

Mayo Clinic Pharmacy Grand Rounds

Activity Description

Mayo Clinic Pharmacy Grand Rounds Podcast is a weekly podcast delivered by pharmacists to healthcare professionals who routinely manage the selection and monitoring of medication(s) as part of their patient care duties. Each week, speakers deliver insight to healthcare providers on evidence-based pharmacology topics in nearly every specialty area. The podcast content applies to pharmacists, physicians, physician assistants, and nurse practitioners in the inpatient and ambulatory care practice settings who care for neonatal through geriatric patient populations.

Target Audience

This activity is appropriate for physicians, pharmacists, nurse practitioners, physician assistants, residents, fellows, students and allied health professionals.

Learning Objectives

Upon conclusion of this activity, participants should be able to:

- Select patient-specific pharmacotherapy for a broad scope of disease states
- Recall evidence-based literature to direct medication best-practices
- Identify controversial pharmacology topics and their potential impact on patient care

Attendance at this Mayo Clinic course does not indicate nor guarantee competence or proficiency in the performance of any procedures which may be discussed or taught in this course.

Accreditation 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 Statement(s)*

AMA

The Mayo Clinic College of Medicine and Science designates this enduring material for a maximum of 27.25 *AMA PRA Category 1 Credit(s)*[™]. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

ACPE



Mayo Clinic College of Medicine and Science designates this educational activity for a maximum of 27.25 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 enduring material for a maximum of 27.25 ANCC contact hours. Nurses 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. Approval is valid until 09/01/2023. This activity is designated for 27.25 AAPA Category 1 CME credits. PAs should only claim credit commensurate with the extent of their participation.

Disclosure Summary

As a provider accredited by Joint Accreditation Interprofessional Continuing Education, Mayo Clinic College of Medicine and Science 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 who have disclosed...

Relevant financial relationship(s) with industry:

None

No relevant financial relationship(s) with industry:

Jennifer L. Adema, Pharm.D., M.B.A.

Hannah M. Brokmeier, Pharm.D.

Darryl S. Chutka, M.D.

Catherine DeFino, Pharm.D.

Kellyn K. Engstrom, Pharm.D.

Madison L. Fazio, Pharm.D.

Mary A. Gilmer, PharmD, MHA, BCPS

Allison P. Golbach, Pharm.D.

Natalie A. Haddad, Pharm.D.

Abby K. Hendricks, Pharm.D.

Andrew J. Herber, P.A.-C.

Danielle M. Hess, Pharm.D.

Nicole L. Hlavacek, Pharm.D.

Mikaela M. Hofer, Pharm.D.

Linda L. Huang, Pharm.D.

Dylan L. Kosaski, Pharm.D.

Jade L. Kutzke, Pharm.D.

Laurel N. Lake, Pharm.D.

Jane A. Linderbaum, APRN, C.N.P.

Alicia E. Mattson, PharmD, BCPS, BCCCP

Victoria R. Milano, Pharm.D.

Lindsay N. Moreland-Head, Pharm.D.

Casey R. O'Connell, Pharm.D.

Joseph C. Osborne II, Pharm.D.

Ashley O. Otto, Pharm.D.

Shannon L. Piche, Pharm.D.

Hannah L. Poppen, Pharm.D.

Ashley Kate Ragan, PharmD

Jamie Reed, Pharm.D., BCPS

Mikhaila L. Rice, Pharm.D.

Garrett E. Schramm, Pharm.D.

Hannah Sauer, Pharm.D.

Cassandra J. Schmitt, Pharm.D.

Lee P. Skrupky, Pharm.D.

Nathan T. Smith, PharmD, BCPS

Sarah E. Stieven, Pharm.D.

Deann N. Tims, Pharm.D.

Yen Tran, Pharm.D., M.B.A.

Nicholas J. Vollmer, Pharm.D.

Kyle S. Wamsley, Pharm.D.

Andrew J. Webb, Pharm.D.

Erin D. Wieruszewski, PharmD, BCCCP

Alex B. Wontor, Pharm.D.

Joseph J. Zieminski, Pharm.D.

