

ABR-Scan Science Week 44-45

Unit for Antibiotics and Infection Control

This biweekly ABR-Scan is compiled by the Unit for Antibiotics and Infection Control at the Public Health Agency of Sweden (PHAS). It includes a summary of links to recent peer-reviewed articles mainly from a selection of 17 scientific journals, which are listed at the bottom of the document. The articles are sorted according to the following categories: surveillance, treatment and diagnosis, prevention and intervention, microbiology and other. Please note that the information and views set out in the articles included are those of the author(s) and do not necessarily reflect the official opinion of PHAS. Please send an e-mail to ABR-scan@folkhalsomyndigheten.se if you would like to subscribe, unsubscribe or submit any comments or suggestions.

Surveillance

Attributable deaths and disability-adjusted life-years caused by infections with antibiotic-resistant bacteria in the EU and the European Economic Area in 2015: a population-level modelling analysis. [Lancet Infectious Diseases](#)

Public health burden of antimicrobial resistance in Europe. [Lancet Infectious Diseases](#)

Large variation in ESBL-producing Escherichia coli carriers in six European countries including Russia. [European Journal of Clinical Microbiology & Infectious Diseases](#)

Changes in Prevalence of Health Care–Associated Infections in U.S. Hospitals. [New England Journal of Medicine](#)

Early Antibiotic Exposure and Weight Outcomes in Young Children. [Pediatrics](#)

Acute otitis media, antimicrobial prescriptions, and medical expenses among children in the United States during 2011–2016. [Vaccine](#)

Age-based health and economic burden of skin and soft tissue infections in the United States, 2000 and 2012. [PLOS One](#)

Import of community-associated, methicillin-resistant Staphylococcus aureus to Europe through skin and soft tissue infection in intercontinental travellers, 2011-2016. [Clinical Microbiology and Infection](#)

Regional variability in outpatient antibiotic use in Ontario, Canada: a retrospective cross-sectional study. [CMAJ Open](#)

The Epidemiology and Outcomes of Non-Typhoidal Salmonella Bacteraemias from England, 2004 to 2015. [Journal of Clinical Microbiology](#)

Clostridioides difficile incidence related to in-hospital cephalosporin use: a tale of two highly comparable hospitals. [Journal of Antimicrobial Chemotherapy](#)

Gastrointestinal microbiota disruption and risk of colonization with carbapenem-resistant *Pseudomonas aeruginosa* in ICU patients. [Clinical Infectious Diseases](#)

Poor clinical outcomes associated with community-onset urinary tract infections due to extended-spectrum cephalosporin-resistant Enterobacteriaceae. [Infection Control & Hospital Epidemiology](#)

Antibiotic consumption versus the prevalence of carbapenem-resistant Gram-negative bacteria at a tertiary hospital in China from 2011 to 2017. [Journal of Infection and Public Health](#)

Treatment and diagnosis

Prophylactic antibiotic therapy for chronic obstructive pulmonary disease (COPD). [Cochrane Library](#)

Optimal duration of antibiotic treatment in Gram-negative infections. [Current Opinion in Infectious Diseases](#)

Optimizing therapy in carbapenem-resistant Enterobacteriaceae infections. [Current Opinion in Infectious Diseases](#)

Cefiderocol versus imipenem-cilastatin for the treatment of complicated urinary tract infections caused by Gram-negative uropathogens: a phase 2, randomised, double-blind, non-inferiority trial. [Lancet Infectious Diseases](#)

Adverse Events Associated With Antibiotics and Intravenous Therapies for Post-Lyme Disease Syndrome in a Commercially Insured Sample. [Clinical Infectious Diseases](#)

Dosing vancomycin in the super obese: less is more. [Journal of Antimicrobial Chemotherapy](#)

Effectiveness of ceftazidime/avibactam as salvage therapy for treatment of infections due to OXA-48 carbapenemase-producing Enterobacteriaceae. [Journal of Antimicrobial Chemotherapy](#)

Therapeutic drug monitoring of β -lactam antibiotics in the critically ill: direct measurement of unbound drug concentrations to achieve appropriate drug exposures. [Journal of Antimicrobial Chemotherapy](#)

Prevention and intervention

Does gonorrhoea screening intensity play a role in the early selection of antimicrobial resistance in men who have sex with men (MSM)? A comparative study of Belgium and the United Kingdom. [F1000 Research](#)

Meropenem antimicrobial stewardship program: clinical, economic, and antibiotic resistance impact. [European Journal of Clinical Microbiology & Infectious Diseases](#)

Droplet rather than Aerosol Mediated Dispersion is the Primary Mechanism of Bacterial transmission from Contaminated Hand Washing Sink Traps. [Applied and Environmental Microbiology](#)

