ABR-Scan Science Week 7-8

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 <u>ABR-scan@folkhalsomyndigheten.se</u> if you would like to subscribe, unsubscribe or submit any comments or suggestions.

Surveillance

Harnessing alternative sources of antimicrobial resistance data to support surveillance in low-resource settings. <u>Journal of Antimicrobial Chemotherapy</u>

Bacteriologic Profile and Susceptibility Pattern of Mechanically - Ventilated Pediatric Patients with Pneumonia. <u>Journal of Global Antimicrobial Resistance</u>

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>

Spread of ceftriaxone non-susceptible pneumococci in South Korea: Long-term care facilities as a potential reservoir. PLoS One

Antibiotic misuse in respiratory tract infections in children and adults—a prospective, multicentre study (TAILORED Treatment). <u>European Journal of Clinical Microbiology & Infectious Diseases</u>

Phentotypic, gentotypic antimicrobial resistance and pathogenicity of *Salmonella enterica* serovars Typimurium and Enteriditis in poultry and poultry products. Microbial Pathogenesis

Using the best available data to estimate the cost of antimicrobial resistance: a systematic review. Antimicrobial Resistance & Infection Control

The impact of the national action plan on the epidemiology of antibiotic resistance among 352,238 isolates in a teaching hospital in China from 2015 to 2018. <u>Antimicrobial Resistance & Infection</u> Control

Methods of estimating vancomycin use in an inpatient setting: days of therapy versus therapeutic drug monitoring—based exposure days. <u>Infection Control & Hospital Epidemiology</u>

Genetic relatedness of ceftriaxone-resistant and high-level azithromycin resistant Neisseria gonorrhoeae cases, United Kingdom and Australia, February to April 2018. Eurosurveillance

No evidence of carbapenemase-producing Enterobacteriaceae in stool samples of 1,544 asylum seekers arriving in Rhineland-Palatinate, Germany, April 2016 to March, 2017. Eurosurveillance

Bridging antimicrobial resistance knowledge gaps: The East African perspective on a global problem. $\underline{\text{PLoS One}}$

Convergence of virulence and MDR in a single plasmid vector in MDR *Klebsiella pneumoniae* ST15. Journal of Antimicrobial Chemotherapy

Treatment and diagnosis

International Consensus Guidelines for the Optimal Use of the Polymyxins: Endorsed by the American College of Clinical Pharmacy (ACCP), European Society of Clinical Microbiology and Infectious Diseases (ESCMID), Infectious Diseases Society of America (IDSA), International Society for Anti-infective Pharmacology (ISAP), Society of Critical Care Medicine (SCCM), and Society of Infectious Diseases Pharmacists (SIDP). Pharmacotherapy

Antibiotic prescribing for upper respiratory tract infections: NICE guidelines. <u>BMJ Education & Practice</u>

Omadacycline — The Newest Tetracycline. NEJM

Omadacycline for Acute Bacterial Skin and Skin-Structure Infections. NEJM

Shorter course antimicrobial therapy for uncomplicated Gram-negative bacteremia: is it generalizable? <u>Clinical Infectious Diseases</u>

Nitrofurantoin and fosfomycin for resistant urinary tract infections: old drugs for emerging problems. Australian Prescriber

Evaluation of temocillin for phenotypic carbapenemase screening of *Escherichia coli* and *Salmonella enterica* isolates in relation to the presence of genes encoding ESBLs and carbapenemase production. <u>Journal of Antimicrobial Chemotherapy</u>

Long-term impact of oral vancomycin, ciprofloxacin and metronidazole on the gut microbiota in healthy humans. <u>Journal of Antimicrobial Chemotherapy</u>

The role of extended-spectrum cephalosporin-resistance in recurrent community-onset Enterobacteriaceae urinary tract infections: a retrospective cohort study. BMJ Infectious Diseases

Optimal antimicrobial duration for common bacterial infections. Australian Prescriber

Paediatric acute kidney injury induced by vancomycin monotherapy versus combined vancomycin and meropenem. Journal of Clinical Pharmacy and Therapeutics

Prolonged duration of early antibiotic therapy in extremely premature infants. Pediatric Research

Potential for Erosion of Efficacy in Non-Inferiority Trials of Decreasing Duration of Antibiotic Therapy. Clinical Infectious Diseases

Methicillin-resistant Staphylococcus aureus: an overview of basic and clinical research. <u>Nature</u> Reviews Microbiology

Prevention and intervention

Effectiveness of interventions involving pharmacists on antibiotic prescribing by general practitioners: a systematic review and meta-analysis. <u>Journal of Antimicrobial Chemotherapy</u>

Preparedness to prescribe antibiotics responsibly: a comparison between final year medical students in France and Sweden. European Journal of Clinical Microbiology & Infectious Diseases

The Importance of an Antimicrobial Stewardship Program. Federal Practitioner

A Primary Hospital Antimicrobial Stewardship Intervention on Pneumonia Treatment Duration. Federal Practitioner

Improving pediatric emergency department physicians' adherence to clinical practice guidelines on the diagnosis and management of group A beta-hemolytic streptococcal pharyngitis—a cross-sectional study. International Journal of Emergency Medicine

Antimicrobial stewardship program (ASP): an effective implementing technique for the therapy efficiency of meropenem and vancomycin antibiotics in Iranian pediatric patients. <u>Annals of Clinical Microbiology and Antimicrobials</u>

Is selective decontamination (SDD/SOD) safe in the ICU context? <u>Journal of Antimicrobial</u> <u>Chemotherapy</u>

Implementation of a pharmacist-led penicillin allergy de-labelling service in a public hospital.

Journal of Antimicrobial Chemotherapy

Risk Assessment After a Severe Hospital-Acquired Infection Associated With Carbapenemase-Producing Pseudomonas aeruginosa. JAMA

Are Probiotics Money Down the Toilet? Or Worse? JAMA Medical News and Perspectives

Review of the impact of MALDI-TOF MS in public health and hospital hygiene, 2018. Eurosurveillance

Prevention of healthcare-associated infections (HAIs) in a surgical urology ward: observational study—analysis of the problem and strategies for implementation. World Journal of Urology

Effect of carbapenem restriction on prescribing trends for immunocompromised wards at an academic medical center. American Journal of Infection Control

Case Investigations of Infectious Diseases Occurring in Workplaces, United States, 2006–2015. Emerging Infectious Diseases

Microbiology

Performance of ceftazidime/avibactam susceptibility testing methods against clinically relevant Gram-negative organisms. Journal of Antimicrobial Chemotherapy

Using genomics to understand antimicrobial resistance and transmission in *Neisseria gonorrhoeae*. Microbial Genomics

Next-Generation Sequencing of Infectious Pathogens. JAMA Insights

Other

One Health—Its Importance in Helping to Better Control Antimicrobial Resistance. <u>Tropical</u> Medicine and Infectious Disease

Revised Global Typhoid Vaccination Policy. Clinical Infectious Diseases

Does size matter? Addressing pack size and antibiotic duration. Australian Prescriber

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.