ABR-Scan Science Week 36

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 Jonas Fuks at ABR-scan@folkhalsomyndigheten.se

Surveillance

Implementation and evaluation of an automated surveillance system to detect hospital outbreak. <u>American Journal of Infection Control</u>

Trends in Antibiotic Use by Birth Season and Birth Year. Pediatrics

Carbapenemase VCC-1—Producing Vibrio cholerae in Coastal Waters of Germany. <u>Emerging</u> <u>Infectious Diseases</u>

Detection and quantification of the plasmid-mediated mcr-1 gene conferring colistin resistance in wastewater. International Journal of Antimicrobial Agents

Fluoroquinolone-Resistant Alcaligenes faecalis Related to Chronic Suppurative Otitis Media, Angola. Emerging Infectious Diseases

Impact of carbapenem restriction on the antimicrobial susceptibility pattern of *Pseudomonas* aeruginosa isolates in the ICU. Journal of Antimicrobial Chemotherapy

Impact of recurrent *Clostridium difficile* infection: hospitalization and patient quality of life. Journal of Antimicrobial Chemotherapy

Disease Burden of Clostridium difficile Infections in Adults, Hong Kong, China, 2006–2014. Emerging Infectious Diseases

A fatal outbreak of ST11 carbapenem-resistant hypervirulent in a Chinese hospital: a molecular epidemiological study. <u>Lancet Infectious Diseases</u>

Convergence of carbapenem-resistance and hypervirulence in *Klebsiella pneumonia*. <u>Lancet Infectious Diseases</u>

Low prevalence of MCR-1-producing Klebsiella pneumoniae in bloodstream infections in China. Clinical Microbiology and Infection

Resolution of Carbapenemase-Producing Klebsiella pneumoniae Outbreak in a Tertiary Cancer Center; the Role of Active Surveillance. <u>Infection Control & Hospital Immunology</u>

blaCTX-M-27–Encoding Escherichia coli Sequence Type 131 Lineage C1-M27 Clone in Clinical Isolates, Germany. <u>Emerging Infectious Diseases</u>

Long-lasting outbreak due to CTX-M-15-producing Klebsiella pneumoniae ST336 in a rehabilitation ward: report and literature review. <u>Journal of Hospital Infection</u>

Trends in antimicrobial resistance in bloodstream infection isolates at a large urban hospital in Malawi (1998–2016): a surveillance study. <u>Lancet Infectious Diseases</u>

Cluster of Neisseria gonorrhoeae Isolates With High-level Azithromycin Resistance and Decreased Ceftriaxone Susceptibility, Hawaii, 2016. <u>Clinical Infectious Diseases</u>

Acquisition of Clostridium difficile Colonization and Infection After Transfer From a Veterans
Affairs Hospital to an Affiliated Long-Term Care Facility. Infection Control & Hospital Immunology

Estimates of the global, regional, and national morbidity, mortality, and aetiologies of lower respiratory tract infections in 195 countries: a systematic analysis for the Global Burden of Disease Study 2015. Lancet Infectious Diseases

Healthcare associated infections in neonatal intensive care unit and its correlation with environmental surveillance. <u>Journal of Infection and Public Health</u>

Treatment and diagnosis

Use of antibiotics during pregnancy and the risk of major congenital malformations: a population based cohort study. British Journal of Clinical Pharmacology

Symptom response to antibiotic prescribing strategies in acute sore throat in adults: the DESCARTE prospective cohort study in UK general practice. <u>British Journal of General Practise</u>

Influence of the duration of penicillin prescriptions on outcomes for acute sore throat in adults: the DESCARTE prospective cohort study in UK general practice. <u>British Journal of General Practise</u>

A randomized synbiotic trial to prevent sepsis among infants in rural India. Nature

Influence of empirical double-active combination antimicrobial therapy compared with active monotherapy on mortality in patients with septic shock: a propensity score-adjusted and matched analysis. Journal of Antimicrobial Chemotherapy

Utility of Prior Cultures in Predicting Antibiotic Resistance of Bloodstream Infections Due to Gramnegative Pathogens: A Multicenter Observational Cohort Study. Clinical Microbiology and Infection

