INFLUENTIAL PUBLICATIONS IN ANTIMICROBIAL STEWARDSHIP FROM THE PAST YEAR

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Duke University School of Medicine

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dason DUKE STEWARDSHIP OUTREACH NETWORK

dason.medicine.duke.edu

Disclosures

Biomeme (licensed technology, to my institution)

Charles River Laboratories (research grant to my institution)

Entasis Therapeutics (consulting honorarium)

Scynexis (research grant to my institution)

Patent pending, methods to detect fungal infection

Board member: Society of Infectious Diseases Pharmacists 2021-2024

All relevant financial disclosures have been mitigated

Impact of COVID-19

Clinical Infectious Diseases

Impact of the COVID-19 Pandemic on Inpatient Antibiotic Use in the United States, January 2019 Through July 2022

Erin N. O'Leary,[1,2] Melinda M. Neuhauser,[1] Arjun Srinivasan,[1] Heather Dubendris,[1,2] Amy K. Webb,[1,2] Minn M. Soe,[1] Lauri A. Hicks,[1] Hsiu Wu,[1] Sarah Kabbani,[1] and Jonathan R. Edwards[1]

[1]Division of Healthcare Quality Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia, USA; and [2]Lantana Consulting Group, Inc, Thetford, Vermont, USA

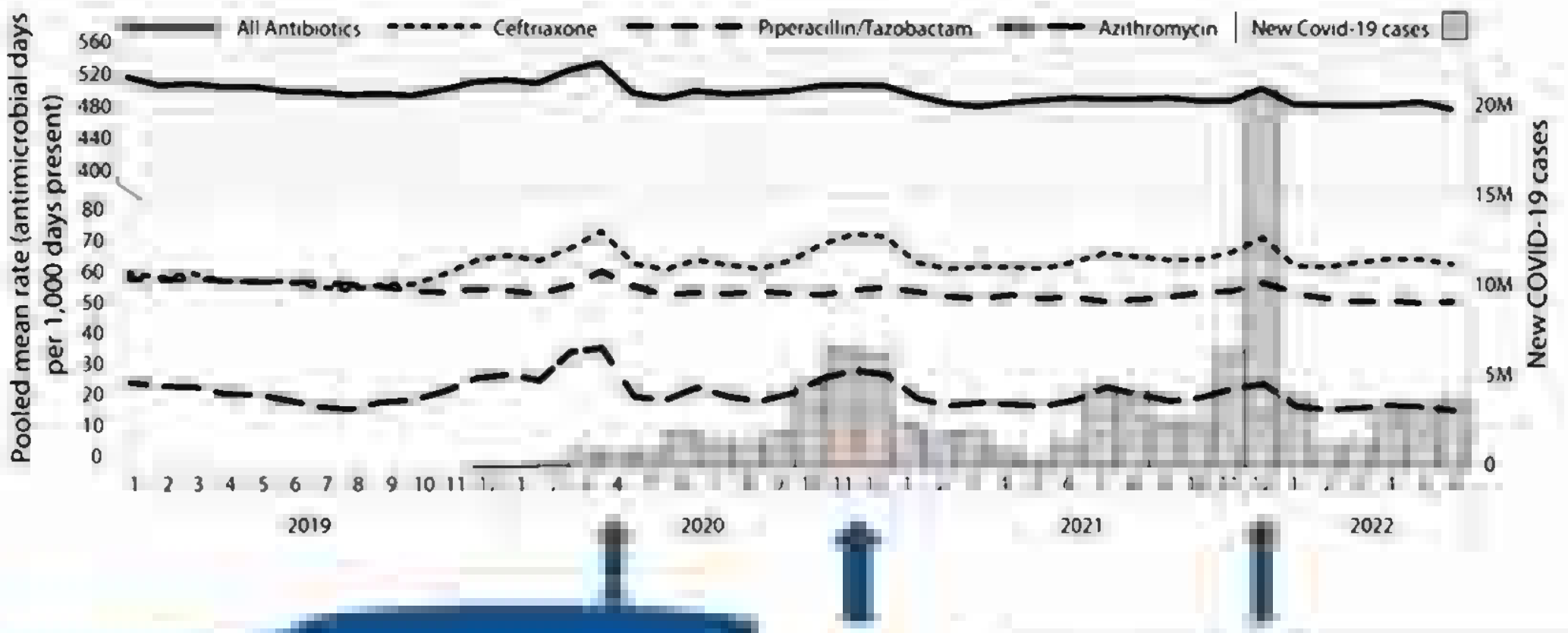
Retrospective analysis of NHSN antibiotic use data

Jan 2019- July 2022

533 acute care hospitals

O'Leary EN et al. Clinical Infectious Diseases, ciad453, https://doi.org/10.1093/cid/ciad453

Figure 1. Pooled mean AU rates and new COVID-19 cases, January 2019 through July 2022, by month



Total antibiotic use ↑ 7% from April 2019 to April 2020
Azithro ↑ 64%; Ceftriaxone ↑ 27%; Pip/Tazo ↑ 5%

antimicrobial use increased with COVID waves, but less so as the pandemic evolved

O'Leary EN et al. Clin Infect Dis, ciad453, https://doi.org/10.1093/cid/ciad453

State of Stewardship

Infection Control & Hospital Epidemiology (2023), **44**, 861–868
doi:10.1017/ice.2022.241

SHEA

Original Article

Use of leading practices in US hospital antimicrobial stewardship programs

Edward A. Stenehjem MD, MSc[1], Barbara I. Braun PhD[2], Salome O. Chitavi PhD[2], David Y. Hyun MD[3], Stephen P. Schmaltz PhD[2], Mohamad G. Fakih MD, MPH[4], Melinda M. Neuhauser PharmD MPH[5], Lisa E. Davidson MD[6], Marc J. Meyer BPharm, RPh[7], Pranita D. Tamma MD, MHS[8], Elizabeth S. Dodds-Ashley PharmD MHS[9] and David W. Baker MD MPH[2]

[1]Division of Infectious Diseases and Epidemiology, Intermountain Healthcare, Salt Lake City, Utah, [2]Division of Healthcare Quality Evaluation, The Joint Commission, Oakbrook Terrace, Illinois, [3]The Pew Charitable Trust, Washington, DC, [4]Ascension Healthcare, St. Louis, Missouri, [5]Division of Healthcare Quality Promotion, National Center for Emerging and Zoonotic Infectious Diseases, Centers for Disease Control and Prevention, Atlanta, Georgia, [6]Division of Infectious Diseases, Department of Medicine, Atrium Health, Charlotte, North Carolina, [7]Infection Prevention and Clinical Pharmacy, Southwest Health System, Cortez, Colorado, [8]Department of Pediatrics, Johns Hopkins University School of Medicine, Baltimore, Maryland and [9]Division of Infectious Diseases and International Health, Duke University Medical Center, Durham, North Carolina

Use of leading practices in US hospital antimicrobial stewardship programs

Cross-sectional observational study

288 acute care hospitals accredited by TJC completed a survey to indicate if they have implemented 6 leading practices in their antimicrobial stewardship programs (ASPs)

	HO-CDI Measured	AU measured	Prospective Audit & feedback	Facility-Specific Treatment Guidelines	Adherence to Guidelines Measured	Optimizing Diagnostic Testing CDI & UTI
Overall	88.2%	79.8%	72.4%	54.8%	37.1%	34.9%
Factors Significantly Associated	Size (Large > Med > Small)	Size (Large > Med > Small) Location (Urban > Rural) Teaching (Major> Minor> Nonteaching)	Size (Large > Med > Small) Location (Urban > Rural) Teaching (Major>Minor >Nonteaching)	Belongs to a System	Location (Urban > Rural)	Size (Large > Med > Small) Location (Urban > Rural) Belongs to a System

Stenehjem EA et al. Infect Control Hosp Epi 2023; 44:861-868.

