

ABR-Scan Science Week 4

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

Review of antimicrobial resistance surveillance programmes in livestock and their meat in Europe, with a focus on antimicrobial resistance patterns in humans. [Clinical Microbiology and Infection](#)

Neonatal intestinal colonization with Extended-Spectrum β -Lactamase-producing Enterobacteriaceae – a five-year follow-up study. [Clinical Microbiology and Infection](#)

Effect of outpatient antibiotics for urinary tract infections on antimicrobial resistance among commensal Enterobacteriaceae: a multinational prospective cohort study. [Clinical Microbiology and Infection](#)

Implementation of global antimicrobial resistance surveillance system (GLASS) in patients with bacteremia. [PLoS One](#)

A fatal outbreak of ST11 carbapenem-resistant hypervirulent *Klebsiella pneumoniae* in a Chinese hospital: a molecular epidemiological study. [Lancet Infectious Diseases](#)

A cluster of multidrug-resistant *Mycobacterium tuberculosis* among patients arriving in Europe from the Horn of Africa: a molecular epidemiological study. [Emerging Infectious Diseases](#)

Spread of Meropenem-Resistant *Streptococcus pneumoniae* Serotype 15A-ST63 Clone in Japan, 2012–2014. [Emerging Infectious Diseases](#)

Plasmid-Encoded Transferable *mecB*-Mediated Methicillin Resistance in *Staphylococcus aureus*. [Emerging Infectious Diseases](#)

Detection of *mcr-4* positive *Salmonella enterica* serovar Typhimurium in clinical isolates of human origin, Italy, October to November 2016. [Eurosurveillance](#)

Reporting antimicrobial susceptibilities and resistance phenotypes in *Acinetobacter* spp: a nationwide proficiency study. [Journal of Antimicrobial Chemotherapy](#)

Time trend analysis (2009-2016) of antimicrobial susceptibility in *Neisseria gonorrhoeae* isolated in Italy following the introduction of the combined antimicrobial therapy. [PLoS One](#)

High levels of susceptibility to new and older antibiotics in *Neisseria gonorrhoeae* isolates from Saskatchewan (2003–15): time to consider point-of-care or molecular testing for precision treatment? [Journal of Antimicrobial Chemotherapy](#)

Italian nationwide survey on *Pseudomonas aeruginosa* from invasive infections: activity of ceftolozane/tazobactam and comparators, and molecular epidemiology of carbapenemase producers. [Journal of Antimicrobial Chemotherapy](#)

The first report of Japanese antimicrobial use measured by national database based on health insurance claims data (2011-2013): comparison with sales data, and trend analysis stratified by antimicrobial category and age group. [Infection](#)

Invasive bacterial disease trends and characterization of group B streptococcal isolates among young infants in southern Mozambique, 2001–2015. [PLoS One](#)

Antimicrobial Drug Resistance in Blood Culture Isolates at a Tertiary Hospital, Uganda. [Emerging Infectious Diseases](#)

Elevated antibiotic resistance of Sudanese urinary tract infection bacteria. [Experimental and Clinical Sciences](#)

Treatment and diagnosis

Association of Broad- vs Narrow-Spectrum Antibiotics With Treatment Failure, Adverse Events, and Quality of Life in Children With Acute Respiratory Tract Infections. [JAMA](#)

Colistin exposure as a risk factor for infections caused by inherently colistin resistant Enterobacteriaceae – a case control study. [Clinical Microbiology and Infection](#)

High interindividual variability in urinary fosfomycin concentrations in healthy female volunteers. [Clinical Microbiology and Infection](#)

Management of KPC-producing *Klebsiella pneumoniae* infections. [Clinical Microbiology and Infection](#)

Prolonged versus short-term intravenous infusion of antipseudomonal β -lactams for patients with sepsis: a systematic review and meta-analysis of randomised trials. [Lancet Infectious Diseases](#)

Mini-Fecal Microbiota Transplantation for Treatment of *Clostridium difficile* Proctitis Following Total Colectomy. [Clinical Infectious Diseases](#)

Impact of Systemic Antibiotics on *Staphylococcus aureus* Colonization and Recurrent Skin Infection. [Clinical Infectious Diseases](#)

Comparing the Outcomes of Adults With Enterobacteriaceae Bacteremia Receiving Short-Course Versus Prolonged-Course Antibiotic Therapy in a Multicenter, Propensity Score–Matched Cohort. [Clinical Infectious Diseases](#)

Colistin Versus Ceftazidime-Avibactam in the Treatment of Infections Due to Carbapenem-Resistant Enterobacteriaceae. [Clinical Infectious Diseases](#)

Use of Monte Carlo simulation to evaluate the efficacy of tigecycline and minocycline for the treatment of pneumonia due to carbapenemase-producing *Klebsiella pneumoniae*. [Infectious Diseases](#)

Are third-generation cephalosporins still the empirical antibiotic treatment of community-acquired spontaneous bacterial peritonitis? A systematic review and meta-analysis. [European Journal of Gastroenterology & Hepatology](#)

Intravenous colistin combination antimicrobial treatment versus monotherapy: a systematic review and meta-analysis. [International Journal of Antimicrobial Resistance](#)

Durability and Long-Term Clinical Outcomes of Fecal Microbiota Transplant (FMT) Treatment in Patients with Recurrent *Clostridium difficile* Infection. [Clinical Microbiology and Infection](#)

