

Nobody Likes Rejection: Therapeutic Drug Monitoring of Mycophenolate in Solid Organ Transplant

Session Date: 10/18/2022

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

Mycophenolic acid (MPA) has been a key partner to calcineurin inhibitors to make up the immunosuppressive regimens in solid organ transplant recipients. The most common MPA prodrug – mycophenolate mofetil (MMF) – was initially approved as a fixed dose regimen, with variations in dosing depending on the type of transplant. Since then, multiple researchers have explored the role of therapeutic drug monitoring of MPA in transplant recipients. Mycophenolate exhibits nonlinear absorption kinetics and is further complicated by enterohepatic recycling, plasma protein binding, and multiple drug interactions. Unfortunately, this means complex pharmacokinetic models are needed to assess the mycophenolate and often using a single level is a poor indicator of exposure and patient outcomes. This presentation will review the recent consensus report by the International Association of Therapeutic Drug Monitoring and Clinical Toxicology and the literature used to make the recommendations while discussing the role of MPA monitoring in solid organ transplant.

Learning Objectives

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

1. Review factors associated with inter- and intra-patient mycophenolate pharmacokinetic variability.
2. Describe current strategies to perform mycophenolate therapeutic drug monitoring.
3. Determine an optimal monitoring plan for the treatment of a solid organ transplant recipient.

Faculty Information

Tanner. A. Melton, PharmD
PGY1 Pharmacy Resident
Mayo Clinic Hospital - Rochester, MN

Tanner received a Doctor of Pharmacy degree from the University of California, San Diego – Skaggs School of Pharmacy and Pharmaceutical Sciences and is a current PGY1 pharmacy resident at Mayo Clinic Hospital – Rochester. His practice interests include solid organ transplant, infectious disease, and academia.



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

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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 for Interprofessional Continuing Education, Mayo Clinic College of Medicine and Science must ensure balance, independence, objectivity and scientific rigor in its educational activities. All who are in a position to control the content are required to disclose all financial relationships with any ineligible company. Faculty will also identify any off-label and/or investigational use of pharmaceuticals or instruments discussed in their content for FDA compliance.

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

The faculty report the following relationships:

- Tanner A. Melton, 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

All relevant financial relationships have been mitigated.

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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.**