



US Deprescribing Research Network

ANNUAL REPORT 2022



Network Co-Principal Investigators: Michael Steinman, MD and Cynthia Boyd, MD, MPH

www.deprescribingresearch.org

Welcome

The US Deprescribing Research Network (USDeN) is a national research network devoted to supporting high-quality, high-impact research on deprescribing for older adults. Funded by the US National Institute on Aging since 2019, our work is organized around four key pillars:

We support Investigator Development by providing opportunities for learning, collaboration, and community.

We facilitate Stakeholder Engagement so that deprescribing research is responsive to the needs and perspectives of older adults and those who care for them.

We provide Pilot and Grant Planning Awards to catalyze novel research and junior investigator career advancement related to deprescribing.

We develop high-value Research Resources and Guidance to promote cutting-edge research and advance the field.



We welcome you to learn more and to join our community! Please visit us at **deprescribingresearch.org** to learn more and sign up for our listserv to keep abreast of upcoming events and resources.

Cynthia Boyd and Michael Steinman, Co-Principal Investigators, USDeN

What is Deprescribing?



Deprescribing refers to the thoughtful and systematic process of identifying problematic medications and reducing the dose or stopping these medications in a manner that is safe, effective, and helps people maximize their wellness and goals of care.

Deprescribing is not easy. Little is known about: how to best identify which medications are prime for deprescribing, how to safely and effectively stop them, and how to engage patients and families, clinicians, and the health system in this process in a seamless and patient-centered manner. These are the challenges our network seeks to address.

Why is Deprescribing Important?



In the US, 67% of older adults take 5 or more medications.¹



In the US, more than 1 in 7 older adults are using medications with potential for major drug-drug interactions.

15%

9%

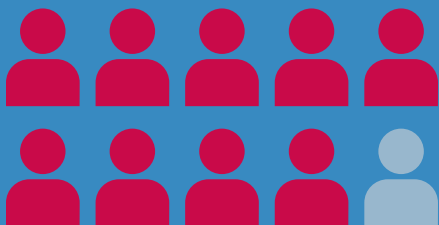


Adverse drug reactions account for 1 of every 11 hospital admissions among older adults.¹



2 out of every 3 older adults want to reduce the number of medications they are taking.²

67%



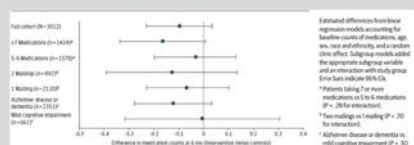
More than 9 in 10 would be willing to stop taking one or more of their medicines if their physician said it was possible.²

Investigator Development



Led by **Drs. Kenneth Boockvar, Jennifer Tjia, and Andrew Zullo** our Investigator Development Core is focused on building a community of learning, collaboration, and support for investigators interested in deprescribing.

Subgroups: Number of Chronic Medications



WEBINARS

In our third year, we organized or co-hosted 6 webinars with over 260 participants. Topics ranged from stakeholder-driven research to multi-site deprescribing trials. More than 86% of attendees rated the sessions as very good or excellent. Visit our website to learn more and view archived sessions.

ANNUAL MEETING

The capstone of our investigator development activities is our annual meeting. This meeting was a great success, with 129 registrants and an invigorating lineup of speakers, panels, and other activities, including keynote speaker Barbara Farrell, PharmD. We also had strong engagement with our poster session, with 50 posters presented and a very high level of enthusiasm. Program evaluations showed that 98% rated the overall meeting quality as very good or excellent, and we were especially pleased with new collaborations and relationships that emerged from their time together. Visit our website to view archived sessions and plans for our next annual meeting in May 2023.

JUNIOR INVESTIGATOR INTENSIVE PROGRAM

Thirteen early-career physician-, pharmacist-, and PhD-scientist investigators comprise our year-3 Junior Investigator Intensive (JII) cohort. The JII program provides an interdisciplinary community of learning with virtual works-in-progress conferences, core curriculum, office hours, and special webinars designed to help participants advance their research careers. Applications for our next cohort are due in February 2023.

