

INTRODUCTION

Aims of Research:

This study was carried out to investigate if visual prompts and staff education could positively influence clinical practice surrounding glucose monitoring in acute paediatric cases seen in hospital.

Background:

- Blood glucose is an important investigation in several presentations and luckily, monitoring this is simple, inexpensive, and generally accessible. There are several cases where glucose samples should be taken in order to assure adequate assessment and to allow for appropriate treatment.
- There can be increase in patient anxiety towards investigations in the paediatric setting, and exposing patients to unnecessary testing could cause negative healthcare experiences. Therefore, it is necessary to ensure that testing only happens when it is clinically indicated to do so.
- The need for testing should not be overshadowed by the desire to reduce patient anxieties. Therefore, staff education and visual aids can be used to increase the number of appropriate tests carried out in clinic.
- Visual prompts: inexpensive tools that have been shown to improve clinical practice [1]
- Staff education is vital, as medical staffing change-overs occur every 3-6 months.

METHODS

Indications for blood glucose monitoring were adapted from NICE criteria (NG51) and by consultant-led panel discussion [2].

These can be seen in the ABCDEFG poster (Figure 1).

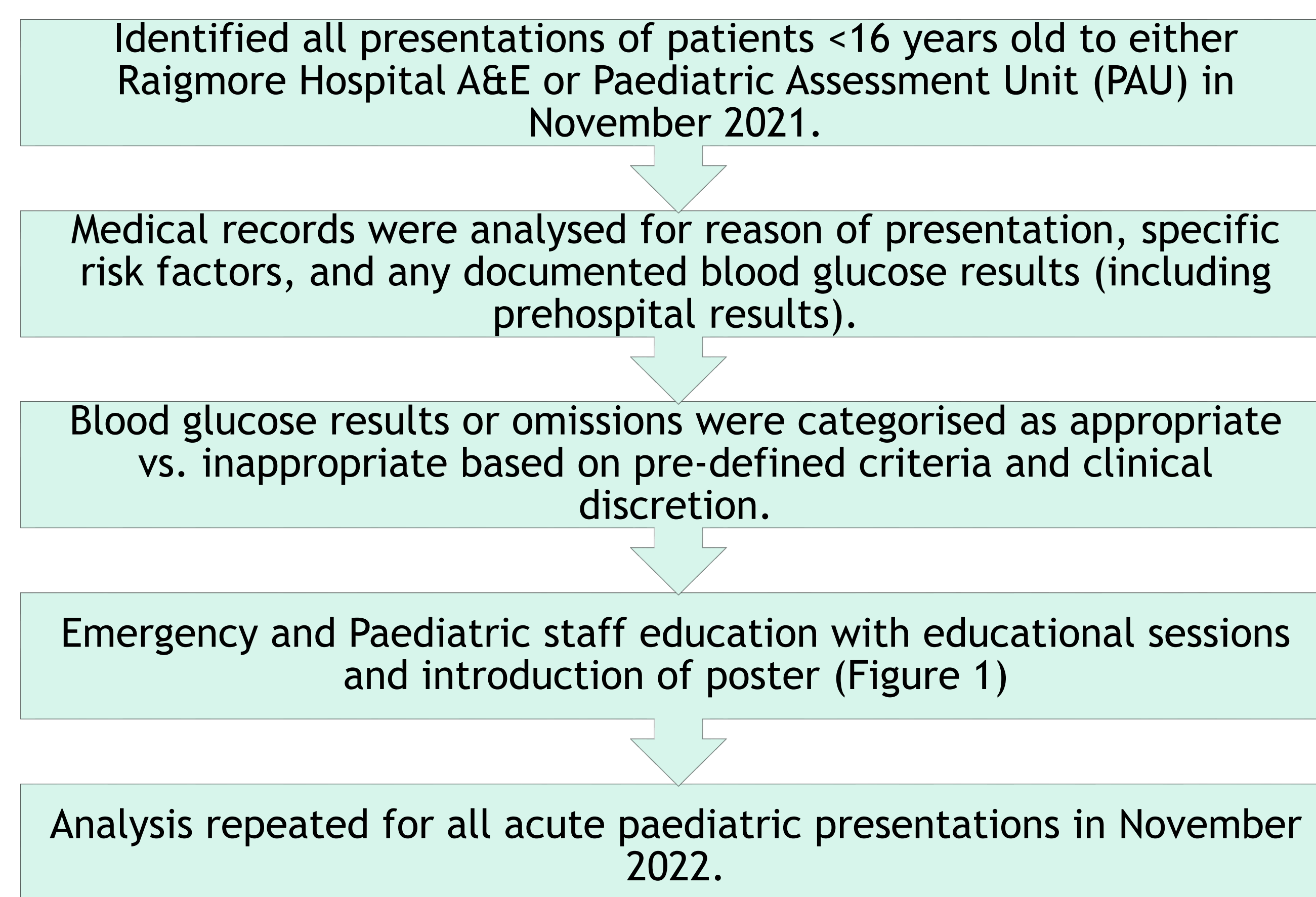


Figure 2: Methodology

CONCLUSION

- Significant progress in identifying high-risk groups for abnormal blood glucose levels in acute paediatric presentations.
- The significant reduction in missed blood glucose checks reflects the positive impact of staff education and visual prompts.
- The simultaneous rise in inappropriate blood glucose checks indicates a tendency to exercise greater caution. However, some of these cases were deemed appropriate based on clinical judgement. It is important to note that clinical judgement is always vital alongside the use of any guideline.
- This project has provided further opportunities for implementing staff education and visual aids to improve clinical practice.

Blood Glucose Suitability - Pre-intervention (November 2021)

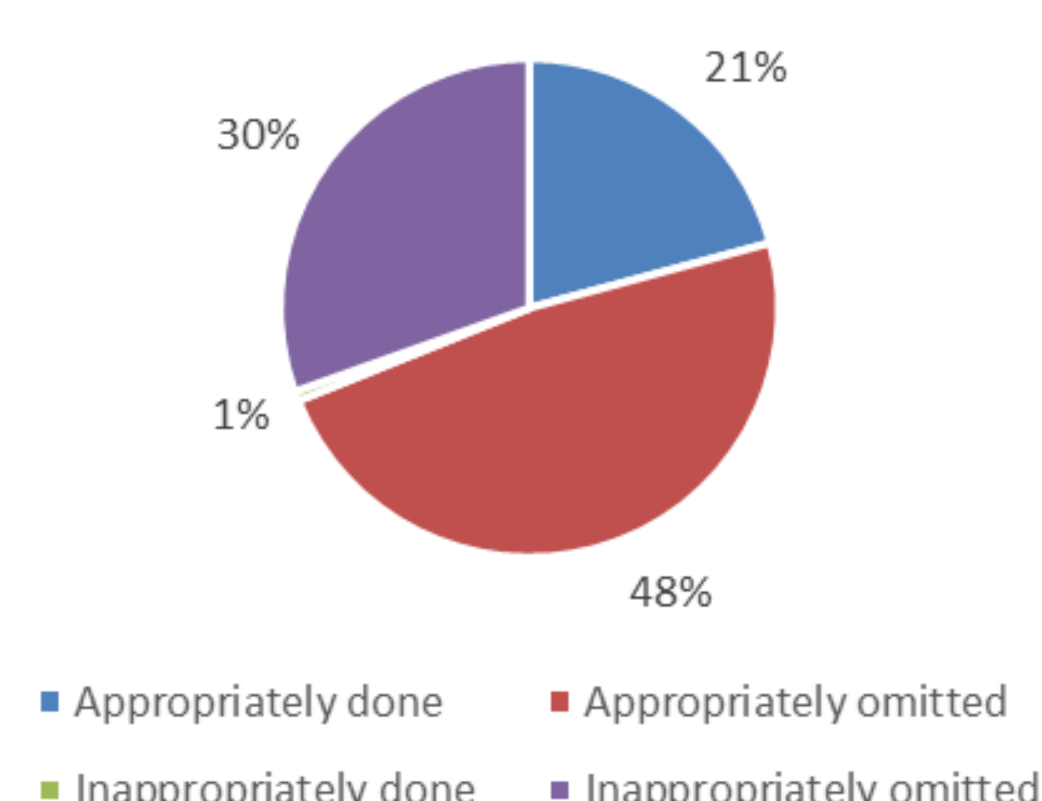


Figure 3: Pre-Intervention BM Check Appropriateness

Blood Glucose Suitability - Post-intervention (November 2022)