References to off-label and/or investigational usage(s) of pharmaceuticals or instruments in their presentation:

Mikhaila L. Rice, Pharm.D.	Merck & Co, Inc. - Letermovir
Allison P. Golbach, Pharm.D.	Dronabinol, Nabilone
Andrew J. Webb, Pharm.D.	X-Gen Pharamceuticals, Inc. – Neomycin Eli Lilly & Co – Vancomycin, Tobramycin Sandoz Inc – Amikacin Merck Inc. – Gentamicin Pfizer Inc. – linezolid, Clindamycin Janssen Inc – Levofloxacin Bayer Pharmaceuticals – Ciprofloxacin Sanofi, LLC – Telithromycin
Mikhaila L. Rice, Pharm.D.	Merck & Co., Inc.: Letermovir
Casey O'Connell, Pharm.D.	Fluoxetine, Sertraline, Citalopram, Escitalopram, Paroxetine, Fluvoxamine, Lithium, Ondansetron, Cyproheptadine, Olanzapine, Chlorpromazine
Mikaela M. Hofer, Pharm.D.	Amitriptyline, Brexanolone, Bupropion, Citalopram, Duloxetine, Escitalopram,

	Fluoxetine, Fluvoxamine, Nortriptyline, Paroxetine, Sertraline, Venlafaxine
Jade L. Kutzke, Pharm.D.	Biogen & Genentech, Inc.: Rituximab, Novartis Pharmaceuticals, Inc.: Cyclosporine A, Hospira, Inc.: Vincristine, Cumberland Pharmaceuticals, Inc.: N-acetylcysteine, Millenium Pharmaceuticals, Inc.: Bortezomib, & Shire Pharmaceuticals, Inc.: Recombinant ADAMTS13
Abby K. Hendricks, Pharm.D.	Aripiprazole, Asenapine, Chlorpromazine, Haloperidol, Iloperidone, Lurasidone, Olanzapine, Paliperidone, Quetiapine, Risperidone, Thiothixene, Ziprasidone, Lorazepam, Melatonin, Ramelteon, Suvorexant, Valproate
Alex B. Wontor, Pharm.D.	Acetaminophen, Atenolol, Cholestyramine resin, Dexamethasone, Digoxin, Diltiazem, Esmolol, Hydrocortisone, Lithium, Saturated solution of potassium iodide (SSKI), Methimazole, Metoprolol, Propranolol, Propylthiouracil
Victoria R. Milano, Pharm.D.	Prednisone, Methylprednisolone, Mycophenolate, Tacrolimus, Cyclophosphamide, Infliximab, & Tocilizumab
Deann N. Tims, Pharm.D.	Emmaus Life Sciences, Inc.: L-Glutamine (Endari); Novartis: Crizanlizumab (Adakveo); Global Blood Therapeutics: Voxelotor (Oxbryta)
Joseph C. Osborne II, Pharm.D.	Gabapentin, Pregabalin
Jamie Reed, Pharm.D., BCPS	Varies: Albuterol, Diphenhydramine, Famotidine, Methylprednisolone, Prednisone, Ranitidine
Nicholas J. Vollmer, Pharm.D.	Apotex Corp., Myland Pharmaceuticals Inc.: Tranexamic Acid; Teva Pharmaceuticals USA, Inc., Heritage Pharmaceutical: Tranexamic Acid; Prasco Laboratories, Acella Pharmaceuticals, LLC: Tranexamic Acid; X-GEN Pharmaceuticals, Inc., Fresenius Kabi USA, LLC: Tranexamic Acid; American Regent, Inc.: Tranexamic Acid
Natalie A. Haddad, Pharm.D.	Varies: Midodrine
Madison L. Fazio, Pharm.D.	Amgen and Sobi-anakinra; Novartis-canakinumab
Mikhaila L. Rice, Pharm.D.	Janssen Biotech, Inc.-Ibrutinib; AstraZeneca-Acalabrutinib; AbbVie Inc. and Genentech USA, Inc.-Venetoclax
Cassandra J. Schmitt, Pharm.D.	Genentech-Tenecteplase (TNKase)
Ashley O. Otto, Pharm.D.	Ursodeoxycholic acid (ursodiol); Diatrizoate meglumine; Diatrizoate sodium; Polyethylene glycol 3350 and electrolytes oral solution
Kyle S. Wamsley, Pharm.D.	Varies-Oral antibiotics for IE
Hannah M. Brokmeier, Pharm.D.	Pfizer-Eplerenone; Varies-Spironolactone
Jennifer Adema, Pharm.D.	Lilly USA LLC: Olumiant (Baricitinib); EMD Serono: Rebif (Interferon Beta-1a)
Mikhaila L. Rice, Pharm.D., BCPS	Novartis Pharmaceuticals Corporation: Imatinib; Pfizer, Inc.: Sunitinib; Bayer: Regorafenib; Deciphera Pharmaceuticals, Inc.: Ripretinib; Blueprint Medicines Corporation: Avapritinib; Takeda Pharmaceutical Co. Ltd.: Ponatinib; Exelixis, Inc.: Cabozantinib; Merck, Inc.: Lenvatinib; Pfizer, Inc.: Crenolanib; Jiangsu Chia-Tai Tianqin Pharmaceutical: Anlotinib; Daiichi Sankyo: Pexidartinib; Bristol Myer Squibb: Ipilimumab, Nivolumab; Karoypharm Therapeutics: Selinexor; Merck, Inc.: Temozolomide; Novartis, Inc.: Spartalizumab
Yen Tran, Pharm.D., M.B.A.	Belatacept, Bortezomib, Carfilomib, Clazakizumab, Daratumumab, Eculizumab, Imlifidase, Intravenous immunoglobulin, Obrituzumab, Rituximab, Tocilizumab
Nicole L. Hlavacek, Pharm.D.	Varies: Magnesium
Allison P. Golbach, Pharm.D., BCPS	Azacitadine, Cytarabine, Daunorubicin, Decitabine, Filgrastim, Fludarabine, glasdegib, Idarubicin, Liposomal daunorubicin/cytarabine, Pegfilgrastim, Venetoclax
Mikaela M. Hofer, Pharm.D.	New Medicon Pharma, Ferring Pharmaceuticals: Terlipressin (Teripress, Glypressin), Selepressin, Adreclizumab
Nathan T. Smith, PharmD, BCPS	Varies: Leuprolide, Nafarelin, goserelin, triptorelin, buserelin, histrelin, Flutamide, bicalutamide, Spironolactone, Finasteride, dutasteride, Estradiol, conjugated estrogens, progesterone, Medroxyprogesterone acetate, Testosterone enanthate, testosterone cypionate, Testosterone undecanoate
Erin D. Wieruszewski, PharmD, BCCCP	Varies: Desmopressin, Tranexamic acid
Kyle S. Wamsley, PharmD	Varies: Phenobarbital

