Introduction

This policy review is part of a wider project to review and update more than 100 health policies by six Clinical Commissioning Groups in Merseyside. The review is to ensure that the latest clinical guidance is being applied consistently across the area and that the latest treatments are made available to patients.

Name of treatment or procedure

Continuous Subcutaneous Insulin Infusion (CSII) Therapy (Insulin Pump Therapy)

Description of treatment or procedure

For patients with type 1 diabetes or who have had a pancreatectomy (surgical removal of the pancreas), they need replacement insulin to regulate their blood sugar levels.

Continuous Subcutaneous Insulin Infusion therapy uses an external pump to continuously deliver insulin to the body from a refillable storage reservoir through a thin tube (cannula) placed under the skin (subcutaneously). The pump is programmed to continuously deliver a customised 'background' level of insulin, with higher levels triggered by the push of a button at meal times or to correct high blood sugar levels.

Current policy

Not applicable – this is a new policy for Merseyside CCGs.

Proposed policy

Continuous Subcutaneous Insulin Infusion therapy will be available for adults and children (aged 12 and above) who have type 1 diabetes or have had a pancreatectomy, provided that despite multiple daily injections of insulin:

- Haemoglobin A1c (HbA1c) levels regularly and drastically fall below target levels – known as 'disabling hypoglycaemia'. This is where episodes of low blood sugar levels are so severe that assistance is needed, and/or episodes are frequent but unpredictable which causes anxiety that impacts on the patients' quality of life; or
- HbA1c levels remain high (8.5% [69 mmol/mol] or above) – known as hyperglycaemia. This may include, if appropriate, the use of long-acting insulin analogues (artificially-produced insulin) such as Lantus®, Levemir® and Tresiba®.

Insulin pump therapy is recommended for children aged under 12, provided that:

- Multiple daily injection 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.

Insulin pump therapy is also recommended for a small number of patients with cystic fibrosis-related diabetes (CFRD), as identified by the specialist staff at Liverpool Heart and Chest Hospital. These would be

patients whose diabetes is not controlled despite carefully managed multiple daily injections and carbohydrate awareness, and/or at least two hypoglycaemic episodes per day, and/or a complete loss of hypoglycaemia awareness.

Pumps will only be provided from the agreed list in the policy (Roche Accu-Chek insight, Roche Accu-Chek Combo, Medtronic 640G, Cellnovo, Omnipod, DANA RS and YpsoPump). Any amendments to this list will need to be approved by the respective CCGs prior to any changes being made. Where one of these pumps is not suitable a request must be made via the individual patient commissioning route to use an alternative pump.

Reason for proposed policy

The policy has been aligned with NICE Guideline [NG] 17 'Type 1 diabetes in adults: diagnosis and management' 2015 (updated 2016) https://www.nice.org.uk/guidance/NG17

Insulin pump therapy is recommended by NICE TA151 as a treatment option for some patients with type 1 diabetes to improve control of blood sugar and reduce the rate of hypoglycaemia (low blood sugar levels).

Haemoglobin A1c (HbA1c) is an unreliable measure of glycaemia in patients with cystic fibrosis-related diabetes owing to their increased red cell destruction. Guidelines recommend that decisions are not based on HbA1c but are based on glycaemic variability, especially hypoglycaemia.

Summary

CCGs currently have no policy in place for Insulin Pumps despite a cohort of patients having previously been identified who would benefit from such devices. The introduction of a policy will allow CCGs to more effectively manage this patient group. The policy is largely based on NICE TA151 but also makes provision for patients who have had a pancreatectomy and a small cohort of patients with cystic fibrosis-related diabetes (CFRD).