

ABR-Scan Science Week 23-24

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

Microbial epidemiology and antimicrobial resistance patterns of wound infection in Ethiopia: a meta-analysis of laboratory-based cross-sectional studies. [BMC Pharmacology & Toxicology](#)

Correlation of antimicrobial prescription rate and county income in medicare part D. [Medicine \(Baltimore\)](#)

Differences in gram-positive bacterial colonization and antimicrobial resistance among children in a high income inequality setting. [BMC Infectious Diseases](#)

Neisseria gonorrhoeae resistance driven by antibiotic use. [Nature Reviews Urology](#)

Tracking global trends in the effectiveness of antibiotic therapy using the Drug Resistance Index. [BMJ Global Health](#)

Variations In Antibiotic Use Across India - Multicentre Study Through Global Point Prevalence Survey. [Journal of Hospital Infection](#)

Changes in molecular epidemiology and antimicrobial resistance profiles of Clostridioides (Clostridium) difficile strains in the United States between 2011 and 2017. [Anaerobe](#)

New environmental reservoir of CPE in hospitals. [Lancet Infectious Diseases](#)

Trends in antimicrobial resistance in Israel, 2014-2017. [Antimicrobial Resistance and Infection Control](#)

Nationwide epidemiology of early-onset sepsis in Israel 2010-2015, time to re-evaluate empiric treatment. [Acta Paediatrica](#)

Antimicrobial resistance trends in bloodstream infections at a large teaching hospital in China: a 20-year surveillance study (1998-2017). [Antimicrobial Resistance & Infection Control](#)

Emergence and spread of ciprofloxacin-resistant Neisseria gonorrhoeae in New South Wales, Australia: lessons from history. [Journal of Antimicrobial Chemotherapy](#)

The drivers of antimicrobial use across institutions, stakeholders and economic settings: a paradigm shift is required for effective optimization. [Journal of Antimicrobial Chemotherapy](#)

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](#)

Antimicrobial Resistance in Cambodia: a Review. [International Journal of Infectious Diseases](#)

Continuous Monitoring of Aerial Bioburden within Intensive Care Isolation Rooms and Identification of 'High Risk' Activities. [Journal of Hospital Infection](#)

Antibiotic overconsumption and resistance in Turkey. [Clinical Microbiology and Infection](#)

Clinical Impact of Antimicrobial Resistance: Using New Tools to Answer Old Questions. [Chest](#)

How far do we still need to go? A survey on knowledge, attitudes, practice related to antimicrobial stewardship regulations among Chinese doctors in 2012 and 2016. [BMJ Open](#)

Prescribers' experience and opinions on antimicrobial stewardship programmes in hospitals: a French nationwide survey. [Journal of Antimicrobial Chemotherapy](#)

An informed public's views on reducing antibiotic overuse. [Health Services Review](#)

The drivers of antimicrobial use across institutions, stakeholders and economic settings: a paradigm shift is required for effective optimization. [Journal of Antimicrobial Chemotherapy](#)

Treatment and diagnosis

Rapid antimicrobial susceptibility tests for sepsis; the road ahead. [Journal of Medical Microbiology](#)

Impact of inappropriate empiric antimicrobial therapy on mortality in pediatric patients with bloodstream infection: a retrospective observational study. [Journal of Chemotherapy](#)

Route of antibiotic prophylaxis for prevention of cerebrospinal fluid-shunt infection. [Cochrane Library](#)

Can guidelines for the control of multi-drug-resistant Gram-negative organisms be put into practice? A national survey of guideline compliance and comparison of available guidelines. [Journal of Hospital Infection](#)

Compliance to antibiotic guidelines leads to more appropriate use of antibiotics in skin and soft tissue infections in injecting drug users. [Infectious Diseases](#)

Is My Child Allergic to Penicillin? [JAMA](#)

Should fast breathing pneumonia cases be treated with antibiotics? The scientific rationale for revisiting management in Low and Middle Income Countries. [International Journal of Infectious Diseases](#)

Dose, Timing, and Type of Infant Antibiotic Use and the Risk of Childhood Asthma. [Clinical Infectious Diseases](#)

Impact of pre-hospital antibiotic therapy on mortality in invasive meningococcal disease: a propensity score study. [European Journal of Clinical Microbiology and Infectious Diseases](#)

Total duration of antimicrobial therapy resulting from inpatient hospitalization. [Infection Control and Hospital Epidemiology](#)

A Prediction Model to Identify Febrile Infants ≤60 Days at Low Risk of Invasive Bacterial Infection. [Pediatrics](#)

