ABR-Scan Science Week 38-39

Unit for Antibiotics and Infection Control

This bi-weekly 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 ABR-scan@folkhalsomyndigheten.se if you would like to subscribe, unsubscribe or submit any comments or suggestions.

Surveillance

Universal screening for Clostridioides difficile in a tertiary hospital: risk factors for carriage and clinical disease. Clinical microbiology and Infection

Individual- and community-level risk factors for ESBL Enterobacteriaceae colonization identified by universal admission screening in London. <u>Clinical Microbiology and Infection</u>

Young doctors' perspectives on antibiotic use and resistance: a multinational and inter-specialty cross-sectional European Society of Clinical Microbiology and Infectious Diseases (ESCMID) survey. Journal of Antimicrobial Chemotherapy

Incidence of healthcare-associated Clostridioides difficile infections and association with ward-level antibiotic consumption in a German university hospital: an ecological study. <u>Journal of Antimicrobial Chemotherapy</u>

Emergence of ceftazidime/avibactam resistance in carbapenem-resistant Klebsiella pneumoniae in China. Clinical Microbiology and Infection

Factors associated with antibiotic prescribing for adults with acute conditions: an umbrella review across primary care and a systematic review focusing on primary dental care. <u>Journal of Antimicrobial Chemotherapy</u>

Treatment and diagnosis

New Antibacterial Should Be Used With Caution. Jama Network

Treating Appendicitis Without Surgery – 5-Year Follow-up From a Randomized Clinical Trial of Antibiotic Treatment. Jama Network (audio)

Treatment duration of pivmecillinam in men, non-pregnant and pregnant women for community-acquired urinary tract infections caused by Escherichia coli: a retrospective Danish cohort study. Journal of Antimicrobial Chemotherapy

Intravenous colistin use for infections due to MDR Gram-negative bacilli in critically ill paediatric patients: a systematic review and meta-analysis. <u>Journal of Antimicrobial Chemotherapy</u>

Short-course versus long-course antibiotics in prosthetic joint infections: a systematic review and meta-analysis of one randomized controlled trial plus nine observational studies. <u>Journal of Antimicrobial Chemotherapy</u>

Efficacy of colistin alone and in various combinations for the treatment of experimental osteomyelitis due to carbapenemase-producing Klebsiella pneumoniae. <u>Journal of Antimicrobial</u> Chemotherapy

Successful treatment with cefiderocol for compassionate use in a critically ill patient with XDR Acinetobacter baumannii and KPC-producing Klebsiella pneumoniae: a case report.

Journal of Antimicrobial Chemotherapy

Uva-ursi extract and ibuprofen as alternative treatments for uncomplicated urinary tract infection in women (ATAFUTI): a factorial randomized trial. <u>Clinical Microbiology and Infection</u>

Antibiotic-sparing agents for uncomplicated cystitis: uva-ursi and ibuprofen not ready for primetime. Clinical Microbiology and Infection

The association of adequate empirical treatment and time to recovery from bacteraemic urinary tract infections: a retrospective cohort study. <u>Clinical Microbiology and Infection</u>

The effect of preoperative oral antibiotic use on the risk of periprosthetic joint infection after primary knee or hip replacement: a retrospective study with a 1-year follow-up. Clinical Microbiology and Infection

Current options for the treatment of infections due to extended-spectrum beta-lactamase-producing Enterobacteriaceae in different groups of patients. Clinical Microbiology and Infection

A 5-day course of oral antibiotics followed by faecal transplantation to eradicate carriage of multidrug-resistant Enterobacteriaceae: a randomized clinical trial. Clinical Microbiology and Infection

Ceftolozane—tazobactam versus meropenem for treatment of nosocomial pneumonia (ASPECT-NP): a randomised, controlled, double-blind, phase 3, non-inferiority trial. The Lancet

Prevention and intervention

Monitoring your institution: the WHO hand hygiene self-assessment framework—is it worth it? Clinical Microbiology and Infection

ESCMID-EUCIC clinical guidelines on decolonization of multidrug-resistant Gram-negative bacteria carriers. Clinical Microbiology and Infection

Antibacterial efficacy of handrubbing for 15 versus 30 seconds: EN 1500-based randomized experimental study with different loads of Staphylococcus aureus and Escherichia coli. Clinical Microbiology and Infection

