

Standardizing Warfarin Discharge Education

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Background

Venous Thromboembolism (VTE) includes both Deep Vein Thrombosis (DVT) or Pulmonary Embolus (PE). VTE is common and often hospital acquired, yet it is largely preventable. A new set of Core Measures activated by CMS (Centers for Medicare and Medicaid) in January 2013 were targeted at reducing VTE incidence and improving outcomes related to prophylaxis, treatment, and discharge instructions.

There are 6 VTE Core Measures:

- VTE-1: VTE Prophylaxis
- VTE-2: VTE Prophylaxis in the ICU
- VTE-3: VTE Patients with anticoagulation over-lap therapy
- VTE-4: VTE patients receiving UFH with dosage/platelet count monitored by protocol /nomogram
- **VTE-5: VTE Discharge Instructions**
- VTE-6: Incidence of Potentially Preventable VTE

At UCSF, a multidisciplinary workgroup was formed to improve patient care related to VTE, in part by achieving 100% on applicable VTE Core Measures. VTE-5: VTE Discharge Instructions, was the only measure where we consistently did not meet the mark, scoring 0% when the goal was 100%.

Purpose

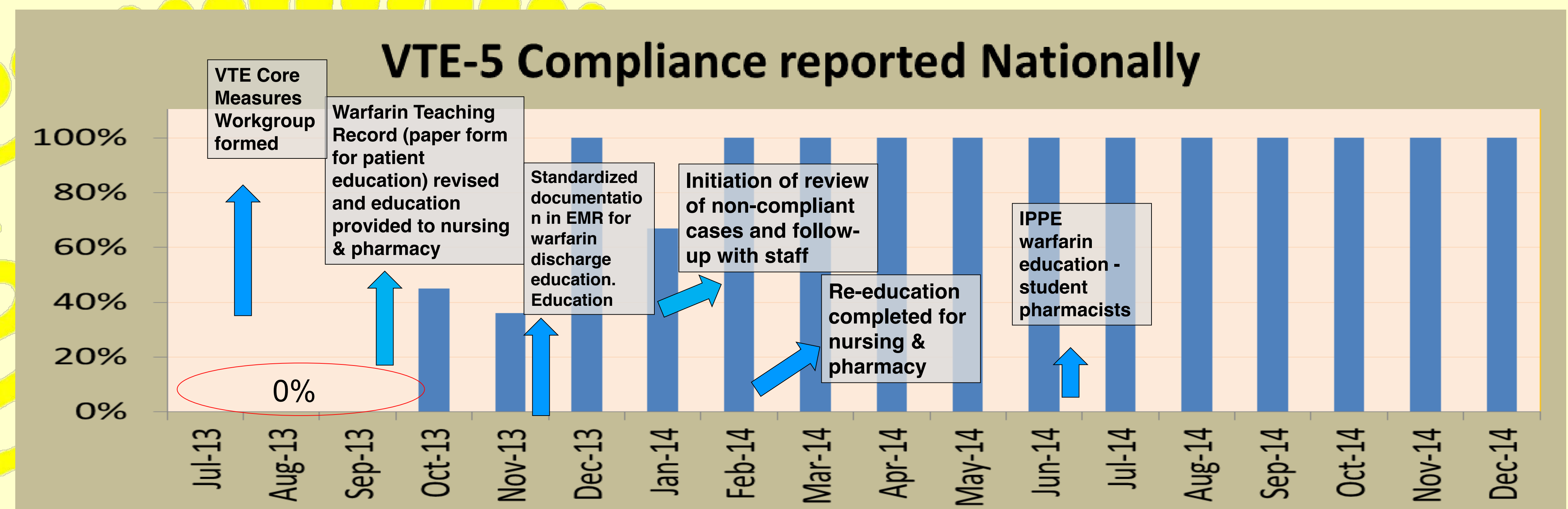
The purpose of this project was to improve patient care through achieving the goal of 100% compliance on VTE-5: VTE Discharge Teaching. This core measure is specific to warfarin discharge teaching.

