

ASP-AMERICAN GERIATRICS SOCIETY FOUNDATION FOR HEALTH IN AGING AWARD



Award Recipient:

LONA MODY, MD
UNIVERSITY OF MICHIGAN MEDICAL SCHOOL

PROJECT:

ANTIMICROBIAL RESISTANCE IN NURSING HOMES: IMPLICATIONS FOR INDWELLING DEVICE USE

MENTORSHIP TEAM:

SUZANNE BRADLEY, MD

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By being involved in a variety of projects focusing on antimicrobial resistance and infections in nursing homes, I have grown to appreciate the incredible complexity of applying infection control measures in them. Infection control in nursing homes must be simple and practical and recognize the complex organizational issues of the facilities as well as the care concerns of older adults. Most data on outcomes of infection control measures come from hospitals, where intensive surveillance and active infection control programs have led to significant reductions in infection rates. Nursing homes do not have the ability to implement programs as extensive as those recommended for hospitals. In addition, nursing home residents cannot be easily placed under isolation conditions and still participate in appropriate social interactions.

Targeted surveillance that focuses on high-risk residents (e.g., those with indwelling devices) may be more practical in this setting. Indwelling devices, especially urinary catheters and feeding tubes, are commonly used and appear to play a key role in the development of urinary tract infections, aspiration pneumonias, and antimicrobial resistance.

The overall goal of the proposed research plan as a Williams Scholar is to understand the magnitude of the risk of infections and antimicrobial resistance attributable to

commonly used devices, characterize molecular epidemiology of resistant pathogens, and identify the barriers to implementation of infection control practices. These investigations will lead to the development of practical, effective, and focused infection control strategies to reduce infections and resistant pathogens such as methicillin-resistant *Staphylococcus aureus* and vancomycin-resistant enterococci in nursing homes. To this end, I will collaborate with the Division of Infectious Diseases, School of Public Health, and Center for Molecular and Clinical Epidemiology of Infectious Diseases (MAC-EPID) at the University of Michigan.

While I have successfully completed my clinical and research training in geriatrics and have taken final courses for a master's degree in epidemiology, this ASP-American Geriatrics Society Foundation for Health in Aging Award has given me a great opportunity to learn practical implementation of infection control principles and specific molecular epidemiology techniques to characterize antimicrobial resistance. Besides achieving my career goal to be an independent investigator as an epidemiologist and outcomes researcher, my collaboration with the Division of Infectious Diseases and School of Public Health will also be ideal to attract both infectious diseases and geriatrics fellows interested in infectious diseases research in older adults.