Ceftazidime-avibactam versus meropenem in nosocomial pneumonia, including ventilator-associated pneumonia (REPROVE): a randomised, double-blind, phase 3 non-inferiority trial. [Lancet Infectious Diseases](#)

Extended-pulsed fidaxomicin versus vancomycin for *Clostridium difficile* infection in patients 60 years and older (EXTEND): a randomised, controlled, open-label, phase 3b/4 trial. [Lancet Infectious Diseases](#)

Adjunctive rifampicin provided no overall benefit over standard antibiotic therapy in adults with *S aureus* bacteraemia. [Lancet](#)

Treatment outcome of non-carbapenemase-producing carbapenem-resistant *Klebsiella pneumoniae* infections: a multicenter study in Taiwan. [European Journal of Clinical Microbiology & Infectious Diseases](#)

Clinical outcomes after combination treatment with ceftazidime/avibactam and aztreonam for NDM-1/OXA-48/CTX-M-15-producing *Klebsiella pneumoniae* infection. [Journal of Antimicrobial Chemotherapy](#)

Evaluating the risk factors for hospital-onset *Clostridium difficile* infections in a large healthcare system. [Clinical Infectious Diseases](#)

Pharmacokinetics and Pharmacodynamics of Antimicrobials in Critically Ill Patients. [Surgical Infections](#)

Prevention and intervention

Study protocol for One Health data collections, analyses and intervention of the Sino-Swedish integrated multisectoral partnership for antibiotic resistance containment (IMPACT). [BMJ](#)

Are infection specialists recommending short antibiotic treatment durations? An ESCMID international cross-sectional survey. [Journal of Antimicrobial Chemotherapy](#)

Improving Time to Antibiotic Administration for Bone Marrow Transplant Patients With First Fever. [Pediatrics](#)

Comparing a single-day swabbing regimen with an established 3-day protocol for MRSA decolonization control. [Clinical Microbiology and Infection](#)

Duration of Contact Precautions for Acute-Care Settings. [Infection Control & Hospital Epidemiology](#)

Impact of real-time notification of *Clostridium difficile* test results and early initiation of effective antimicrobial therapy. [American Journal of Infection Control](#)

Evaluation of the Use of Novel Biomarkers to Augment Antimicrobial Stewardship Program Activities. [Pharmacotherapy](#)

Use of a Penicillin Allergy Screening Algorithm and Penicillin Skin Testing for Transitioning Hospitalized Patients to First-Line Antibiotic Therapy. [Journal of Allergy and Clinical Immunology](#)

Disease-based antimicrobial stewardship: a review of active and passive approaches to patient management. [Journal of Antimicrobial Chemotherapy](#)

General practitioner and nurse prescriber experiences of prescribing antibiotics for respiratory tract infections in UK primary care out-of-hours services (the UNITE study). [Journal of Antimicrobial Chemotherapy](#)

Pharmacist participation in antimicrobial stewardship in Australian and French hospitals: a cross-sectional nationwide survey. [Journal of Antimicrobial Chemotherapy](#)

Use of a structured panel process to define antimicrobial prescribing appropriateness in critical care. [Journal of Antimicrobial Chemotherapy](#)

How to: Surveillance of *Clostridium difficile* infections. [Clinical Microbiology and Infection](#)

Monitoring adherence to guidelines of antibiotic use in pediatric pneumonia: the MAREA study. [Italian Journal of Pediatrics](#)

Automatic infectious disease consultant alert is associated with decreased mortality and readmission rate in Staphylococcus aureus bacteremia. [Läkartidningen](#)

Microbiology

Antimicrobial susceptibility testing of colistin – evaluation of seven commercial MIC products against standard broth microdilution for Escherichia coli, Klebsiella pneumoniae, Pseudomonas aeruginosa and Acinetobacter spp. [Clinical Microbiology and Infection](#)

Direct identification of clinical pathogens from liquid culture media by MALDI-TOF MS analysis. [Clinical Microbiology and Infection](#)

Activity of ceftazidime/avibactam against problem Enterobacteriaceae and Pseudomonas aeruginosa in the UK, 2015–16. [Journal of Antimicrobial Chemotherapy](#)

In vitro activity of ceftolozane/tazobactam versus antimicrobial non-susceptible Pseudomonas aeruginosa clinical isolates including MDR and XDR isolates obtained from across Canada as part of the CANWARD study, 2008–16. [Journal of Antimicrobial Chemotherapy](#)

Other

Microbiological factors affecting Clostridium difficile recurrence. [Clinical Microbiology and Infection](#)

Semi-mechanistic pharmacokinetic-pharmacodynamic modelling of antibiotic drug combinations. [Clinical Microbiology and Infection](#)

Assessment and Modeling of Antibacterial Combination Regimens. [Clinical Microbiology and Infection](#)

Pharmacodynamics of fosfomycin against ESBL- and/or carbapenemase-producing Enterobacteriaceae. [Journal of Antimicrobial Chemotherapy](#)

Stool Microbiota at Neutrophil Recovery Is Predictive for Severe Acute Graft vs Host Disease After Hematopoietic Cell Transplantation. [Journal of Antimicrobial Chemotherapy](#)

Noncarbapenem β -Lactams for the Treatment of Extended-Spectrum β -Lactamase Infections: What Are the Remaining Drugs Outside the United States? [Clinical Infectious Diseases](#)

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.