



Boston Medical Center: Scaling Pharmacist-Led Anticoagulation Stewardship in an Essential Academic Medical Center

Recognized Anticoagulation Center of Excellence since 2022 – Boston, MA



Boston Medical Center (BMC) is a 500+–bed academic medical center and Boston University’s primary teaching affiliate, serving as a major essential academic medical center in Greater Boston. As an Adult Level I trauma center, BMC delivers care to a diverse, high-acuity population while ensuring access to care for all. In this high-volume environment, BMC has built a pharmacist-led anticoagulation program designed to deliver consistent, evidence-based care at scale.

Challenges

Anticoagulation management at BMC spans thousands of inpatient and outpatient encounters annually. Key challenges included:

Rising use of DOACs with known risks of inappropriate dosing and suboptimal adherence

Variability in warfarin INR targets and time in therapeutic range (TTR)

Periprocedural anticoagulant and antiplatelet management across multiple service lines

Limited standardization of women’s health considerations in anticoagulant care

Solution: ACE-Aligned, Pharmacist-Led Stewardship

BMC leveraged the Anticoagulation Centers of Excellence (ACE) framework to formalize and expand its stewardship approach.



Integrated Program Structure

Embedded in the pharmacy department, the anticoagulation service is led by clinical specialists and supported by a liaison who coordinates care across teams and specialties. Pharmacists handle reconciliation, dosing, education, and monitoring using standardized protocols



Targeted DOAC Oversight

To close known quality gaps in DOAC use, BMC launched a structured education and monitoring program where every new DOAC referral prompts pharmacist review for indication-appropriate dosing. Patients receive standardized education on adherence and bleeding risk, with follow-up supported by electronic alerts and a centralized registry



ACE-Driven Stewardship Initiatives

- DOAC dosing stewardship enables identification and correction of off-label or inappropriate dosing, with repeat audits to ensure sustained improvement
- Warfarin INR standardization offers diagnosis-specific INR targets embedded in orders, with monthly monitoring of TTR toward guideline-recommended thresholds
- Periprocedural management supports pharmacists’ review of anticoagulant and antiplatelet therapy for patients with recent PCI or stent placement to reduce unnecessary interruption or bridging
- Women’s health considerations prompted standardized intake questions addressing pregnancy status, heavy menstrual bleeding, and reproductive planning, paired with tailored counseling and education

Quantifiable Impact

In a large essential hospital setting, small improvements translate to meaningful population-level impact:

- **Improved DOAC oversight:** Pharmacist review resulted in documented interventions in 92.7% of completed DOAC monitoring encounters, highlighting the value of structured follow-up and stewardship oversight
- **Safer anticoagulation care:** Reduced variability in INR targets and improved TTR, approaching levels associated with lower stroke and bleeding risk
- **Fewer avoidable complications:** Ongoing monitoring of anticoagulant-related emergency visits supports early identification of safety signals and continuous improvement
- **Operational efficiency:** Standardized protocols have streamlined periprocedural workflows, reducing last-minute consults and delays across service lines

Leading by Example

The BMC program demonstrates how pharmacist-led anticoagulation stewardship can be scaled across a complex academic health system. By embedding evidence-based practices into daily workflows, BMC delivers consistent, high-quality anticoagulant care to thousands of patients each year.

Boston Medical Center’s experience highlights the value of the ACE framework in translating best practices into reliable, system-wide care. Through structured DOAC oversight, targeted stewardship initiatives, and continuous learning, BMC has built a sustainable model that improves safety, supports clinicians, and advances anticoagulation quality at scale.

Learn how your institution can participate in the ACE program and build a safer and more intelligent future in antithrombotic care.

