ABR-Scan Science Week 10-11

Unit for Antibiotics and Infection Control

This ABR-Scan Science is compiled by the Unit for Antibiotics and Infection Control at the Public Health Agency of Sweden. It includes a summary of links to recent articles from a selection of 17 scientific journals that we find interesting. All journals included in the scan are listed at the bottom of the document. The articles are sorted according to our categorization: surveillance, treatment and diagnosis, prevention and intervention, microbiology and other. If you have any comments or suggestions, please send an e-mail to ABR-scan@folkhalsomyndigheten.se

Surveillance

Occurrence of the mobile colistin resistance gene *mcr-3* in *Escherichia coli* from household pigs in rural areas. Journal of Antimicrobial Chemotherapy

Rapid emergence of colistin resistance and its impact on fatality among healthcare-associated infections. Journal of Hospital Infection

Antimicrobial resistance in leprosy: results of the first prospective open survey conducted by a WHO surveillance network for the period 2009-2015. Clinical Microbiology and Infection

Estimating the incidence and 30-day all-cause mortality rate of *Escherichia coli* bacteraemia in England by 2020/21. <u>Journal of Hospital Infection</u>

Carbapenem-Nonsusceptible Acinetobacter baumannii, 8 US Metropolitan Areas, 2012–2015. Emerging Infectious Diseases

Phenotypic and Genotypic Characterization of Enterobacteriaceae Producing Oxacillinase-48–Like Carbapenemases, United States. Emerging Infectious Diseases

An inventory of supranational antimicrobial resistance surveillance networks involving low- and middle-income countries since 2000. Journal of Antimicrobial Chemotherapy

CTX-M ESBL-producing Enterobacteriaceae: estimated prevalence in adults in England in 2014. Journal of Antimicrobial Chemotherapy

Association Between Healthcare-Associated Infection and Exposure to Hospital Roommates and Previous Bed Occupants with the Same Organism. Infection Control & Hospital Epidemiology

Candida auris Infection Leading to Nosocomial Transmission, Israel, 2017. <u>Emerging Infectious Diseases</u>

Emergomyces canadensis, a Dimorphic Fungus Causing Fatal Systemic Human Disease in North America. Emerging Infectious Diseases

Overall Low Extended-Spectrum Cephalosporin Resistance but high Azithromycin Resistance in *Neisseria gonorrhoeae* in 24 European Countries, 2015. <u>BMC Infectious Diseases</u>

Is previous azithromycin treatment associated with azithromycin resistance in *Neisseria* gonorrhoeae? A cross-sectional study using national surveillance data in England. BMJ Sexually Transmitted Diseases

Sustained transmission of high-level azithromycin-resistant Neisseria gonorrhoeae in England: an observational study. <u>Lancet Infectious Diseases</u>

Cephalosporin-Resistant Neisseria gonorrhoeae Clone, China. Emerging Infectious Diseases

Evolution of Sequence Type 4821 Clonal Complex Meningococcal Strains in China from Prequinolone to Quinolone Era, 1972–2013. <u>Emerging Infectious Diseases</u>

Cooperative Recognition of Internationally Disseminated Ceftriaxone-resistant Neisseria gonorrhoeae Strain. <u>Emerging Infectious Diseases</u>

Multidrug-Resistant Salmonella enterica 4,[5],12:i:- Sequence Type 34, New South Wales, Australia, 2016–2017. Emerging Infectious Diseases

mcr-1 in Carbapenemase-Producing Klebsiella pneumoniae with Hospitalized Patients, Portugal, 2016–2017. Emerging Infectious Diseases

Tracking Multidrug-Resistant *Klebsiella pneumoniae* from an Italian Hospital: Molecular Epidemiology and Surveillance by PFGE, RAPD and PCR-Based Resistance Genes Prevalence. Current Microbiology

Treatment and diagnosis

Management of community-acquired pneumonia in immunocompetent adults: updated Swedish guidelines 2017. <u>Infectious Diseases</u>

