Hampshire and Isle of Wight Integrated Care Board Priorities Committee

Policy title	**Policy 7: Continuous Glucose Monitoring for Diabetes in Adults**
Policy position	**Criteria Based Access**
Date of issue	April 2023
Update	This policy will be updated in light of a substantial body of new evidence or new national guidance.

Diabetes is characterised by inadequate insulin production. In patients living with Type 1 diabetes (T1D) the pancreas is unable to make insulin. In patients living with Type 2 Diabetes the pancreas does not produce enough insulin and/or the body does not react appropriately to insulin. Patients living with Type 3c Diabetes (T3cD) develop symptoms later in life due to damage to the pancreas. This can be caused by conditions such as pancreatitis, pancreatic cancer, and cystic fibrosis.

Patients living with T1D are treated with insulin. Patients living with T2D are initially treated with lifestyle changes and oral antihyperglycaemic drugs but may progress to needing insulin treatment. Patients living with T3cD often progress to needing insulin treatment early.

Insulin treated patients with diabetes monitor their glucose levels to inform treatment decisions. Glucose monitoring can be via self-monitoring of blood glucose (SMBG) using lancets and testing strips, or using continuous glucose monitoring (CGM) devices.

CGM devices use a sensor inserted under the skin to measure the level of glucose found in the fluid between the cells (interstitial fluid). With intermittently scanned CGM (isCGM) devices patients get glucose readings when the sensor is scanned. With real time CGM (rtCGM) devices a transmitter is attached to the sensor which sends data to a display device (a separate hand-held monitor, a mobile phone or for some devices an insulin pump).

Historically rtCGM has been more costly than isCGM. However recent additions to the market have seen some rtCGM devices costing less than £1,000 per patient per year, making the cost comparable in cost to isCGM. These rtCGM devices are available to prescribe in general practice and are referred to as group 1 CGM devices.

Group 2 CGM devices are more expensive and are only available through specialist prescribing. These devices have additional functions, such as the ability predict when a patient's blood glucose is likely to drop below a specified level and alert the patient to this to prevent the event occurring and insulin pump compatibility, transmitting the glucose readings directly to the pump which may be appropriate for specific patient groups.

This policy is supported by a patient decision aid, detailing the CGM devices available within each group.

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General recommendations

- It is expected that patients will have either participated in an appropriate structured education programme (e.g. DAFNE or BGAT) either in person or on-line, or have been assessed as an individual with high self-efficacy in their diabetes self-management prior to commencement of CGM.
- It is expected that patients receive education in the use of the CGM device specific to their situation from the health care professional prescribing it.
- Shared decision making should be used to identify the patient's needs and preference to offer the most appropriate device that they fulfil the criteria for.
- If multiple devices meet the needs and preferences of a patient the device with the lowest cost should be offered.
- When initiating CGM, the patient should agree to ensure that the CGM data is made available for the healthcare profession to review at least twice per year. This includes an expectation that patients use the device at least 70% of the time and collect at least 70% of data.
- The criterion under which CGM is being initiated, and any continuation criteria (above the requirement to collect 70% of data) that is expected to be met at 6 monthly follow ups should be recorded. If the patient continues to achieve the agreed outcome, then continued prescribing is supported.
- The suitability of device should be assessed at each review, and consideration given to stepping down to less intensive forms of glucose monitoring if clinically appropriate.
- When a patient is stepped down to a less intensive form of glucose monitoring this information must be shared with the primary care team.

CGM in patients living with T1D

The use of group 1 CGM devices is supported for all patients living with T1D. The use of group 2 CGM devices is supported for patients living with T1D who meet one or more of the following criteria:

- Despite optimised use of insulin therapy and conventional glucose monitoring, have had more than 1 episode a year of severe hypoglycaemia (where they were unable to take oral treatments) with no obviously preventable precipitating cause.
    - Continuation criteria - a sustained reduction in severe hypoglycaemic episodes.
- Despite optimised use of insulin therapy and conventional glucose monitoring have frequent (more than 3 episodes a week) significant hypoglycaemia (< 3 mmol/L) that is causing problems with daily activities.
    - Continuation criteria - a sustained reduction in hypoglycaemic episodes.
- Have an impaired awareness of hypoglycaemia (≥4 on the GOLD or MMCHS).
- Administer insulin using an insulin pump and would benefit from the additional functionality of a compatible CGM device.

CGM in patients living with T2D

The use of group 1 CGM devices is supported for patients living with T2D who are on basal/bolus insulin therapy and at least one of the following criteria:

- Having had more than 1 episode a year of severe hypoglycaemia (where they were unable to take oral treatments) with no obviously preventable precipitating cause.
    - Continuation criteria - a sustained reduction in severe hypoglycaemic episodes
- Having an impaired awareness of hypoglycaemia (≥4 on the GOLD or MMCHS).
- Have a condition or disability (including a learning disability or cognitive impairment) that means they cannot self-monitor their blood glucose by capillary blood glucose monitoring.
- Would otherwise be advised to self-measure at least 8 times a day.

CGM in patients with other forms of diabetes

The use group 1 CGM devices is supported for patients who:

- Are living with type 3c diabetes and are on insulin treatment.
- Are living with any form of diabetes and are on haemodialysis and insulin treatment.

CGM in pregnant patients

The use of group 1 CGM devices is supported for:

- Pregnant patients living with T1D.
- Pregnant patients living with any form of diabetes on insulin treatment if:
    - They have problematic severe hypoglycaemia.
    - They have unstable blood glucose levels that are causing concern despite efforts to optimise glycaemic control.

If problematic severe hypoglycaemia and/or unstable glucose values persist despite using group 1 CGM devices appropriately, escalation to group 2 CGM devices may be considered.

Services should ensure that support is available from a member of the joint diabetes and antenatal care team with expertise in the use of CGM. Access to CGM should be managed by local maternity systems.

References

NICE Guideline 17 – Type 1 diabetes in adults: Diagnosis and management.
https://www.nice.org.uk/guidance/ng17
NICE Guideline 28 – Type 2 diabetes in adults: Management
https://www.nice.org.uk/guidance/ng28/
NICE Guideline 203 – Chronic kidney disease: Assessment and management
https://www.nice.org.uk/guidance/ng203/

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Version	Date	Reason for change
Version 1 SHIP Policy 7: Continuous Glucose Monitoring (CGM) for Adults with Type 1 Diabetes Mellitus	2016	New policy
Version 1 SHIP Policy 28 'Flash' Glucose Monitoring in Diabetes	2018	New policy
Version 2 Policy 7: Policy 7: Continuous Glucose Monitoring for Diabetes	Agreed September 2022 (Ratified by the Board – January 2023)	Update and amalgamation of Policy 7 and 28

Exceptional circumstances may be considered where there is evidence of significant health impairment and there is also evidence of the intervention improving health status

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