2.30 pm - 4.00 pm. Derek Thomas will lead the debate.

This briefing provides a background summary and parliamentary coverage.

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1. Diabetes technologies

Debates about access to diabetes technologies have usually focussed on products that patients can use to monitor and control their blood glucose levels, such as insulin pumps, and continuous glucose monitoring. Information on these technologies, and NHS access to them, is provided below.

In England, local Clinical Commissioning Groups (CCGs) are primarily responsible for commissioning diabetes services.¹

1.1 Insulin pumps

[Insulin pumps](#) are battery-operated devices that provide a patient with regular insulin throughout the day, through a flexible tube (cannula) inserted under the skin. As the pumps need only be changed two or three times a week, this treatment involves significantly fewer injections than manual insulin injection treatment.

The National Institute for Health and Care Excellence (NICE) has produced a technology appraisal for insulin pumps, which recommends them as a treatment option, given the following criteria are met:

Continuous subcutaneous insulin infusion (CSII or 'insulin pump') therapy is recommended as a treatment option for adults and children 12 years and older with type 1 diabetes mellitus provided that:

- Attempts to achieve target haemoglobin A1c (HbA1c) levels with multiple daily injections (MDIs) result in the person experiencing disabling hypoglycaemia. For the purpose of this guidance, disabling hypoglycaemia is defined as the repeated and unpredictable occurrence of hypoglycaemia that results in persistent anxiety about recurrence and is associated with a significant adverse effect on quality of life

Or

- HbA1c levels have remained high (that is, at 8.5% [69 mmol/mol] or above) on MDI therapy (including, if appropriate, the use of long-acting insulin analogues) despite a high level of care.

CSII therapy is recommended as a treatment option for children younger than 12 years with type 1 diabetes mellitus provided that:

- MDI therapy is considered to be impractical or inappropriate, and
- Children on insulin pumps would be expected to undergo a trial of MDI therapy between the ages of 12 and 18 years.²

The result of a recommendation in a NICE technology appraisal is that, should a doctor believe that an insulin pump would be beneficial for a patient, the NHS is legally required to fund this.

¹ [PQ 39137, 13 June 2016](#)

² NICE, [Continuous subcutaneous insulin infusion for the treatment of diabetes mellitus: Technology appraisal guidance TA 151](#), July 2008, para 1.1-2

NICE does not recommend insulin pumps for treatment of Type 2 diabetes.

In response to a 2014 PQ, the then Health Minister Jane Ellison noted that there are non-clinical reasons why a patient may not be suited for insulin pump treatment:

Insulin pump therapy is not appropriate for everyone as it requires self-management and regular close monitoring. People who commence insulin pumps need to have a detailed structured education programme and good clinical support to maintain and support them on this therapy. All decisions about insulin pump therapy must be made in consultation between the patient (and/or their parents or carer) and their health care professional.³

In September 2016, Health Minister Nicola Blackwood set out progress the Government had made on improving access to these structured education programmes:

Since 2009/10, there has been an almost 70% increase in the proportion of people newly diagnosed with diabetes recorded as being referred to structured education courses, designed to help them manage their condition in the long term. However, whilst we know that the data on take up needs improving, there is still much further to go in enabling people with diabetes to access these programmes.

The Department, NHS England and Diabetes UK are working on ways to improve the take up of structured education including exploring how more diversity of provision might be delivered through digital and web based approaches. The Department recently held a seminar with key stakeholders to identify actions that would facilitate improved access.⁴

In response to a 2015 PQ, Ellison provided figures on access to insulin pumps:

The United Kingdom Insulin Pump Audit was published in May 2013, supported by Diabetes UK, the Juvenile Diabetes Research Foundation and the Association of British Clinical Diabetologists. It collected data from all four countries of the United Kingdom. The audit demonstrates that 6% of adults with type 1 diabetes and 19% of children with type 1 diabetes are now treated with insulin pumps. The majority of centres involved in the audit reported no issues with funding of insulin pumps for patients who met the criteria set out by NICE.⁵

The most recent [Insulin Pump Audit](#), published April 2016 and covering 2013-15, included the following amongst its key findings:

- Either people with Type 1 diabetes are being incorrectly classified as Type 2 or a substantial number of people with Type 2 diabetes are being treated with insulin pumps outside the NICE guidance.
 - 18% of those with an insulin pump included in the audit had Type 2 or other diabetes, despite the NICE guidance.
- Although more males than females have diabetes, more females than males are treated with insulin pumps.