Macrolide antibiotics for bronchiectasis. Cochrane Library

Development and validation of a diagnostic model for early differentiation of sepsis and non-infectious SIRS in critically ill children - a data-driven approach using machine-learning algorithms. <u>BMC Pediatrics</u>

Association of daptomycin dosing regimen and mortality in patients with VRE bacteraemia: a review. Journal of Antimicrobial Chemotherapy

Emerging Gram negative resistance to last-line antimicrobial agents fosfomycin, colistin and ceftazidime-avibactam - epidemiology, laboratory detection and treatment implications. Expert Review of Anti-infective Therapy

Comparing the Outcomes of Adults With Enterobacteriaceae Bacteremia Receiving Short-Course Versus Prolonged-Course Antibiotic Therapy in a Multicenter, Propensity Score–Matched Cohort. Clinical Infectious Diseases

MRSA nares swab is a more accurate predictor of MRSA wound infection compared with clinical risk factors in emergency department patients with skin and soft tissue infections. BMJ Emergency Medicine

Dual antimicrobial therapy for gonorrhoea: what is the role of azithromycin? <u>Lancet Infectious</u> <u>Diseases</u>

Ceftazidime/avibactam and Ceftolozane/tazobactam: Novel Therapy for Multidrug Resistant Gram Negative Infections in Children. Current Pediatric Reviews

Topical Antibiotics for Infected Wounds: A Review of the Clinical Effectiveness and Guidelines. CADTH rapid response report

Helicobacter Pylori Treatment Results in Slovenia in the Period 2013-2015 as a Part of European Registry on Helicobacter Pylori Management. Radiology and Oncology

Treatment of infections caused by multidrug-resistant Gram-negative bacteria: report of the British Society for Antimicrobial Chemotherapy/Healthcare Infection Society/British Infection Association Joint Working Party. Journal of Antimicrobial Chemotherapy

Prevention and intervention

Diagnostic Stewardship: Opportunity for a Laboratory–Infectious Diseases Partnership. <u>Clinical Infectious Diseases</u>

Control of endemic multidrug-resistant Gram-negative bacteria after removal of sinks and implementing a new water-safe policy in an intensive care unit. <u>Journal of Hospital Infection</u>

Reducing Escherichia coli bacteraemia associated with catheter-associated urinary tract infections in the secondary care setting. <u>Journal of Hospital Infection</u>

Prevention of Infection: A Systematic Review of Evidence-Based Practice Interventions for Management in Patients With Cancer. Clinical Journal of Oncology Nursing

Alcohols as Surface Disinfectants in Healthcare Settings. Infection Control & Hospital Epidemiology

Preventing healthcare-associated Gram-negative bloodstream infections. <u>Journal of Hospital Infection</u>

Optimization of the blood culture pathway: a template for improved sepsis management and diagnostic antimicrobial stewardship. <u>Journal of Hospital Infection</u>

Clinical bacteriology in low-resource settings: today's solutions. <u>Lancet Infectious Diseases</u>

European Commission Guidelines for the prudent use of antimicrobials in human health: A missed opportunity to embrace nursing participation in stewardship. <u>Clinical Microbiology and Infection</u>

"It's in your hands – prevent sepsis in health care"; 5 May 2018 World Health Organization (WHO) SAVE LIVES: Clean Your Hands campaign. <u>Clinical Microbiology and Infection</u>

Guidance document for prevention of Clostridium difficile infection in acute healthcare settings. Clinical Microbiology and Infection

A multimodal infection control and patient safety intervention to reduce surgical site infections in Africa: a multicentre, before–after, cohort study. <u>Lancet Infectious Diseases</u>

Cold steel might cure, but it takes a village to prevent surgical infections. Lancet Infectious Diseases

Microbiology

Antifungal drug resistance: evolution, mechanisms and impact. Current Opinion in Microbiology

Chromosomally encoded and plasmid-mediated polymyxins resistance in Acinetobacter baumannii: a huge public health threat. <u>European Journal of Clinical Microbiology & Infectious</u> Diseases

Other

Prioritizing a One Health Approach in the Immediate Fight Against Antimicrobial Resistance. <u>EcoHealth</u>

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.