Dexcom ONE real time continuous glucose monitor
Doncaster & Bassetlaw position statement for use in adults

Recommendations

In line with the partial updates to NG17 and NG28 in March 2022 (Continuous Glucose Monitoring) and NG3 (Diabetes in Pregnancy) which was updated in December 2020 Dexcom ONE sensors have been added as amber to the Doncaster & Bassetlaw Place traffic light medicine list as a real time (rt) continuous glucose monitoring (CGM) device alongside Freestyle Libre 2 (FSL2), which is an intermittently scanned (is) CGM device. (See local guidelines for Freestyle Libre 2).

Prescribing should be in line with all three NICE guidelines as per below:

Type 1 Diabetes in adults: diagnosis and management (NG17)

- Offer adults with type 1 diabetes a choice of real-time continuous glucose monitoring (rtCGM) or intermittently scanned continuous glucose monitoring (isCGM, commonly referred to as 'flash'), based on their individual preferences, needs, characteristics, and the functionality of the devices available.
- When choosing a continuous glucose monitoring (CGM) device:
    - use shared decision making to identify the person's needs and preferences, and offer them an appropriate device
    - if multiple devices meet their needs and preferences, offer the device with the lowest cost.

Type 2 diabetes in adults: management (NG28)

- Offer intermittently scanned continuous glucose monitoring (isCGM, commonly referred to as 'flash'), to adults with type 2 diabetes on multiple daily insulin injections if any of the following apply:
    - they have recurrent hypoglycaemia or severe hypoglycaemia
    - they have impaired hypoglycaemia awareness
    - they 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 but could use an isCGM device (or have it scanned for them)
    - they would otherwise be advised to self-measure at least 8 times a day
- Offer isCGM to adults with insulin-treated type 2 diabetes who would otherwise need help from a care worker or healthcare professional to monitor their blood glucose.
- Consider real-time continuous glucose monitoring (rtCGM) as an alternative to isCGM for adults with insulin-treated type 2 diabetes if it is available for the same or lower cost (Note; Dexcom ONE is currently the same price as FSL 2).
- CGM should be provided by a team with expertise in its use, as part of supporting people to self-manage their diabetes.

- Advise adults with type 2 diabetes who are using CGM that they will still need to take capillary blood glucose measurements (although they can do this less often).
- Explain that is because:
    - they will need to use capillary blood glucose measurements to check the accuracy of their CGM device
    - they will need capillary blood glucose monitoring as a back-up (for example when their blood glucose levels are changing quickly or if the device stops working).
    - Provide them with enough test strips to take capillary blood glucose measurements as needed (Note: consider reducing frequency of test strips and lancets for existing patients when CGM is started)

Note: In certain circumstances the DVLA requires the driver to take capillary blood glucose measurements

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/834451/inf294-a-guide-to-insulin-treated-diabetes-and-driving.pdf

- If a person is offered rtCGM or isCGM but cannot or does not want to use any of these devices, offer capillary blood glucose monitoring.
- Ensure CGM is part of the education provided to adults with type 2 diabetes who are using it
- Monitor and review the person's use of CGM as part of reviewing their diabetes care plan

Diabetes in pregnancy: management from preconception to the postnatal period (NG3)

For those with pre-existing diabetes (type 1 & type 2) on insulin who are actively trying to conceive or are currently pregnant:

- Offer advanced real-time continuous glucose monitoring (rtCGM) to all pregnant women with type 1 diabetes to help them meet their pregnancy blood glucose targets and improve neonatal outcomes. (Note: Dexcom G6 / G7 is organised through DBTH).
- Offer intermittently scanned continuous glucose monitoring (isCGM, commonly referred to as 'flash') to pregnant women with type 1 diabetes who are unable to use rtCGM or express a clear preference for isCGM.
- Consider advanced rtCGM for pregnant women who are on insulin therapy but do not have type 1 diabetes, if:
    - they have problematic severe hypoglycaemia (with or without impaired awareness of hypoglycaemia) or
    - they have unstable blood glucose levels that are causing concern despite efforts to optimise glycaemic control.

- Total duration of advanced real-time continuous glucose monitoring under these criteria will be for 12 months in total: inclusive of pre-conceptual period, pregnancy, and the immediate post-partum period. Thereafter, patients will be expected to return to their previous method of blood glucose testing unless there is a further clinical need identified by NICE guidance.

- For pregnant women who are using continuous glucose monitoring (CGM), a member of the joint diabetes and antenatal care team with expertise in these systems should provide education and support (including advising women about sources of out-of-hours support).

