ABR-Scan Science Week 19-20

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

Epidemiology and health-economic burden of urinary catheter-associated infection in English NHS hospitals: a probabilistic modelling study. <u>Journal of Hospital Infection</u>

Community prevalence of carbapenemase-producing organisms in East London. <u>Journal of Hospital Infection</u>

Predicting acquisition of carbapenem-resistant Gram-negative pathogens in intensive care units. <u>Journal of Hospital Infection</u>

Carbapenem-resistant Enterobacteriaceae dispersal from sinks is linked to drain position and drainage rates in a laboratory model system. <u>Journal of Hospital Infection</u>

Diet as a risk factor for antimicrobial resistance in community-acquired urinary tract infections in a middle-aged and elderly population: a case—control study. Clinical Microbiology and Infection

Risk Factors for Community-Onset Bloodstream Infection with Extended-Spectrum ß-Lactamase-Producing Enterobacteriaceae: National Population-Based Case-Control Study. Clinical Microbiology and Infection

Effect of carbapenem resistance on outcomes of bloodstream infection caused by Enterobacteriaceae in low-income and middle-income countries (PANORAMA): a multinational prospective cohort study. <u>Lancet Infectious Diseases</u>

Appropriate antibiotic prescribing among final-year medical students in Europe. <u>International</u> Journal of Antimicrobial Agents

Transmission pathways of multidrug-resistant organisms in the hospital setting: a scoping review. Infection Control & Hospital Epidemiology

Overprescribing antibiotics for asymptomatic bacteriuria in older adults: a case series review of admissions in two UK hospitals. Antimicrobial Resistance & Infection Control

The impact of carbapenemase producing Enterobacteriaceae colonization on infection risk after liver transplantation: a prospective observational cohort study. Clinical Microbiology and Infection

Cumulative Probability of Receiving an Antibiotic Prescription over Time. NEJM

Determinants of in-hospital antibiotic prescription behaviour: a systematic review and formation of a comprehensive framework. Clinical Microbiology and Infection

Low gonorrhoea antimicrobial resistance and culture positivity rates in general practice: a pilot study. BMJ Sexually Transmitted Diseases

Microbiome and Antimicrobial Resistance Gene Dynamics in International Travelers. <u>Emerging</u> Infectious Diseases

Antibiotic susceptibility trend before and after long-term use of selective digestive decontamination: a 16 year ecological study. <u>Journal of Antimicrobial Chemotherapy</u>

The Epidemiology and Prevention of Candida auris. Current Infectious Disease Reports

How Introducing a Registry with Automated Alerts for Carbapenem-Resistant Enterobacteriaceae (CRE) May Help Control CRE Spread in a Region. <u>Clinical Infectious Diseases</u>

Treatment and diagnosis

Delay of appropriate antibiotic treatment is associated with high mortality in patients with community-onset sepsis in a Swedish setting. European Journal of Clinical Microbiology & infectious Diseases

Engineered bacteriophages for treatment of a patient with a disseminated drug-resistant Mycobacterium abscessus. Nature Medicine

Safety and immunogenicity of a vaccine for extra-intestinal pathogenic Escherichia coli (ESTELLA): a phase 2 randomised controlled trial. Lancet Infectious Diseases

Clostridioides difficile infection in outpatient settings – the need for studies on clinical impact.

<u>Clinical Microbiology and Infection</u>

Prophylactic antibiotics in the prevention of infection after operative vaginal delivery (ANODE): a multicentre randomised controlled trial. Lancet

Enteral lactoferrin for the treatment of sepsis and necrotizing enterocolitis in neonates. <u>Cochrane Library</u>

No Clinical Benefit to Treating Male Urinary Tract Infection Longer than Seven Days: An Outpatient Database Study. Open Forum Infectious Diseases

Pivmecillinam for Uncomplicated Lower Urinary Tract Infections Caused by Staphylococcus saprophyticus—Cumulative Observational Data from Four Recent Clinical Studies. <u>Antibiotics</u>

