

ABR-Scan Science Week 17-18

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

Predictors of mortality in patients infected with carbapenem-resistant *Acinetobacter baumannii*: A systematic review and meta-analysis. [American Journal of Infection Control](#)

Whole Genome Sequencing of Extended Spectrum β -lactamase (ESBL)-producing *Klebsiella pneumoniae* Isolated from Hospitalized Patients in KwaZulu-Natal, South Africa. [Scientific Reports](#)

Population-based study of early-onset neonatal sepsis in Canada. [Pediatrics and Child Health](#)

Rates, Predictors and Mortality of Community-Onset Bloodstream Infections due to *Pseudomonas aeruginosa*: Systematic Review and Meta-Analysis. [Clinical Microbiology and Infection](#)

ESBLs and resistance to ceftazidime/avibactam and ceftolozane/tazobactam combinations in *Escherichia coli* and *Pseudomonas aeruginosa*. [Journal of Antimicrobial Chemotherapy](#)

Antimicrobial agent susceptibilities of *Legionella pneumophila* MLVA-8 genotypes. [Scientific Reports](#)

Vancomycin-Resistant *Enterococcus* Acquisition in a Tertiary Care Hospital: Testing the Roles of Antibiotic Use, Proton Pump Inhibitor Use, and Colonization Pressure. [Open Forum Infectious Diseases](#)

Spanish nationwide survey on *Pseudomonas aeruginosa* antimicrobial resistance mechanisms and epidemiology. [Journal of Antimicrobial Chemotherapy](#)

Trends in Antimicrobial Drug Resistance of *Streptococcus pneumoniae* Isolates at Jordan University Hospital (2000–2018). [Antibiotics](#)

Man-made microbial resistances in built environments. [Nature Communications](#)

Molecular Adaptations and Antibiotic Resistance in *Vibrio cholerae*: A Communal Challenge. [Microbial Drug Resistance](#)

Decreasing trends, and geographical variation in outpatient antibiotic use: a population-based study in Central Denmark. [BMC Infectious Diseases](#)

Factors associated with antibiotic prescribing for adults with acute conditions: an umbrella review across primary care and a systematic review focusing on primary dental care. [Journal of Antimicrobial Chemotherapy](#)

Predictors and variability of antibiotic prescribing amongst family physicians. [Journal of Antimicrobial Chemotherapy](#)

A cross-sectional national survey of community pharmacy staff: Knowledge and antibiotic provision. [PLoS One](#)

Appropriate empiric antibiotic choices in health care associated urinary tract infections in urology departments in Europe from 2006 to 2015: A Bayesian analytical approach applied in a surveillance study. [PLoS One](#)

The use of aminoglycosides in animals within the EU: development of resistance in animals and possible impact on human and animal health: a review. [Journal of Antimicrobial Chemotherapy](#)

The role of electronic health record and “add-on” clinical decision support systems to enhance antimicrobial stewardship programs. [Infection Control & Hospital Epidemiology](#)

Prevalence of health care–associated infections and antimicrobial resistance of the responsible pathogens in Ukraine: Results of a multicenter study (2014–2016). [American Journal of Infection Control](#)

Point prevalence survey of healthcare-associated infections and antimicrobial use in Kosovo hospitals. [Infectious Disease Reports](#)

Clonal expansion and spread of the ceftriaxone-resistant *Neisseria gonorrhoeae* strain FC428, identified in Japan in 2015, and closely related isolates. [Journal of Antimicrobial Chemotherapy](#)

Multidrug-resistant and extensively drug-resistant *Neisseria gonorrhoeae* in Canada, 2012–2016. [Canada Communicable Disease Report](#)

Phenotypic and Genotypic Characterization of *Neisseria gonorrhoeae* Isolates from New Zealand with Reduced Susceptibility to Ceftriaxone. [Microbial Drug Resistance](#)

Australian Gonococcal Surveillance Programme Annual Report, 2017. [Communicable Diseases Intelligence](#)

Treatment and diagnosis

Management of carbapenem resistant *Enterobacteriaceae* infections. [Clinical Microbiology and Infection](#)

Broad-spectrum antibiotic use and poor outcomes in community-onset pneumonia: a cohort study. [European Respiratory Journal](#)

