ABR-Scan Science Week 9-10

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

Duration of antibiotic treatment for common infections in English primary care: cross sectional analysis and comparison with guidelines. BMJ

Methicillin-Susceptible and Methicillin-Resistant Staphylococcus aureus bacteremia – Nationwide Estimates of 30-day Readmission, In-hospital Mortality, Length of Stay, and Cost in the US. Clinical Infectious Diseases


A compilation of antimicrobial susceptibility data from a network of 13 Lebanese hospitals reflecting the national situation during 2015–2016. Antimicrobial Resistance & Infection Control

Association between Antibiotic Use and Hospital-Onset Clostridiodes difficile Infection in U.S. Acute Care Hospitals, 2006-2012: an Ecologic Analysis. Clinical Infectious Diseases

Use of Antibiotics for Dermatologic Procedures From 2008 to 2016. JAMA Dermatology

Exploring community healthcare provider perceptions on antimicrobial resistance. Journal of Global Antimicrobial Resistance

Association between urinary community-acquired fluoroquinolone-resistant Escherichia coli and neighbourhood antibiotic consumption: a population-based case-control study. Lancet Infectious Diseases

Antibiotic use practice and predictors of hospital outcome among patients with systemic bacterial infection: Identifying targets for antibiotic and health care resource stewardship. PLoS One


Infections Caused by Carbapenemase-Producing Klebsiella pneumoniae: Microbiological Characteristics and Risk Factors. Microbial Drug Resistance

Antibiotic prescription for febrile children in European emergency departments: a cross-sectional, observational study. Lancet Infectious Diseases

Epidemiology and Recent Trends in Methicillin-Resistant and in Methicillin-Susceptible Staphylococcus aureus Bloodstream Infections — United States. Emerging Infectious Diseases


Data on antibiotic use for detecting clusters of healthcare-associated infection caused by multidrug-resistant organisms in a hospital in China, 2014 to 2017. Journal of Hospital Infection

Incidence, root causes, and outcomes of surgical site infections in a tertiary care hospital in Rwanda: a prospective observational cohort study. Patient Safety in Surgery

Effect of a surveillance system for decreasing neonatal nosocomial infections. Early Human Development

Treatment and diagnosis

Once-Daily Plazomicin for Complicated Urinary Tract Infections. NEJM

Defining optimal dosing of ciprofloxacin in patients with septic shock. Journal of Antimicrobial Chemotherapy

Update of treatment algorithms for Clostridium difficile infection. Clinical Microbiology and Infection

How to: diagnose infection caused by Clostridium difficile. Clinical Microbiology and Infection

How to: Surveillance of Clostridium difficile infections. Clinical Microbiology and Infection

New insights into transmission of Clostridium difficile infection—narrative review. Clinical Microbiology and Infection

Antibiotic management of urinary tract infection in elderly patients in primary care and its association with bloodstream infections and all cause mortality: population based cohort study. BMJ

Impact of antibiotic administration on blood culture positivity at the beginning of sepsis: a prospective clinical cohort study. Clinical Microbiology and Infection

Implications of culture collection after the first antimicrobial dose in septic emergency department patients. American Journal of Emergency Medicine

Microbiologic epidemiology depending on time to occurrence of prosthetic joint infection: a prospective cohort study. Clinical Microbiology and Infection


Oral Fluconazole in Pregnancy and Risk of Stillbirth and Neonatal Death. JAMA

Comparison of linezolid and daptomycin for the treatment of vancomycin-resistant enterococcal bacteremia. Therapeutic Advances in Infectious Disease

Outpatient Parenteral Antimicrobial Therapy in Vulnerable Populations—People Who Inject Drugs and the Homeless. Journal of Hospital Medicine

Genome-based epidemiology and antimicrobial resistance determinants of Neisseria gonorrhoeae isolates with decreased susceptibility and resistance to extended-spectrum cephalosporins in Argentina in 2011–16. Journal of Antimicrobial Chemotherapy
Duration of Initial Empirical Antibiotic Therapy and Outcomes in Very Low Birth Weight Infants. Pediatrics

