

ABSTRACT TITLE: Implementing a new standard for coordinating capillary blood glucose checks to promote timely insulin administration.

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Background: Hospital policy states that insulin should be administered within 30 minutes of a capillary blood glucose (CBG) check. However, on a General Medical unit, nurses were not consistently meeting this expectation.

Purpose/Hypothesis: The hypothesis was that if a new standard work outlining specific coordination of three things—the CBG check, insulin administration, and meal tray arrival—was implemented, that Registered Nurses (RNs) would give insulin injections within 30 minutes of the CBG check 90% of the time.

Methods: The standard work highlighted the necessity of communication between the RN and the Certified Nursing Assistant (CNA) at the beginning of every shift, indicated that the CNA would check the CBG after notification by nutrition services that the food tray had arrived, and specified that the CNA would then notify the RN of the CBG result so the insulin injection could be given within 30 minutes of the CBG check (and within 15 minutes of the patient eating). Success of this standard work was measured by auditing insulin administrations in the Electronic Medical Record before and after implementation of the standard work.

Results: After implementation of the standard work, average time from CBG check to insulin administration decreased from 19.47 minutes to 12.55 minutes (n=129, n=121), with a P-value < 0.01. Percent of insulin injections given more than 30 minutes after the CBG check dropped from 24.03% to 9.92%.

Conclusion: The standard work significantly decreased the average time from CBG check to insulin administration on a General Medical unit. Further investigation is needed to test the efficacy of this standard work with different staffing ratios and patient populations.