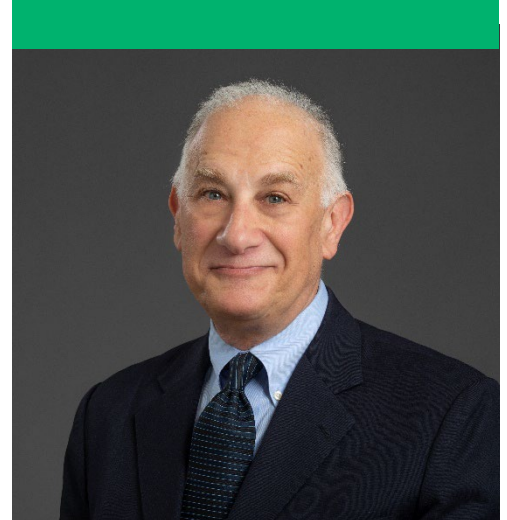


Robert A. Weinstein, MD

The C. Anderson Hedberg, MD, Professor of
Internal Medicine



Advancement of Medicine

In 2023, I continued to study long COVID. I am the national principal investigator, or PI, for a Centers for Disease Control and Prevention-funded contract to Rush focusing on COVID-19's natural history of infection by comparing "Long COVID" symptoms over two to three years in those with and without SARS-CoV-2 infection. In addition to Rush as the lead site, we have collaborated with medical researchers at Yale, the University of Washington, University of California at Los Angeles, University of California San Francisco, Thomas Jefferson University, University of Texas Houston, and Southwestern Medical Center to enroll approximately 6,000 participants nationally.

What have we found? Major results so far include a protective effect of vaccination for COVID-19, lessening risk of subsequent long COVID; similarity of post-COVID long-term symptoms in those with COVID compared to other infections (or due to the disruptive effects of the pandemic on life per se); occurrence of chronic fatigue syndrome in 3-5% of COVID patients and also in those with other infections during the pandemic; a number of equity issues for those with long COVID; and shifts over time in the type and prevalence of long COVID symptoms, with continued general improvement over three to 12 months.

Based on our data, we have eight publications in the peer-reviewed medical literature and another 12 manuscripts in preparation, which is a publication record that far exceeds the usual productivity of federally-funded studies. Our data is being used by the CDC as a dashboard to provide information on the CDC's website for the research community and the public about the rates of long COVID.

In August 2023, I lectured at the CDC and presented our final results of the Innovative Support for Patients with SARS-CoV-2 Infections (INSPIRE) Registry Study.



Before COVID, my research focused on control of antibiotic-resistant bacteria and fungi. We have shown the role of intensive care units as epicenters of resistance in hospitals and the role of long-term care facilities in regional spread of resistant organisms. Importantly, our work has demonstrated novel and effective control measures to stem this spread. Specifically, we have shown that ill patients in hospitals, especially those in intensive care and in long-term care facilities, are like microbiologic chameleons, in that the skin of these patients often becomes covered with the host institution's most resistant bacteria and with bacteria more often found in the lower GI tract.

This finding of changes in the skin "microbiome" led to a key and unique infection control intervention—daily patient cleansing with disinfectant wipes—to remove this "patina of resistant bacteria." This approach, which we developed and pioneered at Rush and Cook County Hospital, is now used in most hospital intensive care units and many long-term care facilities in the United States and in many hospitals worldwide. This intervention continues to be studied actively, and multi-institution studies by others repeatedly have supported the effectiveness and impressive value of this approach.

Research

Funds from the C. Anderson Hedberg, MD, endowment have insured my continued ability to conduct the seminal infection control research described above and to be able to contribute to new research endeavors aimed at understanding the ongoing COVID pandemic.

Clinical Trials

I am PI on our 2020-2023 CDC-funded project, "Innovative Support for Patients with SARS-CoV-2 Infections (INSPIRE) Registry." I am a co-investigator on four CDC-, three National Institutes of Health- and one Agency for Healthcare Research and Quality-funded studies.

Publication Highlights — Abbreviated

- I continue to co-author *Chicago Tribune* op-eds on COVID.
- I continue to contribute chapters to the landmark textbook, *Harrison's Textbook of Medicine*, and to Bennett and Brachman's *Hospital Infections Textbook*.

- I continue to serve on the International Scientific Advisory Board for the European Clinical Research Alliance on Infectious Diseases, or ECRAID, and continue to serve as a subject matter expert reviewer for *UpToDate*.
- I served on Illinois and Chicago Health Department Advisory Committees; was an expert reviewer for multiple medical journals; served on the Editorial Board for *Infection Control and Healthcare Epidemiology*; was a member of the Society for Healthcare Epidemiology of America's 2021-2023 Compendium Expert Panel, overseeing updating of national/international guidelines in infection control; and served as an advisor on antibiotic resistance for the editors of the CDC-based journal, *Emerging Infectious Diseases*.
- "Nasal iodophor antiseptic vs nasal mupirocin antibiotic in the setting of chlorhexidine bathing to prevent infections in adult ICUs: A randomized clinical trial," *JAMA* (2023).
- Executive Summary: A compendium of strategies to prevent health care-associated infections in acute-care hospitals: 2022 updates," *Infection Control & Hospital Epidemiology* (2023).
- "Long COVID clinical phenotypes up to 6 months after infection identified by latent class analysis of self-reported symptoms," *Open Forum Infectious Diseases* (2023).
- "Association between SARS-CoV-2 variants and frequency of acute symptoms: Analysis of a multi-institutional prospective cohort study-December 20, 2020-June 20, 2022," *Open Forum Infectious Diseases* (2023).
- "Three-month symptom profiles among symptomatic adults with positive and negative severe acute respiratory syndrome coronavirus 2 tests: a prospective cohort study from the INSPIRE Group," *Clinical Infectious Diseases* (2023).

The Year Ahead: 2024 and Beyond

We are extending our study of Long COVID into a bridge period to continue to follow our national cohort of COVID-19 survivors to understand the impact of the pandemic on patients' and the nation's well-being and, importantly, on additional, long-term health care costs of the pandemic.



With my colleagues, we will continue to refine our tracking and control of antibiotic-resistant bacteria and fungi on a regional, statewide and national scale with a particular focus on intensive care units and on long-term care facilities.

With Gratitude

It is an honor and privilege to be the C. Anderson Hedberg, MD, Professor of Internal Medicine and to have my role at Rush and my work supported by your generosity. Dr. Hedberg was a leader in American medicine. To occupy a professorship in his name is a great distinction. I treasure this position and the opportunities it has unlocked at Rush as well as at the regional, national and international level.