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Standardised post-steroid glycaemic monitoring on R-CHOP regimen improves long-term risk prevention in a tertiary care centre

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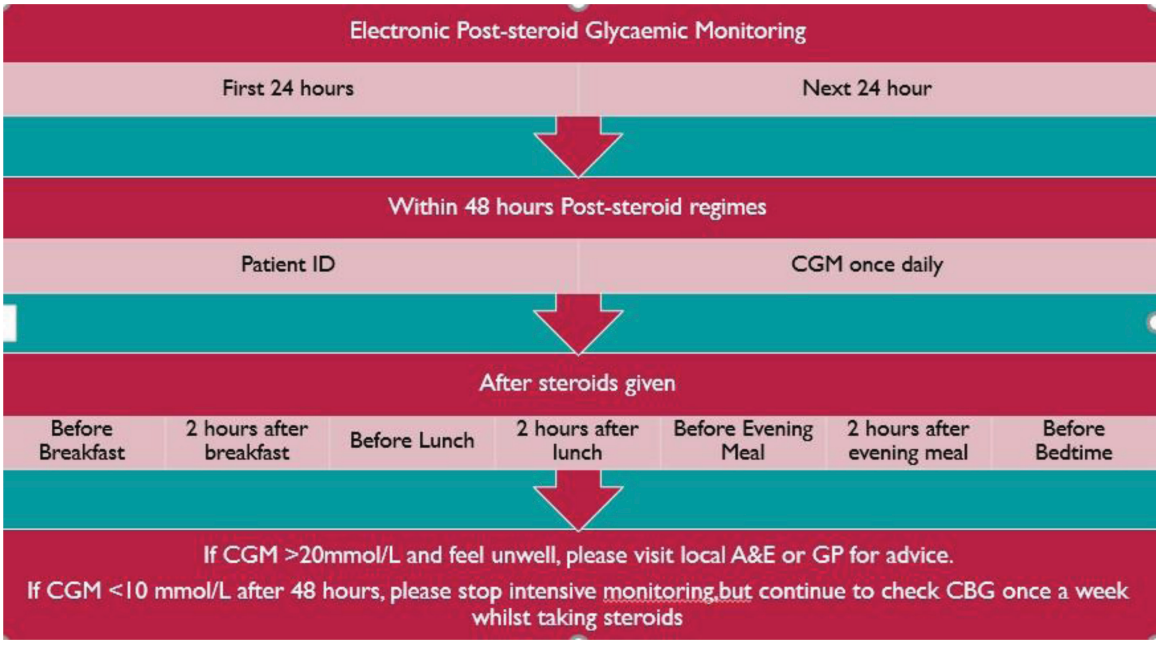

Fig 1. Post-steroid glycaemic monitoring.

Introduction

High-dose glucocorticoids such as prednisolone are generally part of initial chemotherapy (R-CHOP regime) for patients with non-Hodgkin lymphoma.[1] Moreover, limited retrospective studies have shown a nearly 30% incidence in the rate of steroid-induced hyperglycaemia following R-CHOP therapy.[2] Therefore, our primary aim was to conduct a standardised audit to investigate poor compliance with post-steroid glucose monitoring, which is indicated by WHO guidelines. Further objectives were to understand the reasons for poor compliance and to formulate local guidelines to standardise the glycaemic screening pathway for this patient population.

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Materials and methods

A total of 30 patients were assessed from the haematology unit from 1 August to 1 September 2021. Of these, 20 received high-dose prednisolone (study population for the audit). Compliance was counted from the day patients received steroids to 48 hours post-therapy and was assessed within four domains (in terms of receiving a glucometer, proper education for instructions, proper monitoring at home, and recording results on monitoring charts delivered; Fig 1).[3] An acceptable audit standard was devised as 100% of patients receiving high-dose steroids with full compliance in glycaemic monitoring 48 hours post-regime.

Results and discussion

It was found that only 12 out of 20 patients (60%) achieved the quality standard of full compliance (Fig 2). In eight (40%) of