All three cohorts of the JII program gathered for an evening event following the Annual Network Meeting on May 11th in Orlando, Florida. This event was an opportunity for cohort members to connect and collaborate on potential deprescribing-related projects. Discussion topics included barriers and facilitators to managing multiple chronic conditions, defining value in deprescribing, making deprescribing reimbursable, and polyprescribing. Several investigators were inspired to write an article on polyprescribing, defined as the receipt of multiple medications from multiple providers. This group of investigators, led by JII members Drs. Michelle Keller and Armando Silva Almodóvar, will submit a polyprescribing viewpoint paper for publication in the coming months.



Research in Dementia

The network has received supplemental funding from the National Institute on Aging to conduct dedicated research on Alzheimer's Disease and related dementias. The following projects have been supported by this funding mechanism and provide additional opportunities to advance research on deprescribing.



Ariel Green, MD, MPH, PhD

Johns Hopkins University School of Medicine

Few deprescribing interventions have specifically identified or engaged family and unpaid caregivers of people living with dementia. Purposeful engagement of caregivers is critically important for implementing deprescribing for people living with dementia, but many pragmatic clinical trials lack the means to reliably identify these caregivers. In this project, Dr. Green is iteratively refining a tool for identifying caregivers of people

Identifying Caregivers to Support Care and Research for Patients with Memory Disorders

living for dementia through the electronic health record, employing a user-centered design process involving in-depth interviews with patient-caregiver dyads, direct care staff, clinicians, and health system leaders, and then testing the resultant tool. Dr. Green is currently conducting interviews with key stakeholders and developing a paper version of the tool for identifying caregivers of individuals with memory problems.



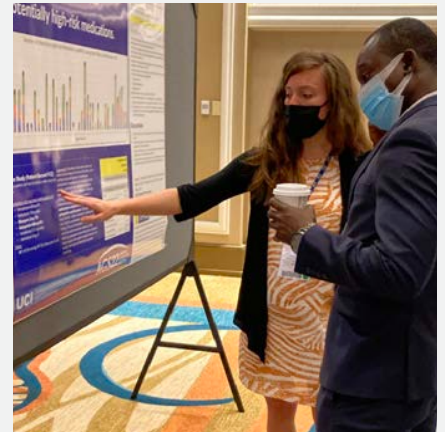
Daniela Moga, MD, PhD

University of Kentucky College of Pharmacy

Medication-related problems are often the cause of emergency room visits, hospitalizations, and transition to higher levels of care among older adults experiencing Alzheimer's Disease or other forms of cognitive impairment. Medication complexity adds to caregiver burden and often results in negative health outcomes and diminished quality of life for both the person living with dementia and the caregiver. Medications pose a challenge in the best of circumstances, and even more so in underserved,

Assessment of Medication Optimization in Rural Kentucky Appalachian Patients with Mild Cognitive Impairment or Dementia

lower socioeconomic populations in rural Appalachian Kentucky. Dr. Moga will study opportunities to enhance deprescribing and medication optimization for these populations by performing a single-arm study of a telemedicine-based medication therapy management intervention for cognitively impaired Kentuckians living in rural communities and using potentially inappropriate medications. Thirteen participants are enrolled in the study, ten of which have received the intervention to date.



Pilot and Grant Planning Awards



Led by **Drs. Sandra Simmons** and **Amanda Mixon**, our Pilot Core provides several varieties of grants.

Pilot Awards are 1-year awards designed for junior investigators to conduct small-scale or pilot projects that can lead to future, larger research opportunities. Grant Planning Awards are 1-year awards designed for more experienced investigators to support planning activities for large-scale grants. Applications for next year's awards are due in January 2023. In addition, in summer 2022 we were awarded a \$900,000 administrative supplement from the National Center for Complementary and Integrative Health to expand our pilot program to support large pilot studies on the use of complementary and integrative health modalities to

support benzodiazepine deprescribing in older adults. Applications are also due in January 2023. Finally, we fund small Collaboration Grants to facilitate discrete activities that will enhance new collaborations between and among investigators and stakeholder groups.

Our Pilot Core works closely with the Stakeholder Engagement Core and meets regularly with funded investigators to help them advance their work, troubleshoot problems, and identify best practices for partnering with stakeholders.