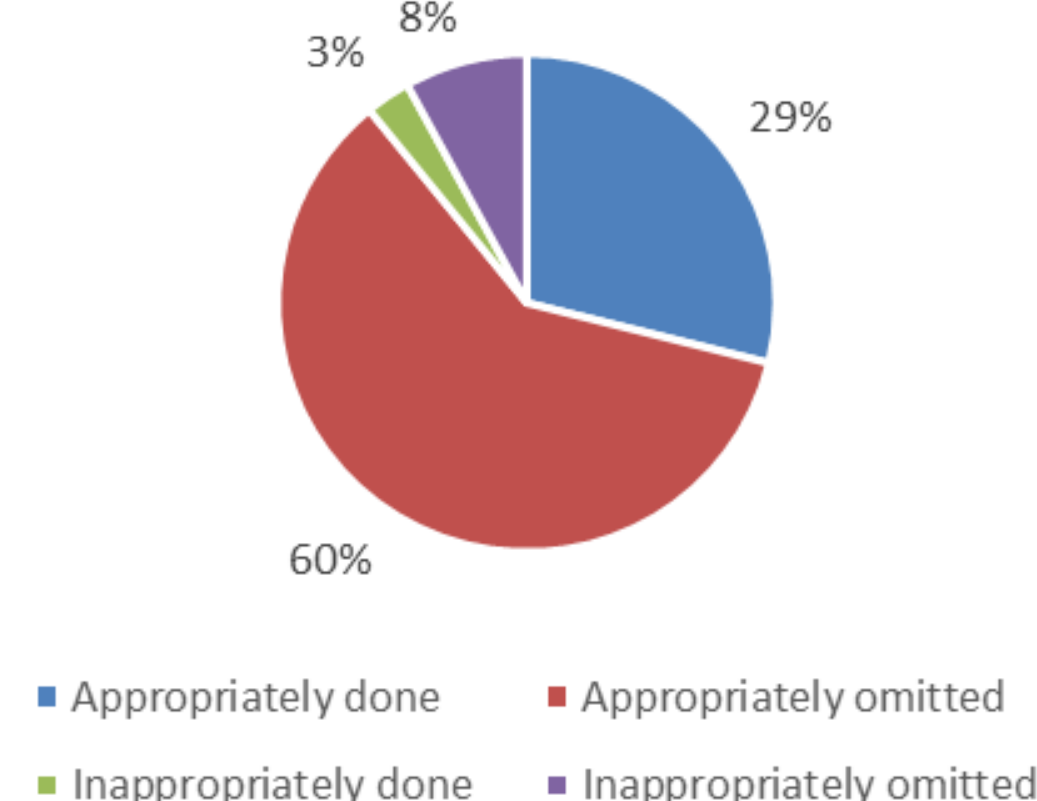


Figure 4: Post-Intervention BM Check Appropriateness

Conditions Where BM Inappropriately Omitted

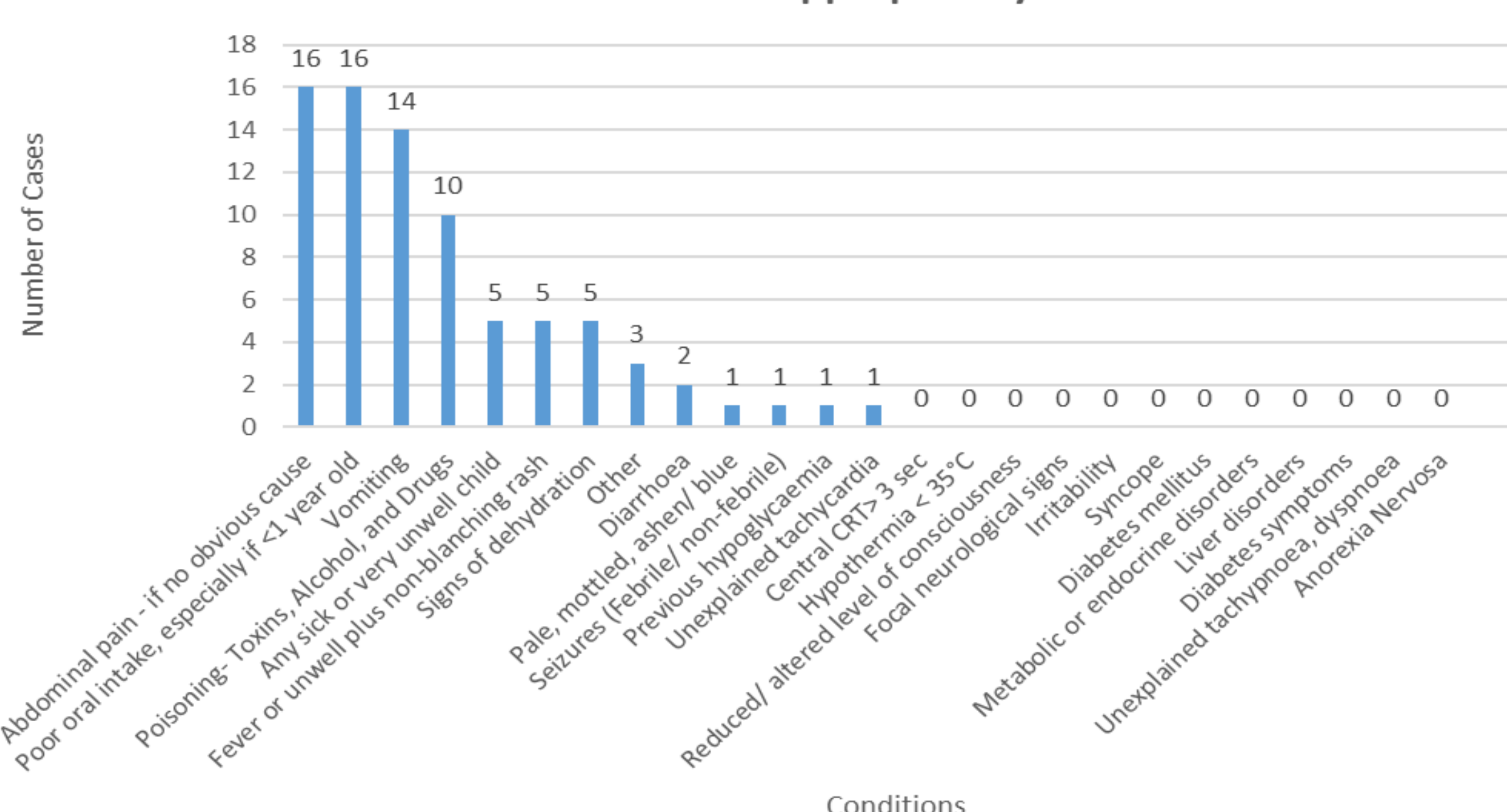


Figure 5: Conditions where BM was Inappropriately Omitted

