Problem: Venous thromboembolism (VTE) has been identified as an area of concern by several national groups involved with patient safety or quality improvement (i.e. Surgical Care Improvement Projects, National Quality Forum, The Leapfrog Group for Patient Safety, and The Joint Commission.) On September 15, 2008, the US Surgeon General, Rear Admiral Steven K. Galson, MD, MPH, issued the first Call to Action to prevent Deep Vein Thrombosis and Pulmonary Embolism. In the review of 58 charts it was noted that 41% of patients admitted to the medical center had no type of VTE prophylaxis ordered.

Evidence: VTE is the most common preventable cause of hospital death yet a large US study of more than 5000 patients at 183 medical centers found that the majority of hospitalized patients do not receive any prophylaxis for VTE. Furthermore, it has been found that many patients who develop VTE while in the hospital do not receive adequate treatment or education about their illness. This evidence based practice project was initiated by a group of Intensive Care Unit staff nurses who questioned the current method of practice. The nurses, as an organizational goal sharing project, conducted a thorough literature review to identify best practices.

Strategy: Based on the evidence it was discovered that all patients should be assessed for their risk of a VTE or PE upon admission to the hospital and should receive some form of thromboprophylaxis. It was determined that standard use of prophylaxis reduces adverse outcomes.

Practice: To aid in reducing adverse outcomes, upon admission and transfer, the nurse would perform a risk assessment and place a “note to provider” if the patient was at risk and no prophylaxis was ordered or the risk category has changed. Mechanical methods of thromboprophylaxis were used primarily in patients at high risk of bleeding and as an adjunct to anticoagulant-based thromboprophylaxis for patients at moderate (optional) to high risk for DVT. If there were no contraindications the nurse would also apply mechanical prophylaxis. The nurses developed a standardized Nursing Care Plan for continuity of care as well as a patient education handout. The nurses empowered the patients to be active participants in exercise, ambulation (if not contraindicated), and in the use of mechanical devices.

Evaluation: This initial change of practice took place over a four month period of time. With the support of administration, the project became an interdisciplinary team with the participation in IHI’s VTE Expedition. Our goal was to implement an effective VTE Prevention Protocol by designing a protocol-driven VTE prophylaxis order set with an integrated risk assessment model and placing new standardized VTE order set ‘module’ into all pertinent admission, transfer and perioperative order sets.
**Results:** Education of healthcare providers, development of a patient education hand out, electronic order set developed with risk stratifications and contraindications. On review of charts post implementation 79% of new admission were risk stratified, those patients identified as being at moderate or greater risk for VTE and order some form of prophylaxis 63%. Only 10% (down from 41%) of the patients that fell in the inclusion criteria had no form of prophylaxis treatment ordered.

**Recommendations:** The implementation of an effective VTE prevention protocol and the development of a Medical Center Memorandum (MCM) that establishes a formal, active, written institute-wide thromboprophylaxis strategy.

**Lessons Learned:** To maintain a cultural change it is important to engage all health care providers and provide feedback and accountability for nonadherence. It is also important to get buy-in from the staff and administration for implementation and adherence. The development of an established criteria is needed to maintain sustainability. Staff need to recognize the quality of life benefits to our customers. To maintain high performance, continued education and monitor of care will be needed.