ABR-Scan Science Week 38

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

Surveillance

Overall Low Extended-Spectrum Cephalosporin Resistance but high Azithromycin Resistance in Neisseria gonorrhoeae in 24 European Countries, 2015. BMC Infectious Diseases

Molecular epidemiology of drug-resistant Neisseria gonorrhoeae in Russia (Current Status, 2015). BMC Infectious Diseases

Antimicrobial Drug Prescription and Neisseria gonorrhoeae Susceptibility, United States, 2005–2013. Emerging Infectious Diseases

Hospital sewage water - a reservoir for variants of new delhi metallo-β-lactamase (blaNDM) and ESBL-producing enterobacteriaceae. International Journal of Antimicrobial Agents

Antibiotic residues in the environment of South East Asia. BMJ

Molecular epidemiology and antimicrobial susceptibility of methicillin-resistant Staphylococcus aureus isolates in Xiangyang, China. <u>Journal of Global Antimicrobial Resistance</u>

Antimicrobial resistance in Africa: a systematic review. BMC Infectious Diseases

Antibiotic use in South East Asia and policies to promote appropriate use: reports from country situational analyses. <u>BMJ</u>

Using information technology to improve surveillance of antimicrobial resistance in South East Asia. BMJ

Treatment and diagnosis

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

Maximally effective dosing regimens of meropenem in patients with septic shock. <u>Journal of</u> Antimicrobial Chemotherapy

Colistin vs. Ceftazidime-avibactam in the Treatment of Infections due to Carbapenem-Resistant Enterobacteriaceae. <u>Clinical Infectious Diseases</u>

Racial and Ethnic Differences in Antibiotic Use for Viral Illness in Emergency Departments. Pediatrics

Reactive oxygen therapy: a novel antimicrobial. International Journal of Antimicrobial Agents

Prevention and intervention

Clinician-targeted interventions to influence antibiotic prescribing behaviour for acute respiratory infections in primary care: an overview of systematic reviews. <u>Cochrane Library</u>

A framework for ensuring a balanced accounting of the impact of antimicrobial stewardship interventions. Journal of Antimicrobial Chemotherapy

The Antimicrobial Scrub Contamination and Transmission (ASCOT) Trial: A Three-Arm, Blinded, Randomized Controlled Trial With Crossover Design to Determine the Efficacy of Antimicrobial-Impregnated Scrubs in Preventing Healthcare Provider Contamination. Infection Control & Hospital Epidemiology

Risk assessment for antibiotic resistance in South East Asia. BMJ

Strengthening infection prevention and control and systematic surveillance of healthcare associated infections in India. BMJ

Antibiotic resistance and its containment in India. BMJ

Microbiology

Network of microbial and antibiotic interactions drive colonization and infection with multidrugresistant organisms. PNAS

Enteric microbiome profiles during a randomized Phase 2 clinical trial of surotomycin versus vancomycin for the treatment of *Clostridium difficile* infection. <u>Journal of Antimicrobial Chemotherapy</u>

Effects of low concentrations of erythromycin, penicillin, and virginiamycin on bacterial resistance development in vitro. <u>Scientific Reports</u>

Other

Antibiotic resistance: it's bad, but why isn't it worse? BMC Biology

Impact of "Raised Without Antibiotics" Beef Cattle Production Practices On Occurrences of Antimicrobial Resistance. Applied Environmental Microbiology

Developing a situation analysis tool to assess containment of antimicrobial resistance in South East Asia. BMJ

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.