

Insulin pump therapy for adults and children with Type 1 diabetes

Position Statement (Updated: July 2018)

Why have we produced this position statement

National guidelines give a clear indication of eligibility for insulin pump use for adults and children with Type 1 diabetes^(1,2), and those using a pump are more likely to achieve NICE recommended treatment targets for HbA1c, cholesterol and blood pressure⁽³⁾. Despite this, there are significant problems in accessing pump therapy for both adults and children.

How did we develop this position?

We developed this position through knowledge and insight gained from:

- Reviewing the relevant literature on insulin pump therapy
- Reviewing current data on insulin pump usage
- Reviewing NICE and SIGN guidelines on pump therapy
- Discussions with expert clinicians through Diabetes UK's Council of Healthcare Professionals and expert diabetes clinicians

What we say about this issue

Continuous subcutaneous insulin infusion, or “insulin pump”, therapy has a key role to play in managing Type 1 diabetes in both adults and children. It is not only associated with an improved quality of life in general, but also with improved glycaemic control and reduction in severe hypoglycaemia⁽¹⁾.

Recommendations

Both NICE and SIGN guidance recommend that insulin pumps be seen as a routine clinical option in the treatment of Type 1 diabetes in many adults and children.

Consequently:

- Insulin pump therapy should be offered to people with Type 1 diabetes who fulfil the criteria stated in NICE TA 151⁽¹⁾ and to women who are pregnant
- The assessment of adults and children for need and suitability for pump therapy should be undertaken by a specialist clinician who is trained in pump therapy
- People with Type 1 diabetes who are interested in insulin pump therapy should discuss their need and suitability with their diabetes team
- Gaining access to it should never be dependent on where the individual lives or on their ability to pay

- Specialist services and commissioners should promote understanding and awareness of pump therapy as a treatment for Type 1 diabetes and its merits, especially in areas which appear to be underperforming in terms of providing it
- Specialist services and commissioners across all UK nations should ensure that appropriately trained teams of healthcare professionals are available to initiate and supervise insulin pump therapy
- Commissioning bodies should ensure that there is adequate funding to support local pump centres which comprise a doctor who specializes in insulin pump therapy, a diabetes specialist nurse and a dietitian. This team should provide ongoing structured education programmes around all aspects of pump therapy.
- Units with less than 100 pump patients could benefit from a relationship with a larger local centre to allow development of expertise and delivery of a high quality service close to the patient
- All pump services must participate in the pump audit as well as the wider National Diabetes Audit
- People with Type 1 diabetes who use insulin pumps should continue to receive funding for and support around pump therapy if they move from paediatric to adult services, from one paediatric service to another or from one adult service to another. When an insulin pump user transfers to another diabetes team, there should be adequate funding and expertise within that team to allow them to continue to use their insulin pump.

Evidence and analysis

Across the UK, there is variation in the uptake of insulin pumps in people with Type 1 diabetes.

In adults:

- 15.3% use insulin pump therapy in England ⁽³⁾
- 5.8% in Wales⁽³⁾
- 7.1% in Scotland⁽⁴⁾
- Of the 8,500 adults and children in Northern Ireland with Type 1 diabetes, approximately 441 adults use a pump ⁽⁵⁾

In children:

- 22.9% use insulin pump therapy in England and Wales⁽⁶⁾
- 31.2% in Scotland⁽⁴⁾
- Of the 8,500 adults and children in Northern Ireland with Type 1 diabetes, approximately 266 children use a pump⁽⁵⁾

There is also variation in uptake across centres in the UK nations. For example, in England and Wales, the variation is between >50% to <5%⁽³⁾

Problems in accessing pump therapy include:

- Individuals being refused access to pump therapy
- Having to wait an excessive amount of time for it

- Uncertainty about funding for the pump if an individual moves from one diabetes service to another - a particular concern for young people transitioning to adult services
- Healthcare professionals having difficulty obtaining funding for all of their patients who fulfil national criteria and would benefit from pump therapy
- Diabetes teams are not being sufficiently resourced to provide the support and education needed to support pump therapy
- Budgets no longer allow staff to access the specialist training they need to support pump therapy
- Budget cuts in educational establishments have resulted in courses in insulin pump therapy no longer being available

References

1. NICE (2009) Continuous subcutaneous insulin infusion for the treatment of diabetes mellitus <https://www.nice.org.uk/guidance/TA15>
2. SIGN (2013) Management of diabetes. A national clinical guideline. <http://www.sign.ac.uk/pdf/sign116.pdf>
3. National Diabetes Insulin Pump Audit (2017) <http://www.hqip.org.uk/resources/national-diabetes-insulin-pump-audit-2015-2016/>
4. NHS Scotland (2015) Scottish Diabetes Survey <http://diabetesinscotland.org.uk/Publications/SDS2015.pdf>
5. Estimate from Diabetes UK Northern Ireland (personal communication)
6. Royal College of Paediatrics and Child Health (2015) National Paediatric Diabetes Audit 2013-14 Care processes and Outcomes <https://www.rcpch.ac.uk/resources/national-paediatric-diabetes-audit-national-reports-2010-2015>