³ [HC Deb 25 March 2014 c202W](#)

⁴ [PQ 45827, 16 September 2016](#)

⁵ [PQ 5400, 9 July 2015](#)

- Females make up 47% of all people with Type 1 diabetes, but 61% of patients with Type 1 diabetes on an insulin pump were female.
- The proportion of people on pumps is lower in areas with a higher degree of deprivation.
 - Of people with Type 1 diabetes on an insulin pump, 26% were in the least deprived quintile, compared to 15% in the most deprived quintile.
 - Of people with Type 1 diabetes **not** on an insulin pump, 22% were in the least deprived quintile, compared to 21% in the most deprived quintile.
- Half of the people with Type 1 diabetes on a pump started the treatment within 17 years of diagnosis.
 - 32% started within 10 years of diagnosis, 16% within 5 years.⁶

Analysis of the Audit by *Diabetes Times* estimated that the figures showed around 12% of children and adults in the UK with Type 1 diabetes using an insulin pump, compared to 7% in the 2013 audit.

It noted however that although usage is rising, usage rates are still lower than other countries such as Germany and the USA, where 15% and 40% of Type 1 Diabetics respectively use an insulin pump.⁷

1.2 Continuous Glucose Monitoring

[Continuous Glucose Monitors \(CGMs\)](#) provide constant monitoring of the glucose levels in the body through analysis of the interstitial fluid (fluid between the cells under the skin). Although readings are 5-15 minutes older than readings from the blood, obtained through a finger-prick reading, the CGM process is less invasive. It also allows for more regular readings.

NICE has produced guidelines for CGMs, but these do not have the same legal status as a technology appraisal, and there is no obligation for commissioners to provide funding. The NICE guidelines for adults recommend the following:

Do not offer real-time continuous glucose monitoring routinely to adults with type 1 diabetes.

Consider real-time continuous glucose monitoring for adults with type 1 diabetes who are willing to commit to using it at least 70% of the time and to calibrate it as needed, and who have any of the following despite optimised use of insulin therapy and conventional blood glucose monitoring:

- More than 1 episode a year of severe hypoglycaemia with no obviously preventable precipitating cause.
- Complete loss of awareness of hypoglycaemia.
- Frequent (more than 2 episodes a week) asymptomatic hypoglycaemia that is causing problems with daily activities.
- Extreme fear of hypoglycaemia.

⁶ Health & Social Care Information Centre, [National Diabetes Insulin Pump Audit Report, 2013-15 \(England\)](#), April 2016; and NHS Digital, [Audit Report Supporting Information](#), April 2016

⁷ [‘UK Insulin Pump Use Goes Up’](#), *The Diabetes Times*, 5 April 2016

- Hyperglycaemia (HbA1c level of 75 mmol/mol [9%] or higher) that persists despite testing at least 10 times a day. Continue real-time continuous glucose monitoring only if HbA1c can be sustained at or below 53 mmol/mol (7%) and/or there has been a fall in HbA1c of 27 mmol/mol (2.5%) or more.⁸

Different guidance is given for children and young people:

Offer ongoing real-time continuous glucose monitoring with alarms to children and young people with type 1 diabetes who have:

- frequent severe hypoglycaemia or
- impaired awareness of hypoglycaemia associated with adverse consequences (for example, seizures or anxiety) or
- inability to recognise, or communicate about, symptoms of hypoglycaemia (for example, because of cognitive or neurological disabilities).

Consider ongoing real-time continuous glucose monitoring for:

- neonates, infants and pre-school children
- children and young people who undertake high levels of physical activity (for example, sport at a regional, national or international level)
- children and young people who have comorbidities (for example anorexia nervosa) or
- who are receiving treatments (for example corticosteroids) that can make blood glucose control difficult.

