



Thromboelastography (TEG 6s) use and interpretation on labour ward: a survey of current knowledge amongst junior anaesthetists

Kanmani Tumkur Lakshmikantha, Elizabeth Horncastle

Background

- Haemorrhage remains an important cause of direct maternal mortality in the UK¹
- Various causes may lead to major obstetric haemorrhage (MOH), many leading to a derangement in clotting function
- Point of care (POC) testing can provide a rapid haemostatic assessment and turnaround of results, and ultimately more timely administration of blood products if required
- TEG 6s is a simple, fully automated point of care thromboelastography testing system². It helps to reliably monitor haemostatic balance, direct appropriate therapy and measure response to therapy
- After identifying a gap in knowledge regarding awareness of thromboelastography use and interpretation, we designed a survey regarding TEG6, the POC test available on our unit

Aim

The survey of current knowledge amongst junior anaesthetists was aimed to:

- Evaluate the level of awareness and familiarity with TEG 6s and its clinical applications
- Identify any knowledge gaps and barriers to the use of TEG 6s in clinical practice
- Assess the effectiveness of educational initiatives
- Understand the perceived usefulness of TEG 6s in clinical practice and its potential impact on patient care

The results helped in the development of targeted educational interventions and guidance aimed at improving the understanding and utilization of TEG, ultimately leading to improved patient care and outcomes

Methodology

- An electronic survey was sent to all non-consultant grade anaesthetists involved in provision of anaesthetic care on labour ward.
- The survey explored:
 - frequency of TEG6s use
 - perceived ease of use
 - problems encountered
 - knowledge of indications for TEG assay
 - assessment of knowledge of appropriate product administration in example scenarios (TEG values provided)
 - anaesthetist's views regarding specific TEG guidance and further teaching

Discussion

- Pregnancy is a hypercoagulable state, with a majority of patients requiring thromboprophylaxis. There is also an ever-present risk of maternal haemorrhage^{3,4,5}
- These are two sides of the same coin, which places great importance on the assessment of coagulation status and blood product replacement during the puerperium period
- Educating anaesthetist on using TEG 6s, clinical scenarios where it can be used and the interpretation of results to guide the use of blood products is of utmost importance
- This will guide clinical decisions in emergent situations

