4 Endocrinology

4.1 Continuous glucose monitoring (CGM) for adults with type 1 diabetes mellitus (T1DM)

Category	Not routinely funded

Background

Continuous glucose monitoring (CGM) systems provide real-time measurements of glucose levels 24 hours a day, displayed every few minutes. Users can set alarms to indicate when glucose levels are too high or too low. CGM systems use a tiny sensor inserted under the skin to check glucose levels. This information is sent wirelessly to a remote, portable monitor. CGM systems measure glucose in the interstitial fluid rather than the blood. There is a lag between the blood and interstitial glucose levels, particularly at times of rapid blood glucose change. Consequently, the user will still need to check blood samples with a conventional glucose meter to calibrate the CGM system (typically once or twice per day), before making a change in treatment, and (if a bus or lorry driver) to meet DVLA requirements.

CGM can be used as a stand-alone device by people who are on insulin pump therapy or who use multiple daily injections for insulin delivery. CGM can also be used as part of an integrated sensor-augmented pump therapy system, in which an insulin pump and CGM work together.

Policy

Real-time continuous glucose monitoring (CGM) is not routinely funded by Kent and Medway CCGs for people with type 1 diabetes mellitus (T1DM).

Policy exclusions:

This policy does not apply to the FreeStyle Libre flash glucose monitoring system.

Rationale

NICE guideline 17 (2015) on the management of T1DM in adults recommends that CGM is not routinely offered but could be considered when standard management of blood glucose levels has not worked or been difficult (specific criteria apply). It was concluded in NICE NG17 that though there is some evidence of clinical benefit for CGM, this is not compelling and CGM is not currently a cost-effective intervention, even in people who have impaired awareness of hypoglycaemia; more evidence is needed to establish the clinical and cost effectiveness of CGM technologies.

Continued overleaf

According to NICE diagnostics guidance 21 (2016) on integrated sensor-augmented pump therapy systems, the MiniMed Paradigm Veo system is recommended as an option for managing blood glucose levels in people with T1DM who meet specific criteria. The Vibe and G4 PLATINUM CGM system is not recommended. However, it was concluded in DG21 that the overall evidence base to support using these devices is weak; robust data needs to be generated to support the claimed benefits of these technologies and their reimbursement value.

The evidence base for CGM use does not appear compelling at the moment in the context of the resources currently available to Kent and Medway clinical commissioning groups (CCGs). The rapid pace of development of new technologies designed to help with monitoring blood glucose levels has been noted; this topic will therefore be reconsidered in the near future.