Consider intermittent (real-time or retrospective) continuous glucose monitoring to help improve blood glucose control in children and young people who continue to have hyperglycaemia despite insulin adjustment and additional support.⁹

In response to a July 2016 PQ, Nicola Blackwood highlighted the following aspect of the NICE guidelines:

NICE has found that, for some people, continuous glucose monitoring can have clinical benefit but generally it is not more effective than current methods of self-monitoring.¹⁰

The Labour MP Jamie Reed, who has Type 1 diabetes, launched an [e-petition](#) in July 2016 to make CGMs available on the NHS for Type 1 Diabetics.

The petition notes that although there are costs attached to commissioning CGMs (£1,000-2,500 for set up and £40-60 weekly running costs), the treatment can help to avoid [severe hypos](#), treatment of which costs the NHS £13 million per year.

As there are currently around 26,000 signatures, the Government has provided a response, including the following section on CGMs:

It is for NHS commissioners to decide whether to make continuous glucose monitoring devices available to their local populations, taking NICE's guidance into account.

⁸ NICE, [Type 1 diabetes in adults: diagnosis and management: NICE guideline NG17](#), August 2015, para 1.6.21-2

⁹ NICE, [Diabetes \(type 1 and type 2\) in children and young people: diagnosis and management: NICE guideline NG18](#), August 2015, para 1.2.62-4

¹⁰ [PQ 43045, 25 July 2016](#)

As one way of incentivising improvements to diabetes services, NHS England has introduced the Best Practice Tariff for paediatric diabetes which provides an annual payment for the treatment of every child and young person under the age of 19 with diabetes, providing 13 standards of care are met.

One of these standards is to ensure that each young person has received a structured education programme, tailored to their and their family's needs, both at the time of initial diagnosis and ongoing updates throughout their attendance at the paediatric diabetes clinic.¹¹

Organisations such as Input Diabetes campaign for similar goals of increased funding for and improved access to CGMs. For more information, see the [CGM funding: the bigger picture](#) page on its website.

As CGMs are commissioned locally by CCGs, the Government does not hold information on the number of people using them.¹²

¹¹ E-Petition 151064, [Make Continuous Glucose Monitors available on the NHS for Type 1 Diabetics](#), active until 5 January 2017

¹² [PQ 46833, 13 October 2016](#)

2. Petition

[Make Continuous Glucose Monitors available on the NHS for Type 1 Diabetics](#)

CGMs are considered less invasive than Blood Glucose Meters. They also help users to maintain target blood glucose levels & limit the risk of hypos.

Access to this technology is limited on the NHS. However, they can help to avoid night-time severe hypos, & severe hypos cost the NHS £13m a year.

CGMs work 24 hours a day and can include alarms to indicate when glucose levels are too high. Research suggests they can help to reduce haemoglobin A1c without increasing the risk of a hypo.

The initial cost of the hardware for a continuous glucose monitor can vary from around £1,000 to £2,500. In addition to this, running costs are estimated at £40-£60 per 5-7 days. Access to this important technology should not be based upon whether or not the patient is able to afford it.

26,391 signatures (*as of 18:00 21 November 2016*)

[Show on a map](#)

2.1 Government responded

Commissioners decide whether to make continuous glucose monitors available locally. NICE considers they can have benefit but are generally no more effective than current methods of self monitoring.

▼ Read the response in full

Preventing diabetes and promoting the best possible care for people with diabetes is a key priority for this Government. We are working hard to improve outcomes and quality of life for those living with diabetes or those who will develop it in the coming years. Once a patient has been diagnosed with diabetes, it is vital to ensure they can manage their condition as effectively as possible.

NHS England is working with other organisations to help promote services that are integrated around patients' needs across all settings; and is implementing a 'customer service platform' to allow patients with diabetes to self-manage through booking their own appointments, managing their prescriptions, monitoring the care they have received and being able to view their personal health records.