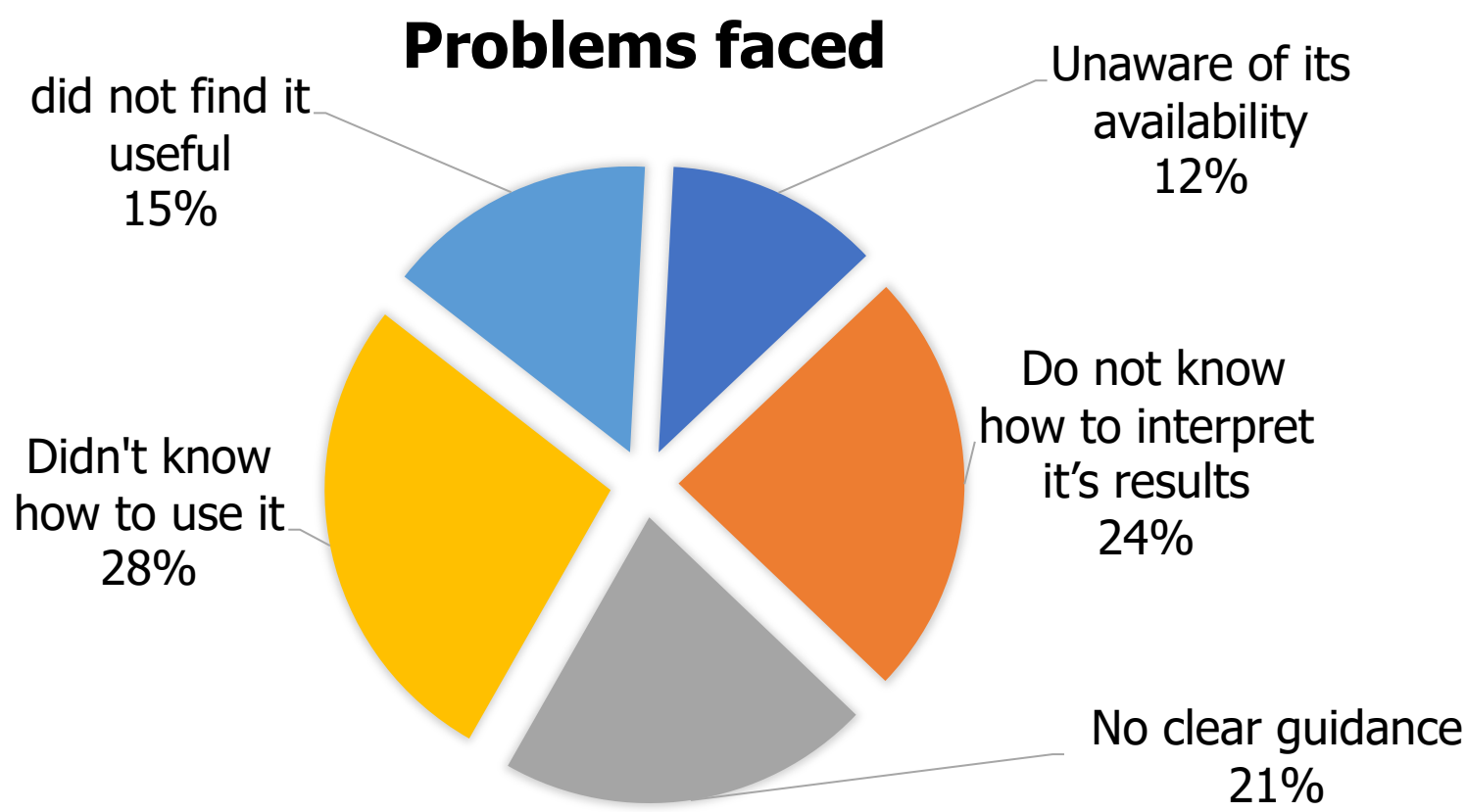
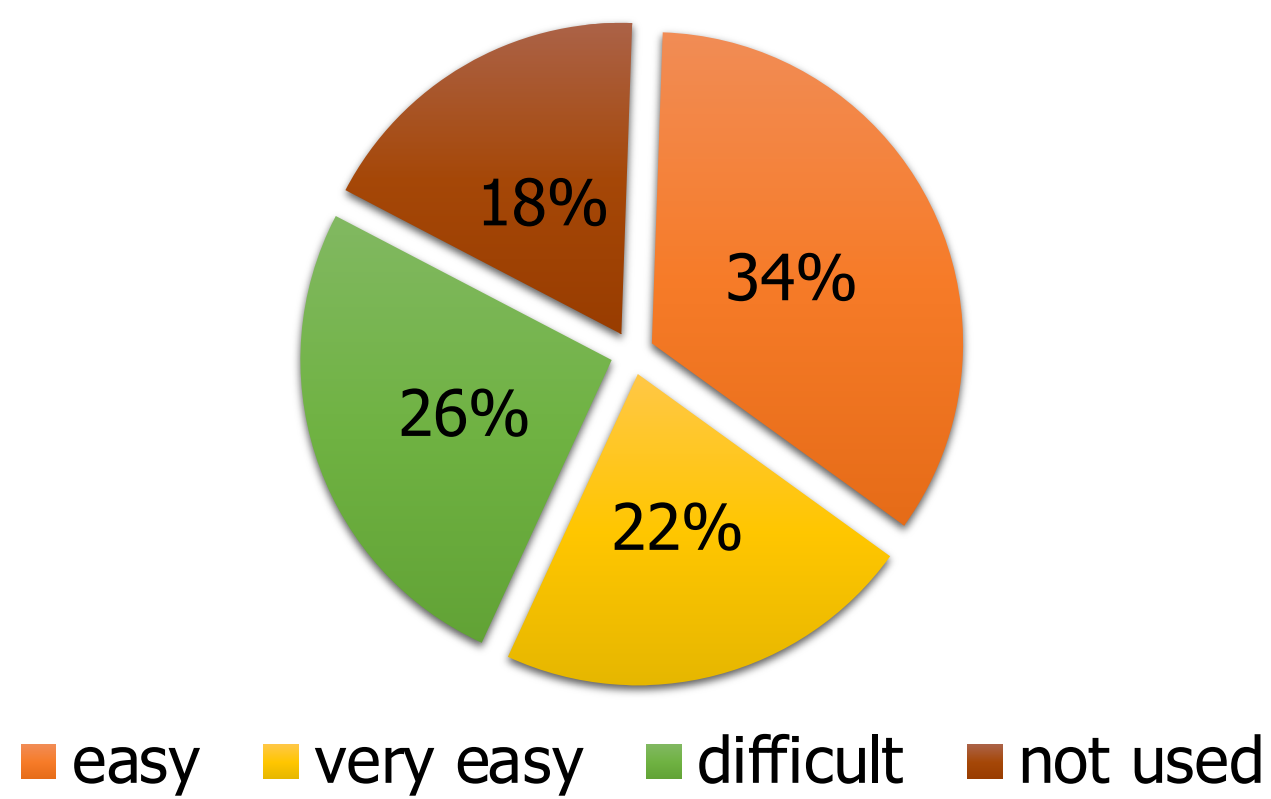
References

