

A CYmPle Matter – *CYP2C19* Polymorphisms and P2Y12 Inhibitor Selection in Ischemic Stroke

Session Date: 06/28/2022

Session Time: 11:00 – 11:45 AM (CST)

Target Audience

This continuing education (CE) session was planned to meet the needs of professional staff who deal with the selection and monitoring of medication(s) as part of their patient care duties, including pharmacists, RNs, APRNs, PAs, MDs.

Activity Overview

Clopidogrel is considered the P2Y12 inhibitor of choice for secondary prevention of ischemic stroke for most patients. Clopidogrel is an oral P2Y12 inhibitor that requires activation via *CYP2C19* enzymes to carry out platelet inhibition. The extent of platelet inhibition after clopidogrel administration is influenced by CYP metabolizer status and the data correlating different polymorphisms to clinical outcomes was historically restricted to PCI and ACS populations. In recent years there has been new data evaluating the use of clopidogrel in patients with ischemic stroke by *CYP2C19* metabolizer status. This presentation will review the current literature and newest guideline recommendations for oral P2Y12 inhibitor selection based on *CYP2C19* metabolizer status.

Learning Objectives

At the conclusion of this knowledge-based CE session, participants should be able to:

1. Describe the implications of various *CYP2C19* phenotypes on clopidogrel metabolism and activity
2. Analyze the available literature evaluating outcomes of clopidogrel versus ticagrelor in ischemic stroke patients based on *CYP2C19* metabolizer status
3. Select a preferred antiplatelet agent and dose for secondary prevention of ischemic stroke given patient specific pharmacogenomic information

Faculty Information

Jo Ann Leal, PharmD
PGY-1 HSPAL Pharmacy Resident
Mayo Clinic Hospital - Rochester, MN

Jo Ann received a Doctor of Pharmacy degree from Texas Tech University in Amarillo, TX. She is currently studying for a Master of Healthcare Administration degree from the University of Wisconsin – Milwaukee. Her practice interests include clinical operations, medication safety, and pharmacogenomics.



Approved Provider Statement



JOINT ACCREDITATION™
INTERPROFESSIONAL CONTINUING EDUCATION

In support of improving patient care, this activity is planned and implemented by Mayo Clinic College of Medicine and Science. Mayo Clinic College of Medicine and Science is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC) to provide continuing education for the healthcare team.

Credit Statements

AMA

Mayo Clinic College of Medicine and Science designates this live activity for a maximum of 0.75 *AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

ACPE



ACPE Universal Activity Number (UAN): JA0000238-0000-22-139-L01-P

Mayo Clinic College of Medicine and Science designates this educational activity for a maximum of 0.75 ACPE Knowledge-based contact hours. Participants should claim only the credit commensurate with the extent of their participation in the activity

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AAPA



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Educational Format and CE Requirements

This CE session is available as a live presentation, including live webcast.

Participants must complete the following to record attendance and obtain CE credit:

1. Attend the entire session.
2. Text the session code to 507-200-3010 within 48 hours of the live presentation to record attendance.
 - a. This number is only used for receiving text messages related to tracking attendance
 - b. Employees are encouraged to create a contact in their mobile phone, as the same number is used to record attendance for every session
3. Complete the online evaluation for the respective session within 2 weeks of live presentation.

Pharmacist CE credit is electronically transferred to the National Association of Boards of Pharmacy CPE Monitor. To track CE, please go to [NABP CPE Monitor](#).

Non-pharmacist attendees can print out a record of attendance at ce.mayo.edu after completing the evaluation and claiming credit.

Live attendance: Rochester, Saint Mary's Campus, ALF_MN_459

Live virtual attendance via [Zoom link](#)

Disclosure Summary

As a provider accredited by Joint Accreditation Interprofessional Continuing Education, Mayo Clinic College of Medicine and Science (Mayo Clinic School of CPD) must ensure balance, independence, objectivity and scientific rigor in its educational activities. Course Director(s), Planning Committee Members, Faculty, and all others who are in a position to control the content of this educational activity are required to disclose all relevant financial relationships with any commercial interest related to the subject matter of the educational activity. Safeguards against commercial bias have been put in place. Faculty also will disclose any off label and/or investigational use of pharmaceuticals or instruments discussed in their presentation. Disclosure of these relevant financial relationships will be published in activity materials so those participants in the activity may formulate their own judgments regarding the presentation.

Listed below are individuals with control of the content of this program:

The faculty report the following relationships:

- Jo Ann Leal, PharmD
 - Declares no financial relationship(s) pertinent to this session
 - Declares off-label use of medications will not be discussed during this presentation

Course Director and Planning Committee Members declare no relevant financial relationship(s) pertinent to this session. Members include:

- Jennifer Elmer, DNP, APRN, CCNS
- Michael Huckabee, MPAS, PA-C, PhD
- Sarah Jane Kotval, BSW
- Wayne Nicholson, MD, PharmD, BCPS
- Garrett Schramm, PharmD, FCCP

For additional disclosure information regarding Mayo Clinic School of Continuous Professional Development accreditation review committee members visit ce.mayo.edu, About Us, Disclosures - or -

<https://ce.mayo.edu/content/disclosures>

System and Technical Requirements

For participants viewing the webcast, sessions are delivered via Mayo Clinic intranet web browser and Adobe® PDF. For participants viewing outside the Mayo Clinic firewall, a VPN connection is required for remote access. Recommended web browser includes Google Chrome. This session is planned and coordinated by **the Department of Pharmacy, Mayo Clinic.**