

Introduction

This was a quality improvement initiative. New POC glucose machines were introduced in a tertiary center NICU.

A month before their final installation a comparative study was carried out between the new (Accu-Chek Inform II by Roche Diagnostics UK) and old (HemoCue Glucose 201-HemoCue AB, Sweden) machines.

Aim

We sought to compare the performance of two point of care (POC) glucose machines in a tertiary center neonatal intensive care unit (NICU).

Methods

- Blood samples taken from 50 infants (pre-term and term)
- A timer was started at the initiation of machine calibration and stopped when final result appeared on screen.
- The results were retrospectively analysed
- Staff satisfaction was assessed using free-form text boxes in a research notebook beside each machine.

Results



- Average result: 3.63mmol/L
- Average time: 30.01 secs
- NICU nursing and medical staff opinion: Laborious and time consuming.

- Average result: 4.07mmol/L
- Average time: 4.73 secs
- NICU nursing and medical staff reported ease of use and increased efficacy

Summary / Conclusion

- Hypoglycaemic emergencies are a common, time sensitive presentation
- The speed of the Accu-Chek will ensure that babies presenting with hypoglycaemia receive appropriate treatment in a timely manner.
- Innovative solutions to enhance productivity in the NICU environment are welcome additions.