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Stenehjem EA et al. Infect Control Hosp Epi 2023; 44:861-868.

We have more work to do!

DUKE STEWARDSHIP OUTREACH NETWORK

Equity

Open Forum Infectious Diseases

Health Equity and Antibiotic Prescribing in the United States: A Systematic Scoping Review

Christine Kim,[1] Sarah Kabbani,[1] William C. Dube,[1] Melinda Neuhauser,[1] Sharon Tsay,[1] Adam Hersh,[2] Jasmine R. Marcelin,[3] and Lauri A. Hicks[1]

[1]Division of Healthcare Quality Promotion, National Center for Emerging and Zoonotic Infectious Diseases, Centers for Disease Control and Prevention, Atlanta, Georgia, USA, [2]University of Utah, Salt Lake City, Utah, USA, and [3]University of Nebraska Medical Center, Omaha, Nebraska, USA

Kim C, et al. Open Forum Infect Dis, 2023.10(9):ofad440. doi: 10.1093/ofid/ofad440.

Health Equity and Antibiotic Prescribing in the United States: A Systematic Scoping Review

Scoping review of publications 1/1/2000- 1/4/2022

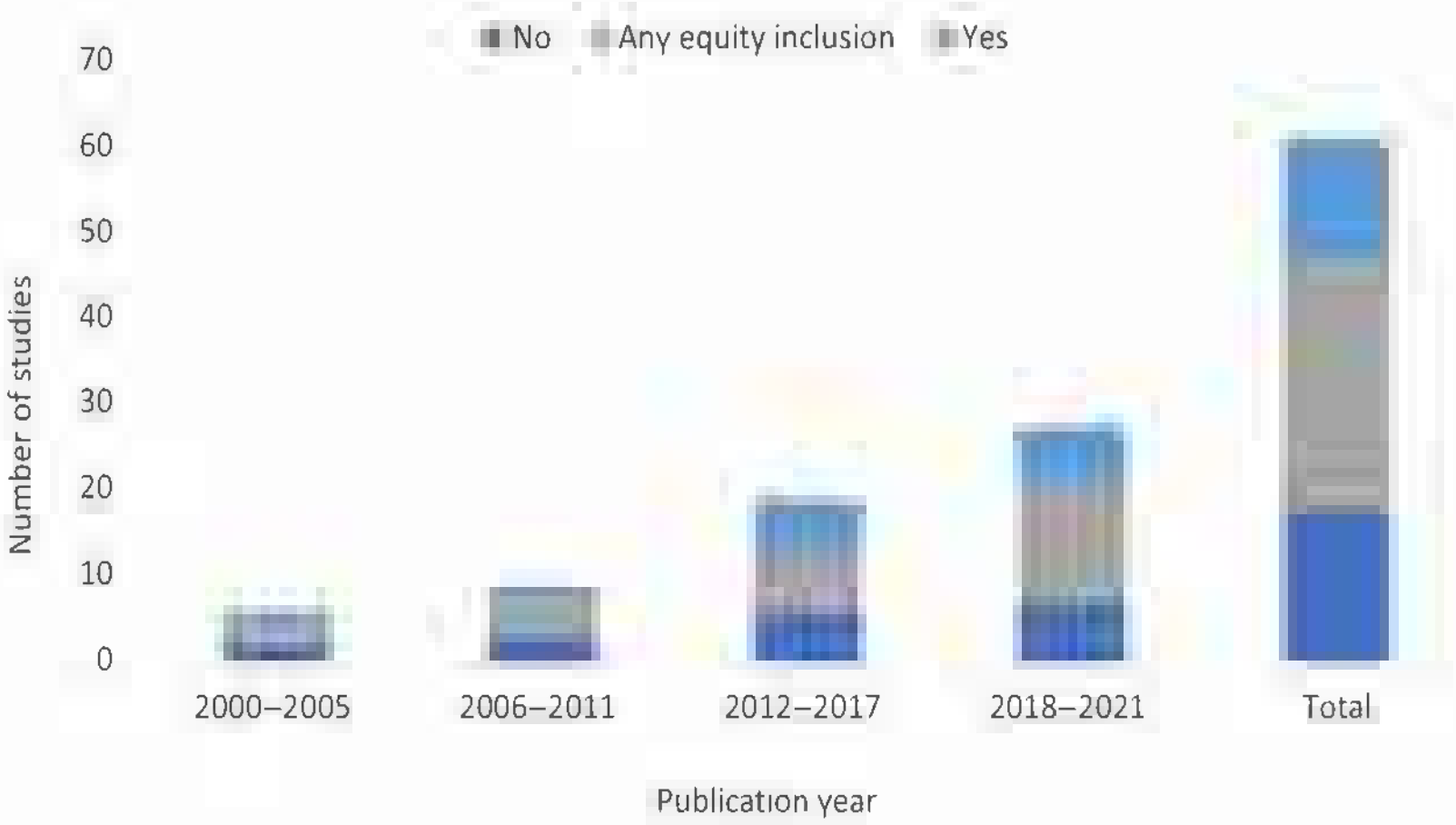
Characterize inequities in antibiotic prescribing and use across healthcare settings in the United States to inform antibiotic stewardship interventions and research

34 observational studies, 21 cross-sectional survey studies, 4 intervention studies, and 2 systematic reviews.

Majority involved the outpatient setting (55 of 61 [90%]); 3 dentistry, 2 long-term care, 1 acute care.

Kim C, et al. Open Forum Infect Dis, 2023.10(9):ofad440. doi: 10.1093/ofid/ofad440.

Figure 2. Number of studies with a health equity and antibiotic prescribing focus by publication year