PROFILE

Jinjiao Wang, PhD, RN
Pilot Grant Awardee

Dr. Wang is an Assistant Professor at the University of Rochester School of Nursing, where she conducts health services research focusing on home-based care for older adults. In her USDeN pilot study, Dr. Wang first collected key perspectives on the process of medication reconciliation and optimization from stakeholders through qualitative interviews and group concept mapping. The stakeholders included patients, primary care providers, hospitalists, post-acute care providers, clinical pharmacists, and home health care clinicians from eight U.S. states. Dr. Wang found that stakeholders are confident in home health care's role in deprescribing during post-acute care transitions; they

YEAR 3 AWARDEES

Matthew Duprey, PharmD, PhD

Brown University

Novel methods for estimating the effects of deprescribing using observational data

Maria Papaleontiou, MD

University of Michigan

Deprescribing thyroid hormone replacement therapy in older adults with dementia

Min Kwak, MD, MS, DrPH

The University of Texas Health Science Center

Intensity of heart failure pharmacotherapy among older adults

Jinjiao Wang, PhD, RN

University of Rochester

Interdisciplinary deprescribing via telehealth in home health care: an intervention development study

Nagham Ailabouni, BPharm, PhD

University of South Australia

Empowering people living with dementia and their caregivers to initiate deprescribing conversations by developing the PRIME tool



also pointed to the importance of successful collaboration between primary care and home health care for deprescribing. Next, using these stakeholders' perspectives, Dr. Wang worked closely with an interdisciplinary team of scientific advisors to develop a home health care service-based intervention to improve deprescribing for older adults during post-acute care transitions. Last, Dr. Wang and her team will conduct a pilot feasibility trial to examine the feasibility and acceptability of this intervention when delivered through routine home health care services.

“ The USDeN family is just amazing! The USDeN pilot program is so supportive. It provided me opportunities to regularly check in with pilot program directors who are senior deprescribing researchers, consult with stakeholder-engagement experts, and access a rich resource library, including literature, tools, measurements, and even IRB materials. I have learned much in conducting the USDeN pilot study, and I plan to apply for major research and career development awards to further develop this work.

JINJIAO WANG, PHD, RN

”

YEAR 4 AWARDEES

Anna Hung, PharmD, PhD, MS

Duke University

Impact of Medication Therapy Management for Potentially Inappropriate Medications

Lauren Hunt, PhD, RN, FNP-BC

University of California, San Francisco

Deprescribing of Antidementia Drugs for People with Dementia Enrolled in Hospice

Timothy Anderson, MD, MAS

Beth Israel / Harvard University

Perspectives of Older Adults with Chronic Pain and Primary Care Providers on Opioid Deprescribing

Hyunjin Noh, PhD, MSW

University of Alabama

Understanding Attitudes toward Deprescribing and Non-Pharmacological Pain Management among Older Adults with Multiple Chronic Conditions

Wade Thompson, PharmD, MSc, PhD and

Carina Lundby, MScPharm, PhD

University of British Columbia & Odense U. Hospital

Measuring Quality of Life in Deprescribing Trials



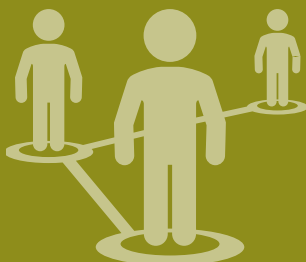
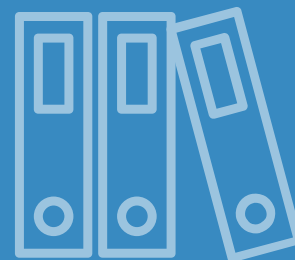
Data and Resources and Working Groups



Led by **Drs. Elizabeth Bayliss** and **Sascha Dublin**, the Data and Resources Core offers a variety of resources and expert guidance to support deprescribing research, with additional resources currently under development. In addition, the network has convened a series of Working Groups to develop high-value resources and best-practice guidance to advance the field.

IRB AND DATA SAFETY MONITORING RESOURCES

Deprescribing research poses special challenges for regulatory review and data safety monitoring. For example, if a medication is stopped and a study subject experiences a clinical event that could be prevented by that medication, does that count as a safety event? We have compiled a compendium of successful IRB applications and data safety monitoring plans that demonstrate how experienced investigators have navigated these challenges.



CONSULTATION SERVICES

Investigators can request a free, one-hour consultation with a subject matter expert to provide guidance on a specific issue in their research. This service is open to all. In addition, we strongly encourage Pilot and Grant Planning Award awardees and Junior Investigator Intensive awardees to make use of this resource.