1. Hunt BJ. Thromboelastography should be available in every labour ward. *International Journal of Obstetric Anesthesia* 2005; 14: 324– 5
3. Sharma SK, Philip J. The effect of anesthetic techniques on blood coagulability in parturients as measured by thromboelastography. *Anesthesia and Analgesia* 1997; 85: 82– 6
5. Steer PL, Krantz HB. Thromboelastography and Sonoclot analysis in the healthy parturient. *Journal of Clinical Anesthesia* 1993; 5: 419– 24

2. TEG 6s User Manual, Haemonetics. Available online at: https://www.ruh.nhs.uk/pathology/documents/poct/TEG6s_UserManual.pdf
4. Sharma SK, Wiley PJ. Thromboelastographic changes in healthy parturients and postpartum women. *Anesthesia and Analgesia* 1997; 85: 94– 8.

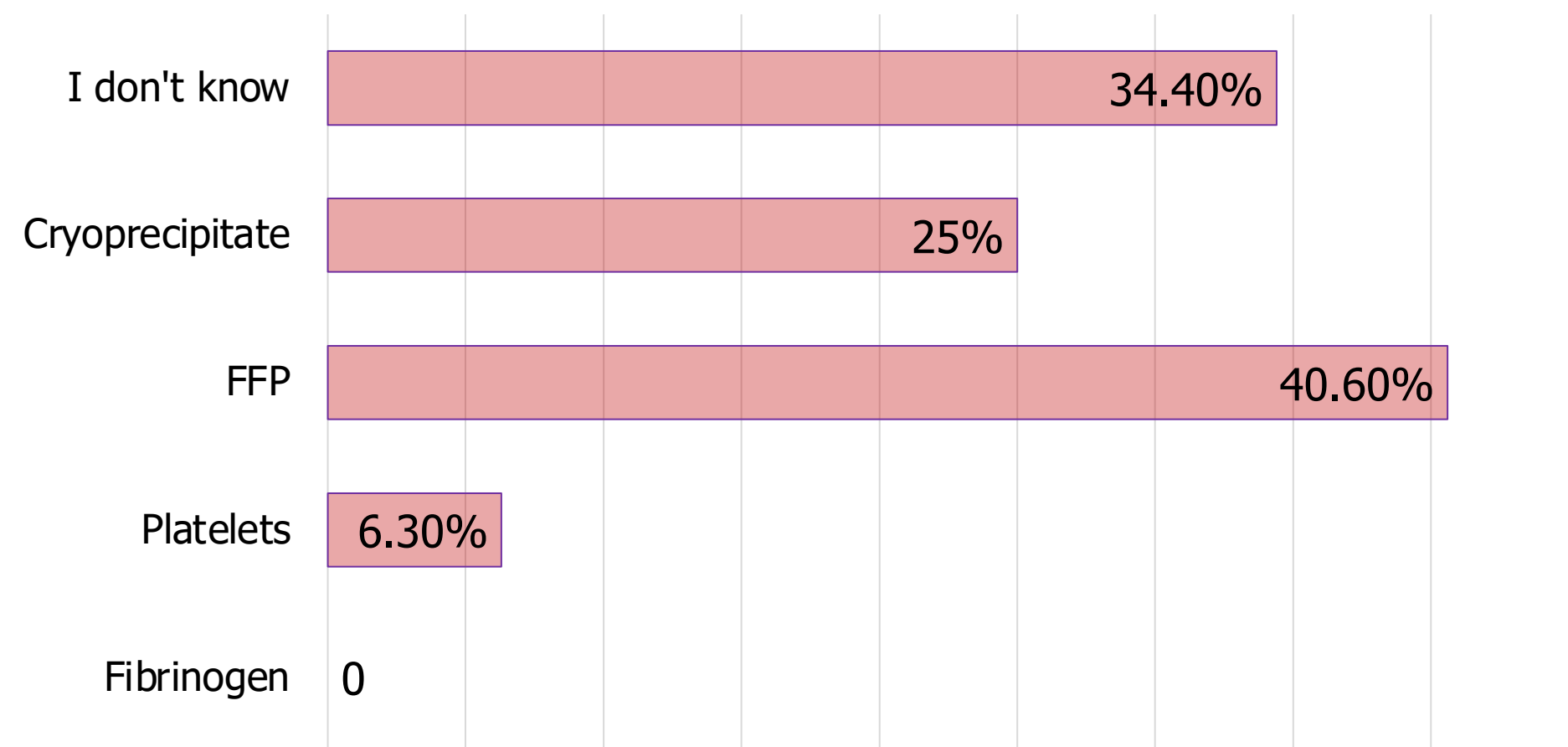
Results

Perceived ease of use

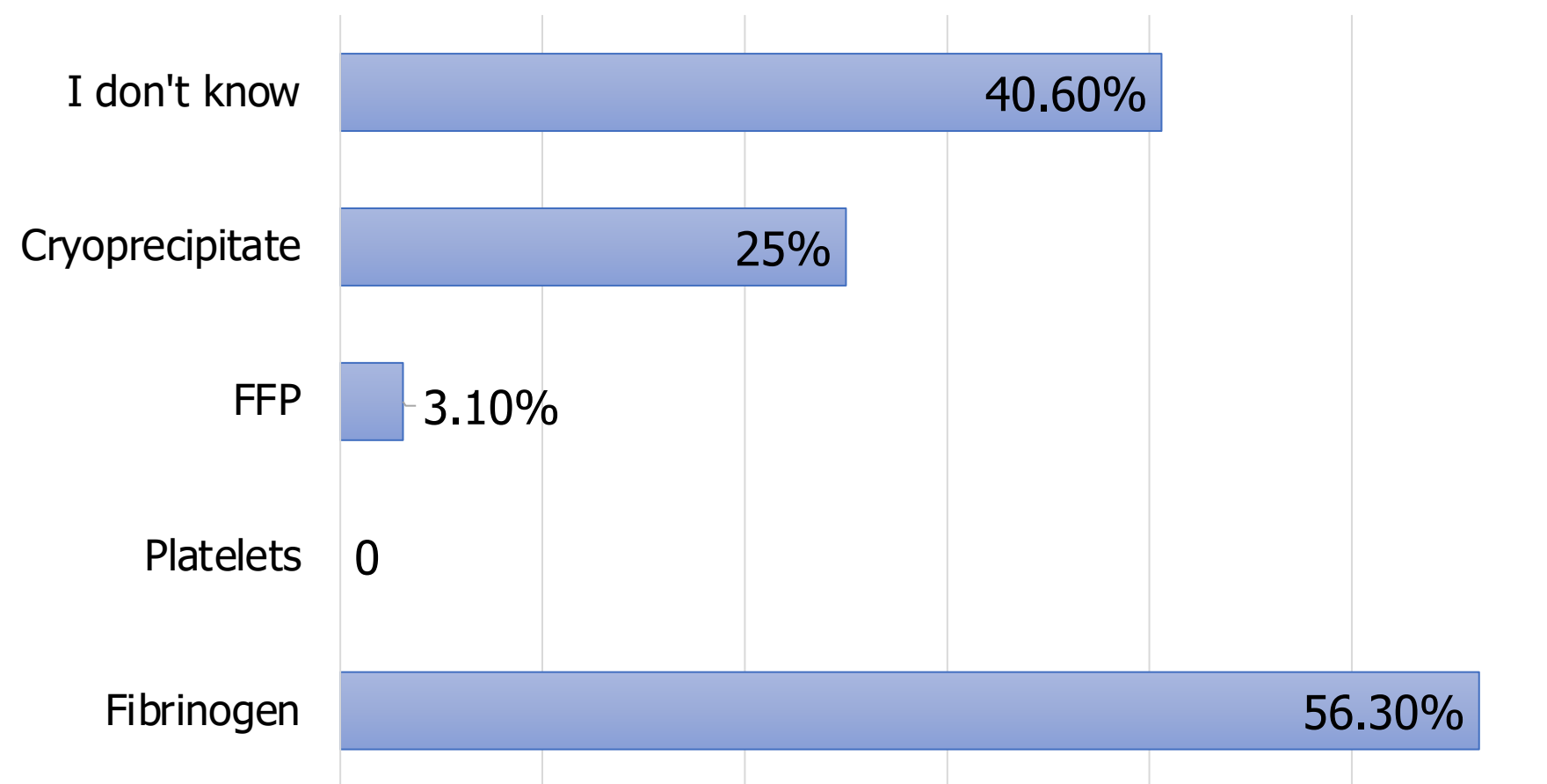


Percentage of participants who chose respective blood products to administer for clinical scenarios