Determinants of Initial Antibiotic Duration in Very Low Birth Weight Neonates. Infectious Diseases and Therapy


Urinary tract infection: Pathogenicity, antibiotic resistance and development of effective vaccines against Uropathogenic Escherichia coli. Molecular Immunology

Incidence of Acute Kidney Injury in Critically Ill Patients Receiving Vancomycin with Concomitant Piperacillin/Tazobactam, Cefepime, or Meropenem. Antimicrobial Agents and Chemotherapy

Evaluation of accordance of antibiotics package size with recommended treatment duration of guidelines for sore throat and urinary tract infections. Antimicrobial Resistance & Infection Control

Clinical Guidelines on Chronic Rhinosinusitis in Children. Current Allergy and Asthma Reports

Home self-administration of intravenous antibiotics as part of an outpatient parenteral antibiotic therapy service: a qualitative study of the perspectives of patients who do not self-administer. BMJ Open

Antimicrobial therapy for asymptomatic bacteriuria or candiduria in advanced cancer patients transitioning to comfort measures. Infection Control & Hospital Epidemiology

Clinical benefits of systemic amoxicillin/metronidazole may depend on periodontitis severity and patients’ age. An exploratory sub-analysis of the ABPARO-trial. Journal of Clinical Periodontology

Prevention and intervention

Decolonization to Reduce Postdischarge Infection Risk among MRSA Carriers. NEJM

Chlorhexidine versus routine bathing to prevent multidrug-resistant organisms and all-cause bloodstream infections in general medical and surgical units (ABATE Infection trial): a cluster-randomised trial. Lancet

Diagnostic stewardship: are we using the right term? Clinical Microbiology and Infection

Human resources estimates for antibiotic stewardship teams: evidence-based approaches for recommendations are needed. Clinical Microbiology and Infection

Practical considerations for infection prevention of near-patient surfaces: validation of an alternative polyvinyl chloride carrier in the four-field test EN 16615:2015. Journal of Hospital Infection

‘Clean care for all – it’s in your hands’: the 5th May 2019 World Health Organization SAVE LIVES: Clean Your Hands campaign. Journal of Hospital Infection

Health Care Workers’ Attitudes towards Hand Hygiene Monitoring Technology. Journal of Hospital Infection

Antimicrobial prophylaxis and the prevention of surgical site infection in cardiac surgery: an analysis of 21 007 patients in Switzerland. European Journal of Cardio-thoracic Surgery

The Association of Antibiotic Stewardship With Fluoroquinolone Prescribing in Michigan Hospitals: A Multi-hospital Cohort Study. Clinical Infectious Diseases


Urinary Tract Infections in Solid Organ Transplant Recipients: Guidelines from the American Society of Transplantation Infectious Diseases Community of Practice. *Clinical Transplantation*

Effectiveness and safety of electronically delivered prescribing feedback and decision support on antibiotic use for respiratory illness in primary care: REDUCE cluster randomised trial. *BMJ*

Chlorhexidine exposure of clinical strains of *Klebsiella pneumoniae* leads to acquired resistance to this disinfectant and colistin. *International Journal of Antimicrobial Agents*

The Top-100 Highly Cited Original Articles on Drug Therapy for Ventilator-Associated Pneumonia. *Frontiers in Pharmacology*

Biomarker-guided antifungal stewardship policies for patients with invasive candidiasis. *Current Medical Mycology*

**Microbiology**

The quality of antimicrobial discs from nine manufacturers—EUCAST evaluations in 2014 and 2017. *Clinical Microbiology and Infection*

Microbiologic factors affecting *Clostridium difficile* recurrence. *Clinical Microbiology and Infection*

Transcriptomic studies and assessment of *Yersinia pestis* reference genes in various conditions. *Scientific Report*

Multidrug-Resistant Bacteria and Alternative Methods to Control Them: An Overview. *Microbial Drug Resistance*

**Other**

Experiences of carriers of multidrug-resistant organisms: a systematic review. *Clinical Microbiology and Infection*

Together towards a common goal: REVIVE, a community of antimicrobial researchers brought together by the Global Antibiotic Research & Development Partnership (GARDP). *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.*