

# A Multidisciplinary Approach to Improve Anticoagulation Safety: Improving Patient Re-engagement and Adherence to their Anticoagulation Care Plan

## The Problem

BIDMC Anticoagulation Management Service (ACMS) is composed of nurses and a pharmacist who manage about 700 patients referred by Healthcare Associates (HCA) physicians.

- Patients prescribed warfarin (Coumadin) who do not adhere to their care plan are at significant risk for serious health complications.

## Aim/Goal

- Prevent warfarin-related clinical complications arising as a result of non-adherence or engagement in recommended treatment protocol.
- Re-engage patients in their anticoagulation care plan.
- Collaborate with physicians to optimize patient outreach efforts.
- Systematically identify and address potential adherence barriers.

## The Team

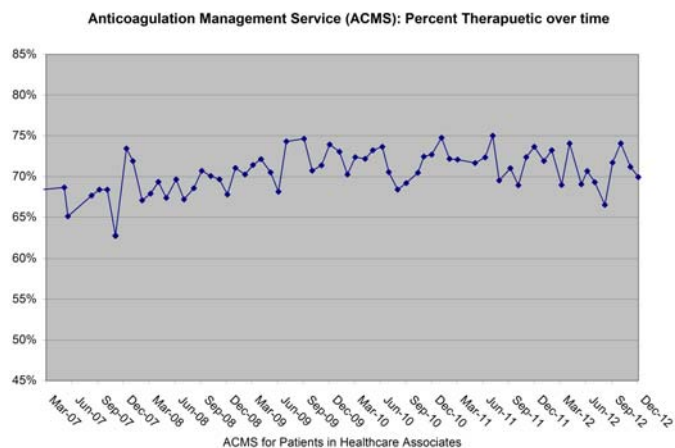
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## The Interventions

- The percentage of Clinic patients in therapeutic INR range compares favorably to the national benchmark average of 64% (see Figure below).



- A patient re-engagement protocol was created to standardize outreach efforts to non-adherent patients.

- Patients at least one week overdue for an INR test are identified through an electronic patient registry.
- Reminder telephone calls and letters are generated from the Clinic.
- Continued non-adherence prompts contact with physicians to encourage both patient outreach and assessment of common potential adherence barriers.
- Appointments involving the physician, Coumadin Clinic, and patient are recommended to formulate patient-specific plans to improve adherence.
- Patients are discharged from the Clinic after 12 consecutive weeks of non-adherence and referred back to the MD who prescribes warfarin for their future warfarin management. These patients may be re-enrolled if they demonstrate three months of improved anticoagulation adherence with the physician.

## The Results/Progress to Date

- 499 outreach efforts were made following the protocol.
- On 54 occasions, patients had an overdue INR of 4 weeks, or more, resulting in ACMS contacting the prescribing MD. Physician outreach efforts, including subsequent telephone calls, letters, emails, social work referrals, and/or scheduled clinic visits, were documented in patients' medical records.
- Most common factors identified as preventing INR adherence were: patient ambivalence over anticoagulation need, perceived lack of vulnerability for clot development, transportation, significant life events, and mental health.

| Number of active patients with episode of non-adherence | Patients whose INR subsequently drawn | Number Days Overdue for INR drawn<br>Average (range, mode) | INR results within normal limits | INR result subtherapeutic | INR result supratherapeutic |
|---|---------------------------------------|--|----------------------------------|---------------------------|-----------------------------|
| 291*  | 285 (98%)*                            | 13 (3-83, 6)   | 179 (63%)                        | 69 (24%)                  | 37 (13%)                    |

\* Outreach efforts also identified 9 other patients who were admitted to outside institutions, expired, away long-term, or had transferred care

† Anticoagulation was discontinued by physicians in 4 patients based on their risk-benefit profiles

‡ Two patients were discharged from the Clinic after failing to respond to 12 weeks of re-engagement; and one patient was re-enrolled after demonstrating improved adherence.

- No adverse events were reported with these patients.

## Lessons Learned

- A standardized multidisciplinary process for addressing non-adherence to INR draw recommendations is effective in re-engaging patients.
- Primary care physicians are willing to partner with ACMS in working together to improve patient engagement.
- Successful anticoagulation requires ongoing patient education.
- Re-engagement processes require continued refining to decrease episodes of recurrent non-adherence.

## Next Steps

- Continue to monitor and refine protocol
- Implement and incorporate patient experience survey data to refine protocol