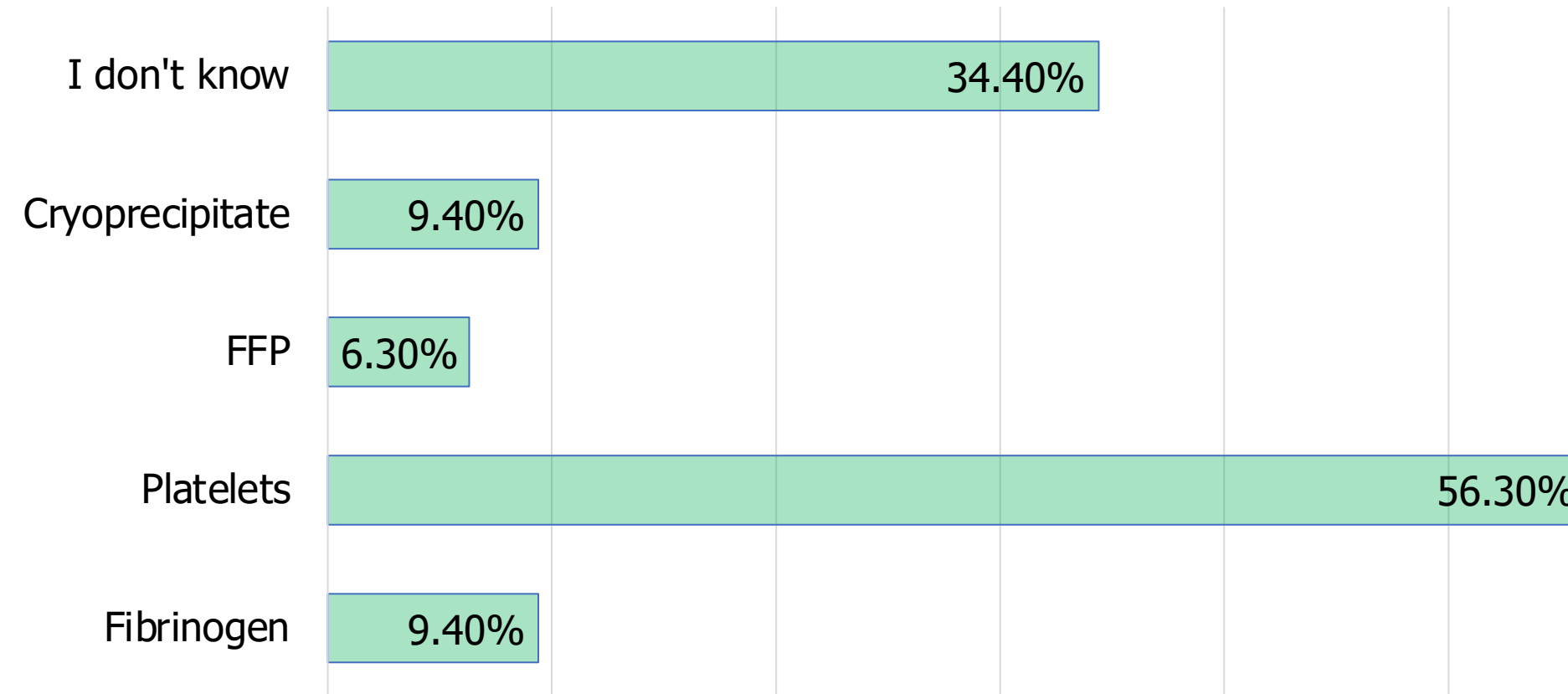
CK R me > 9.1 min



CFF MA <16mm



CRT MA <52mm



CK-Kaolin TEG, CRT–Rapid TEG, CFFA-Functional fibrinogen TEG, MA-Maximum amplitude, R time–Reaction time

- 90.9% of participants felt guidance would help future use of TEG