Design & Methods

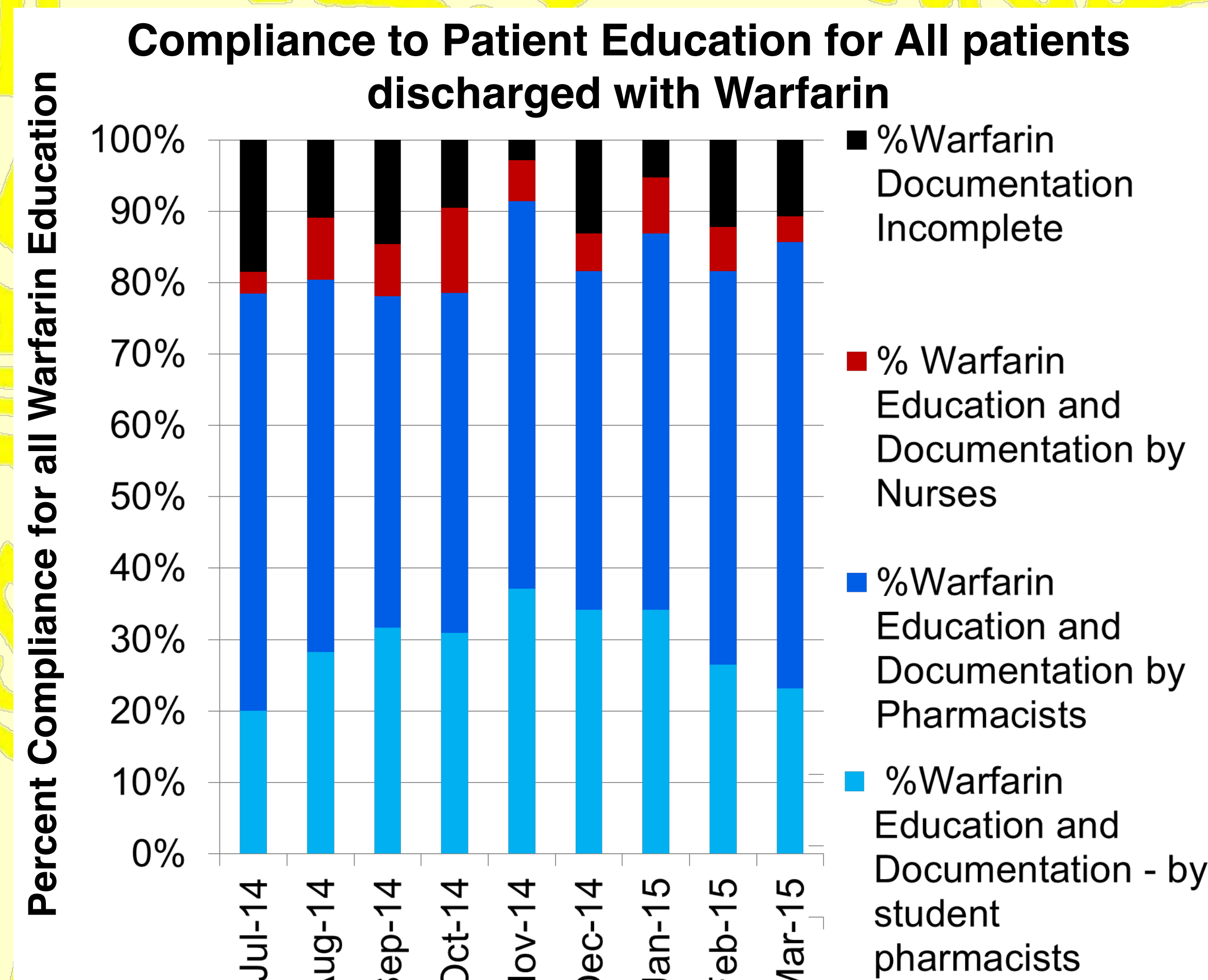
SWOT (strengths, weaknesses, opportunities and threats) analysis performed. Warfarin patient education material reviewed for regulatory compliance language. Gap analysis performed on the workflow procedures of assigned roles and identifying and educating patients and documenting the work in our electronic medical record (APeX). Non-compliance areas were identified, both in patient education workflow to capture all patients and the updated 2013 CMS required language for provided written education.. Our interventions focused on the following:

- 1) Standardizing warfarin discharge teaching education points for printed patient materials/documentation to be comprehensive and include the following language per new regulations:
 - Compliance issues:
 - ✓ Take warfarin as instructed and monitor with scheduled PT/INR blood draws
 - Dietary Advice:
 - ✓ Eat a diet with a consistent amount of Vitamin K
 - ✓ Avoid major changes in dietary habits
 - Follow-up Monitoring:
 - ✓ Information about plans to monitor warfarin post-discharge
 - Potential for adverse drug reactions and interactions:
 - ✓ Diet and medications can affect the PT/INR level
 - ✓ Do not take or discontinue meds or OTC meds without provider/pharmacist notification
- 2) Standardizing the process and role delineation for providing warfarin discharge teaching
- 3) Standardizing the documentation process for warfarin education

Results



- Education to nursing/pharmacy was provided at multiple points as processes and patient education materials were developed and revised
- Implementation of interventions was a multi-step process (see above timeline showing the relationship of interventions to compliance achieved)
- Additional ongoing timely review of outlier cases provided opportunity for 1:1 re-education and highlighted additional needed clarifications
- VTE-5 compliance increased from 0% in early/mid 2013 to 100% in Dec 2013.
- Since February 2014, the 100% compliance of VTE-5 has been sustained.
- Clinical Pharmacist Management Audit - Biweekly post-discharge audits capture outliers.
- VTE-5 compliance measures documentation within 30 days of discharge.
 - All patients with incomplete documentation are identified, then contacted and educated post-discharge.



Conclusions & Further Study

While we have made great strides in the quality of education we provide to patients being discharged on warfarin, there remain opportunities for improvement.

Compliance – identifying outliers

- Educate short-stay, Limited Stay Unit and ED patients

Patient Education Handout

- Consolidate 4 required handouts to into one.
- Add languages (Spanish, Russian, Cantonese).

Patient's Discharge Papers: After Visit Summary (AVS)

- Automatically incorporate patient information and relevant laboratory data into discharge AVS

Report and Patient List Optimization in medical records

- Warfarin Education Discharge Report
- Patient List – Triage to identify which patients have and do not have documented education

References

- Executive Summary – Antithrombotic Therapy and Prevention of Thrombosis, 9th ed: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines. *Chest*, 2012: 141(2), 7S-47S
- Overview of the TJC/CMS VTE Core Measures, US Department of Health & Human Services: Partnership for Patients, CMS Specification Manual 4.2 January 1, 2013 – June 30, 2013.

Acknowledgement

We would like to acknowledge the VTE Core Measures Workgroup in addition to the work of the pharmacists and nurses in their commitment to ensure all patients discharged with warfarin, no matter the indication, receive warfarin education and that each patient education is documented in the patients' electronic medical record.

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