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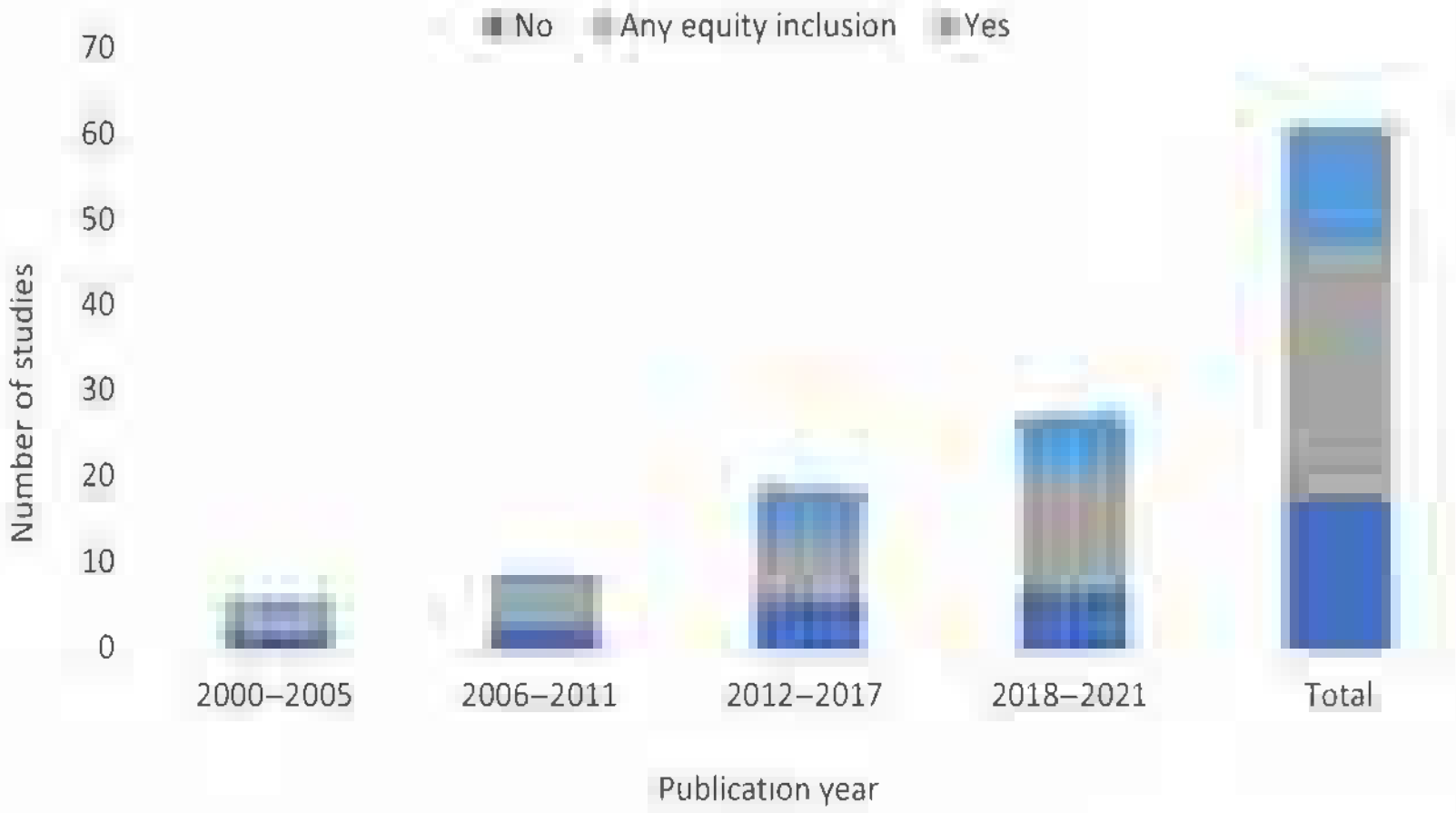
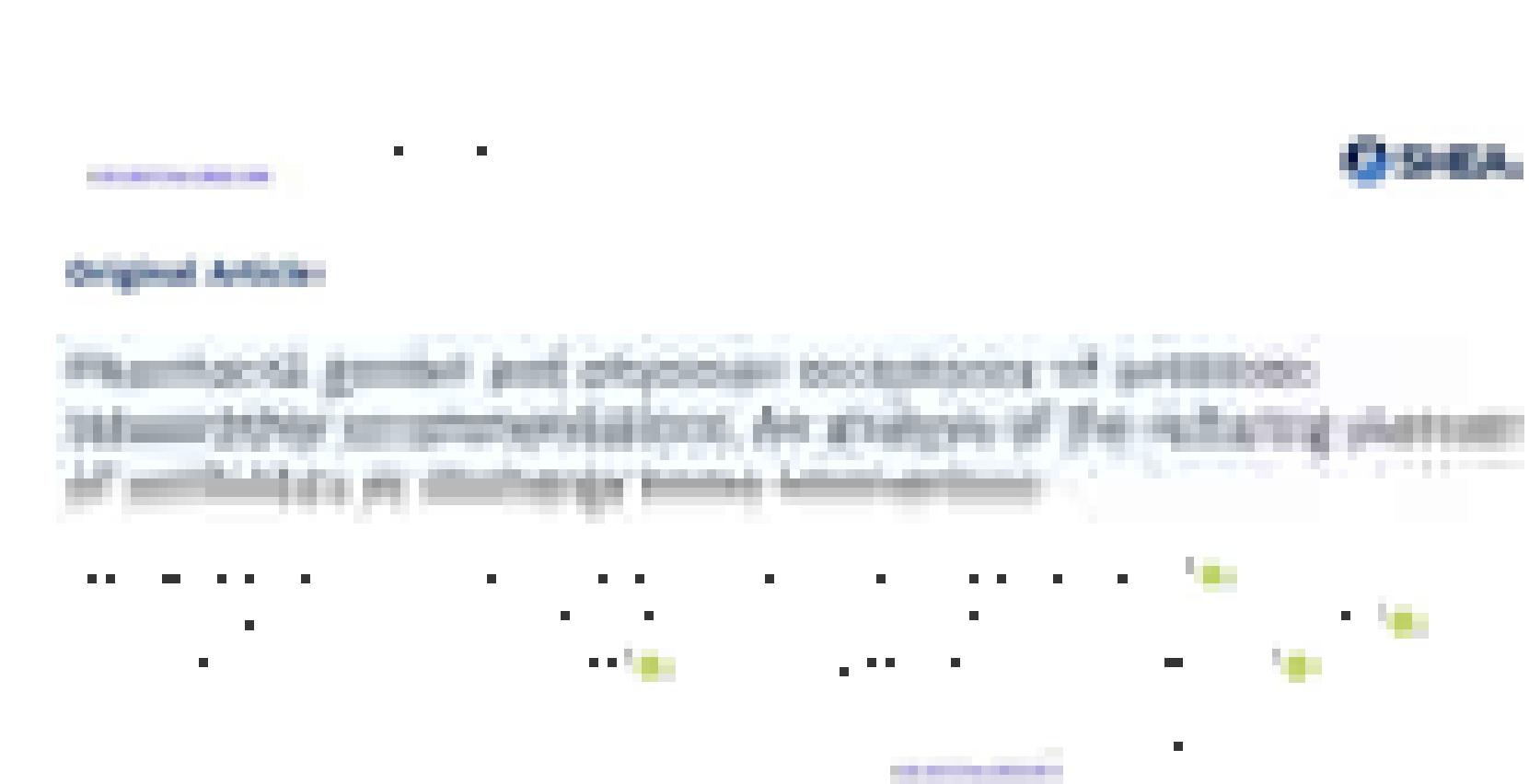


Differences in antibiotic prescribing by:
Patient Factors:
race & ethnicity, sex, age, socioeconomic factors, geography, Clinician's age & specialty
Healthcare setting (eg outpatient)

Few studies assessed stewardship interventions

Differences in prescribing likely related to structural inequities

Kim C, et al. Open Forum Infect Dis, 2023.10(9):ofad440. doi: 10.1093/ofid/ofad440.



Gender and Acceptance of Antimicrobial Stewardship Recommendations

VAUGHN ET AL.