Secondary Care Responsibilities:

- Assessment and Initiation: This will include:
  - Discussion with the patient to agree the most suitable device (see below)
  - initial prescribing of three sensors which will last for 30 days
  - provision of the first transmitter (and receiver if the patient does not have access to a smart phone able to download the app) and
  - education/counselling on how to use the device
- The patient will be reviewed by secondary care at 3 and 6 months, and as per normal clinical practice. If treatment targets are met discharge at 6 months back to primary care. If treatment targets are not met, then to review again at -12-months to improve clinical progress.

Primary Care Responsibilities:

- Prescribe further sensors after thirty days
- Clinicians will be asked to supply no more than nine sensors (3-month supply) at a time until the next review at secondary care
- Prescribe the transmitter every 90 days, patient will receive a transmitter on initiation (see under secondary care responsibilities)
- The following should be monitored and reviewed at their usual annual practice diabetic review
  - Incidence of hypoglycaemic and Diabetic Ketoacidosis (DKA) episodes
  - 9 care processes
  - HbA1c and hypoglycaemia levels - if their personalised target has not been met stop Dexcom ONE, revert to capillary blood glucose monitoring and inform secondary care

Criteria for stopping:

- Patients with a baseline **HbA1c <70mmol/mol** - if a 5mmol/mol drop by 3 months is **not** achieved **or** a significant reduction in time spent in hypoglycaemia is not achieved. If a reduction is not maintained at 6 months.

- Patients with a baseline **HbA1c ≥70mmol/mol** - if a 10mmol/mol drop by 3 months is **not** achieved, or a significant reduction in time spent in hypoglycaemia is not achieved. If a reduction is not maintained at 6 months.
- Not up to date with the 9 care processes
- No improvement in DKA episodes

Factors to consider when choosing a continuous glucose monitoring device (NICE NG17)

- Accuracy of the device
- Whether the device provides predictive alerts or alarms and if these need to be shared with anyone else (for example, a carer)
- Whether using the device requires access to technologies (such as a smartphone and up-to-date phone software)
- How easy the device is to use and take readings from, including for people with limited dexterity
- Fear, frequency, awareness, and severity of hypoglycaemia
- Psychosocial factors
- The person's insulin regimen or type of insulin pump, if relevant (taking into account whether a particular device integrates with their pump as part of a hybrid closed loop or insulin suspend function)
- Whether, how often, and how the device needs to be calibrated, and how easy it is for the person to do this themselves
- How data can be collected, compatibility of the device with other technology, and whether data can be shared with the person's healthcare provider to help inform treatment
- Whether the device will affect the person's ability to do their job
- How unpredictable the person's activity and blood glucose levels are and whether erratic blood glucose is affecting their quality of life
- Whether the person has situations when symptoms of hypoglycaemia cannot be communicated or can be confused (for example, during exercise)
- Clinical factors that may make devices easier or harder to use
- Frequency of sensor replacement
- Sensitivities to the device, for example local skin reactions
- Body image concerns

Switching from isCGM to rtCGM (FL2 to Dexcom One) and vice versa

Refer to secondary care for consideration of appropriateness of switching between CGM devices

Referral:

If primary care identifies a patient who is eligible for Dexcom ONE (See recommendations above) refer as follows:

Indication	Doncaster	Bassetlaw
Type 1 Diabetes	Refer to DBTHFT	Refer to Bassetlaw Diabetes centre
Type 2 Diabetes	Refer to RDAsH diabetes specialist nurses (DSNs)	
Gestational Diabetes	Refer to DBTHFT	

Device Information

See next page

Further Resources:

The Yorkshire and Humber Technology Group are also producing guidelines as to when you might recommend a rtCGM or an isCGM. This guideline is expected to be ratified at Doncaster and Bassetlaw Formulary Liaison Group and Area Prescribing Committee once finalised and then shared as a resource. The recommendations will be in line with NICE NG17 (factors to consider when choosing a CGM).
The Position statement for FSL 2 is also currently being updated:
https://medicinesmanagement.doncasterccg.nhs.uk/wp-content/uploads/2021/05/FSL-v5.0.doc.pdf

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Date: 27th September 2022

Device Information

Dexcom ONE Sensor	• Measures glucose levels just under the skin • Can be used for up to 10 days • Is water-resistant (e.g., shower, swimming) • Can be worn on the arm or the abdomen	
Dexcom ONE transmitter	• Sends glucose readings every 5 minutes to a compatible smartphone • Patients will be supplied a transmitter at the point of initiation. Dexcom pharmaceutical company will provide supplies to the clinician who is initiating the device. This is free to the NHS; therefore, no prescription is required. Primary to continue prescribing the transmitter • Lasts 90 days – will be re-used across multiple sensors.	
Dexcom ONE App on a compatible smart phone	• Provides glucose readings and High/Low alerts • Available for free on Apple or Android app stores • Compatible smartphone required • Dexcom ONE can also be used with an optional receiver if the patient does not have the compatible smart phone (secondary care will hold the supply) https://www.dexcom.com/en-GB/dexcom-one-cgm-system