

Optimising Blood Glucose Monitoring in Older Inpatients with Diabetes

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BACKGROUND: 16% of adults over 75 years old have a diabetes diagnosis¹ and 1 in 6 hospital beds in the UK are occupied by a patient with diabetes². Capillary Blood Glucose (CBG) monitoring is an integral part of their inpatient care and, in 2023, the Joint British Diabetes Societies (JBDS-IP) published guidance on managing Diabetes in Frail inpatients³ (see QR code for full guidance).

AIMS: Improve implementation of guidelines to reduce unnecessary CBG testing with predicted benefits to staff (less time CBG testing), patients (less painful intervention) and hospital trust (reduced expenditure and use of non-recyclable components).

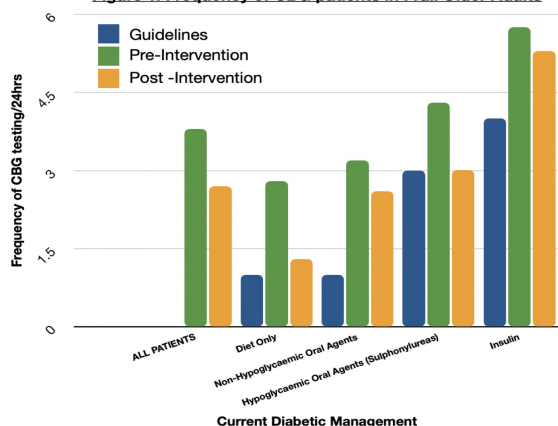
METHODS

1. Retrospective audit to establish CBG monitoring frequency in older inpatients with diabetes.
2. Education of medical and nursing staff via teaching sessions, lanyard prompt cards and posters.
3. Engagement with digital health team to establish use of online ordering of CBG testing by medical team.

RESULTS

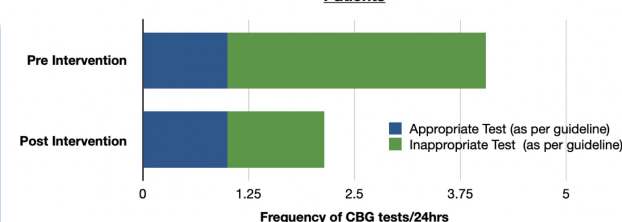
- At baseline 70% of CBG tests performed were inappropriate when compared to guidance.
- Post intervention, reduction in CBG test frequency for all patients with diabetes of 27% (*Figure 1*)
- 70% (n=33) of intervention patients had diet-controlled diabetes. They saw the biggest reduction in inappropriate CBG testing of 51.9% (*Figure 2*)
- Potential saving of 7.5 minutes of healthcare worker time and estimated £0.75 in consumables per patient per inpatient day.

Figure 1: Frequency of CBG patients in Frail Older Adults



Diabetes Management	Reduction in CBG testing %
ALL PATIENTS	27.2
Diet Only	51.9
Non-Hypoglycaemic Oral Agents	20.9
Hypoglycaemic Oral Agents (Sulphonylureas)	29.5
Insulin	6.9

Figure 2: CBG testing in Diet Controlled Frail Diabetic Patients



CONCLUSION

Through education and use of electronic systems we can reduce CBG testing based on national guidelines. Reducing CBG testing reduces use of healthcare assistant time, use of costly non-recyclable materials and overall reduces unnecessary patient intervention.

REFERENCES

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