Holistic Approach in Patients With Presumed Lyme Borreliosis Leads to Less Than 10% of Confirmation and More Than 80% of Antibiotic Failures. [Clinical Infectious Diseases](#)

Indications for Microbiological Testing in Pneumonia: Which Patients Should Be Tested? [Clinical Infectious Diseases](#)

Increased Relative Abundance of *Klebsiella pneumoniae* Carbapenemase-producing *Klebsiella pneumoniae* Within the Gut Microbiota Is Associated With Risk of Bloodstream Infection in Long-term Acute Care Hospital Patients. [Clinical Infectious Diseases](#)

Comparison of acute kidney injury and clinical prognosis of vancomycin monotherapy and combination therapy with beta-lactams in the intensive care unit. [PloS One](#)

Adjunctive Nebulized Antibiotics: What Is Their Place in ICU Infections? [Frontiers of Medicine](#)

Prevalence of antibiotic allergy labels and their consequences in people presenting to a teaching hospital Emergency Department; a retrospective chart review. [Asian Pacific Journal of Allergy and Immunology](#)

Effectiveness of the probiotic *Streptococcus salivarius* K12 for the treatment and/or prevention of sore throat: a systematic review. [Clinical Microbiology and Infection](#)

Lactobacillus reuteri DSM 17938 in the prevention of antibiotic-associated diarrhoea in children: a randomized clinical trial. [Clinical Microbiology and Infection](#)

Prevention and intervention

Nasal decolonization: What antimicrobials are most effective prior to surgery? [American Journal of Infection Control](#)

A survey on antimicrobial stewardship in 116 tertiary hospitals in China. [Clinical Microbiology and Infection](#)

Does an Antimicrobial Time-Out Impact the Duration of Therapy of Antimicrobials in the PICU? [Pediatric Critical Care Medicine](#)

Ultraclean air systems and the claim that laminar airflow systems fail to prevent deep infections after total joint arthroplasty. [Journal of Hospital Infection](#)

Best products for skin antiseptics. [American Journal of Infection Control](#)

Use of germicides in health care settings-is there a relationship between germicide use and antimicrobial resistance: A concise review. [American Journal of Infection Control](#)

The Influence of National Guidelines on the Management of Community-Acquired Pneumonia in Children. Do Pediatricians Follow the Recommendations? [Advances in Experimental Medicine and Biology](#)

Selection and co-selection of antibiotic resistances among *Escherichia coli* by antibiotic use in primary care: An ecological analysis. [PloS One](#)

Changes in resistance among coliform bacteraemia associated with a primary care antimicrobial stewardship intervention: A population-based interrupted time series study. [PloS Medicine](#)

The ecological effects of selective decontamination of the digestive tract (SDD) on antimicrobial resistance: a 21-year longitudinal single-centre study. [Critical Care](#)

Derivation and validation of a simple score to predict the presence of bacteria requiring carbapenem treatment in ICU-acquired bloodstream infection and pneumonia: CarbaSCORE. [Antimicrobial Resistance and Infection Control](#)

Leading Practices in Antimicrobial Stewardship: Conference Summary. [Joint Commission Journal on Quality and Patient Safety](#)

Changes in antibiotic use following implementation of a telehealth stewardship pilot program. [Infection Control and Hospital Epidemiology](#)

It's Complicated: Patient and Informal Caregiver Performance of Outpatient Parenteral Antimicrobial Therapy-Related Tasks. [American Journal of Medical Quality](#)

Microbiology

Linking the resistome and plasmidome to the microbiome. [ISME Journal](#)

Reduced vancomycin susceptibility and increased macrophage survival in *Staphylococcus aureus* strains sequentially isolated from a bacteraemic patient during a short course of antibiotic therapy. [Journal of Medical Microbiology](#)

How to: molecular investigation of a hospital outbreak. [Clinical Microbiology and Infection](#)

Other

Strategies for discovery of new molecular targets for anti-infective drugs. [Current Opinion in Pharmacology](#)

Challenges in Antibiotic R&D Calling for a Global Strategy Considering Both Short- and Long-Term Solutions. [ACS Infectious Diseases](#)

Compensation for cures: Why we should pay a premium for participation in 'challenge studies'. [Bioethics](#)

Government policy interventions to reduce human antimicrobial use: A systematic review and evidence map. [PloS Medicine](#)

Global economic impact of antibiotic resistance: A review. [Journal of Global Antimicrobial Resistance](#)

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.