

# ABR-Scan Science Week 20-21

## 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](mailto:ABR-scan@folkhalsomyndigheten.se)*

### Surveillance

Antimicrobial resistance among migrants in Europe: a systematic review and meta-analysis. [Lancet Infectious Diseases](#)

Antimicrobial resistance in the context of the Syrian conflict drivers before and after the onset of conflict and key recommendations. [International Journal of Infectious Diseases](#)

Subsequent infection with extended-spectrum  $\beta$ -lactamase-producing Enterobacteriaceae in patients with prior infection or fecal colonization. [European Journal of Clinical Microbiology & Infectious Diseases](#)

How effective are approaches to migrant screening for infectious diseases in Europe? A systematic review. [Lancet Infectious Diseases](#)

Antibiotic Consumption Increasing Globally. [JAMA](#)

Resistant gonorrhoea: east meets west. [Lancet Infectious Diseases](#)

Public health surveillance of multidrug-resistant clones of Neisseria gonorrhoeae in Europe: a genomic survey. [Lancet Infectious Diseases](#)

Multidrug-resistant Neisseria gonorrhoeae failing treatment with ceftriaxone and doxycycline in France, November 2017. [Eurosurveillance](#)

High admission prevalence of fluoroquinolone resistance in third-generation cephalosporin-resistant Enterobacteriaceae in German university hospitals. [Journal of Antimicrobial Chemotherapy](#)

Association between use of different antibiotics and trimethoprim resistance: going beyond the obvious crude association. [Journal of Antimicrobial Chemotherapy](#)

*Bacillus cereus*, a serious cause of nosocomial infections: Epidemiologic and genetic survey. [PLoS One](#)

Increasing macrolide resistance among Streptococcus agalactiae causing invasive disease in non-pregnant adults was driven by a single capsular-transformed lineage, Portugal, 2009 to 2015. [Eurosurveillance](#)

Macrolide Resistance in Cases of Community-Acquired Bacterial Pneumonia in the Emergency Department. [Journal of Emergency Medicine](#)

Is blaCTX-M-1 Riding the Same Plasmid Among Horses in Sweden and France? [Microbial Drug Resistance](#)

Advancing surveillance of antimicrobial resistance: Summary of the 2015 CIDSC Report. [Canada Communicable Diseases Report](#)

Antimicrobial use and antimicrobial resistance trends in Canada: 2014. [Canada Communicable Disease Report](#)

Antibiotic resistance and molecular characterization of diarrheagenic *Escherichia coli* and non-typhoidal *Salmonella* strains isolated from infections in Southwest China. [Infectious Diseases of Poverty](#)

Molecular epidemiology of NDM-1- and OXA-48-producing *Klebsiella pneumoniae* in an Iranian hospital: clonal dissemination of ST11 and ST893. [Journal of Antimicrobial Chemotherapy](#)

Imipenem resistance in clinical *Escherichia coli* from Qom, Iran. [BMC Research Notes](#)

Emergence of an XDR and carbapenemase-producing hypervirulent *Klebsiella pneumoniae* strain in Taiwan. [Journal of Antimicrobial Chemotherapy](#)

## Treatment and diagnosis

Balancing treatment with resistance in UTIs. [Lancet](#)

Ibuprofen versus pivmecillinam for uncomplicated urinary tract infection in women—A double-blind, randomized non-inferiority trial. [PLoS Medicine](#)

No need for a urine culture in elderly hospitalized patients with a negative dipstick test result. [European Journal of Clinical Microbiology & Infectious Diseases](#)

Antibiotic use for community-acquired pneumonia in neonates and children: WHO evidence review. [Paediatrics and International Child Health](#)

Clinical effectiveness of carbapenems versus alternative antibiotics for treating ESBL-producing Enterobacteriaceae bacteraemia: a systematic review and meta-analysis. [Journal of Antimicrobial Chemotherapy](#)

