



Pharmacy Grand Rounds

200 First Street SW
Rochester, Minnesota 55905
<https://ce.mayo.edu/pharmacy-grandrounds-2026>

Tox Box Unlocked: Rivastigmine Utilization for Diphenhydramine Toxicity

Session Date: 04/14/2026

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

This session provides a focused review of diphenhydramine overdose and its current management practices. Historically, treatment has relied on supportive care and the use of physostigmine as the primary antidote. However, with the recent discontinuation of physostigmine production and the resulting national shortages, clinicians are increasingly exploring alternative therapeutic options. This presentation will examine the hallmark clinical features of anticholinergic toxicity and compare the mechanisms of action, pharmacologic profiles, and therapeutic roles of rivastigmine. Emerging case reports evaluating rivastigmine as a potential alternative for managing anticholinergic toxicities will be highlighted. Practical considerations including dosing strategies and safety concerns are summarized to help guide decision making during antidote shortages.

Learning Objectives

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

1. Recognize the clinical presentation and pathophysiology of diphenhydramine overdose.
2. Discuss literature evaluating the use of physostigmine, rivastigmine, and neostigmine for the treatment of diphenhydramine toxicity.
3. Describe how rivastigmine could be beneficial for other anticholinergic toxicities.

Faculty Information

Lexi Nemgar, PharmD
PGY1 Pharmacy Resident
Mayo Clinic Health System – Albert Lea and Austin, MN

Lexi received a Doctor of Pharmacy degree from Northeastern University Bouvé College of Health Sciences and is a current PGY1 pharmacy resident at Mayo Clinic Health System – Albert Lea and Austin. Her practice interests include emergency medicine, toxicology, psychology, and critical care.



Approved Provider Statement



In support of improving patient care, 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.

AAPA



Mayo Clinic College of Medicine and Science has been authorized by the American Academy of PAs (AAPA) to award AAPA Category 1 CME credit for activities planned in accordance with AAPA CME Criteria. This activity is designated for 0.75 AAPA Category 1 CME credits. PAs should only claim credit commensurate with the extent of their participation.

ACPE



ACPE Universal Activity Number (UAN): JA0000238-0000-26-051-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

ANCC

Mayo Clinic College of Medicine and Science designates this activity for a maximum of 0.75 ANCC contact hours. Nurses should claim only the credit commensurate with the extent of their participation in the activity.

IPCE



This activity was planned by and for the healthcare team, and learners will receive 0.75 Interprofessional Continuing Education (IPCE) credit for learning and change.

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 Webcast](#) – Register from the Education SharePoint site

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 who have disclosed:

The faculty report the following relationships:

- Lexi Nemgar, PharmD
 - Declares no financial relationship(s) pertinent to this session
 - Declares off-label use of medications will be discussed during this presentation

Course Director and Planning Committee Members declare the following relevant financial relationship(s) pertinent to this session.

- No relevant financial relationship(s) with ineligible companies:
 - Jennifer Elmer, DNP, APRN, CCNS
 - Andrew Herber, PA-C
 - Sarah Jane Kotval, BSW, RSS Coordinator
 - Scott Nei, PharmD, BCPS, BCCCP, FCCM, FMSHP
 - Sara Thompson, PharmD, MEd, BCACP
- Relevant financial relationship(s) with ineligible companies:
 - Wayne Nicholson, MD, PharmD, BCPS - Intellectual Property - Anivive Lifesciences, Inc.

All relevant financial relationships have been mitigated.

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**.