Inappropriately Omitted BMs Based on Clinical Judgement

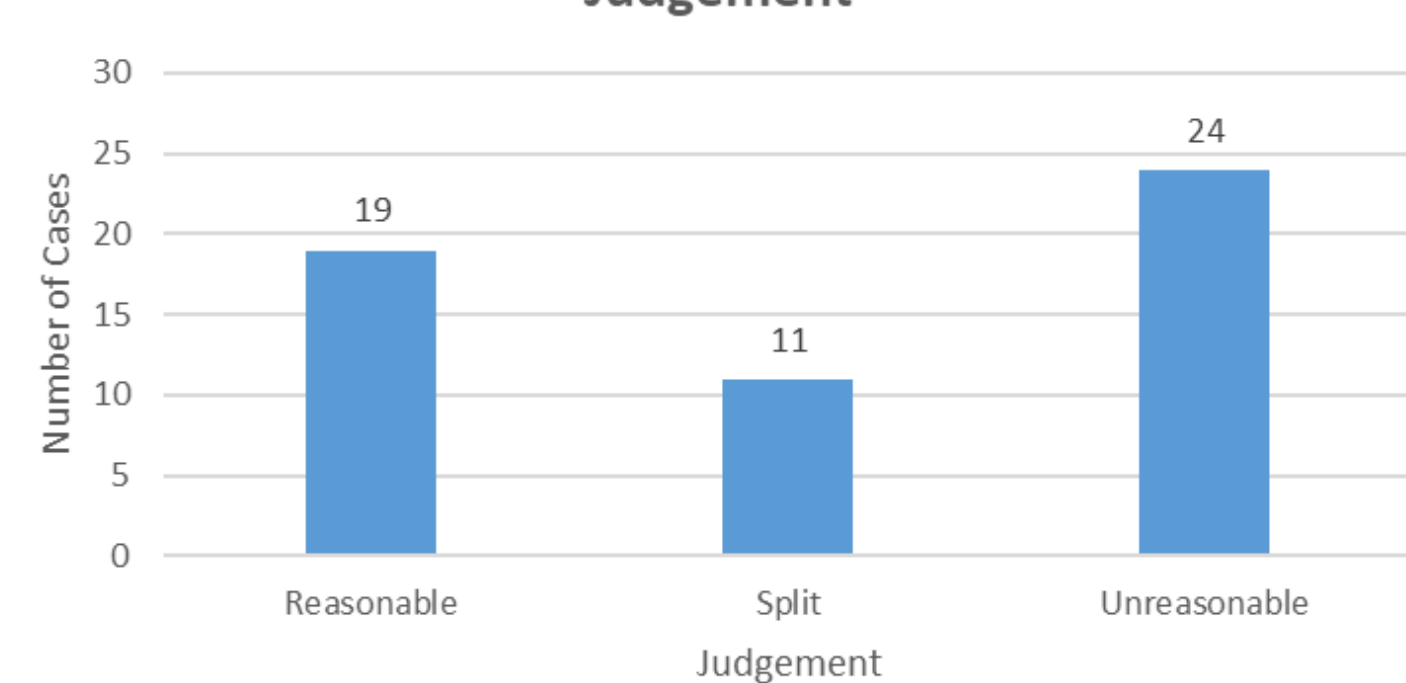


Figure 6: Clinical Judgement and Inappropriate BM Omission

Inappropriately Done BMs Based on Clinical Judgement

