

ABR-Scan Science Week 22-23

Unit for Antibiotics and Infection Control

This ABR-Scan Science is compiled by the Unit for Antibiotics and Infection Control at the Public Health Agency of Sweden. It includes a summary of links to recent articles from a selection of 17 scientific journals that we find interesting. All journals included in the scan are listed at the bottom of the document. The articles are sorted according to our categorization: surveillance, treatment and diagnosis, prevention and intervention, microbiology and other. If you have any comments or suggestions, please send an e-mail to ABR-scan@folkhalsomyndigheten.se

Surveillance

What is missing in surveillance for control of antimicrobial resistance? [Lancet Infectious Diseases](#)

Grading antimicrobial susceptibility data quality: room for improvement. [Lancet Infectious Diseases](#)

Benchmarking Inpatient Antimicrobial Use: A Comparison of Risk-Adjusted Observed-to-Expected Ratios. [Clinical Infectious Diseases](#)

Molecular mechanisms of antibiotic resistance in *Acinetobacter baumannii* with a special focus on its epidemiology in Lebanon. [Journal of Global Antimicrobial Resistance](#)

Geographic distribution of livestock-associated *Staphylococcus aureus* in the United States. [Microbes and Infection](#)

Streptococcus anginosus group bloodstream infections in the western interior of British Columbia, Canada. [Infectious Diseases](#)

Outpatient Antibiotic Use and the Need for Increased Antibiotic Stewardship Efforts. [Pediatrics](#)

A prolonged and large outbreak of invasive group A streptococcal disease within a nursing home: repeated intra-facility transmission of a single strain. [Clinical Microbiology and Infection](#)

Epidemiology of respiratory pathogen carriage in the homeless population within two shelters in Marseille, France, 2015–2017: cross sectional 1-day surveys. [Clinical Microbiology and Infection](#)

Clearance of carbapenemase-producing Enterobacteriaceae (CPE) carriage: A comparative study of NDM-1 and KPC CPE. [Clinical Microbiology and Infection](#)

Tetracycline resistance of *Neisseria gonorrhoeae* in Russia, 2015–2017. [Infection, Genetics and Evolution](#)

Persistence of an outbreak of gonorrhoea with high-level resistance to azithromycin in England, November 2014–May 2018. [Eurosurveillance](#)

Multidrug-resistant *Neisseria gonorrhoeae*: implications for future treatment strategies. [Lancet Infectious Diseases](#)

Evaluating the benefit of serial screening cultures to detect carbapenemase-producing Enterobacteriaceae (CPE) following hospital admission. [Journal of Hospital Infection](#)

Impact of fluoroquinolone prophylaxis during neutropenia on bloodstream infection: Data from a surveillance program in 8,755 patients receiving high-dose chemotherapy for haematologic malignancies between 2009 and 2014. [Journal of Infection](#)

Association of Neighborhood Socioeconomic Status With Risk of Infection and Sepsis. [Clinical Infectious Diseases](#)

Evaluating the Risk Factors for Hospital-Onset *Clostridium difficile* Infections in a Large Healthcare System. [Clinical Infectious Diseases](#)

Temporal Trends and Center Variation in Early Antibiotic Use Among Premature Infants. [JAMA](#)

Invasive Methicillin-Resistant *Staphylococcus aureus* Infections Among Persons Who Inject Drugs — Six Sites, 2005–2016. [CDC MMWR](#)

National Estimates of Emergency Department Visits for Antibiotic Adverse Events Among Adults—United States, 2011–2015. [Journal of General Internal Medicine](#)

Colistin resistance in *Enterobacter* spp. isolates in Korea. [Journal of Microbiology](#)

Genetic structures of invasive *Streptococcus pneumoniae* isolates from Korean children obtained between 1995 and 2013. [BMC Infectious Diseases](#)

Invasive pneumococcal disease in Indian adults: 11 years' experience. [Journal of Microbiology, Immunology and Infection](#)

Chryseobacterium bacteraemia: a single-centre case series. [Infectious Diseases](#)

Antimicrobial susceptibility, microbiological and epidemiologic characteristics of hypermucoviscous *Klebsiella pneumoniae* strains in a tertiary hospital at Hangzhou in China. [Journal of Global Antimicrobial Resistance](#)

Identification of an NDM-1-producing *Klebsiella pneumoniae* from diabetic foot ulcer in China. [Infectious Diseases](#)

