

May 8th, 12:30 PM - 1:30 PM

# Adherence Measurement and Incidence of Bleeding and Systemic Embolism with Dabigatran in a Medicaid Population

Nicole Trask

*University of Massachusetts Medical School, [nicole.trask@umassmed.edu](mailto:nicole.trask@umassmed.edu)*

Payal N. Kotadiya


*University of Massachusetts Medical School, [payal.kotadiya@umassmed.edu](mailto:payal.kotadiya@umassmed.edu)*

James Gagnon

*University of Massachusetts Medical School, [james.gagnon@umassmed.edu](mailto:james.gagnon@umassmed.edu)*

*See next page for additional authors*

Follow this and additional works at: [http://escholarship.umassmed.edu/cts\\_retreat](http://escholarship.umassmed.edu/cts_retreat)

 Part of the [Cardiology Commons](#), [Cardiovascular Diseases Commons](#), [Pharmacy and Pharmaceutical Sciences Commons](#), [Therapeutics Commons](#), and the [Translational Medical Research Commons](#)

---

Nicole Trask, Payal N. Kotadiya, James Gagnon, Mark Kohn, Pavel Lavitas, Karen Lee, Andrea Lewtas, Maria M. Lowe, Alkiviadis Nacopoulos, Tamara Rosenzweig, Caroline Alper, and Paul Jeffrey, "Adherence Measurement and Incidence of Bleeding and Systemic Embolism with Dabigatran in a Medicaid Population" (May 8, 2013). *UMass Center for Clinical and Translational Science Research Retreat*. Paper 5.

[http://escholarship.umassmed.edu/cts\\_retreat/2013/posters/5](http://escholarship.umassmed.edu/cts_retreat/2013/posters/5)

This material is brought to you by eScholarship@UMMS. It has been accepted for inclusion in UMass Center for Clinical and Translational Science Research Retreat by an authorized administrator of eScholarship@UMMS. For more information, please contact [Lisa.Palmer@umassmed.edu](mailto:Lisa.Palmer@umassmed.edu).

---

**Presenter Information**

Nicole Trask, Payal N. Kotadiya, James Gagnon, Mark Kohn, Pavel Lavitas, Karen Lee, Andrea Lewtas, Maria M. Lowe, Alkiviadis Nacopoulos, Tamara Rosenzweig, Caroline Alper, and Paul Jeffrey

**Creative Commons License**

This work is licensed under a [Creative Commons Attribution-Noncommercial-Share Alike 3.0 License](https://creativecommons.org/licenses/by-nc-sa/3.0/).

## 4<sup>TH</sup> ANNUAL UMASS CLINICAL AND TRANSLATIONAL SERVICE RESEARCH RETREAT

### ABSTRACT OF PROPOSAL

#### **Adherence Measurement and Incidence of Bleeding and Systemic Embolism with Dabigatran in a Medicaid Population**

**Investigators:** Nicole Trask, Pharm.D., Payal N. Kotadiya, Pharm.D., BCPS, James Gagnon, Pharm.D., BCPS, Mark Kohn, Pharm.D., BCPS, Pavel Lavitas, Pharm.D., BCPS, Karen Lee, Pharm.D., BCPS,\* , Andrea Lewtas, Pharm.D., Maria M. Lowe, Pharm.D., Alkiviadis Nacopoulos, Pharm.D., BCPS, Tamara Rosenzweig, Pharm.D., BCPS, Caroline Alper, MD, Paul Jeffrey, Pharm.D.<sup>†</sup>.

University of Massachusetts Medical School - Clinical Pharmacy Services  
333 South St.  
Shrewsbury, MA 01545

**Lead Investigator Contact Information:** [nicole.trask@umassmed.edu](mailto:nicole.trask@umassmed.edu), 774.455.3262

**BACKGROUND:** The use of warfarin for the treatment of atrial fibrillation (AF) is often complicated by the associated narrow therapeutic index and frequent monitoring. Dabigatran, an oral direct thrombin inhibitor, does not require routine monitoring, produces rapid therapeutic anticoagulation, and has the potential to improve thromboprophylaxis through increased adherence. As such, it is important to evaluate adherence and the incidence of bleeding and systemic embolism with dabigatran in a real-world population with AF.

**OBJECTIVE:** To measure adherence and incidence of bleeding and systemic embolism with dabigatran in a state Medicaid population with AF.

**METHODS:** Medicaid members  $\geq 18$  years of age with AF were included if they had  $\geq 1$  paid claim for dabigatran between February 1, 2011 and September 30, 2011. Members were excluded if they had breaks in Medicaid coverage, supplemental insurance or were a female of childbearing age. The index date was defined as the date of the first pharmacy claim for dabigatran. Adherence was measured using medication possession ratios (MPR) for members with  $\geq 2$  paid claims for dabigatran and members with an MPR  $\geq 0.8$  were considered adherent. The incidences of bleeding, stroke and all-cause hospitalization were determined using medical claims data for one year post-index date. Pharmacy claims data was used to report changes in anticoagulant therapy within one year post-index date.

**RESULTS:** The average MPR was 0.87 and 69% of members were considered adherent. Of the members that started dabigatran, 42.9% continued dabigatran while 21.4% switched to warfarin. Overall, 16.7% of members experienced a systemic embolism and only one bleeding event occurred during the study period. While chest pain and dyspepsia were the most common adverse events, 45.2% of members had no adverse events.

**CONCLUSIONS:** This evaluation found that while members were adherent to dabigatran therapy, the discontinuation rate suggests poor tolerance to therapy.

\* Employee of Clinical Pharmacy Services during research design and protocol development.

<sup>†</sup> Current employee of the University of Massachusetts Medical School, Office of Clinical Affairs.