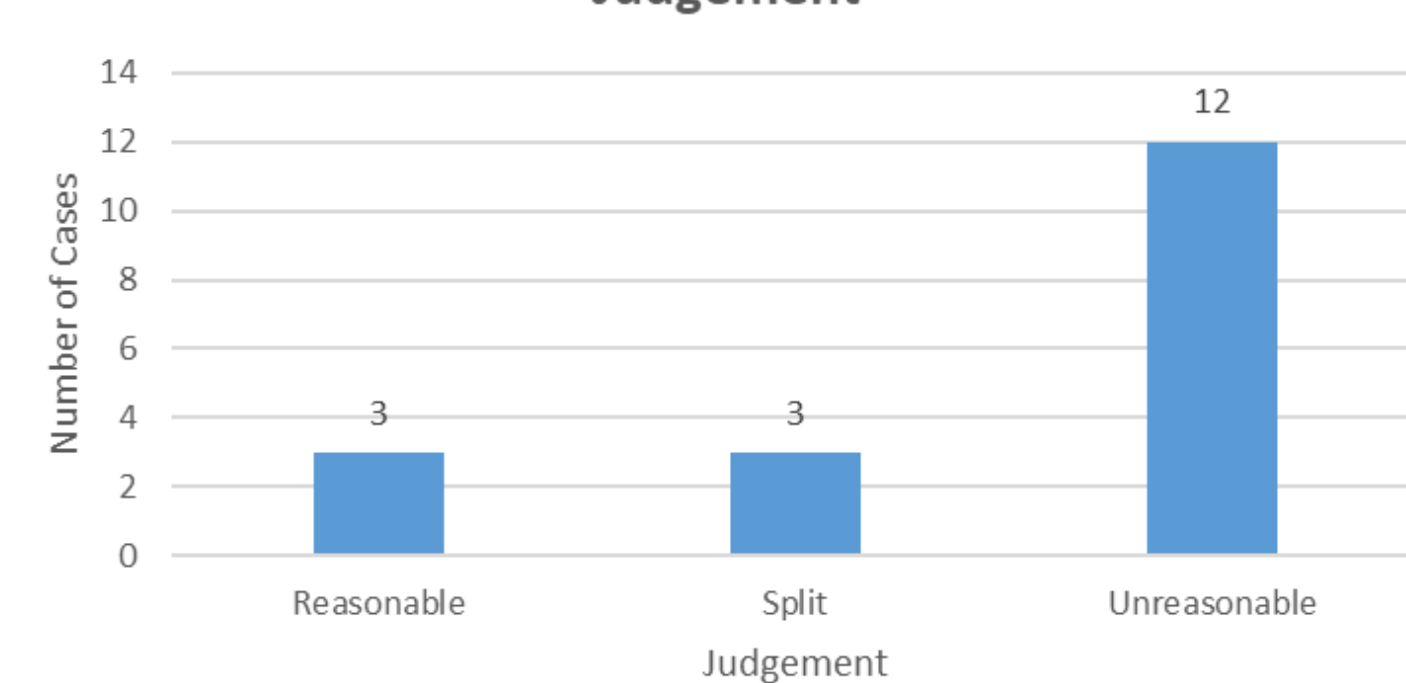


Figure 7: Clinical Judgement and Inappropriate Check of BM

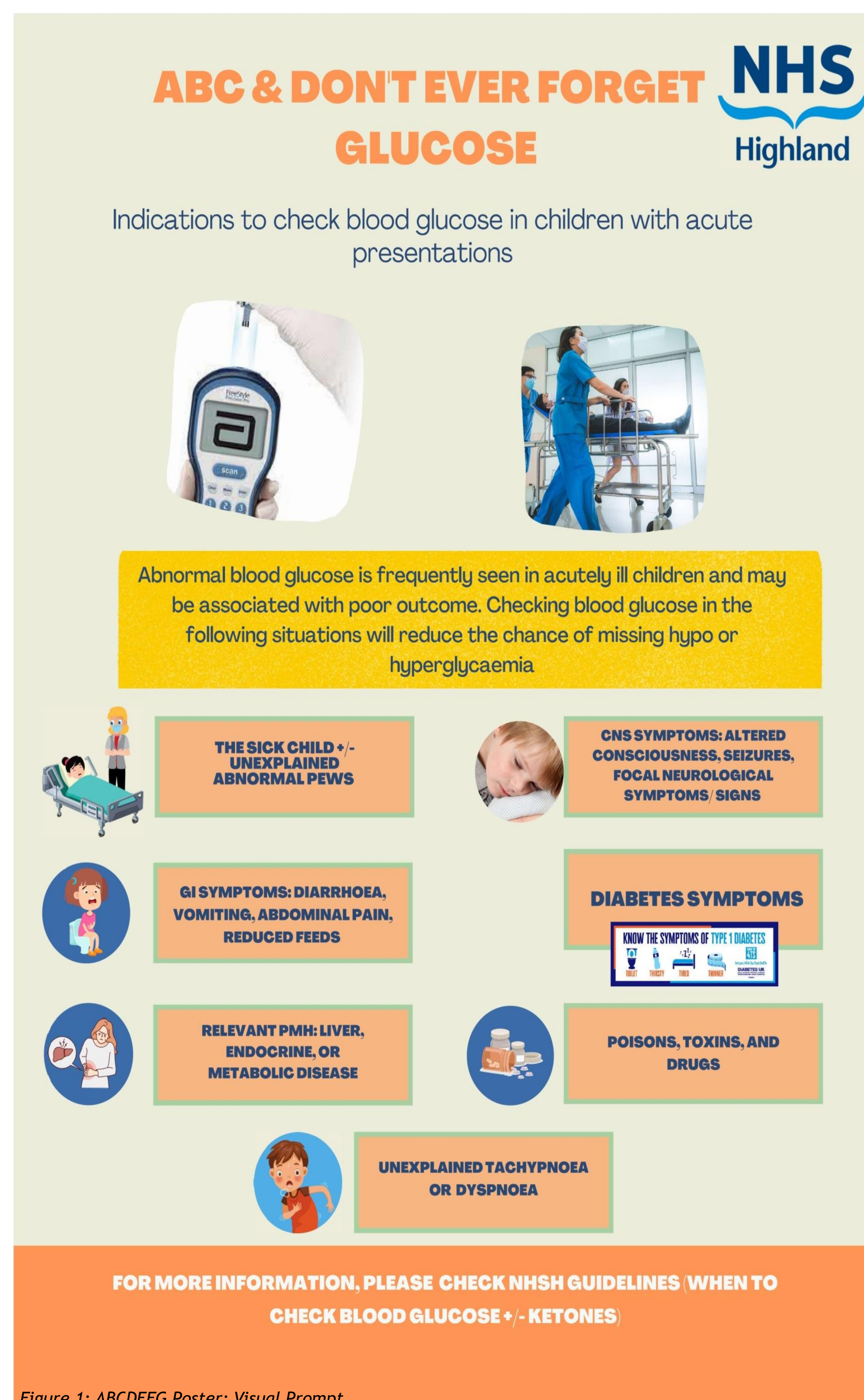


Figure 1: ABCDEFG Poster; Visual Prompt

References:

- Using Visual Prompts to Aid Analgesia Prescribing. Ryland, K. Accessed 20/09/23. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4752706/>
- NICE, 2017. Sepsis: recognition, diagnosis and early management. Accessed 16/09/23, <https://www.nice.org.uk/guidance/ng51/resources>.