Infection control procedures for extensively drug-resistant bacteria and related adverse effects: the experience at the Lyon University Hospitals from 2011 to 2017. Clinical Microbiology and Infection

Impact of vaccination on antibiotic usage: a systematic review and meta-analysis. <u>Clinical Microbiology and Infection</u>

Chlorhexidine and octenidine use, carriage of qac genes, and reduced antiseptic susceptibility in methicillin-resistant Staphylococcus aureus isolates from a healthcare network. Clinical Microbiology and Infection

Impact of single-room contact precautions on hospital-acquisition and transmission of multidrug-resistant Escherichia coli: a prospective multicentre cohort study in haematological and oncological wards. Clinical Microbiology and Infection

Optimising design of research to evaluate antibiotic stewardship interventions; consensus recommendations of a multinational working group. Clinical Microbiology and Infection

Impact of national interventions to promote responsible antibiotic use: a systematic review. Journal of Antimicrobial Chemotherapy

Evaluation of a web-based tool for labelling potential hospital outbreaks: a mixed methods study. Journal of Hospital Infection

Screening for Asymptomatic Bacteriuria in Adults: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. <u>Jama Network</u>

Microbiology

ESBLs and resistance to ceftazidime/avibactam and ceftolozane/tazobactam combinations in Escherichia coli and Pseudomonas aeruginosa. <u>Journal of Antimicrobial Chemotherapy</u>

Dissemination of multiple carbapenem resistance genes in an in vitro gut model simulating the human colon. <u>Journal of Antimicrobial Chemotherapy</u>

Acquisition and colonization dynamics of antimicrobial-resistant bacteria during international travel: a prospective cohort study. Clinical Microbiology and Infection

Comparison of five methods for detection of carbapenemases in Enterobacterales with proposal of a new algorithm. <u>Clinical Microbiology and Infection</u>

Transmission events and antimicrobial susceptibilities of methicillin-resistant Staphylococcus argenteus in Stockholm. Clinical Microbiology and Infection

Implications of identifying the recently defined members of the Staphylococcus aureus complex S. argenteus and S. schweitzeri: a position paper of members of the ESCMID Study Group for Staphylococci and Staphylococcal Diseases (ESGS). Clinical Microbiology and Infection

A novel framework to compare the effectiveness of β -lactamase inhibitors against extendedspectrum β -lactamase-producing Enterobacteriaceae. Clinical Microbiology and Infection

Are coagulase-negative staphylococci virulent? Clinical Microbiology and Infection

Probiotics for intestinal decolonization of ESBL-producing enterobacteriaceae; a randomized, placebo-controlled clinical trial. Clinical Microbiology and Infection

Faecal microbiota transplantation for eradicating carriage of multidrug-resistant organisms: a systematic review. Clinical Microbiology and Infection

Manipulation of the microbiota to eradicate multidrug-resistant Enterobacteriaceae from the human intestinal tract. Clinical Microbiology and Infection

Other

Emotional, cognitive and social factors of antimicrobial prescribing: can antimicrobial stewardship intervention be effective without addressing psycho-social factors? <u>Journal of Antimicrobial Chemotherapy</u>

Healthcare-associated pneumonia: is there any reason to continue to utilize this label in 2019? Clinical Microbiology and Infection

Quantifying the transmission dynamics of MRSA in the community and healthcare settings in a low-prevalence country. PNAS

Gross national income and antibiotic resistance in invasive isolates: analysis of the top-ranked antibiotic-resistant bacteria on the 2017 WHO priority list. <u>Journal of Antimicrobial Chemotherapy</u>

Broad-spectrum antibiotic use in Europe: more evidence of cultural influences on prescribing behaviour. <u>Journal of Antimicrobial Chemotherapy</u>

Clinical research designs to study treatment effects for multidrug-resistant bacteria. Clinical Microbiology and Infection

The publications included in the scan are: Antimicrobial Agents and Chemotherapy, British Medical Journal (BMJ), Clinical Infectious Diseases, Clinical Microbiology and Infection, Emerging Infectious Diseases, Eurosurveillance, Infection Control & Hospital Epidemiology, Infectious Diseases, The Journal of the American Medical Association (JAMA), 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. Material from other publications may also be included.