

**Solution: Discharge Handoff Safety: Empowering Cardiac Patients with a Personalized Warfarin Discharge Letter**

**Organization:** University of Maryland Medical Center      **Type:** Acute Care, Specialty Hospital

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**IDENTIFICATION:**

Problem:

Nurses provide written warfarin drug, food/drug, and follow-up appointment information to patients. However, there was no formal process for helping patients more safely manage their warfarin after discharge, such as having the details to provide post-discharge health care providers.

Identified by:

- Readmissions with dangerously high or low INRs.
- Some long-term patients with poor outcomes, such as intracranial bleeds.
- Nurses not always clear about goal INR for each patient, which can vary considerably from a lower INR for atrial fibrillation to a higher INR for valve replacements or ventricular assist devices.
- Literature and professional consensus that ‘we need to do better’ nationally with warfarin management.

**PROCESS:**

UMMC nurses from both cardiac surgery and cardiac medicine elected to participate in the August 2008-January 2009 University Health System Consortium (UHC) Discharge Handoff Collaborative. Eleven university medical centers participated, each selecting their own project and sharing progress during monthly teleconferences.

UMMC cardiac nurses elected to improve the safety of discharge handoff for patients on warfarin. They continue to meet post-UHC collaborative.

**SOLUTION:**

Solutions and Implementation:

A discharge letter was developed to give to the patient, who is encouraged to share with community providers.

- The ‘Blood Thinner Discharge Letter’ includes:
  - Reason for discharge on warfarin
  - Goal INR
  - Next blood test date, place, and name/phone of person who will manage dose changes
  - Last (3) INRs and warfarin doses, to include day of discharge INR
  - Cardiac team and phone number if community provider or patient has any questions

- Safety warning and education
- Dose tracking flow sheet
- The patient's nurse will initiate the discharge letter, keep in the 'kardex' to:
  - Ensure nurses at shift handoff communicate the reason for warfarin
  - Obtain the goal INR for use in hospital and at discharge
  - Begin filling in last few INRs and doses
  - Be prompted to teach patient and family about dosing, signs of bleeding, and importance of close monitoring *before* discharge day
  - Ensure complete follow-up information is obtained and provided
- The expectation is that the patient will:
  - Maintain possession of the form but share with providers
  - Record daily warfarin doses, INRs, and dose changes
  - Be empowered to advocate for safe management of warfarin and to seek help at the earliest sign of bleeding

Results/Plans:

- Implementation is currently underway.
- Positive feedback from patients, families, and nursing and medical staff.
- Formal evaluation to be done with patients/families and post-discharge providers.
- Tool and process to be shared with University HealthSystem Consortium Discharge Handoff Collaborative group.