

LETTER TO THE EDITOR

Overcoming barriers to integrating direct oral anticoagulants into existing anticoagulation management services

Dear Editor,

We read with great interest the manuscript written by Barnes, et al entitled, "Barriers to integrating direct oral anticoagulants into anticoagulation clinic care: A mixed-methods study."¹ It is widely recognized that centralized anticoagulation management services (AMS) provide high-quality care for patients on warfarin compared to traditional approaches of individual provider-based care.² Management in a centralized AMS generally results in increased time in therapeutic range and better clinical outcomes.² Outpatient AMS provide multiple services including dose titration based on INR result, peri-procedural management, patient education, adherence counseling, practice standardization and 24/7 support for management of bleeding and clotting symptoms. Depending on the scope of practice, the service may also provide medication refills, prescriptions for bridging agents, and transitions between oral anticoagulants. Due to the large volume of patients managed and centralized repository of clinical data, the AMS can provide clinic-wide quality data and benchmarking for their patient population against similar clinics across the nation. One potentially underutilized resource of centralized AMS is the transitions of care services provided by AMS clinicians. Generally, AMS clinicians are accustomed to coordinating care with multiple providers including PCPs, cardiologists, oncologists, and proceduralists to manage anticoagulation during high-risk periods.

Since the introduction of the direct oral anticoagulants (DOACs), there has been interest in leveraging the structure and clinical expertise of the centralized warfarin AMS to provide similar management of DOAC. The DOACs are easier to manage with fixed-dose regimens that do not require monitoring. Individual providers often are more comfortable managing these agents. Now that DOACs have been on the market for many years, it has become clear that AMS provide additional value for anticoagulation management beyond titration of warfarin. Patients on DOACs still require close management and thoughtful adjustment of their regimen for invasive or surgical procedures or changes in clinical characteristics. They require initial and ongoing education of risk and benefit and adherence counseling and maybe most importantly these patients need an advocate during periods of transitions in care that is focused on their anticoagulation management. Multiple evaluations have indicated that DOACs are consistently dosed inappropriately leading to suboptimal clinical outcomes.

For these reasons, many anticoagulation-related organizations and quality agencies have promoted the value of having centralized management of anticoagulation for patients on DOACs despite their relatively simple dosing regimens. In this recent publication Barnes and colleagues designed a mix-methods assessment to identify barriers to integrating DOACs into existing clinics.¹ The authors also address possible solutions to the identified barriers, which included a lack of provider awareness of services provided by the AMS, financial challenges, and clinical knowledge versus scope-of-care by the AMS staff.

In 2017, we expanded our AMS to include management of patients on DOACs and published our model.³ Expansion was initially slow due to many of the barriers identified by Barnes and colleagues. We also struggled with providers understanding the role and value that AMS can play in DOAC management. Informal interviews with providers told us that many thought that once these medications were prescribed there was no need for follow-up and viewed engaging the AMS as an additional task. We were initially concerned about integrating thousands of DOAC patients into our clinic without requesting additional resources. However, the use of anticoagulation management software allows for seamless patient tracking and population health management, reducing effort spent managing these patients. Our clinic is operated by pharmacists working under collaborative practice agreements, allowing us to play a large role in transitioning appropriate patients from warfarin to DOACs, guiding providers in the selection and dosing of the DOAC, and taking ownership of drug procurement barriers including prior authorization or changing DOACs selection if needed.

Moving forward as an anticoagulation community, we need to continue to develop the model of DOAC management to allow us to efficiently manage these patients without creating excess touchpoints with the healthcare system. We also need to create a framework for quality reporting and benchmarking to continue to improve and ensure that optimal care is delivered.

RELATIONSHIP DISCLOSURE

Dr. Sylvester reports personal fees from Bristol Meyers Squibb/Pfizer, outside the submitted work. Dr. Connors reports personal

This is an open access article under the terms of the Creative Commons Attribution-NonCommercial-NoDerivs License, which permits use and distribution in any medium, provided the original work is properly cited, the use is non-commercial and no modifications or adaptations are made.

© 2018 The Authors. *Research and Practice in Thrombosis and Haemostasis* published by Wiley Periodicals, Inc on behalf of International Society on Thrombosis and Haemostasis.

fees from Portola Pharmaceuticals, personal fees from Bristol-Myers Squibb, personal fees from Pfizer, and research funding from CSL Behring during the conduct of the study.


AUTHOR CONTRIBUTIONS



Both Katelyn Sylvester and Jean Connors contributed to the writing and editing of this manuscript.

ORCID

Katelyn W. Sylvester  <https://orcid.org/0000-0001-9208-2354>

Jean M. Connors  <https://orcid.org/0000-0001-6445-582X>

Katelyn W. Sylvester PharmD, CACP, BCPS¹ 

Jean M. Connors MD²  

¹Department of Pharmacy Services, Brigham and Women's Hospital, Boston, Massachusetts

²Division of Hematology, Brigham and Women's Hospital, Boston, Massachusetts

REFERENCES

1. Barnes GD, Acosta J, Graves C, et al. Barriers to integrating direct oral anticoagulants into anticoagulation clinic care: a mixed-methods study. *Res Pract Thromb Haemost*. 2018;3:79–84.
2. Entezari-Maleki T, Dousti S, Hamishehkar H, Gholami K. A systematic review on comparing 2 common models for management of warfarin therapy; pharmacist-led service versus usual medical care. *J Clin Pharmacol*. 2016;56(1):24–38.
3. Sylvester KW, Ting C, Lewin A, et al. Expanding anticoagulation management services to include direct oral anticoagulants. *J Thromb Thrombolysis*. 2018;45(2):274–80.