Continuous Glucose Monitoring (CGM) Inpatient Device Guideline

Initiative Type

Clinical Guideline

Service Improvement

Status

Plan

Added

08 February 2023

Last updated

11 January 2024

URL

https://cnxp3cuvtvrn68yjaibaht5ywrxspj7m.clinicalexcellence.qld.gov.au/improvement-exchange/continuous-glucose-monitoring-cgm-inpatient-device-guideline

Summary

The development of Continuous Glucose Monitoring (CGM) has allowed people with diabetes far more freedom and improved capacity for optimal glycaemic control than they have had in the past. The benefits of this technology however are not optimally utilised upon patient admission to hospital. Recent studies evaluating the use of CGM in the hospital have shown that it is useful for the detection of hypoglycaemia, decreasing the percentage of time with hyperglycaemia and lowering mean daily glucose (1)(2). Recent research recommend use of CGM in conjunction with capillary blood glucose (BG) check in suitable facilities. With this increased access to CGM there has been an identified need to provide guidelines for their use in the inpatient setting. The Inpatient Continuous Glucose Monitoring Project was initiated and working group membership established with the purpose to develop a state-wide clinical guideline.

Key dates

Dec 2022

Jun 2023

Implementation sites

All Hospital and Health Services

Partnerships

All Hospital and Health Services

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Aim

The aim of the CGM project is to develop an operational guideline for the management of inpatients - both adults and children - with diabetes mellitus admitted to non-critical settings using continuous glucose monitors.It will act as a framework for staff and patients who are currently using CGM in hospital.

Benefits

- identification of patients using CGM
- process to confirm suitability to continue CGM use in hospital
- clear patient or caregiver responsibilities for managing a CGM in hospital
- clear clinical responsibilities for staff supervising a person using CGM
- documentation of current / historical CGM data
- workflow for confirmatory BG checks when required
- workflow when CGM not suitable

Background

Continuous glucose monitoring is wearable technology that makes it easier to track your blood sugar levels over time. No current local CGM protocols or guidance currently exist for clinical staff or patients in Queensland. Patients are self-monitoring CGM and self-administering extra insulin. In some instances clinical staff would not not even be aware that the patient has a CGM. Currently, different practices exist across each clinical encounter depending on patient, clinical staff and hospital. Continuous Glucose Monitors (CGM) are a valuable technology used by people living with diabetes to intensively monitor their blood glucose levels. These devices are now readily available and subsidised for all people with Type 1 Diabetes through the National Diabetes Services Scheme under the CGM Initiative. Initially the CGM Initiative was available since 1st April 2017 to children and adults under 21 years of age and was regularly expanded and now includes all adults and children regardless of age with Type 1 Diabetes since 1st July 2022.

Evaluation and Results

Surveys of relevant patients and staff are planned to assess the understanding of evidence-based care for patients with CGM, pre- and post guideline introduction.

References

1. Galindo, R.J., et al., Comparison of the FreeStyle Libre Pro Flash Continuous Glucose Monitoring (CGM) System and Point-of-Care Capillary Glucose Testing (POC) in Hospitalized Patients With Type 2 Diabetes (T2D) Treated With Basal-Bolus Insulin Regimen. Diabetes Care, 2020.
2. Fortmann, A.L., et al., Glucose as the Fifth Vital Sign: A Randomized controlled Trial of Continuous Glucose Monitoring in a Non-ICU Hospital Setting. Diabetes Care, 2020

PDF saved 19/05/2024