Retrospective analysis of data from ROAD Home study (May – Oct 2019), clinical pharmacist recommendations at discharge from medicine services at a large US academic medical center

Not ID-pharmacists; 12 females, 8 males; similar characteristics (?)

Adjusted analysis:
gender associated with recommendations to change an antibiotic at TOC (aOR: 0.35 (95% CI 0.20-0.63) female vs male)
AND
acceptance of these recommendations (aOR: 0.10 (95% CI 0.03-0.36) female vs male)

Vaughn VM et al. Infect Control Hosp Epi 2023; 44(4): 570-577. DOI: https://doi.org/10.1017/ice.2022.136

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Vaughn VM et al. Infect Control Hosp Epi 2023; 44(4): 570-577. DOI: https://doi.org/10.1017/ice.2022.136

AUSMAN ET AL.

Retrospective analysis of prospective audit and feedback outcomes (July 2017-June 2022) Mayo Health System

Included 143 clinicians: pharmacists (73%), physicians (24%), pharmacy students (2%), APP (0.7%); ASP staff (22%) & non-ASP staff (78%)

Adjusted analysis:
intervention rate & rate of acceptance for interventions no different by gender of clinician making the recommendation

Acceptance rates higher for non-ICU vs ICU patients

Ausman SE et al. Infect Control Hosp Epi 2023; DOI: https://doi.org/10.1017/ice.2023.93

MRSA Screening Protocols

JOURNAL OF SURGICAL RESEARCH • MARCH 2023 (283) 1047–1052

Available online at www.sciencedirect.com

ScienceDirect

journal homepage: www.JournalofSurgicalResearch.com

ELSEVIER

JSR

Association for Academic Surgery

Evaluating Methicillin-Resistant *Staphylococcus* [redacted] Polymerase Chain Reaction Nasal Screening [redacted] a Tool for Antimicrobial Stewardship

Kristy Bono, MS,[a] Jorge A. Caceda, BA,[a] Merry Zhai, BS,[a] Helen Horng, PharmD,[c] Carma Goldstein, MD, Ziad Sifri, MD,[b] David Cennimo, MD,[d] and Nina E. Glass, MD[a]

[a] Rutgers New Jersey Medical School, Newark, New Jersey
[b] Department of Surgery, Rutgers New Jersey Medical School, Newark, New Jersey
[c] Department of Pharmacy, University Hospital, Newark, New Jersey
[d] Department of Medicine, Rutgers New Jersey Medical School, Newark, New Jersey

Infection Control & Hospital Epidemiology (2023), 1–5
doi:10.1017/ice.2023.190

SHEA

Original Article

Impact of the sequential implementation of a pharmacy-driven methicillin-resistant *Staphylococcus aureus* (MRSA) nasal-swab ordering policy and vancomycin 72-hour restriction protocol on standardized antibiotic administration ratio (SAAR) data for antibiotics used for resistant gram-positive infections

Natasha N. Pettit PharmD[1], Cynthia T. Nguyen PharmD[1], Alison K. Lew PharmD[1] and Jennifer Pisano MD[2]

[1]Department of Pharmacy, University of Chicago Medicine, Chicago, IL and [2]Department of Medicine, University of Chicago Medicine, Chicago, IL

MRSA Screening Protocols

BONO ET AL.

Retrospective chart review, single 500-bed hospital of adults with MRSA nasal PCR screening Oct 2019-July 2021

>2600 encounters; 2081 met study criteria

12.4% had MRSA nasal carriage
1189 had any infection
MRSA infections/all infections: 7.5%
MRSA swabs NPV:
100% MRSA UTI
97.9% MRSA bacteremia
97.8% MRSA pneumonia
92.1% MRSA wound infection
96.6% other MRSA infections
Overall sensitivity 68.5%, specificity 90.1%
PPV: 23.7%, NPV 98.5%

Bono K et al. J Surg Res 2023; 283: 1047-1052. https://doi.org/10.1016/j.jss.2022.11.054

PETTIT ET AL.

Retrospective, quasi-experimental single-center (811 beds) study of ASP intervention in adult inpatients; 5/1/2018-1/31/2022

Pharmacist ordered MRSA swab, followed by protocol requiring pharmacist approval to continue vancomycin >72h

SAAR for Anti-MRSA agents decreased with MRSA swab protocol and further decreased with use of the 72-h approval process
SAAR: 1.26 -> 1.13 -> 0.96

Similarly, vancomycin DOT/1000 PD decreased

Also statistically significant in ITS analysis

Pettit NN et al. Infect Control Hosp Epi 2023; https://doi.org/10.1017/ice.2023.190

MRSA Screening Protocols-Decolonization

Infection prevention versus antimicrobial stewardship: Does nasal povidone-iodine interfere with methicillin-resistant *Staphylococcus aureus* (MRSA) screening?

Cecelia Harrison MPH[1], Robie Zent BSN, RN, CCRC[2], Elyse Schneck BS (MT) ASCP[3], Cynthia E. Flynn MD[4] and Marci Drees MD, MS[2,5,6]

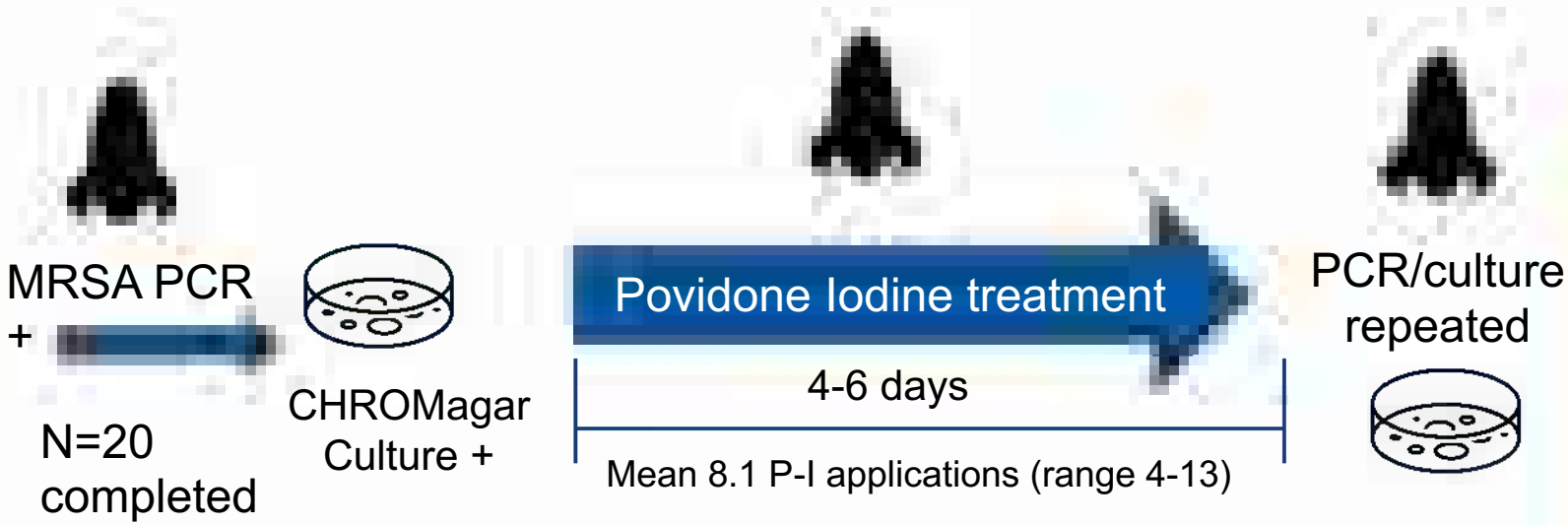
[1]ChristianaCare, Value Institute, Newark, Delaware, [2]Department of Medicine, ChristianaCare, Newark, Delaware, [3]Department of Microbiology, ChristianaCare, Newark, Delaware, [4]Department of Pathology and Laboratory Medicine, ChristianaCare, Newark, Delaware, [5]Department of Quality and Patient Safety and Department of Medicine, ChristianaCare, Newark Delaware and [6]Sidney Kimmel Medical College, Thomas Jefferson University, Philadelphia, Pennsylvania