Recurrent Uncomplicated Urinary Tract Infections In Women: Aua/Cua/Sufu Guideline. <u>Journal of Urology</u>

Surgical Site Infections: Guidelines from the American Society of Transplantation Infectious Diseases Community of Practice. <u>Clinical Transplantation</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>

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

Use of ribaxamase (SYN-004), a β -lactamase, to prevent *Clostridium difficile* infection in β -lactamtreated patients: a double-blind, phase 2b, randomised placebo-controlled trial. <u>Lancet Infectious Diseases</u>

Gentamicin compared with ceftriaxone for the treatment of gonorrhoea (G-ToG): a randomised non-inferiority trial. <u>Lancet</u>

Advances in Diagnostic Testing that Impact Infection Prevention and Antimicrobial Stewardship Programs. <u>Current Infectious Disease Reports</u>

Don't Get Wound Up: Revised Fluoroquinolone Breakpoints for *Enterobacteriaceae* and *Pseudomonas aeruginosa*. <u>Journal of Clinical Microbiology</u>

Ten years of external quality assessment (EQA) of *Neisseria gonorrhoeae* antimicrobial susceptibility testing in Europe elucidate high reliability of data. <u>BMC Infectious Diseases</u>

Clinical Pharmacokinetics and Pharmacodynamics of Eravacycline. Clinical Pharmacokinetics

Current time-to-positivity of blood cultures in febrile neutropenia: a tool to be used in stewardship de-escalation strategies. <u>Clinical Microbiology and Infection</u>

Association Between Peripheral Neuropathy and Exposure to Oral Fluoroquinolone or Amoxicillin-Clavulanate Therapy. <u>JAMA Neurology</u>

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

Efficacy of seven and fourteen days of antibiotic treatment in uncomplicated *Staphylococcus* aureus bacteremia (SAB7): study protocol for a randomized controlled trial. Trials

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

The Challenge of De-labeling Penicillin Allergy. Allergy

Prevention and intervention

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

The quality of studies evaluating antimicrobial stewardship interventions: a systematic review. Clinical Microbiology and Infection

Antimicrobial-impregnated central venous catheters for prevention of neonatal bloodstream infection (PREVAIL): an open-label, parallel-group, pragmatic, randomised controlled trial. <u>Lancet Child & Adolescent Health</u>

Effectiveness of a hospital-wide infection control programme on the incidence of healthcare-associated infections and associated severe sepsis and septic shock: a prospective interventional study. Clinical Microbiology and Infection

Antimicrobial consumption and impact of antimicrobial stewardship programmes in long-term care facilities. Clinical Microbiology and Infection

Impact of a Prescriber-driven Antibiotic Time-out on Antibiotic Use in Hospitalized Patients. <u>Clinical Infectious Diseases</u>

Effects of a disinfection device on colonization of sink drains and patients during a prolonged outbreak of multidrug-resistant *Pseudomonas aeruginosa* in an intensive care unit. <u>Journal of Hospital Infection</u>

Decrease in vancomycin-resistant Enterococcus colonization associated with a reduction in carbapenem use as empiric therapy for febrile neutropenia in patients with acute leukemia. Infection Control & Hospital Epidemiology

Antibiotic stewardship in the intensive care unit: Challenges and opportunities. <u>Infection Control & Hospital Epidemiology</u>

Microbiology

Microbial evolutionary medicine: from theory to clinical practice. <u>Lancet Infectious Diseases</u>

Identification of Novel Mobilized Colistin Resistance Gene *mcr-9* in a Multidrug-Resistant, Colistin-Susceptible Salmonella enterica Serotype Typhimurium Isolate. <u>mBio</u>

Other

'Antibiotic footprint' as a communication tool to aid reduction of antibiotic consumption. <u>Journal of Antimicrobial Chemotherapy</u>

Antimicrobial Resistance on the Rise in Zoonotic Bacteria in Europe. JAMA

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.