ABR-Scan Science Week 47-51 2019

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

Surveillance

Faecal carriage, risk factors, acquisition and persistence of ESBL-producing Enterobacteriaceae in dogs and cats and co-carriage with humans belonging to the same household. <u>Journal of Antimicrobial Chemotherapy</u>

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>

Mandatory surveillance and outbreaks reporting of the WHO priority pathogens for research & Discovery of new antibiotics in European countries. <u>Clinical Microbiology and Infection</u>

Antibiotic exposure among children younger than 5 years in low-income and middle-income countries: a cross-sectional study of nationally representative facility-based and household-based surveys. <u>Lancet Infectious Diseases</u>

Implications of antibiotic exposure among children in low-income and middle-income countries. (comment) <u>Lancet Infectious Diseases</u>

Prevalence of nasal carriage of methicillin-resistant Staphylococcus aureus in patients at hospital admission in The Netherlands, 2010–2017: an observational study. Clinical Microbiology and Infection

Risk factors for community-onset bloodstream infection with extended-spectrum β -lactamase-producing Enterobacteriaceae: national population-based case-control study. Clinical Microbiology and Infection

Five-year Pan-European, longitudinal surveillance of Clostridium difficile ribotype prevalence and antimicrobial resistance: the extended ClosER study. <u>European Journal of Clinical Microbiology & Infectious Diseases</u>

Quinolone nonsusceptibility among enteric pathogens isolated from international travelers – Foodborne Diseases Active Surveillance Network (FoodNet) and National Antimicrobial Monitoring System (NARMS), 10 United States sites, 2004 – 2014. PLOS one

Treatment and diagnosis

Total duration instead of in-hospital antibiotic days: reaching beyond the hospital walls. <u>Clinical Microbiology and Infection</u>

Improvement of Guideline Adherence After the Implementation of an Antibiotic Stewardship Program in a Secondary Care Pediatric Hospital. <u>Frontiers in Pediatrics</u>

The effect of an antimicrobial stewardship programme in two intensive care units of a teaching hospital: an interrupted time series analysis. <u>Clinical Microbiology and Infection</u>

Pharmacokinetics and safety of aztreonam/avibactam for the treatment of complicated intraabdominal infections in hospitalized adults: results from the REJUVENATE study. <u>Journal of</u> Antimicrobial Chemotherapy

Increased risk of acquisition and transmission of ESBL-producing Enterobacteriaceae in malnourished children exposed to amoxicillin. Journal of Antimicrobial Chemotherapy

Biomarker-guided antibiotic stewardship in suspected ventilator-associated pneumonia (VAPrapid2): a randomised controlled trial and process evaluation. Lancet Respiratory Medicine

Inhaled amikacin adjunctive to intravenous standard-of-care antibiotics in mechanically ventilated patients with Gram-negative pneumonia (INHALE): a double-blind, randomised, placebocontrolled, phase 3, superiority trial. <u>Lancet</u>

The last breath for inhaled antibiotics and VAP? Not so fast. (comment) Lancet

Adverse events in adults with latent tuberculosis infection receiving daily rifampicin or isoniazid: post-hoc safety analysis of two randomised controlled trials. <u>Lancet</u>

What is the best regimen to treat latent tuberculosis infection? (comment) Lancet

Fluconazole Monotherapy Is a Suboptimal Option for Initial Treatment of Cryptococcal Meningitis Because of Emergence of Resistance. <u>mBio</u>

Aminoglycosides for infective endocarditis: time to say goodbye? <u>Clinical Microbiology and Infection</u>

Prevention and intervention

Can educational speech intervention improve visitors hand hygiene compliance? <u>Journal of Hospital Infection</u>

Financial and temporal costs of patient isolation in Norwegian hospitals. <u>Journal of Hospital</u> Infection

The pitfall of cohort isolation in an outbreak of linezolid-resistant, vancomycin-resistant enterococci. Clinical Microbiology and Infection

Contamination of health-care workers' hands with Escherichia coli and Klebsiella species after routine patient care: a prospective observational study. <u>Clinical Microbiology and Infection</u>

Microbiology

Assessment of trimethoprim-sulfamethoxazole susceptibility testing methods for fastidious Haemophilus spp. Clinical Microbiology and Infection

Differentiation between Streptococcus pneumoniae and other viridans group streptococci by Matrix-assisted laser desorption/ionization-time of flight mass spectrometry (MALDI-TOF MS). Clinical Microbiology and Infection

A two-step approach for the investigation of a Clostridium difficile outbreak by molecular methods. Clinical Microbiology and Infection

How to accelerate antimicrobial susceptibility testing. Clinical Microbiology and Infection

Microbiological diagnostics of bloodstream infections in Europe—an ESGBIES survey. Clinical Microbiology and Infection

Impact of EUCAST ceftaroline breakpoint change on the susceptibility of methicillin-resistant Staphylococcus aureus isolates collected from patients with complicated skin and soft-tissue infections. Clinical Microbiology and Infection

Association between daptomycin susceptibility and teicoplanin resistance in Staphylococcus epidermidis. Nature Scientific Reports

Other

Optimizing antibiotic prescribing: collective approaches to managing a common-pool resource. Clinical Microbiology and Infection

The global preclinical antibacterial pipeline. Nature reviews microbiology

Highlighting the gaps in quantifying the economic burden of surgical site infections associated with antimicrobial-resistant bacteria. World Journal of Emergency Surgery

Burden of bacterial bloodstream infection—a brief update on epidemiology and significance of multidrug-resistant pathogens. Clinical Microbiology and Infection

Factors influencing uptake of evidence-based antimicrobial prophylaxis guidelines for electrophysiology procedures. <u>American Journal of Infection Control</u>

Implementation research to support Bangladesh Ministry of Health and Family Welfare to implement its national guidelines for management of infections in young infants in two rural districts. Journal of Health, Population and Nutrition

Sniffing animals as a diagnostic tool in infectious diseases. Clinical Microbiology and Infection

Appreciation Professor Johan W. Mouton, 3 November 1956–9 July 2019. <u>Journal of Antimicrobial Chemotherapy</u>

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. Articles and materials from other publications may also be included.