Harrison C, et al. Infection Control & Hospital Epidemiology, 2022. 43(7): 945 – 947. DOI: https://doi.org/10.1017/ice.2021.152

Decolonization with Povidone-Iodine (P-I)

Prospective study Feb-July 2019, convenience sample adults medical ICU or stepdown unit with + baseline MRSA PCR screening, expected LOS ≥ 48h; excluded if MRSA screen after ≥ 2 doses of nasal P-I

Intranasal P-I (Aplicare 7.5%, or Medline 10% June-July 2019) BID x 5 days or until ICU discharge



PCR highly sensitive for nasal MRSA colonization after P-I

16/20 (80%)
PCR and Culture +

3
PCR + and Culture -

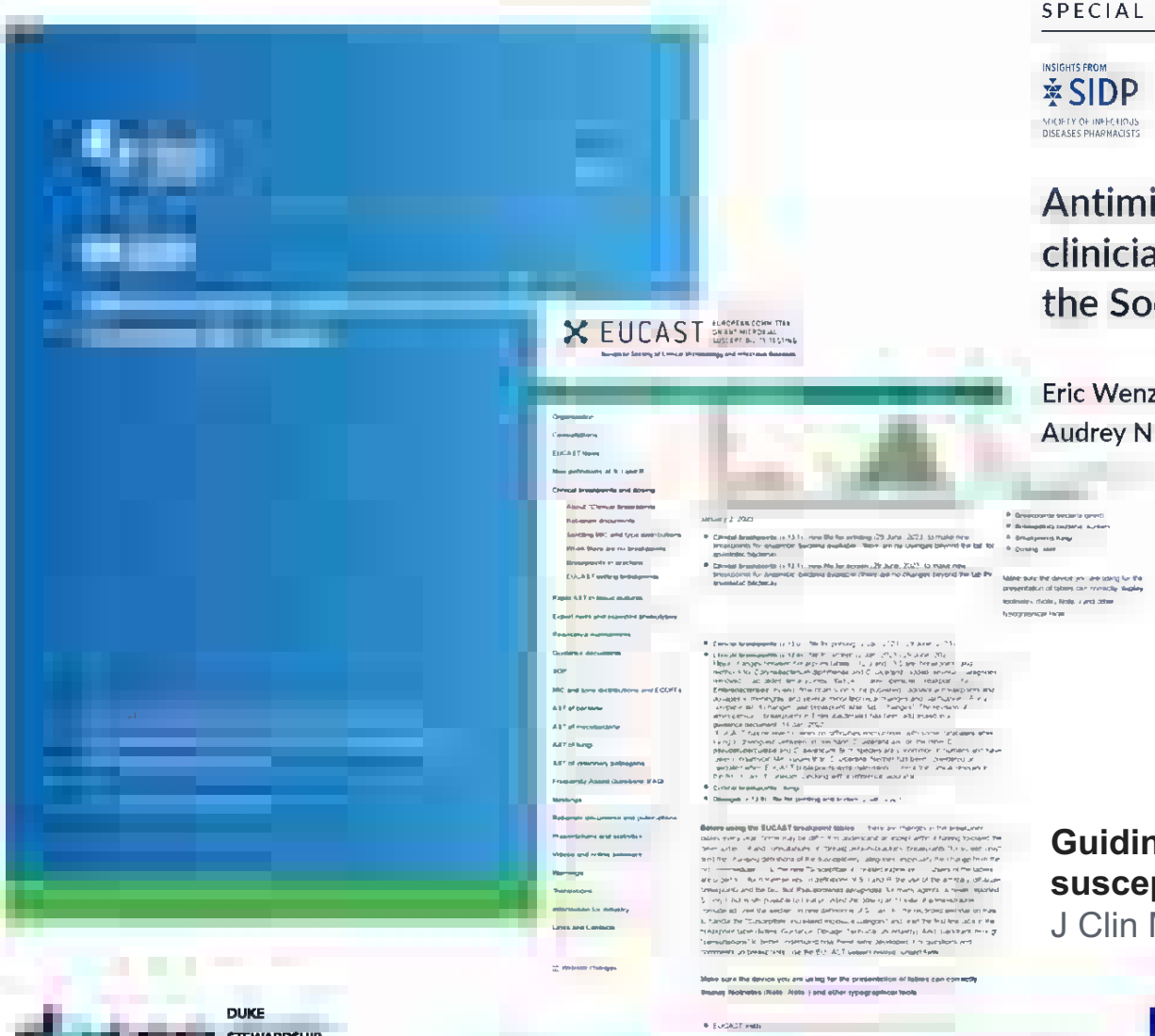
1
PCR - and Culture -

Most still culture + after P-I

Culture – samples were still PCR +

Harrison C, et al. Infect Control Hosp Epi 2022. 43(7): 945 – 947. DOI: https://doi.org/10.1017/ice.2021.152

Susceptibility Testing



Received: 8 October 2022 | Revised: 15 January 2023 | Accepted: 20 February 2023

DOI: 10.1002/phar.2781

SPECIAL ARTICLE

INSIGHTS FROM SIDP SOCIETY OF INFECTIOUS DISEASES PHARMACISTS

Antimicrobial susceptibility testing: An updated primer for clinicians in the era of antimicrobial resistance: Insights from the Society of Infectious Diseases Pharmacists