Effect of combination therapy containing a high dose carbapenem on mortality in patients with carbapenem-resistant klebsiella pneumoniae bloodstream infection. International Journal of Antimicrobial Agents

Combination therapy for carbapenemase-producing Entero-bacteriaceae: INCREMENT-al effect on resistance remains unclear. <u>Lancet Infectious Diseases</u>

Prognostic Factors for Treatment Failure in Acute Otitis Media. Pediatrics

Utility of Blood Culture Among Children Hospitalized With Community-Acquired Pneumonia. Pediatrics

Meningococcal B Vaccine Failure With a Penicillin-Resistant Strain in a Young Adult on Long-Term Eculizumab. Pediatrics

Prevention and intervention

Vaccines and Outpatient Antibiotic Stewardship. Pediatrics

A randomized controlled trial of probiotics for *Clostridium difficile* infection in adults (PICO). Journal of Antimicrobial Chemotherapy

Effect of antibiotic stewardship on the incidence of infection and colonisation with antibiotic-resistant bacteria and Clostridium difficile infection: a systematic review and meta-analysis. <u>Lancet Infectious Diseases</u>

A Population-Based Assessment of the Impact of 7- and 13-Valent Pneumococcal Conjugate Vaccines on Macrolide-Resistant Invasive Pneumococcal Disease: Emergence and Decline of Streptococcus pneumoniae Serotype 19A (CC320) With Dual Macrolide Resistance Mechanisms. Clinical Infectious Diseases

Decrease in Vancomycin-Resistant Enterococcus Colonization After Extensive Renovation of a Unit Dedicated to the Treatment of Hematologic Malignancies and Hematopoietic Stem-Cell Transplantation. Infection Control & Hospital Immunology

The Effect of Ultraviolet Light on Clostridium difficile Spore Recovery Versus Bleach Alone. <u>Infection</u> Control & Hospital Immunology

Workload even affects hand hygiene in a highly trained and well-staffed setting: a prospective 365/7/24 observational study. Journal of Hospital Infection

Microbiology

The novel 2016 WHO Neisseria gonorrhoeae reference strains for global quality assurance of laboratory investigations: phenotypic, genetic and reference genome characterization. <u>Journal of Antimicrobial Chemotherapy</u>

Whole-Genome Sequencing Accurately Identifies Resistance to Extended-Spectrum β-Lactams for Major Gram-Negative Bacterial Pathogens. <u>Clinical Infectious Diseases</u>

An outbreak of Clostridium difficile infections due to a new PCR ribotype 826: epidemiological and microbiological analyses. <u>Clinical Microbiology and Infection</u>

A simple phenotypic method for screening of MCR-1-mediated colistin resistance. Clinical Microbiology and Infection

Comparison of the clinical course of Clostridium difficile infection in GDH-positive, toxin-negative patients diagnosed by PCR to those with a positive toxin test. Clinical Microbiology and Infection

Other

Acute Otitis Media in the 21st Century: What Now? Pediatrics

Sparing carbapenem usage. <u>Journal of Antimicrobial Chemotherapy</u>

Pharmacokinetics of nebulized colistin methanesulfonate in critically ill patients. <u>Journal of Antimicrobial Chemotherapy</u>

Cost of Nosocomial Outbreak Caused by NDM-1-Containing Klebsiella pneumoniae in the Netherlands, October 2015-January 2016. <u>Emerging Infectious Diseases</u>

Antimicrobial resistance: The complex challenge of measurement to inform policy and the public. PLoS Medicine

Measuring progress on preventing pneumonia deaths: are we there yet? Lancet Infectious Diseases

Policy implementation for methicillin-resistant Staphylococcus aureus in seven European countries: a comparative analysis from 1999 to 2015. Journal of Market Access and Health Policy

New drugs – will they solve the problem of resistance to antibiotics? <u>Clinical Microbiology and Infection</u>

Preserving the 'commons': Addressing the sustainable use of antibiotics through an economic lens. Clinical Microbiology and Infection

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.