

Ensuring Accurate Blood Pressure Monitoring for Bariatric Patients

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PROBLEM: Over 60% of the U.S. population is overweight or obese. As the bariatric population grows, nurses face unique challenges to ensure clinically effective care. Our Nursing Research Council (NRC) investigated a concern that BP readings that were relied on for treatment were frequently highly variable. Indeed, multiple cuff sizes and sites of BP assessment, as well as inconsistent practices between caregivers, were discovered.

EVIDENCE: The synthesis of evidence revealed correct cuff size is paramount for accurate BP. If a too narrow or wide cuff is used (i.e., regular vs. thigh), BP will be over- or underestimated, respectively. More evidence supported using disposable cuffs to eliminate cross-contamination.

STRATEGY: The NRC designed an evidence-based practice (EBP) protocol to assess if measuring and selecting appropriate cuffs reduced BP variation in bariatric surgical patients.

PRACTICE CHANGE: Preoperative nurses measured the circumference of the patients' upper arm and selected the appropriate disposable cuff to be used throughout the entire postoperative stay.

EVALUATION: Statistical process control methods evaluated BP variability, and observation audits assessed staff compliance with the protocol.

RESULTS: Control charts did not show less "out of control" BP readings, suggesting other factors were affecting BP (e.g., pain, compliance with cuff selection, or consistent caregiver use). Observation audits revealed over 85% of nurses followed the EBP protocol. Nurse and physician satisfaction showed that 60% were satisfied with the bariatric BP protocol however, only 46% believed it increased clinical reliability of BP readings.

RECOMMENDATIONS: While the EBP project did not reduce BP variation, staff learned how critical an appropriately-sized and consistently used cuff is for bariatric patients over the course of hospitalization. Consistent practice allows for trending of BP's which may be more useful to guide treatment until specially designed conical-shaped BP cuffs for the bariatric population are tested and become readily available.

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