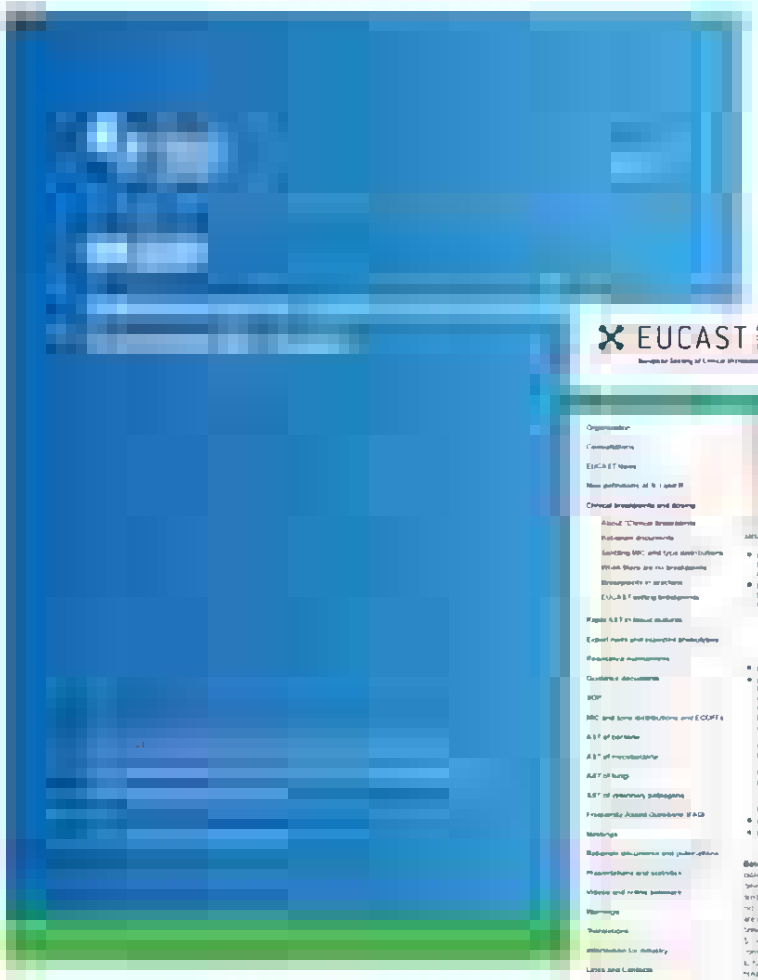
Eric Wenzler[1] | Mira Maximos[2,3] | Tomefa E. Asempa[4] | Lauren Biehle[5] | Audrey N. Schuetz[6] | Elizabeth B. Hirsch[7]

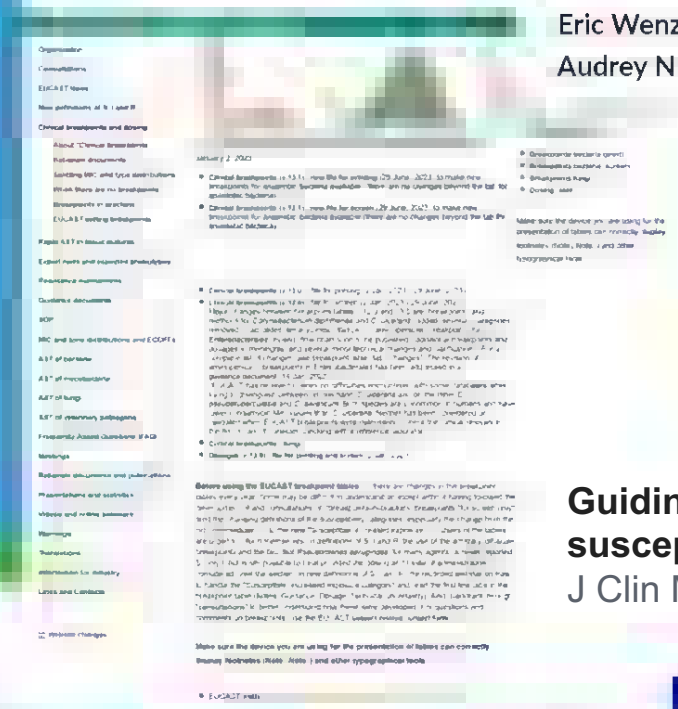
Guiding antimicrobial stewardship through thoughtful antimicrobial susceptibility testing and reporting strategies: an updated approach in 2023

J Clin Microbiol 2023 Sep 28;e0007422. doi: 10.1128/jcm.00074-22.

DUKE STEWARDSHIP OUTREACH NETWORK

Susceptibility Testing





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Continue to watch this space!

Guiding antimicrobial stewardship through thoughtful antimicrobial susceptibility testing and reporting strategies: an updated approach in 2023
J Clin Microbiol 2023 Sep 28;e0007422. doi: 10.1128/jcm.00074-22.

DUKE STEWARDSHIP OUTREACH NETWORK

Mythbusting

Clinical Infectious Diseases

Antibiotic Myths for the Infectious Diseases Clinician

Erin K. McCreary,[1] Melissa D. Johnson,[2] Travis M. Jones,[2] S. Shaefer Spires,[2] Angelina E. Davis,[2] April P. Dyer,[2] Elizabeth Dodds Ashley,[2] and Jason C. Gallagher[3]

[1]Division of Infectious Diseases, Department of Medicine, University of Pittsburgh School of Medicine, Pittsburgh, Pennsylvania, [2]Duke Antimicrobial Stewardship Outreach Network, Duke University Medical Center, Durham, North Carolina; and [3]School of Pharmacy, Temple University, Philadelphia, Pennsylvania

Clinical Infectious Diseases, 2023. ciad357, https://doi.org/10.1093/cid/ciad357

The American Journal of Medicine
Volume 135, Issue 7, July 2022, Pages 828-835

Top Myths of Diagnosis and Management of Infectious Diseases in Hospital Medicine

Melissa D. Johnson, PharmD, MHS, Angelina P. Davis, PharmD, MS, April P. Dyer, PharmD, MBA, MSCR, Travis M. Jones, PharmD, S. Shaefer Spires, MD, Elizabeth Dodds Ashley, PharmD, MHS

Duke Antimicrobial Stewardship Outreach Network (DASON), Duke University Medical Center, Durham, NC.

Am J Med, 2022. 135(7): 828-835. https://doi.org/10.1016/j.amjmed.2022.03.019

Open Forum Infectious Diseases

Can the Future of ID Escape the Inertial Dogma of Its Past? The Exemplars of Shorter Is Better and Oral Is the New IV

Kusha Davar,[1] Devin Clark,[1] Robert M. Centor,[2] Fernando Dominguez,[1] Bassam Ghanem,[3] Rachael Lee,[4] Todd C. Lee,[5] Emily G. McDonald,[6] Matthew C. Phillips,[7,8] Parham Sendi,[9] and Brad Spellberg[1]

[1]Los Angeles County + University of Southern California (LAC+USC) Medical Center, Los Angeles, California, USA, [2]Department of Medicine, Birmingham Veterans Affairs (VA) Medical Center, Birmingham, Alabama, Birmingham, Alabama, USA, [3]King Abdulaziz Medical City, Jeddah, Saudi Arabia, [4]Department of Medicine, Division of Infectious Diseases, University of Alabama at Birmingham, Birmingham, Alabama, USA, [5]Division of Infectious Diseases, Department of Medicine, McGill University, Montreal, Canada, [6]Division of General Internal Medicine, Department of Medicine, McGill University, Montreal, Quebec, Canada, [7]Division of Infectious Diseases, Department of Medicine, Massachusetts General Hospital, Boston, Massachusetts, USA, [8]Harvard Medical School, Boston, Massachusetts, USA, and [9]Institute for Infectious Diseases, University of Bern, Bern, Switzerland

Open Forum Infectious Diseases, 2023. 10(1): ofac706. https://doi.org/10.1093/ofid/ofac706

Penicillin-Allergy Assessment/Beta-Lactam Use

Antimicrobial Stewardship & Healthcare Epidemiology (2023), **3**, e11, 1–5
doi:10.1017/ash.2022.360

SHEA

Original Article

Increasing cefazolin use for surgical prophylaxis in penicillin-allergy–labeled patients