The National Institute for Health and Care Excellence (NICE) is the independent body that provides guidance on the prevention and treatment of ill health and the promotion of good health and social care. NICE's guidance is based on a thorough assessment of the available evidence and is developed through wide consultation with stakeholders.

In August 2015, NICE published guidelines which recommend that such devices should not be made routinely available to people with Type 1 diabetes unless they are willing to commit to using them at least 70% of the time and to calibrate them as needed (as well as meeting certain other criteria). NICE's guideline on the diagnosis and management Type 1 diabetes in adults (NG17) is available at:

www.nice.org.uk/guidance/ng18.

NICE will next consider updating this guidance in 2 years' time. In the meantime, NICE is considering setting up a standing update committee for diabetes, which would enable a more rapid update of discrete areas of the diabetes guidelines, as and when new relevant evidence is published. NICE will confirm whether it is proceeding with this in due course.

It is for NHS commissioners to decide whether to make continuous glucose monitoring devices available to their local populations, taking NICE's guidance into account.

As one way of incentivising improvements to diabetes services, NHS England has introduced the Best Practice Tariff for paediatric diabetes which provides an annual payment for the treatment of every child and young person under the age of 19 with diabetes, providing 13 standards of care are met.

One of these standards is to ensure that each young person has received a structured education programme, tailored to their and their family's needs, both at the time of initial diagnosis and ongoing updates throughout their attendance at the paediatric diabetes clinic.

The CCG Improvement and Assessment Framework measures progress being made by CCGs in improving outcomes. It includes measures on:

- the proportion of diabetes patients that have achieved all the NICE-recommended treatment targets. (The treatment targets include having HbA1c levels within recommended limits. HbA1c is a measure of patients' blood glucose levels) and:
- the proportion of people with diabetes diagnosed less than a year who attend a structured education course.

Taken together, these should help identify both whether patients are being supported to understand how to manage their blood glucose levels and whether the approaches being taken in a CCG area are successfully achieving improvements in this.

Department of Health

3. Parliamentary questions

- [Diabetes: Medical Equipment](#)

Asked by: Reed, Mr Jamie | **Party:** Labour Party

To ask the Secretary of State for Health:

what estimate his Department has made of the annual cost to people with Type 1 diabetes who self-fund a continuous glucose monitor;

what assessment his Department has made of the potential benefit to the UK economy of NHS investment in continuous glucose monitors for adults and children with Type 1 Diabetes.

Answering member: Nicola Blackwood | **Party:** Conservative Party | **Department:** Department of Health

No estimate has been made of the annual cost to people with Type 1 diabetes who self-fund a continuous glucose monitor.

In August 2015, the National Institute for Health and Care Excellence provided updated guidelines for both Type 1 diabetes and for children and young people with diabetes. In both, the cost effectiveness, as well as the clinical effectiveness, of continuous glucose monitoring was assessed. Both sets of guidelines outline specific clinical situations where the clinical and cost effectiveness justify consideration of the use of the technology.

18 Jul 2016 | Written questions | [42741](#) and [42637](#)

- [Diabetes: Medical Equipment](#)

Asked by: Shannon, Jim | **Party:** Democratic Unionist Party

To ask the Secretary of State for Health, what plans his Department has to make personal devices for instant monitoring of insulin levels available to people with diabetes on the NHS.

Answering member: Nicola Blackwood | **Party:** Conservative Party | **Department:** Department of Health

We are not aware of any clinical utility associated with the instant monitoring of insulin levels. However, continuous glucose monitoring devices can measure glucose levels 24 hours a day and it is for National Health Service commissioners to decide whether to make these available to their local populations.

In August 2015, National Institute for Health and Care Excellence (NICE) published guidelines which recommend that such devices should not be made routinely available to people with Type 1 diabetes unless they are willing to commit to using them at least 70% of the time and to calibrate them as needed (as well as meeting certain other criteria).

NICE has found that, for some people, continuous glucose monitoring can have clinical benefit but generally it is not more effective than current methods of self-monitoring.

