More than 2 years experience winners:

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Title: Reducing Blood Draws in Critically Ill Patients

Introduction: To successfully implement a quality improvement initiative aimed at reducing the frequency of blood draw events among critically ill oncological patients in a 54 bed medical/surgical Intensive Care Unit (ICU) through the enhancement of nursing autonomy and the implementation of structured communication techniques among the ICU team.

Hypothesis: There will be a reduction in the frequency of blood draw events per 24 hours, per critically ill patient, after the implementation of communication training and enhanced autonomy among members of the ICU team.

Methods: A multidisciplinary team collected 4 weeks of baseline data on the frequency and volume of blood draw events on each patient in a 10 bed medical pod in a 54 bed medical/surgical ICU. The data was then collected for an additional 3 months post implementation of the quality improvement initiative. Quality tools and methods utilized included brainstorming sessions, development of affinity and Ishikawa diagrams, and a process chart. Run charts were generated to reflect the data over time.

Results: Baseline data showed a wide practice variation among providers. At baseline, the number of blood draw events ranged from 2-14 per patient per 24 hours, with an average of 3.99. Post implementation, the range decreased to 0-12 and the average number of blood draw events decreased to 2.97 per patient per 24 hours. At baseline, the blood volume collected with each blood draw event ranged from 6-250 cc per patient per 24 hours, with an average of 46.79 cc. Post implementation, the range decreased to 0-165 cc, with an average of 36.84 cc per patient per 24 hours. Overall, there was a 25% reduction in the number of blood draw events and a 21% reduction in the volume of blood drawn with each blood draw.

Conclusions: Studies have shown that excessive blood draws in the ICU results in increased mortality, LOS, and need for blood transfusions. Our team identified that our patients were experiencing frequent blood draws and redundant laboratory testing, mostly related to a lack of communication among the ICU multidisciplinary team. Our interventions to reduce the frequency and volume of blood draws per critically ill patient per day were successful.