*In vivo* evolution of resistant subpopulations of KPC-producing *Klebsiella pneumoniae* during ceftazidime/avibactam treatment. [Journal of antimicrobial Chemotherapy](#)

Elucidation of the pharmacokinetic/pharmacodynamic determinants of fosfomicin activity against *Pseudomonas aeruginosa* using a dynamic *in vitro* model. [Journal of Antimicrobial Chemotherapy](#)

Duration of exposure to multiple antibiotics is associated with increased risk of VRE bacteraemia: a nested case-control study. [Journal of Antimicrobial Chemotherapy](#)

Prolonged use of antibiotics after birth is associated with increased morbidity in preterm infants with negative cultures. [Journal of Maternal-Fetal and Neonatal Medicine](#)

Guidelines for the treatment of severe acute malnutrition: a systematic review of the evidence for antimicrobial therapy. [Paediatrics and International Child Health](#)

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

Efficacy of oral vancomycin in primary prevention of *Clostridium Difficile* infection in elderly patients treated with systemic antibiotic therapy. [Infectious Diseases](#)

Cefepime vs. cefoperazone/sulbactam in combination with amikacin as empirical antibiotic therapy in febrile neutropenia. [Supportive Care in Cancer](#)

Antimicrobial susceptibility of *Campylobacter jejuni* and *Campylobacter coli*: comparison between Etest and a broth dilution method. [Annals of Clinical Microbiology and Antimicrobials](#)

Rapid detection of carbapenemase activity of *Enterobacteriaceae* isolated from positive blood cultures by MALDI-TOF MS. [Annals of Clinical Microbiology and Antimicrobials](#)

A review of novel technologies and techniques associated with identification of bloodstream infection aetiologies and rapid antimicrobial genotypic and quantitative phenotypic determination. [Expert Review of Molecular Diagnostics](#)

## Prevention and intervention

Patient-related determinants of antibiotic use: a systematic review. [Clinical Microbiology and Infection](#)

Factors affecting the public awareness and behavior on antibiotic use. [European Journal of Clinical Microbiology & Infectious Diseases](#)

Effectiveness of interventions to improve the public's antimicrobial resistance awareness and behaviours associated with prudent use of antimicrobials: a systematic review. [Journal of Antimicrobial Chemotherapy](#)

Process and outcome indicators for infection control and prevention in European acute care hospitals in 2011 to 2012 – Results of the PROHIBIT study. [Eurosurveillance](#)

Optimizing carbapenem use through a national quality improvement programme. [Journal of Antimicrobial Chemotherapy](#)

A national quality incentive scheme to reduce antibiotic overuse in hospitals: evaluation of perceptions and impact. [Journal of Antimicrobial Chemotherapy](#)

An ontology-driven clinical decision support system (IDDAP) for infectious disease diagnosis and antibiotic prescription. [Artificial Intelligence in Medicine](#)

Time to Diagnosis and Treatment of Surgical Site Infections in Foot and Ankle Surgery. [Foot & Ankle International](#)

## Microbiology

Fitness cost of *mcr-1*-mediated polymyxin resistance in *Klebsiella pneumoniae*. [Journal of Antimicrobial Chemotherapy](#)

Virulence determinants, biofilm production and antimicrobial susceptibility in *Staphylococcus aureus* causing device-associated infections in a Tunisian hospital. [International Journal of Antimicrobial Agents](#)

Bacteriophage research - what we have learnt and what still needs to be addressed. [Research in Microbiology](#)

## Other

Global governance of antimicrobial resistance. [Lancet](#)

Meeting the challenge for effective antimicrobial stewardship programs in regional, rural and remote hospitals – what can we learn from the published literature? [Rural and Remote Health](#)

How is an international public health threat advanced in Canada? The case of antimicrobial resistance. [Canada Communicable Disease Report](#)

Potential impact of influenza vaccine roll-out on antibiotic use in Africa. [Journal of Antimicrobial Chemotherapy](#)

**Discovery and development of new antibacterial drugs: learning from experience? [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.*