

Ari Frenkel, MD, MPH

Board-Certified Infectious Disease and Internal Medicine Physician
Epidemiology and Clinical Informatics
Antimicrobial Stewardship

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PROFESSIONAL SUMMARY

Board-certified Infectious Disease physician with over 17 years of combined clinical, hospital, and leadership experience in infectious disease, internal medicine, antimicrobial stewardship, and managing complex infections. Co-founder and Chief Science Officer of Arkstone Medical Solutions, developing artificial intelligence and machine learning–based clinical decision support systems (CDSS) for antibiotic optimization and antibiotic resistance mitigation.

Extensive experience in hospital-based infectious disease consultation, antimicrobial stewardship program development, molecular diagnostics interpretation, and clinical leadership across multi-state healthcare systems. Published author and academic faculty member with subject matter expertise in all areas of infectious disease, including bacteremia management, bone, joint, and spinal infections, orthopedic hardware-associated infection, spinal implant infection, heart infections, as well as expertise in appropriate antimicrobial selection and stewardship.

Available for expert witness consultation in matters involving:

- Infectious disease management
 - Sepsis and bacteremia
 - Bone and joint infections
 - Spine infections
 - Heart-related infections
 - Antibiotic selection, timing, and dosing
 - Antimicrobial stewardship standards of care
 - Hospital infection control protocols
 - Standard-of-care deviations in infectious disease treatment
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BOARD CERTIFICATION

American Board of Internal Medicine (ABIM)

- Internal Medicine (Certified 2012 – Present)
- Infectious Disease (Certified 2015 – Present)

National Board of Physicians and Surgeons (NBPAS)

- Internal Medicine (2021 – Present)
 - Infectious Disease (2021 – Present)
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LICENSURE

- Florida – Unrestricted (Active)
- Texas – Unrestricted (Active)
- Alabama – Unrestricted (Active)

No history of license suspension, restriction, or disciplinary action.

EDUCATION

Master of Public Health (MPH)

Yale School of Public Health
2021 – 2023

Doctor of Medicine (MD)

Saint Matthew's University
2006 – 2009

Bachelor of Arts, Philosophy

Brooklyn College
Magna Cum Laude
Phi Beta Kappa

POSTGRADUATE TRAINING

Fellowship – Infectious Disease

East Carolina University, Brody School of Medicine
2012 – 2014

Chief Resident – Internal Medicine

United Health Service Hospitals (SUNY Upstate Affiliated)
2011 – 2012

Residency – Internal Medicine

United Health Service Hospitals
2009 – 2012

PROFESSIONAL EXPERIENCE

Chief Medical Officer & Co-Founder

Arkstone Medical Solutions, LLC

2018 – Present

- Developed AI/ML-driven clinical decision support systems for antimicrobial stewardship
 - Led validation studies assessing concordance between AI recommendations and physician decision-making
 - Oversaw integration of molecular diagnostics into therapeutic guidance platforms
 - Developed antibiotic optimization protocols aligned with national guidelines
 - Head Researcher and published author in peer-reviewed journals
 - Educating physicians, nurse practitioners, and physician assistants on infectious disease management and antibiotic utilization.
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Infectious Disease Physician

Infection Care of Florida

2018 – Present

- Provide concierge infectious disease consultations on a highly selective, case-by-case basis, focusing on complex or specialized clinical scenarios.

Medical Director, Nursing Home

Naples, Florida | 2018 – 2020

Provided medical oversight for long-term care residents. Collaborated with interdisciplinary teams to optimize patient outcomes and regulatory compliance

Director of Antimicrobial Stewardship

ECM / North Alabama Medical Center

2016 – 2018

Shoals Hospital

2017 – 2018

- Developed and implemented the first antimicrobial stewardship programs at both institutions
 - Established antibiotic utilization review protocols
 - Provided hospital-wide education on antimicrobial resistance
 - Created standardized infection management pathways
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Medical Director of Infectious Disease

RegionalCare Hospital Partners (16 hospitals, multi-state system)

2018

- Provided leadership in antimicrobial stewardship development across 18 hospitals
 - Developed standardized infection protocols and antibiotic oversight measures
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Infectious Disease Consultant/Infection Care of North Alabama

North Alabama Medical Center & Shoals Hospital

2014 – 2018

ACADEMIC APPOINTMENT

Clinical Affiliate Assistant Professor of Infectious Disease
Schmidt College of Medicine
Florida Atlantic University
2024 – Present

Clinical Instructor/Faculty
Alabama College of Osteopathic Medicine
DeBusk College of Osteopathic Medicine
Jan 2015- April 2018

PUBLICATIONS (Selected Peer-Reviewed)

Frenkel A, et al.

Comparison of OneChoice AI-based clinical decision support recommendations with infectious disease specialists and non-specialists for bacteremia treatment in Lima, Peru
Comparison of OneChoice AI-based clinical decision support recommendations with infectious disease specialists and non-specialists for bacteremia treatment in Lima, Peru
PLOS One. 2026 Apr 17.

Frenkel A, et al.

Guiding Antibiotic Therapy with Machine Learning: Real-World Applications of a CDSS in Bacteremia Management.
Life. 2025 Nov 15.

Frenkel A, et al.

Internal Validation of a Machine Learning-Based CDSS for Antimicrobial Stewardship.
Life (MDPI). 2025 Jul 17.

Frenkel A, et al.

AI-Based Treatment Recommendations Enhance Speed and Accuracy in Bacteremia Management: A Comparative Study of Molecular and Phenotypic Data.
Life (MDPI). 2025 May 27.

Frenkel A.

The Need for an Outpatient Antimicrobial Stewardship Program (ASP).
The Infection Prevention Strategy. 2020.

Frenkel A.

Current Issues in and Approaches to Antimicrobial Resistance.
Infectious Disease Special Edition. 2014.

Frenkel A.

Ceftaroline – A Cause for Neutropenia.
Journal of Clinical Pharmacy and Therapeutics. 2013.

BOOKS

Frenkel A.

Molecular Diagnostics of Infectious Diseases. 2025.

Frenkel A.

Diagnóstico Molecular de Enfermedades Infecciosas. 2nd Edition. 2023.

Everybody is Special. 2020

Children's book about disability inclusion

PROFESSIONAL MEMBERSHIPS

Infectious Diseases Society of America (IDSA)
