



Using QSEN Competencies of EBP and Patient-Centered Care to drive APN Implementation of Warfarin Self-management

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Introduction

This project demonstrates the QSEN competencies of Evidence-based Practice (EBP) and Patient-centered Care (PCC). Nurses identified the gap that despite strong, high quality evidence that supports patient use of point-of-care international normalized ratio (INR) measuring devices and titration of their warfarin dose (self-management), the current practice of provider titration of warfarin persists. Use of EBP knowledge, skills, and attitudes (KSA) facilitated the successful implementation of the American College of Chest Physicians (ACCP) Practice Guidelines. Application of PCC KSA facilitated increased patient engagement.

Evidence Synthesis

- Warfarin anticoagulation to reduce thromboembolic events will always be necessary for some patient populations.
- Patients use point-of-care INR measuring devices and titrate their warfarin dose (self-management). Others use INR measuring devices and the provider titrates warfarin (self-testing). Many patients continue to use laboratory INR testing and the provider titrates warfarin (usual care).
- Studies suggest that self-management of warfarin allows for more frequent testing of warfarin levels, rapid results, and timely dosage change that results in improved outcomes compared to provider management of warfarin
- Evidence-based guidelines recommend self-management of warfarin over provider management for patients who are motivated and can demonstrated competency with self-testing INR

Objective

For this project, nursing faculty partnered with DNP-prepared advanced practice nurse (APN) to use the EBP and PCC QSEN competencies and implement self-management of warfarin in a busy cardiology practice.

Methods

1. ACCP Practice Guideline (8th Edition) informed the creation of a 1-hour education class and website with basic information on blood anticoagulation, dosing guidelines, food and drug interactions, signs and symptoms of adverse events, how to manage adverse events and when to contact the APN.
2. Website address <http://warfarinselfmanagement.weebly.com/>
3. Patients were given a laminated card with the dosing guidelines.
4. A knowledge assessment was given post-class and the answers were reviewed.
5. Check-in phone calls were made by the APN to each patient during the first 2-weeks of self-management.
6. Patients continued with the usual practice of reporting all INR values to the practice; if the INR was ≥ 4.0 or ≤ 1.8 a message was sent to the APN who followed up within 24 hours.

partnership
choices good collaborative
illness health lead
defined patients enabling
affect between
families care engage
active behaviors actions
conditions confidence
informed decisions encouragement
central chronic building
fulfilling healthy help
selfmanagement

Results

- There was a total of 6 education classes with a ratio of 1 APN to 8 patients per session over a 2-month period.
- The learning curve for warfarin dosing for patients and family members was short with post-class knowledge assessment scores >90%.
- Since it went live, the website has had over 12,000 visits.
- Patient characteristics include more males (n=28, 61%) than females; mean age 71.74 years (SD=9.37); and prescribed warfarin for atrial fibrillation (n=20, 44%), Saint Jude Value (n=8, 17%) or other (n=18, 39%).
- Patients had good outcomes with mean time in therapeutic range of 82.42% (SD=13.33); mean low INR=6.41% (SD=7.39); mean high INR=11.16% (SD=10.34); and mean out of range=.360% (SD=.242).
- There were no adverse events for the reported timeframe.

Conclusion/Significance to Practice

- As warfarin will continue to be necessary for some patient populations around the world and evidence demonstrates that self-management of warfarin results in better clinical outcomes and decreased burden of care on providers.
- Providers caring for this population are obligated to offer this option of care as it is part of American College of Chest Physicians guidelines.
- Research is needed to identify interventions to move patients from usual care to self-management of warfarin.

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