Treatment and diagnosis

Effectiveness of amoxicillin alone in the treatment of uncomplicated acute otitis media: a systematic review protocol. [BMJ Open](#)

Duration of Antimicrobial Therapy for Enterobacteriaceae Bacteremia: Using Convenient End Points for Convenient Conclusions. [Clinical Infectious Diseases](#)

Impact of Culture-Independent Diagnostic Testing on Recovery of Enteric Bacterial Infections. [Clinical Infectious Diseases](#)

Procalcitonin-Guided Use of Antibiotics for Lower Respiratory Tract Infection. [New England Journal of Medicine](#)

Emerging problems in the treatment of paediatric community-acquired pneumonia. [Expert Review of Respiratory Medicine](#)

Evaluation of the Rapid Polymyxin NP test for detection of colistin susceptibility in Enterobacteriaceae isolated from Thai patients. [Diagnostic Microbiology and Infectious Disease](#)

Dose administration manoeuvres and patient care in tobramycin dry powder inhalation therapy. [International Journal of Pharmaceutics](#)

The impact of prophylactic intraoperative vancomycin powder on microbial profile, antibiotic regimen, length of stay, and reoperation rate in elective spine surgery. [Spine Journal](#)

The majority of MRSA colonized children not given eradication treatment are still colonized one year later. Systemic antibiotics improve the eradication rate. [Infectious Diseases](#)

Efficacy and nephrotoxicity associated with various colistin dosing schemas for the treatment of multidrug resistant (MDR) infections. [Infectious Diseases](#)

Fecal Microbiota Transplantation for Primary *Clostridium difficile* Infection. [New England Journal of Medicine](#)

Prevention and intervention

Implementing a hospital-wide protocol for *Staphylococcus aureus* bacteremia. [European Journal of Clinical Microbiology & Infectious Diseases](#)

Views and experiences with regard to antibiotic use of hospitalised patients in five European countries: a qualitative descriptive study. [Clinical Microbiology and Infection](#)

Impact of electronic healthcare-associated infection surveillance software on infection prevention resources: a systematic review of the literature. [Journal of Hospital Infection](#)

Cost-effectiveness of interventions to improve hand hygiene in healthcare workers in middle-income hospital settings: a model-based analysis. [Journal of Hospital Infection](#)

Use of mathematical modelling to assess the impact of vaccines on antibiotic resistance. [Lancet Infectious Diseases](#)

Use of co-primary outcomes for trials of antimicrobial stewardship interventions. [Lancet Infectious Diseases](#)

Effectiveness of targeted enhanced terminal room disinfection on hospital-wide acquisition and infection with multidrug-resistant organisms and *Clostridium difficile*: a secondary analysis of a multicentre cluster randomised controlled trial with crossover. [Lancet Infectious Diseases](#)

Enhanced terminal room disinfection and the need for multimodal collaboration. [Lancet Infectious Diseases](#)

Antimicrobial Stewardship – dedicated issue. [Rhode Island Medical Journal](#)

Microbiology

Investigation of trimethoprim/sulfamethoxazole resistance in an emerging sequence type 5 methicillin-resistant *Staphylococcus aureus* clone reveals discrepant resistance reporting. [Clinical Microbiology and Infection](#)

Association of virulence gene expression with colistin-resistance in *Acinetobacter baumannii*: analysis of genotype, antimicrobial susceptibility, and biofilm formation. [Annals of Clinical Microbiology and Antimicrobials](#)

β -lactam antibiotics & vancomycin increase the growth & virulence of *Candida* spp. [Future Medicine](#)

Risk factors and molecular features of sequence type (ST) 131 extended-Spectrum- β -lactamase-producing *Escherichia coli* in community-onset female genital tract infections. [BMC Infectious Diseases](#)

Directed evolution of multiple genomic loci allows the prediction of antibiotic resistance. [PNAS](#)

Other

Knowledge and awareness of the general public and perception of pharmacists about antibiotic resistance. [BMC Public Health](#)

Antibiotics in agriculture and the risk to human health: how worried should we be? [Evolutionary Applications](#)

National Costs Associated with Methicillin-susceptible and Methicillin-resistant *S. aureus* Hospitalizations in the United States, 2010–2014. [Clinical Infectious Diseases](#)

Fighting bacterial persistence: Current and emerging anti-persister strategies and therapeutics.
[Drug Resistance Updates](#)

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.