The role of procalcitonin outside of the Intensive Care Unit (ICU): a multidisciplinary approach. [European Review for Medical and Pharmacological Sciences](#)

Composed endotypes to guide antibiotic discontinuation in sepsis. [Critical Care](#)

Association Between Peripheral Neuropathy and Exposure to Oral Fluoroquinolone or Amoxicillin-Clavulanate Therapy. [JAMA Neurology](#)

Impact of co-amoxicillin-resistant *Escherichia coli* and *Pseudomonas aeruginosa* on the rate of infectious complications in paediatric complicated appendicitis. [Swiss Medical Weekly](#)

On- and off-label utilization of dalbavancin and oritavancin for Gram-positive infections. [Journal of Antimicrobial Chemotherapy](#)

Temocillin plasma and pancreatic tissue concentrations in a critically ill patient with septic shock. [Journal of Antimicrobial Chemotherapy](#)

Eradication of persister cells of *Acinetobacter baumannii* through combination of colistin and amikacin antibiotics. [Journal of Antimicrobial Chemotherapy](#)

Use of ceftazidime/avibactam for the treatment of MDR *Pseudomonas aeruginosa* and *Burkholderia cepacia* complex infections in cystic fibrosis: a case series. [Journal of Antimicrobial Chemotherapy](#)

Shifting Gears: The Future of Polymyxin Antibiotics. [Antibiotics](#)

The extent of microbiological testing is associated with alteration of antibiotic therapy in adults with community-acquired pneumonia. [European Journal of Clinical Microbiology & Infectious Diseases](#)

Antimicrobial prophylaxis for 1 day versus 3 days in liver cancer surgery: a randomized controlled non-inferiority trial. [Surgery Today](#)

Two weeks versus four weeks of antibiotic therapy after surgical drainage for native joint bacterial arthritis: a prospective, randomised, non-inferiority trial. [BMJ Annals of the Rheumatic Diseases](#)

Outpatient Parenteral Antimicrobial Therapy in Children. [Current Infectious Disease Reports](#)

Impact of Reported β -Lactam Allergy on Management of Methicillin-Sensitive *Staphylococcus aureus* Bloodstream Infections. [Journal of Pharmacy Practice](#)

Incidence of acute kidney injury among pediatric hematology/oncology patients receiving vancomycin in combination with piperacillin/tazobactam or cefepime. [Pediatric Blood & Cancer](#)

Reconciliation of Recent *Helicobacter pylori* Treatment Guidelines in a Time of Increasing Resistance to Antibiotics [Gastroenterology](#)

Outcomes of Bedaquiline Treatment in Patients with Multidrug-Resistant Tuberculosis. [Emerging Infectious Diseases](#)

Prevention and intervention

Medical prescribing and antibiotic resistance: A game-theoretic analysis of a potentially catastrophic social dilemma. [PLoS One](#)

Reducing inappropriate outpatient antibiotic prescribing: normative comparison using unblinded provider reports. [BMJ Open Quality](#)

Perceptions in the community about the use of antibiotics without a prescription: Exploring ideas behind this practice. [Pharmacy Practice](#)

Drug Prevention and Control of Ventilator-Associated Pneumonia. [Frontiers in Microbiology](#)

Implementation and Impact of an Antimicrobial Stewardship Program at a Tertiary Care Center in South India. [Open Forum Infectious Diseases](#)

A Performance Improvement Project in Antibiotic Administration for Open Fractures. [Journal of the American Academy of Orthopaedic Surgeons](#)

Microbiology

Variation of MIC measurements: the contribution of strain and laboratory variability to measurement precision—authors' response. [Journal of Antimicrobial Chemotherapy](#)

Temocillin breakpoints in pyelonephritis: evaluation in a murine model due to ESBL-producing *Escherichia coli* clinical isolates. [Journal of Antimicrobial Chemotherapy](#)

Other

Emerging Strategies to Combat ESKAPE Pathogens in the Era of Antimicrobial Resistance: A Review. [Frontiers in Microbiology](#)

Carbapenem-resistant Enterobacteriaceae: global action required. [Lancet Infectious Diseases](#)

Dissemination of multiple carbapenem resistance genes in an *in vitro* gut model simulating the human colon. [Journal of Antimicrobial Chemotherapy](#)

Antibiotic Discovery: Where Have We Come from, Where Do We Go? [Antibiotics](#)

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.