

Nurse-Driven Blood Conservation Strategies in ICU

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Problem

Blood loss from phlebotomy leads to anemia in 90% of critically ill patients within the third day of ICU admission that often results in blood transfusions which are commonly associated with adverse patient outcomes. The ICU nurse plays a unique role in phlebotomy procedures and, thus, is pivotal in the implementation of blood conservation strategies.

Evidence

Of eight articles produced via CINAHL, PubMed, Medline, OVID, and aacnjournal.org, 100% were from systematic, meta-analysis, randomized and non-randomized controlled clinical trials. The findings suggested that in most critically ill patients, poor clinical outcomes were associated with blood transfusions. Most patients, however, continue to receive transfusions although the guidelines have changed. Reduction of phlebotomy volumes and excessive lab tests were associated with reductions in transfusion requirements.

Strategy

An interdisciplinary team reviewed the evidence and, based on the evidence, concluded that the development of nurse-driven blood conservation strategies may reduce the number of blood transfusions by minimizing the amount of blood loss that occurs via phlebotomy.

Practice Change

Practice change included eight strategies and related algorithm which taps into the nurse's assessment and critical thinking abilities to make clinical judgments that are consistent with blood conservation strategies. A three-phase educational approach was led via physician-nurse team to disseminate the evidence-based strategies. A policy was developed to sustain the practice.

Evaluation

Outcome measurements will be evaluated to determine the effectiveness of practice change via lab test and blood transfusion per patient day in ICU.

Results

Testing the algorithm's effectiveness has been limited due to the infantile stage of the practice. Baseline data has been collected.

Recommendations

Collaborating with a broader base of bedside nurses will facilitate a timelier implementation in change of practice.

Lessons Learned

A delay in the implementation of practice change may have been avoided if a well-designed practice survey had been sent to all ICU nurses prior to the onset of education.

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