Dr. Susan Huang

Professor and Director of Epidemiology and Infection Prevention, Department of Medicine, Division of Infection Diseases at UCI Health

Irvine, CA, US

Dr. Huang?s is one of the nation's leading experts on clinical epidemiology of highly antibiotic-resistant organisms.

Biography

Dr. Huang?s research focuses on the clinical epidemiology of highly antibiotic-resistant organisms including estimating the risk for infection and assessing practical means for prevention. Dr. Huang?s work involves studying the risks of healthcare-associated transmission of methicillin-resistant Staphylococcus aureus (MRSA) and vancomycin-resistant enterococcus (VRE), including both short and long-term sequelae due to these pathogens within and beyond the hospital stay. Her scope of research also includes an evaluation of inter-facility spread and containment of these pathogens, including the intersection of preventative measures on hospital networks, affiliated nursing homes, and surrounding communities. She has evaluated several strategies to mitigate transmission and disease, including active surveillance and institution of contact precautions, enhanced environmental cleaning, and, most recently, leading several large individual and cluster randomized trials of decolonization to reduce multidrug-resistant organisms and healthcare-associated infections. Dr. Huang has also built a population laboratory in a large metropolitan county in Southern California (Orange County, CA). She has performed detailed data collection across all hospitals and nursing homes in this county, including extensive details on inter-facility patient sharing, infection control practices, and ICUs, non-ICUs, and nursing homes estimates of pathogen burden in this county. These detailed population data are the foundation for a dynamic transmission model of Orange County facilities and communities built through the NIH Models of Infectious Disease Agent Study (MIDAS) collaborative. This model will allow simulation of intervention strategies as well as prediction of future trends in transmission and disease burden for MRSA and other pathogens. Beyond MRSA, Dr. Huang is broadly interested in the measurement and prevention of healthcare associated infections. She has evaluated more efficient ways to look at relative hospital rankings using administrative data, and has balanced this with rigorous in depth assessments related to accuracy and completeness of reporting. She has specific interests in the use of automated hospital and claims data to assess pathogen clusters and surgical site infections.

Areas of Expertise

MRSA, Pandemics, Epidemiology and Infection Prevention, Infectious Diseases, Antimicrobial Resistance

Affiliations

Infectious Diseases Society of America : Fellow, Society of Healthcare Epidemiology of America : Member, American College of Physicians : Fellow

Education

Harvard School of Public Health
MPH Quantitative Methods

Johns Hopkins University School of Medicine
MD Medicine

Brown University
BS Neuroscience

Accomplishments

Team Award for Outstanding Achievement
2018 Epidemiology & Infection Prevention, conferred by Chief Nursing Officer, UC Irvine Health

Abstract Award
2017 ?When a Home is Not a Home: MultiDrug-Resistant Organism (MDRO) Colonization and Environmental Contamination in 28 Nursing Homes (NHs),? Older Adults Interest Group, Infectious Diseases Society of America (IDSA)

IDWeek Program Committee Choice Award
2017 Plenary Presentation. SHEA Featured Oral Abstract, ?The CDC SHIELD Orange County Project ? Baseline Multi Drug-Resistant Organism (MDRO) Prevalence in a Southern California Region,? IDWeek (6th Annual Joint Meeting of IDSA, SHEA, HIVMA, and PIDS), October 6, 2017 (San Diego, CA).

SOAR Award
2016 Nosocomial C. difficile Infection Reduction Project, UC Irvine Health

Oswald Avery Award
2016 Infectious Diseases Society of America (early recognition award for outstanding achievement in an area of infectious diseases by an individual 45 years or younger)
