



So Many Barcodes, So Little Time

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ABSTRACT



Problem Statement: Incorrect administration of blood is estimated to occur once in every 12,000 units transfused in the US. Barcode technology for patient identification during blood administration has been in place for twenty years. Blood bags have several labels on them which are used for varied purposes. When scanning issues arise, nurses create workarounds to scan the bags needed for patient care. If the workarounds are not effective, blood products will not be scanned, leading to patient safety issues.

Purpose/Objective: The overall goal of this project was to improve barcode scanning compliance of blood products at the bedside to allow for accurate verification prior to administration.

Approach/Implementation: We reviewed barcode compliance reports and observed workflows during blood administration on a pilot unit within a tertiary care hospital. The review indicated that user issue may be a causative factor. Education was provided to nurses on safe practices for blood administration and successful scanning of barcodes. The scanner vendor and manufacturer was contacted to identify potential technological factors that could contribute to scanning difficulties, and the company recommended reprogramming the scanners. When that was not an effective approach, the team determined that scanners be recalibrated instead. Using a Plan Do Check Act (PDCA) method, recalibration was found to be successful on a pilot unit. New recalibration cards were ordered and provided to all patient care units.

Findings/Outcome: A baseline audit revealed poor adherence to barcode scanning of blood products. Preliminary data showed 70% (pilot unit) and 69% (hospital) compliance in January 2021, prior to the PDCA intervention. After initiation of the PDCA on the pilot unit, compliance increased to 100% in May and was maintained at 100% in August 2021. During the same timeframe, hospital compliance increased to 96% in May 2021 and 99% in August 2021. Overall, from January 2021 to August 2021, there was a 30% increase in compliance for barcode scanning of blood products on the pilot unit and the hospital.

Conclusions/Implications for Practice: A review of nursing workflow in combination with providing education allowed for an assessment resulting in recalibrating scanners to improve barcode scanning of blood products.

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COMPETING INTERESTS

The author has no competing interests to declare.

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