Kathryn A. VanderVelde MD[1,2], Sarah L. Suppes PharmD[1], Katherine A. Gibbs MHA, CCLS[3], Kevin H. Latz MD[2,4], Angela C. Vanderpool MSN, CPNP[4], Rana E. El Feghaly MD, MSCI[1,2] and Jennifer L. Goldman MD, MS-CR[1,2]

[1]Department of Pediatrics, Children's Mercy Kansas City, Kansas City, Missouri, [2]University of Missouri-Kansas City, Kansas City, Missouri, [3]Patient Advocate Services, Children's Mercy Kansas City, Kansas City, Missouri and [4]Department of Orthopedic Surgery, Children's Mercy Kansas City, Kansas City, Missouri

VanderVelde KA et al. Antimicrob Steward Healthc Epidemiol. 2023 Jan 11;3(1):e11. doi: 10.1017/ash.2022.360. eCollection 2023

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Children presenting for orthopedic (non-spinal) surgery with PCN allergy label

Multi-phase intervention involved evaluating PCN allergy, pharmacist phone interview, and caregiver survey in EHR

Increased cefazolin use from 50% to 74% in PCN-allergic surgical patients

VanderVelde KA et al. Antimicrob Steward Healthc Epidemiol. 2023 Jan 11;3(1):e11. doi: 10.1017/ash.2022.360. eCollection 2023

Penicillin-Allergy Assessment/Beta-Lactam Use

Research

JAMA Internal Medicine | Original Investigation

Efficacy of a Clinical Decision Rule to Enable Direct Oral Challenge in Patients With Low-Risk Penicillin Allergy
The PALACE Randomized Clinical Trial

Ana Maria Copaescu, MD; Sara Vogrin, MBiostat; Fiona James, BBiomedSci; Kyra Y. L. Chua, PhD; Morgan T. Rose, MBBS; Joseph De Luca, MBBS; Jamie Waldron, MD; Andrew Awad, MD; Jack Godsell, MBBS; Elise Mitri, BPharm; Belinda Lambros, MAdvNursPrac; Abby Douglas, PhD; Rabea Youcef Khoudja, MD; Ghislaine A. C. Isabwe, MD; Genevieve Geriest, MD; Michael Fein, MD; Cristine Radojicic, MD; Ann Collier, MD; Patricia Lugar, MD; Cosby Stone, MD; Moshe Ben-Shoshan, MD; Nicholas A. Turner, MD; Natasha E. Holmes, PhD; Elizabeth J. Phillips, MD; Jason A. Trubiano, PhD

Multicenter non-inferiority clinical trial in outpatient adults with low-risk penicillin allergy history (PEN-FAST score <3)

Compared Direct oral challenge vs pinprick testing followed by oral challenge

Outcome: physician verified positive oral penicillin challenge (immediate reaction/anaphylaxis)

1/187 oral challenge (0.5%) vs
1/190 (0.5%) pinprick + oral challenge

Copaescu AM et al. JAMA Intern Med. 2023;183(9):944-952. doi:10.1001/jamainternmed.2023.2986

Urinary Tract Infections/ASB

Research

JAMA Internal Medicine | Original Investigation

A Statewide Quality Initiative to Reduce Unnecessary Antibiotic Treatment of Asymptomatic Bacteriuria

Valerie M. Vaughn, MD, MSc; Ashwin Gupta, MD; Lindsay A. Petty, MD; Anurag N. Malani, MD; Danielle Osterholzer, MD; Payal K. Patel, MD, MPH; Mariam Younas, MD; Steven J. Bernstein, MD, MPH; Stephanie Burdick, MD; David Ratz, MS; Julia E. Szymczak, PhD; Elizabeth McLaughlin, MS, RN; Tawny Czilok, MHI, RN; Tanima Basu, MA, MS; Jennifer K. Horowitz, MA; Scott A. Flanders, MD; Tejal N. Gandhi, MD

Vaughn VM et al. JAMA Intern Med. 2023;183(9):933-941. doi:10.1001/jamainternmed.2023.2749

Urinary Tract Infections/ASB

Research

JAMA Internal Medicine | Original Investigation

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Michigan Hospital Medicine Safety Consortium, 46 hospitals

3 year prospective QI study

Diagnostic stewardship vs antibiotic stewardship to reduce antibiotic use for ASB

14,572 patients with + urine culture, 28.4% had ASB; 76.8% with ASB got antibiotics for a median of 6 days

Vaughn VM et al. JAMA Intern Med. 2023;183(9):933-941. doi:10.1001/jamainternmed.2023.2749

Urinary Tract Infections/ASB

Overall, percent of patients treated as UTI that had ASB declined from 29.1% to 17.1%

Diagnostic Stewardship outcome
percent of patients with + urine culture who had ASB declined from 34.1% to 22.5%

Antimicrobial Stewardship outcome
percent of patients with ASB that got antibiotics was not significantly changed over the study period (82% to 76.3%) & mean duration was similar (6.38 days to 5.93 days)

Diagnostic stewardship (reducing unnecessary urine cultures) was more impactful in reducing ASB overtreatment

Vaughn VM et al. JAMA Intern Med. 2023;183(9):933-941. doi:10.1001/jamainternmed.2023.2749

Urinary Tract Infections/ASB

Antimicrobial Stewardship & Healthcare Epidemiology (2023), **3**, e4, 1–4
doi:10.1017/ash.2022.343

Commentary

Bacteriuria in older adults triggers confusion in healthcare providers: A mindful pause to treat the worry

Eva M. Amenta MD[1,2], Robin L.P. Jump MD, PhD[3,4] and Barbara W. Trautner MD, PhD[1,5]

[1]Center for Innovations in Quality, Effectiveness, and Safety (IQuESt), Michael E. DeBakey Veterans Affairs Medical Center, Houston, Texas, [2]Section of Infectious Diseases, Department of Medicine, Baylor College of Medicine, Houston, Texas, [3]Geriatric Research Education and Clinical Center (GRECC) at the VA Pittsburgh Healthcare System, Pittsburgh, Pennsylvania, [4]Division of Geriatric Medicine, Department of Medicine, School of Medicine, University of Pittsburgh, Pittsburgh, Pennsylvania and [5]Section of Health Services Research, Department of Medicine, Baylor College of Medicine, Houston, Texas

Antimicrobial Stewardship & Healthcare Epidemiology (2023), **3**, e37, 1–6
doi:10.1017/ash.2023.117

Original Article

Implementation of an asymptomatic bacteriuria assessment protocol for patients discharged from the emergency department

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Infection Control & Hospital Epidemiology (2023), **44**, 206–209
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Original Article

Optimizing reflex urine cultures: Using a population-specific approach to diagnostic stewardship

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DUKE STEWARDSHIP OUTREACH NETWORK

Gram Negative Bacteremia

Clinical Infectious Diseases

Infectious Diseases Consultation Associated With Reduced Mortality in Gram-Negative Bacteremia

Stephanie Shulder,[1] Pranita D. Tamma,[2] Suiyini Fiawoo,[2] Kathryn Dzintars,[3] Daniel Escobar,[4] Daniel J. Livorsi,[5,6] Anurag N. Malani,[7] Danica Palacio,[7] Emily S. Spivak,[8] Matty Zimmerman,[3] and Jacqueline T. Bork[9]