Sink traps as the source of transmission of OXA-48-producing *Serratia marcescens* in an intensive care unit. [Infection Control & Hospital Epidemiology](#)

Participatory implementation of an antibiotic stewardship programme supported by an innovative surveillance and clinical decision-support system. [Journal of Hospital Infection](#)

Successful termination of sustained transmission of resident MRSA following extensive NICU refurbishment: an intervention study. [Journal of Hospital Infection](#)

Catheter-Related *Staphylococcus aureus* Bacteremia and Septic Thrombosis: The Role of Anticoagulation Therapy and Duration of Intravenous Antibiotic Therapy. [Open Forum Infectious Diseases](#)

Clinical outcomes and prognostic factors in patients directly transferred to the intensive care unit from long-term care beds in institutions and hospitals: a retrospective clinical study. [BMC Geriatrics](#)

A Statewide Antibiotic Stewardship Collaborative to Improve the Diagnosis and Treatment of Urinary Tract and Skin and Soft Tissue Infections. [Clinical Infectious Diseases](#)

Decontamination Strategies and Bloodstream Infections With Antibiotic-Resistant Microorganisms in Ventilated Patients - A Randomized Clinical Trial. [JAMA](#)

Effect of Increased Daily Water Intake in Premenopausal Women With Recurrent Urinary Tract Infections - A Randomized Clinical Trial. [JAMA](#)

Treatment Algorithms for Staphylococcal Bacteremia Improving Clinical Care and Enhancing Antimicrobial Stewardship. [JAMA](#)

Application of a fluorescent marker with quantitative bioburden methods to assess cleanliness. [Infection Control & Hospital Epidemiology](#)

Antibacterial efficacy of handrubbing for 15 versus 30 seconds: EN 1500-based randomized experimental study with different loads of *S. aureus* and *E. coli*. [Clinical Microbiology and Infection](#)

Funding and policy incentives to encourage implementation of point-of-care C-reactive protein testing for lower respiratory tract infection in NHS primary care: a mixed-methods evaluation. [BMJ Open](#)

Microbiology

The impact of laboratory closing times on delay of adequate therapy in blood stream infections. [Netherlands Journal of Medicine](#)

VISA–Daptomycin non-susceptible *Staphylococcus aureus* frequently demonstrate non-susceptibility to Telavancin. [Diagnostic Microbiology and Infectious Disease](#)

Genome-based prediction of bacterial antibiotic resistance. [Journal of Clinical Microbiology](#)

Evaluation of the Lightmix® Mycoplasma macrolide assay for the detection of macrolide resistant *Mycoplasma pneumoniae* in pneumonia patients. [Clinical Microbiology and Infection](#)

Identification and validation of two peptide markers for the recognition of *Clostridioides difficile* MLST-1 and MLST-11 by MALDI-MS. [Clinical Microbiology and Infection](#)

Beware biofilm! Dry biofilms containing bacterial pathogens on multiple healthcare surfaces; a multi-centre study. [Journal of Hospital Infection](#)

Transfer of dry surface biofilm in the healthcare environment: the role of healthcare workers' hands as vehicles. [Journal of Hospital Infection](#)

Fosfomycin in severe infections due to genetically distinct pan-drug-resistant Gram-negative microorganisms: synergy with meropenem. [Journal of Antimicrobial Chemotherapy](#)

Other

Evaluating biological plausibility in supporting evidence for action through systematic reviews in public health. [Public Health](#)

Experiences of carriers of multidrug-resistant organisms: a systematic review. [Clinical Microbiology and Infection](#)

World Antibiotic Awareness Week 2017 and its influence on digital information seeking on antibiotic resistance: A Google Trends study. [Journal of Hospital Infection](#)

Analysis of the clinical antibacterial and antituberculosis pipeline. [Lancet Infectious Diseases](#)

Review of the pharmacokinetic properties of nitrofurantoin and nitroxoline. [Journal of Antimicrobial Chemotherapy](#)

Magnitude and determinants of antibiotic dispensing without prescription in Spain: a simulated patient study. [Journal of Antimicrobial Chemotherapy](#)

The publications included in the scan are: Antimicrobial Agents and Chemotherapy, British Medical Journal, Clinical Infectious Diseases, Clinical Microbiology and Infection, Emerging Infectious Diseases, Eurosurveillance, Infection Control & Hospital Epidemiology, Infectious Diseases, JAMA - The Journal of the American Medical Association, Journal of Antimicrobial Chemotherapy, Journal of Hospital Infection, Journal of Infectious Diseases, Lancet, Lancet Infectious Diseases, New England Journal of Medicine, Pediatrics and Scandinavian Journal of Primary Health Care. In addition, other articles from other publications can be included.