For disclosure information regarding Mayo Clinic School of Continuous Professional Development accreditation review committee member(s) please visit: <https://ce.mayo.edu/content/disclosures>.

Mayo Disclaimer

Participation in this Mayo Clinic educational activity does not indicate nor guarantee competence or proficiency in the performance of any procedures which may be discussed or taught in this course. You should be aware that substantive developments in the medical field covered by this recording may have occurred since the date of original release.

Prerequisites for Participation

There are no prerequisites needed prior to participating in this education activity.

How to Obtain Credit

To obtain credit, complete the post-test, evaluation and submit.

Method of Participation

Participation in this activity consists of listening to the online podcast and completing the post-test and evaluation.

Release and Expiration Dates*

Release Date: September 2, 2020

Expiration Date: September 1, 2023

Acknowledgement of Commercial Support (required when applicable)

No commercial support was received in the production of this activity.

Faculty and Course Director Listing and Credentials

Course Directors:

Garrett E. Schramm, Pharm.D.
Darryl S. Chutka, M.D.
Lee P. Skrupky, Pharm.D.
Jane A. Linderbaum, APRN, C.N.P.
Andrew J. Herber, P.A.-C.

Faculty:

Jennifer L. Adema, Pharm.D., M.B.A.	Joseph C. Osborne II, Pharm.D.
Hannah M. Brokmeier, Pharm.D.	Ashley O. Otto, Pharm.D.
Catherine DeFino, Pharm.D.	Shannon L. Piche, Pharm.D.
Kellyn K. Engstrom, Pharm.D.	Hannah L. Poppen, Pharm.D.
Madison L. Fazio, Pharm.D.	Ashley Kate Ragan, PharmD
Mary A. Gilmer, PharmD, MHA, BCPS	Jamie Reed, Pharm.D., BCPS
Allison P. Golbach, Pharm.D.	Mikhaila L. Rice, Pharm.D.
Natalie A. Haddad, Pharm.D.	Hannah Sauer, Pharm.D.
Abby K. Hendricks, Pharm.D.	Cassandra J. Schmitt, Pharm.D.
Danielle M. Hess, Pharm.D.	Nathan T. Smith, PharmD, BCPS
Nicole L. Hlavacek, Pharm.D.	Sarah E. Stieven, Pharm.D.
Mikaela M. Hofer, Pharm.D.	Deann N. Tims, Pharm.D.
Linda L. Huang, Pharm.D.	Yen Tran, Pharm.D., M.B.A.
Dylan L. Kosaski, Pharm.D.	Nicholas J. Vollmer, Pharm.D.
Jade L. Kutzke, Pharm.D.	Kyle S. Wamsley, Pharm.D.
Laurel N. Lake, Pharm.D.	Andrew J. Webb, Pharm.D.
Alicia E. Mattson, PharmD, BCPS, BCCCP	Erin D. Wieruszewski, PharmD, BCCCP
Victoria R. Milano, Pharm.D.	Alex B. Wontor, Pharm.D.
Lindsay N. Moreland-Head, Pharm.D.	Joseph J. Zieminski, Pharm.D.
Casey R. O'Connell, Pharm.D.	

Copyright

Mayo Foundation for Medical Education and Research. All rights reserved. Copyright 2021