

## **Change in Process for Application of Sequential Compression Devices**

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**Introduction:** Prevention of venous thromboembolism is a potentially preventable risk to surgical patients according to the Institute *for* Healthcare Improvement. Sequential compression devices (SCD), or mechanical deep vein prophylaxis, are standard in the perioperative practice area to prevent venous thromboembolism.

**Identification of the problem:** SCD application should occur before the administration of general or regional anesthesia, based on AORN Level 1 recommendations. Although nurses applied SCDs in the operating room (OR), anesthesiologists performed several regional blocks in the pre-procedural area without applying SCDs, which conflicts with recommendations.

**QI question/Purpose of the study:** The project addresses the need to change process to apply best practices for prevention of thromboembolism based on recommendations from AORN. SCD application should occur before general and regional anesthesia.

**Methods:** The perioperative clinical educator reviewed institutional policy on intraoperative prevention of venous thromboembolism, confirming alignment with AORN recommendations. The educator developed PowerPoint presentations and tip sheets outlining the change in SCD application in the pre-procedural area versus the OR. She distributed these to nurses via email and a Qualtrics® survey for attestation that nurses understood information. Leadership shared practice change at staff meetings.

**Outcomes/Results:** Prior to the change in process, patients who received regional anesthesia in the pre-procedural area did not have SCDs applied. After implementation of the process change, all patients had circulatory prevention with SCDs in the pre-procedural area, if an anesthesiologist performed a regional block in preparation for surgery. The SCD machine remained on throughout the patient's surgical process including the PACU.

**Discussion:** Despite policy alignment with AORN recommendations, nurses must constantly reassess their practice environments for changes that affect best evidence.

**Conclusion:** The change to application and initiation of SCDs in the procedure area is consistent with AORN Level I evidence, potentially preventing incidence of venous thromboembolism in the surgical patient.

**Implications for perianesthesia nurses and future research:** As a community hospital and member of a large health system, best practices, which reflect Level I evidence, should be instituted. Policy changes and actual practice must be reviewed for alignment and changes initiated as needed.