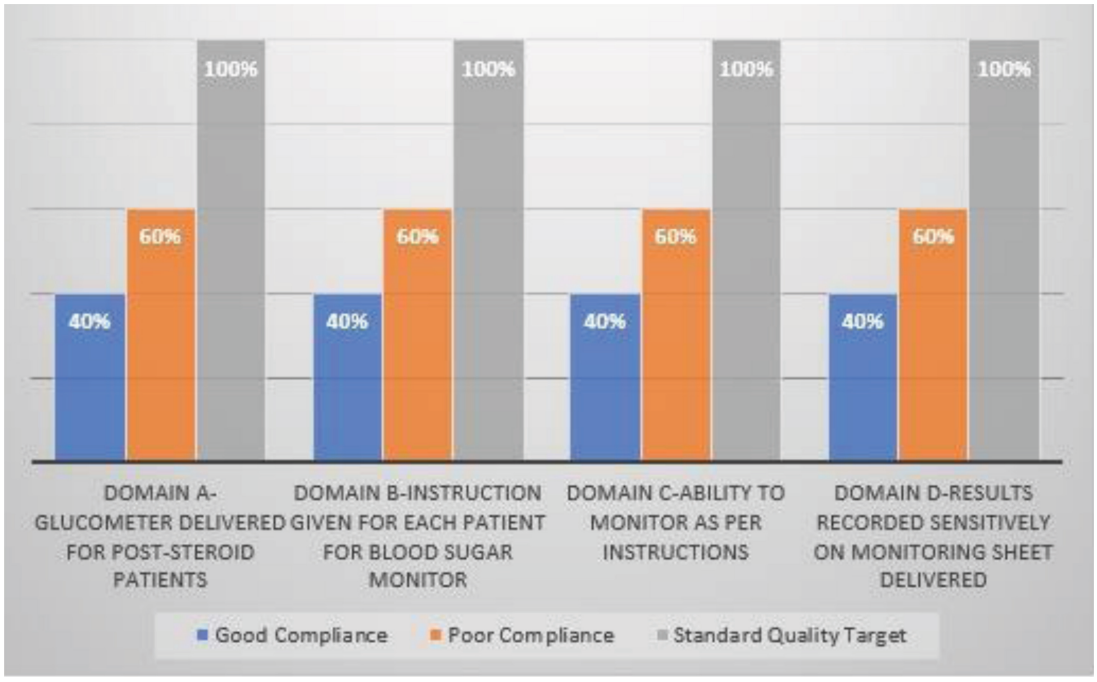

Fig 2. Overall data analysis (first cycle).

the 20 patients who did not meet the audit standard, the main reasons were poor nursing and patient education and lack of early awareness of outcomes related to poor glycaemic control following high-dose steroid treatment. A standardised glycaemic guideline was hence devised to improve the quality of blood sugar screenings.[3]

This involved designating the on-call nurse in charge to flag up the poor compliance of steroid-induced hyperglycaemia screening. An electronic screening system was also devised with alerts to the haematology specialist nurses and the day unit treatment team. A re-audit following the implementation of recommendations was done between 15 September and 1 October 2021, during which it was found that out of 20 patients receiving high-dose steroids 18 (94%) met the audit standard of glycaemic screening (Fig 3).

A multiprofessional team discussion of steroid-induced hyperglycaemic screening will be discussed in the monthly local meeting as a quality control measure.

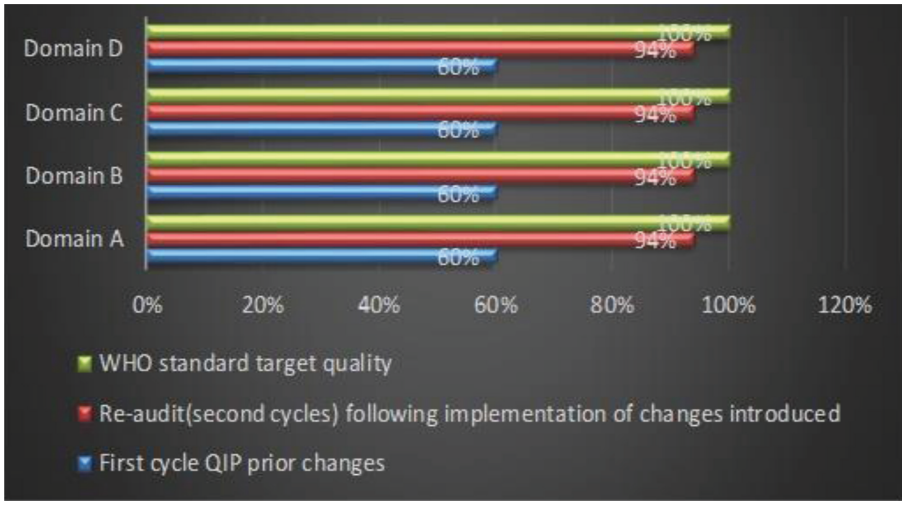

Fig 3. Targeted guideline compliance.

Conclusion

The incorporation of audit recommendations in local guidelines has led to significant improvement in patient quality of care and potential reduction in risk of serious outcomes due to poor glycaemic control. ■

References

1 Lamar ZS. The role of glucocorticoids in the treatment of non-Hodgkin lymphoma. *Ann Hematol Oncol* 2016;3:1103.

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3 James J, Robert A, Dhatanya K. Management of hyperglycaemia and steroid (glucocorticoid) therapy. Joint British Diabetes Societies (JBDS-IP) CC BY-NC 4.0 (Revised May 2021) https://abcd.care/joint-british-diabetes-societies-jbds-inpatient-care-group