# **ABR-Scan Science Week 48-49**

### **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**

Consumption of oral antibiotic formulations for young children according to the WHO Access, Watch, Reserve (AWaRe) antibiotic groups: an analysis of sales data from 70 middle-income and high-income countries. <u>Lancet Infectious Diseases</u>

Be AWaRe: new metrics for paediatric antibiotic stewardship. Lancet Infectious Diseases

Determinants of antibiotic dispensing without prescription: a systematic review. <u>Journal of Antimicrobial Chemotherapy</u>

Establishment of a gonococcal antimicrobial surveillance programme (GASP), in accordance with WHO standards, in Côte d'Ivoire, Western Africa, 2014-2017. Sexually Transmitted Diseases

Changes in the incidence and bacterial aetiology of paediatric parapneumonic pleural effusions/empyema in Germany, 2010–2017: a nationwide surveillance study. Clinical Microbiology and Infection

Prevalence of carriage of extended-spectrum  $\beta$ -lactamase-producing enterobacteria and associated factors in a French hospital. Clinical Microbiology and Infection

The Relative Impact of Community and Hospital Antibiotic Use on the Selection of Extended-Spectrum Beta-lactamase-Producing *Escherichia coli*. Clinical Infectious Diseases

Outbreak of invasive group A streptococcus: investigations using agar settle plates detect perineal shedding from a healthcare worker. <u>Journal of Hospital Infection</u>

High-level aminoglycoside resistance in Enterococcus faecalis and Enterococcus faecium; as a serious threat in hospitals. <u>Infectious Disorders – Drug Targets</u>

Severe Disease Caused by Community-Associated MRSA ST398 Type V, Australia, 2017. Emerging Infectious Diseases

Surgical Site Infections Caused by Highly Virulent Methicillin-Resistant Staphylococcus aureus Sequence Type 398, China. Emerging Infectious Diseases

New Multidrug-Resistant Salmonella enterica Serovar Anatum Clone, Taiwan, 2015–2017. Emerging Infectious Diseases

Antibiotic resistance of Enterobacteriaceae causing urinary tract infections in elderly patients living in the community and in the nursing home: a retrospective observational study. <u>Journal of Antimicrobial Chemotherapy</u>

Adherence of Newborn-Specific Antibiotic Stewardship Programs to CDC Recommendations. Pediatrics

Antibiotic use in children with asthma: cohort study in UK and Dutch primary care databases. <u>BMJ</u> Open

A Cross-Cutting Approach to Surveillance and Laboratory Capacity as a Platform to Improve Health Security in Uganda. Health Security

Relevance of healthcare-associated pneumonia for empirical antibiotic therapy in the Netherlands. Netherlands Journal of Medicine

Incidence of bacteremia and antimicrobial resistance, and associated factors among patients transferred from long-term care hospital. <u>American Journal of Emergency Medicine</u>

Antimicrobial use practices, attitudes and responsibilities in UK farm animal veterinary surgeons. Preventive Veterinary Medicine

### **Treatment and diagnosis**

Management of Neonates Born at ≥35 0/7 Weeks' Gestation With Suspected or Proven Early-Onset Bacterial Sepsis. Pediatrics

Intravenous catheter-related adverse events exceed drug-related adverse events in outpatient parenteral antimicrobial therapy <u>Journal of Antimicrobial Therapy</u>

**Getting Over Our Inpatient Oral Antibiotic Aversion.** Pediatrics

Clinical management of drug-resistant bacteria in Australian hospitals: An online survey of doctors' opinions. Infection, Disease & Health

Development of diagnostic prediction tools for bacteraemia caused by third-generation cephalosporin-resistant enterobacteria in suspected bacterial infections: a nested case—control study. Clinical Microbiology and Infection

Effects of prophylactic antibiotics on patients with stable COPD: a systematic review and metaanalysis of randomized controlled trials. Journal of Antimicrobial Chemotherapy

Ciprofloxacin in critically ill subjects: considering hepatic function, age and sex to choose the optimal dose. Journal of Antimicrobial Chemotherapy

Sole causal therapy worsens outcome as compared to no therapy and combined causal and goal-directed supportive therapy in ovine septic shock. <u>Annals of Translational Medicine</u>

Impact of an alternating first-line antibiotics strategy in febrile neutropenia. PLoS One

Daptomycin versus teicoplanin for bloodstream infection due to methicillin-resistant Staphylococcus aureus with a high teicoplanin minimal inhibitory concentration ≥1.5 mg/L: a propensity score-based analysis. Infection and Drug Resistance

Developing a new antibiotic for extensively drug-resistant pathogens: the case of plazomicin. Clinical Microbiology and Infection

Can Intravenous Antifungal therapy be safely used in the Outpatient Parenteral Antimicrobial Therapy (OPAT) setting? <a href="Mycoses">Mycoses</a>

European guidelines for primary antifungal prophylaxis in adult haematology patients: summary of the updated recommendations from the European Conference on Infections in Leukaemia. <u>Journal of Antimicrobial Chemotherapy</u>

### Prevention and intervention

Effects of Antibiotic Cycling Policy on Incidence of Healthcare-Associated MRSA and Clostridioides difficile Infection in Secondary Healthcare Settings. Emerging Infectious Diseases

Adherence of Newborn-Specific Antibiotic Stewardship Programs to CDC Recommendations. Pediatrics

The quality of studies evaluating antimicrobial stewardship interventions: a systematic review. Clinical Microbiology and Infection

**ESCMID** generic competencies in antimicrobial prescribing and stewardship: towards a European consensus. Clinical Microbiology and Infection

Human resources required for antimicrobial stewardship teams: a Dutch consensus report. Clinical Microbiology and Infection

Environmental contamination by bacteria in hospital washrooms according to hand-drying method: a multi-centre study. Journal of Hospital Infection

Bacterial colonization of bladeless electrical fans. Journal of Hospital Infection

*Mycobacterium chimaera* in heater-cooler units used during cardiac surgery – growth and decontamination. <u>Infectious Diseases</u>

Inpatient Beta-lactam test-dose Protocol promotes Antimicrobial Stewardship in Patients with History of Penicillin Allergy. Annals of Allergy, Asthma and Immunology

An intervention to control an ICU outbreak of carbapenem-resistant *Acinetobacter baumannii*: long-term impact for the ICU and hospital. <u>Critical Care</u>

Risk Factors for Surgical Site Infection after Spinal Surgery: A Systematic Review and Meta-Analysis Based on Twenty-Seven Studies. World Neurosurgery

Treatment outcomes of colistin and carbapenem-resistant *Acinetobacter baumannii* infections: an exploratory subgroup analysis of a randomized clinical trial. Clinical Infectious Diseases

## Microbiology

Predicting Antimicrobial Resistance and Associated Genomic Features from Whole Genome Sequencing. Journal of Clinical Microbiology

Inaccurate Multilocus Sequence Typing of Acinetobacter baumannii. Emerging Infectious Diseases

Antibiotic-nanomedicines: facing the challenge of effective treatment of antibiotic-resistant respiratory tract infections. <u>Future Medicine</u>

Applying ecological resistance and resilience to dissect bacterial antibiotic responses. <u>Science Advances</u>

#### Other

Sustainable Access to Antimicrobials; A Missing Component to Antimicrobial Stewardship—A Tale of Two Countries. <u>Frontiers in Public Health</u>

The cost of antimicrobial resistance. Nature Microbiology

Antimicrobial resistance is a shared global problem. Veterinary Record

Patchwork regulation won't stop antimicrobial resistance. Nature

An ecosystem framework for understanding and treating disease. <u>Evolution, Medicine & Public Health</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.