25 Jul 2016 | Written questions | 43045

- [Diabetes](#)

Asked by: Lord Roberts of Llandudno | **Party:** Liberal Democrats

To ask Her Majesty's Government why it is not possible to get a device which keeps track of a diabetic's blood glucose levels for up to eight hours, or continuously, on the NHS.

Answering member: Lord Prior of Brampton | **Party:** Conservative Party | **Department:** Department of Health

Clinical Commissioning Groups (CCGs) are primarily responsible for commissioning diabetes services to meet the requirements of their population. In doing so, CCGs need to ensure that the services they provide are fit for purpose, reflect the needs of the local population, are based on the available evidence, taking into account national guidelines. This should include consideration of access to continuous glucose monitoring for people with Type 1 diabetes who might benefit from it.

13 Sep 2016 | Written questions | HL1627

- [Diabetes: Medical Equipment](#)

Asked by: Vaz, Keith | **Party:** Labour Party

To ask the Secretary of State for Health, what plans his Department has to make continuous glucose monitoring and insulin pump technology available to diabetics on the NHS.

Answering member: Nicola Blackwood | **Party:** Conservative Party | **Department:** Department of Health

This Government is working hard to improve outcomes and quality of life for those already living with diabetes and those who will develop it in the coming years. One of our key goals in the mandate to the National Health Service is a measurable reduction in variation in the management and care of people with the condition within the lifetime of this Parliament. Funding has been secured through the spending review to help achieve this and NHS England is developing a programme to ensure that those clinical commissioning groups (CCGs) which need extra investment in this area, accompanied by sound plans for delivery, receive it.

In addition, the Clinical Commissioning Group Improvement and Assessment Framework will play a key role in delivering this as it contains two recognised evidence based measures of whether patients with diabetes are being supported to successfully manage their condition (achievement of the National Institute for Health and Care Excellence treatment targets and participation in structured education programmes).

Using data from the NHS Atlas of Variation, NHS Right Care is also working with CCGs and other local partners to make improvements in diabetes care and reduce variation by providing hands on practical support.

Since 2009/10, there has been an almost 70% increase in the proportion of people newly diagnosed with diabetes recorded as being

referred to structured education courses, designed to help them manage their condition in the long term. However, whilst we know that the data on take up needs improving, there is still much further to go in enabling people with diabetes to access these programmes.

The Department, NHS England and Diabetes UK are working on ways to improve the take up of structured education including exploring how more diversity of provision might be delivered through digital and web based approaches. The Department recently held a seminar with key stakeholders to identify actions that would facilitate improved access.

CCGs are primarily responsible for commissioning diabetes services to meet the requirements of their population. In doing so, CCGs need to ensure that the services they provide are fit for purpose, reflect the needs of the local population, are based on the available evidence, taking into account national guidelines. This should include consideration of access to continuous glucose monitoring for people with Type 1 diabetes who might benefit from it.

16 Sep 2016 | Written questions | 45827

- [Diabetes: Medical Equipment](#)

Asked by: Vaz, Keith | **Party:** Labour Party

To ask the Secretary of State for Health:

how many people (a) have access to and (b) use an insulin pump;

how many people use a continuous glucose monitor (a) provided by the NHS and (b) that they have funded themselves;

how many people use an insulin pump (a) provided by the NHS and (b) that they have funded themselves.

Answering member: Nicola Blackwood | **Party:** Conservative Party |

Department: Department of Health

Data on insulin pump usage in England is now collected and published in the National Diabetes Insulin Pump Audit. The report for 2013-15 can be found at:

<http://www.hqip.org.uk/public/cms/253/625/19/520/National%20Diabetes%20Insulin%20Pump%20Audit%20report%202013-15.pdf?realName=hOfPw8.pdf?v=0>

Participation in the first audit was low, with 44 out of 183 units providing data, and so it does not provide an accurate count of the number of people using an insulin pump. Furthermore, the data does not provide information on access to insulin pumps or distinguish between insulin pumps provided by the National Health Service or those which are self-funded. This information is not collected centrally.

Information on the number of people using continuous glucose monitors is not collected centrally.

13 Oct 2016 | Written questions | [46832](#), [46833](#), [46834](#)

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