Multicenter retrospective observational cohort study
24 US hospitals

ID consultation in patients with gram negative bloodstream infection was associated with significantly lower risk of 30-day mortality

Shulder S et al. *Clinical Infectious Diseases*, 2023. ciad383, https://doi.org/10.1093/cid/ciad383

Gram Negative Bacteremia

Open Forum Infectious Diseases

Clinical Impact of Ceftriaxone Resistance in *Escherichia coli* Bloodstream Infections: A Multicenter Prospective Cohort Study

Pranita D. Tamma,[1] Lauren Komarow,[2] Lizhao Ge,[2] Julia Garcia-Diaz,[3] Erica S. Herc,[4] Yohei Doi,[5,6] Cesar A. Arias,[7,8] Owen Albin,[9] Elie Saade,[10] Loren G. Miller,[11] Jesse T. Jacob,[12] Michael J. Satlin,[13] Martin Krsak,[14] W. Charles Huskins,[15] Sorabh Dhar,[16] Samuel A. Shelburne,[17] Carol Hill,[18] Keri R. Baum,[18] Minal Bhojani,[18] Kerryl E. Greenwood-Quaintance,[19] Suzannah M. Schmidt-Malan,[19] Robin Patel,[19] Scott R. Evans,[2] Henry F. Chambers,[20] Vance G. Fowler Jr,[21] and David van Duin,[22] for the Antibacterial Resistance Leadership Group

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Antimicrobial Stewardship & Healthcare Epidemiology (2023), **3**, e148, 1-6
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Original Article

Outcomes of high-dose oral beta-lactam definitive therapy compared to fluoroquinolone or trimethoprim-sulfamethoxazole oral therapy for bacteremia secondary to a urinary tract infection

Abigail C. Geyer PharmD[1], Kali M. VanLangen PharmD[1,2], Andrew P. Jameson MD[3,4] and Lisa E. Dumkow PharmD[1]

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Tamma PD et al. 2022 Oct 27;9(11):ofac572. doi: 10.1093/ofid/ofac572.

Geyer AC et al. Antimicrob Steward Healthc Epidemiol. 2023, 3, e148, 1-6.

Gram Negative Bacteremia

Antimicrobial Stewardship & Healthcare Epidemiology (2023), **3**, e148, 1–6
doi:10.1017/ash.2023.435

SHEA

Original Article

Outcomes of high-dose oral beta-lactam definitive therapy compared to fluoroquinolone or trimethoprim-sulfamethoxazole oral therapy for bacteremia secondary to a urinary tract infection

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Oral Antibiotic	Dose for CrCL ≥50 ml/min
Amoxicillin	1000 mg TID
Cephalexin	1000 mg TID
Ciprofloxacin	500-750 mg BID
Levofloxacin	500-750 mg daily
TMP/SMX	2 DS BID

Retrospective observational multicenter study, 3 community teaching hospitals

194 adult inpatients receiving empiric IV antibiotics transitioned to oral cephalexin, amoxicillin, fluoroquinolone, or TMP/SMX

Primarily *E. coli* or *Klebsiella* infections

Similar 30-day mortality/recurrent bacteremia (1.3% beta-lactam vs 1.7%) FQ or TMP/SMX

Geyer AC et al. Antimicrob Steward Healthc Epidemiol. 2023, 3, e148, 1-6.

Gram Positive Bacteremia

Open Forum Infectious Diseases

Impact of Rapid Identification and Stewardship Intervention on Coagulase-Negative *Staphylococcus* Bloodstream Infection

Eli S. Goshorn,[1] J. Alex Viehman,[2,3] J. Ryan Bariola,[2,3] Tina Khadem,[2,] Brian A. Potoski,[3,4] and Ryan K. Shields[2,3,5,]

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Quasi experimental study
Impact of Rapid diagnostic testing +/- algorithm to manage CoNS Bacteremia

182 patients

Intervention increased discontinuation of vancomycin & avoidance of empiric therapy
without an increase in adverse events (recurrent BSI, 30-day readmission/all-cause mortality)

Goshorn ES et al. *Open Forum Infectious Diseases*, 2023; 10(8): ofad416, https://doi.org/10.1093/ofid/ofad416

Stewardship at Transitions of Care

Clinical Infectious Diseases

IDSA
Infectious Diseases Society of America

Antibiotic Stewardship Strategies and Their Association With Antibiotic Overuse After Hospital Discharge: An Analysis of the Reducing Overuse of Antibiotics at Discharge Home Framework

Valerie M. Vaughn,[1,2,3] David Ratz,[4] M. Todd Greene,[3,4] Scott A. Flanders,[3] Tejal N. Gandhi,[5] Lindsay A. Petty,[5] Sean Huls,[6] Xiaomei Feng,[7] Andrea T. White[1] and Adam L. Hersh[8]

Relationship of stewardship strategies at 39 Michigan hospitals & antibiotic use at discharge

Review of antibiotics prior to discharge was significantly associated with lower antibiotic overuse for UTIs and CAP

Having *more* strategies in place was associated with lower antibiotic overuse at discharge

Hospitals with pre-set durations of therapy in the EHR had *higher* use

Vaughn VM. Clin Infect Dis 2022;75(6):1063-1072. doi: 10.1093/cid/ciac104.

Don’t forget the fungi!

Open Forum Infectious Diseases

Low Rates of Antifungal Therapeutic Drug Monitoring Among Inpatients Who Received Itraconazole, Posaconazole, or Voriconazole, United States, 2019–2021

Kaitlin Benedict,[1] Jeremy A. W. Gold,[1] Mitsuru Toda,[1] George R. Thompson III,[2,3] Nathan P. Wiederhold,[4] and Dallas J. Smith[1,5]

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Open Forum Infectious Diseases

Antifungal Therapeutic Drug Monitoring Practices: Results of an Emerging Infections Network Survey

Kaitlin Benedict,[1] Jeremy A. W. Gold,[1] Susan E. Beekmann,[2] Philip [redacted] Polgreen,[2] Mitsuru Toda,[1] and Dallas J. Smith[1]

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Benedict K et al. *Open Forum Infectious Diseases*, 2023.10(8):ofad389. https://doi.org/10.1093/ofid/ofad389
Benedict K et al. *Open Forum Infectious Diseases*, 2023. 10(9):ofad468. https://doi.org/10.1093/ofid/ofad468

Azole Therapeutic Drug Monitoring

REVIEW OF THERAPEUTICS

SIDP

Utility of triazole antifungal therapeutic drug monitoring: Insights from the Society of Infectious Diseases Pharmacists

Endorsed by the Mycoses Study Group Education and Research Consortium

Erin K. McCreary[1] | Matthew R. Davis[2] | Navaneeth Narayanan[3] | David R. Andes[4] | Dario Cattaneo[5] | Robbie Christian[6] | Russell E. Lewis[7] | Kevin M. Watt[8] | Nathan P. Wiederhold[9] | Melissa D. Johnson[10]

Tables will be helpful to guide institutional protocols for azole TDM

Make sure to see the supplementary info!!!

McCreary EK, et al. Pharmacotherapy, 2023. 43(10): 993-1095. DOI: 10.1002/phar.2850

Looking for More?