ABR-Scan Science Week 38-39

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

Estimates of the global, regional, and national morbidity, mortality, and aetiologies of lower respiratory infections in 195 countries, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016. <u>Lancet Infectious Diseases</u>

Estimates of the global, regional, and national morbidity, mortality, and aetiologies of diarrhoea in 195 countries: a systematic analysis for the Global Burden of Disease Study 2016. <u>Lancet Infectious Diseases</u>

Proficiency of WHO Global Foodborne Infections Network External Quality Assurance System participants in the identification and susceptibility testing of thermo-tolerant Campylobacter spp. from 2003-2012. Journal of Clinical Microbiology

Antibiotic consumption in Germany: first data of a newly implemented web-based tool for local and national surveillance. Journal of Antimicrobial Chemotherapy

Carbapenem Non-susceptible Gram-negative Pathogens in ICU and Non-ICU Settings in US Hospitals in 2017: A Multicenter Study. Open Forum Infectious Diseases

Towards national systems for continuous surveillance of antimicrobial resistance: Lessons from tuberculosis. PLoS Medicine

Antibiotic treatment of infections caused by carbapenem-resistant Gram-negative bacilli: an international ESCMID cross-sectional survey among infectious diseases specialists practicing in large hospitals. Clinical Microbiology and Infection

Risk factors associated with bloodstream infections in end-stage renal disease patients: a population-based study. <u>Infectious Diseases</u>

Trends and determinants of antimicrobial susceptibility of Neisseria gonorrhoeae in the Netherlands, 2007 to 2015. Eurosurveillance

National Minimum Data Set for Antimicrobial Resistance Management: Toward Global Surveillance System. <u>Iranian Journal of Medical Sciences</u>

Antibiotics has more impact on mortality than other early goal-directed therapy components in patients with sepsis: An instrumental variable analysis. <u>Journal of Critical Care</u>

Clinical and microbiological features of bacteremia with Gram-positive anaerobic cocci; a population-based retrospective study. Clinical Microbiology and Infection

Antimicrobial resistance of pathogens causing nosocomial bloodstream infection in Hubei Province, China, from 2014 to 2016: a multicenter retrospective study. BMC Public Health

Microbial Infections and Antimicrobial Resistance in Nepal: Current Trends and Recommendations.

Open Microbiology Journal

Multidrug-Resistant Aspergillus fumigatus Carrying Mutations Linked to Environmental Fungicide Exposure — Three States, 2010–2017. CDC Morbidity and Mortality Weekly Report

Impact of alcohol-based hand sanitizers, antibiotic consumption, and other measures on detection rates of antibiotic-resistant bacteria in rural Japanese hospitals. <u>Journal of Infection and Chemotherapy</u>

First report of blaOXA-24 carbapenemase-encoding gene, armA Methyltransferase and aac(6)-lb-cr producing multidrug-resistant clinical isolates of Proteus mirabilis in Algeria. <u>Journal of Global</u> Antimicrobial Resistance

Physicians' utilization of microbiologic reports and determinants of their preference to order culture in Tikur Anbessa Specialized Hospital, Addis Ababa, Ethiopia. BMC Research Notes

Assessment of General Public's Knowledge and Opinions towards Antibiotic Use and Bacterial Resistance: A Cross-Sectional Study in an Urban Setting, Rufisque, Senegal. Pharmacy

Aeromonas spp. from marketed Yesso scallop (Patinopecten yessoensis): Molecular characterization, phylogenetic analysis, virulence properties and antimicrobial susceptibility. Journal of Applied Microbiology

Treatment and diagnosis

Amoxicillin–clavulanate versus azithromycin for respiratory exacerbations in children with bronchiectasis (BEST-2): a multicentre, double-blind, non-inferiority, randomised controlled trial. Lancet

Home intravenous versus oral antibiotics following appendectomy for perforated appendicitis in children: a randomized controlled trial. Pediatric Surgery International

Treatment Algorithms for Staphylococcal Bacteremia. JAMA

Antibiotic Treatment for Uncomplicated Appendicitis Really Works. JAMA

Five-Year Follow-up of Antibiotic Therapy for Uncomplicated Acute Appendicitis in the APPAC Randomized Clinical Trial. JAMA

Antibiotic Treatment for Uncomplicated Urinary Tract Infections. JAMA

Antibiotics for Sepsis—Finding the Equilibrium. JAMA

Effect of Piperacillin-Tazobactam vs Meropenem on 30-Day Mortality for Patients With E coli or Klebsiella pneumoniae Bloodstream Infection and Ceftriaxone Resistance – A Randomized Clinical Trial. JAMA

Treatment duration for *Escherichia coli* bloodstream infection and outcomes: retrospective single-centre study. <u>Clinical Microbiology and Infection</u>

An alternative strategy for combination therapy: Interactions between polymyxin B and non-antibiotics. International Journal of Antimicrobial Agents

Effectiveness and safety of ertapenem used in hospital-at-home units: data from Spanish Outpatient Parenteral Antimicrobial Therapy Registry. <u>Future Medicine</u>

Antimicrobial Therapy in Community-Acquired Pneumonia in Children. <u>Current Infectious Disease</u>
<u>Reports</u>

Coagulase-negative staphylococcal bacteraemia in cancer patients. Time to positive culture can distinguish bacteraemia from contamination. <u>Infectious Diseases</u>

Blood culture for complicated acute pyelonephritis with ureteral stone: are they unnecessary? Infectious Diseases

Management and outcome of bloodstream infections: a prospective survey in 121 French hospitals (SPA-BACT survey). <u>Infection and Drug Resistance</u>

A Quality Improvement Initiative: Reducing Blood Culture Contamination in a Children's Hospital. Pediatrics

Laboratory automation reduces time to report of positive blood cultures and improves management of patients with bloodstream infection. <u>European Journal of Clinical Microbiology & Infectious Diseases</u>

Intravascular Catheter–Related Bloodstream Infections. Infectious Disease Clinics of North America

Rapid detection of NDM, KPC and OXA-48 carbapenemases directly from positive blood cultures using a new multiplex immunochromatographic assay. <u>PLoS One</u>

Essentials in Candida bloodstream infection. Infection

Prevention and intervention

Introduction to the joint British Society of Gastroenterology (BSG) and Healthcare Infection Society (HIS) faecal microbiota transplant guidelines. <u>Journal of Hospital Infection</u>

Hand Hygiene in hospitals: Anatomy of a revolution. Journal of Hospital Infection

Microbiology

Mycobacterium tuberculosis carrying a rifampicin drug resistance mutation reprograms macrophage metabolism through cell wall lipid changes. Nature Microbiology

Typing of vancomycin-resistant enterococci with MALDI-TOF mass spectrometry in a nosocomial outbreak setting. Clinical Microbiology and Infection

Other

Advancing global tuberculosis control after the UNGA-HLM. Lancet

Routine antibiotic therapy in dogs increases the detection of antimicrobial-resistant faecal Escherichia coli. Journal of Antimicrobial Chemotherapy

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.