# **ABR-Scan Science Week 42-43**

### **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 <a href="mailto:ABR-scan@folkhalsomyndigheten.se">ABR-scan@folkhalsomyndigheten.se</a> if you would like to subscribe, unsubscribe or submit any comments or suggestions.

#### **Surveillance**

Antimicrobial resistance surveillance in Europe and beyond. Eurosurveillance

Antimicrobial resistance of major clinical pathogens in South Korea, May 2016 to April 2017: first one-year report from Kor-GLASS. <u>Eurosurveillance</u>

Establishment of the South Korean national antimicrobial resistance surveillance system, Kor-GLASS, in 2016. <u>Eurosurveillance</u>

Nippon AMR One Health Report: the first step towards multisectoral collaboration. <u>Lancet Infectious Diseases</u>

Counting the cost of critical antibiotic shortages. <u>Journal of Antimicrobial Chemotherapy</u>

**Antibiotic Shortages in Pediatrics. Pediatrics** 

Automated detection of outbreaks of antimicrobial-resistant bacteria in Japan. <u>Journal of Hospital Infection</u>

Why Surveillance of Antimicrobial Resistance needs to be Automated and Comprehensive. <u>Journal of Global Antimicrobial Resistance</u>

Acquisition of Multidrug-resistant Organisms in the Absence of Antimicrobials. <u>Clinical Infectious</u> Diseases

Patient and Strain Characteristics Associated With *Clostridium difficile* Transmission and Adverse Outcomes. Clinical Infectious Diseases

Emergence of an Escherichia coli strain co-harboring mcr-1 *and* bla*NDM-9* from urinary tract infection in Taiwan. <u>Journal of Global Antimicrobial Resistance</u>

Effects of Pneumococcal Conjugate Vaccine on Genotypic Penicillin Resistance and Serotype Changes, Japan, 2010–2017. <a href="mailto:Emerging Infectious Diseases">Emerging Infectious Diseases</a>

Racial/Ethnic Disparities in Antimicrobial Drug Use, United States, 2014–2015. Emerging Infectious Diseases

Antimicrobial activity of ceftaroline and comparator agents tested against organisms isolated from patients with community-acquired bacterial pneumonia in Europe, Asia, and Latin America.

International Journal of Infectious Diseases

Outbreak of multidrug-resistant tuberculosis in South Africa undetected by WHO-endorsed commercial tests: an observational study. <u>Lancet Infectious Diseases</u>

Prevalence, antimicrobial susceptibility profile and predictors of asymptomatic bacteriuria among pregnant women in Adigrat General Hospital, Northern Ethiopia. <u>BMC Research Notes</u>

New approaches to pharmacosurveillance for monitoring prescription frequency, diversity, and coprescription in a large sentinel network of companion animal veterinary practices in the United Kingdom, 2014–2016. Preventive Veterinary Medicine

Why do veterinarians ask for antimicrobial susceptibility testing? A qualitative study exploring determinants and evaluating the impact of antibiotic reduction policy. <a href="Preventive Veterinary">Preventive Veterinary</a> Medicine

Antimicrobial Resistance Profiles of *Staphylococcus aureus* Isolated from Meat Carcasses and Bovine Milk in Abattoirs and Dairy Farms of the Eastern Cape, South Africa. <u>International Journal of Environmental Research and Public Health</u>

Antibiotic-Resistant *Salmonella* in the Food Supply and the Potential Role of Antibiotic Alternatives for Control. <u>Foods</u>

## **Treatment and diagnosis**

Colistin for the treatment of multidrug-resistant infections. Lancet Infectious Diseases

Treatment for pharyngeal gonorrhoea under threat. Lancet Infectious Diseases

Shortened IV Antibiotic Course for Uncomplicated, Late-Onset Group B Streptococcal Bacteremia. Pediatrics

Acinetobacter Pneumonia: Improving Outcomes With Early Identification and Appropriate Therapy. Clinical Infectious Diseases

Novel partners with colistin to increase its *in vivo* therapeutic effectiveness and prevent the occurrence of colistin resistance in NDM- and MCR-co-producing *Escherichia coli* in a murine infection model. <u>Journal of Antimicrobial Chemotherapy</u>

A 4.5-Year Within-Patient Evolution of a Colistin-Resistant *Klebsiella pneumoniae* Carbapenemase—Producing *K. pneumoniae* Sequence Type 258. Clinical Infectious Diseases

Polyspecific Intravenous Immunoglobulin in Clindamycin-treated Patients With Streptococcal Toxic Shock Syndrome: A Systematic Review and Meta-analysis. <u>Clinical Infectious Diseases</u>

Mycoplasma pneumoniae in pediatric patients: Do macrolide-resistance and/or delayed treatment matter? <u>Journal of Microbiology, Immunology and Infection</u>

Antibiotic therapy for pelvic inflammatory disease: an abridged version of a Cochrane systematic review and meta-analysis of randomised controlled trials. <a href="mailto:BMJ\_STI">BMJ\_STI</a>

Risk Factors for Delayed Antimicrobial Treatment in Febrile Children with Urinary Tract Infections. Journal of Pediatrics

The efficacy of antibiotic treatment versus surgical treatment of uncomplicated acute appendicitis: Systematic review and network meta-analysis of randomized controlled trial. <a href="Maintenancement">American Journal of Surgery</a>

Role of Early De-escalation of Antimicrobial Therapy on Risk of *Clostridioides difficile* Infection following *Enterobacteriaceae* Bloodstream Infections. <u>Clinical Infectious Diseases</u>

Occult rifampicin-resistant tuberculosis: better assays are needed. Lancet Infectious Diseases

Teicoplanin for treating enterococcal infective endocarditis: a retrospective observational study from a referral center. International Journal of Antimicrobial Agents

Quantifying the Importance of Active Antimicrobial Therapy among Patients with Gram-negative Bloodstream Infections: Cefepime as a Representative Agent. <u>International Journal of Antimicrobial Agents</u>

### Prevention and intervention

Prevention of early ventilation-acquired pneumonia (VAP) in comatose brain-injured patients by a single dose of ceftriaxone: PROPHY-VAP study protocol, a multicentre, randomised, double-blind, placebo-controlled trial. <a href="MMJ Open">BMJ Open</a>

Variability in Emergency Medicine Provider Decisions on Hospital Admission and Antibiotic Treatment in a Survey Study for Acute Bacterial Skin and Skin Structure Infections: Opportunities for Antimicrobial Stewardship Education. <a href="#Open-Forum Infectious Diseases">Open Forum Infectious Diseases</a>

The Importance of Delabeling β-Lactam Allergy in Children. <u>Journal of Pediatrics</u>

### **Microbiology**

Prediction of Susceptibility to First-Line Tuberculosis Drugs by DNA Sequencing. NEJM

Identification of Prosthetic Joint Infection Pathogens Using a Shotgun Metagenomics Approach. Clinical Infectious Diseases

In vitro activity of seven β-lactams including ceftolozane/tazobactam and ceftazidime/avibactam against Burkholderia cepacia complex, Burkholderia gladioli and other non-fermentative Gramnegative bacilli isolated from cystic fibrosis patients. Journal of Antimicrobial Chemotherapy

#### Other

Introduction and geographic availability of new antibiotics approved between 1999 and 2014. <u>PLoS One</u>

Confronting the threat of bioterrorism: realities, challenges, and defensive strategies. <u>Lancet Infectious Diseases</u>

When Societal Structural Issues Become Patient Problems: The Role of Clinical Ethics Consultation. <u>Hasting Society Report</u>

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.