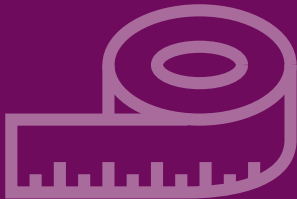
LITERATURE SEARCH STRATEGY GUIDANCE

The field of deprescribing has evolved over the past thirty years, and investigators conducting deprescribing research need to know what other studies are in their area to gain insights, facilitate collaborations, harmonize measures across studies, and to avoid duplication of efforts. To further support these efforts, we have developed a literature search strategy guidance tool that can use broad and narrow search parameters tailored to an investigator's purpose for the literature search.



HIGH-VALUE TARGETS FOR DEPRESCRIBING

This Working Group, led by Dr. Shelly Gray, developed a systematic review and meta-analysis of deprescribing studies to identify what types of interventions, medications, and care settings yield the greatest impact for deprescribing and associated clinical outcomes. This manuscript, currently under review for publication, will help inform priority areas for future research and implementation.



MEASUREMENT IN DEPRESCRIBING RESEARCH

This Working Group, led by Dr. Elizabeth Bayliss, conducted a literature review and expert Delphi process to identify what outcome measures are most important to measure in studies of deprescribing, and then define the current state of science about these high-priority measures. Results from this effort, published in the Journal of the American Geriatrics Society, are guiding efforts to harmonize outcome measurement across studies of deprescribing interventions and helping to stimulate new areas of measure development and consensus.

DATA HARMONIZATION WORKING GROUP

This Working Group, led by Dr. Sascha Dublin, is developing and refining methods around creating, operationalizing, and implementing measures relevant to deprescribing studies across 5 institutions with different data systems, including Kaiser Washington, Duke, University of Pennsylvania, Kaiser Colorado, and the Durham VA Health Care System. This work is developing infrastructure for multi-



site research including preparing study sites for future deprescribing trials and informing the creation of a “user’s guide” for using electronic health data for deprescribing research. The use of diverse sites and the user’s guide will lay a roadmap for other sites to participate in a single- and/or multi-site research efforts in deprescribing that use electronic health data.

Stakeholder Engagement



Engaging with the users of deprescribing research – including patients and caregivers, clinicians, and health system and policy leaders – is a key principle that underlies the work of the network. Led by **Drs. Nicole Brandt** and **Catherine Sarkisian** and **Ms. Carmen Reyes**, the Stakeholder Engagement Core supports

a number of initiatives that amplify this theme. Stakeholder representatives and core leaders participate in the development and review of pilot and grant planning awards, meet with network awardees, and participate in pilot and grant planning awards, engage with Junior Investigator Intensive awardees, and more.

STAKEHOLDER ENGAGEMENT COUNCIL

The Stakeholder Engagement Council comprises older adults and their caregivers as well as health care professionals and health systems representatives. The Council provides input on network activities, helps select network awardees, and serves as a conduit for disseminating network-sponsored research to communities of interest.



A. BERMAN



G. CHENG BRAUN



D. BROOKS



S. CHOI



P. D'ANTONIO



E. JIMENEZ



K. MASLOW



K. MERCER



P. STANBACK MILLER



D. PRICE



R. QUINTANILLA



J. QUINTON



S. RODRIGUEZ-SHAPIO



D. WALES



C. WORZ

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As a new member of the USDeN Stakeholder Engagement Council, I have been fortunate to listen in to so many thoughtful minds expanding the possibilities for deprescribing. The researchers and the members bring such skill and most heartfelt wishes for those populations we serve or are family members. Grateful for the opportunity to share my own thoughts and experience with serving a very diverse population with its own challenges. Hoping it can add to goal of optimal and equitable health for all.

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Rosario Quintanilla

Public Affairs Specialist, U.S. Food and Drug Administration

In Our Third Year:

5 pilot and grant planning awards awarded



**13 participants in the
Junior Investigator Intensive program**

**168 papers published by
network-supported investigators**



866 network members

**23,000 website impressions;
2,110 Twitter followers**



**Collaborations with the AGING Initiative,
NIDUS (Network for Investigation of Delirium: Unifying
Scientists), American Geriatrics Society, Research Centers
Collaborative Network, and more**

**97% of network members somewhat or extremely
satisfied by the work of the network**





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