

# ABR-Scan Science Week 14-15

## 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](mailto:ABR-scan@folkhalsomyndigheten.se)*

### Surveillance

Invasive infection caused by *Klebsiella pneumoniae* is a disease affecting patients with high comorbidity and associated with high long-term mortality. [PLoS One](#)

Horizontal antimicrobial resistance transfer drives epidemics of multiple Shigella species. [Nature Communications](#)

Global increase and geographic convergence in antibiotic consumption between 2000 and 2015. [PNAS](#)

*Acinetobacter baumannii* Resistance Trends in Children in the United States, 1999–2012. [Journal of the Pediatric Infectious Diseases Society](#)

100 years of STIs in the UK: a review of national surveillance data. [BMJ STI](#)

Whole genome sequence of an MCR-1-carrying, ESBL-producing Escherichia coli ST746 isolate recovered from community-acquired urinary tract infection. [Journal of Global Antimicrobial Resistance](#)

Antimicrobial Resistance in Invasive Bacterial Infections in Hospitalized Children, Cambodia, 2007–2016. [Emerging Infectious Diseases](#)

Environmental surveillance and in vitro activity of antimicrobial agents against Legionella pneumophila isolated from hospital water systems in Campania, South Italy: a 5-year study. [Environmental Research](#)

Current epidemiology, genetic evolution and clinical impact of extended-spectrum  $\beta$ -lactamase-producing Escherichia coli and Klebsiella pneumoniae. [Infection, Genetics and Evolution](#)

Changes in Macrolide Resistance Among Group A Streptococci in Serbia and Clonal Evolution of Resistant Isolates. [Microbial Drug Resistance](#)

Characterization of Carbapenemase-Producing Enterobacteriaceae from Patients in Amman, Jordan. [Microbial Drug Resistance](#)

Carbapenem-resistant Enterobacteriaceae in wildlife, food-producing and companion animals – a systematic review. [Clinical Microbiology and Infection](#)

### Treatment and diagnosis

Temocillin against Enterobacteriaceae isolates from community-acquired urinary tract infections: low rate of resistance and good accuracy of routine susceptibility testing methods. [Journal of Antimicrobial Chemotherapy](#)

***In vitro* activity of ceftaroline against clinical *Staphylococcus aureus* isolates collected during a national survey conducted in Belgian hospitals.** [Journal of Antimicrobial Chemotherapy](#)

**Ventilator-associated pneumonia in patients assisted by veno-arterial extracorporeal membrane oxygenation support: Epidemiology and risk factors of treatment failure.** [PLoS One](#)

**Low-dose CT for the diagnosis of pneumonia in elderly patients: a prospective, interventional cohort study.** [European Respiratory Journal](#)

**Is very short-course antibiotic therapy possible in postoperative intra-abdominal infections? Discussion on “Short-course antibiotic therapy for critically ill patients treated for postoperative intra-abdominal infection: the DURAPOP randomised clinical trial”.** [Intensive Care Medicine](#)

**Efficacy and safety of ceftazidime/avibactam: a systematic review and meta-analysis.** [Journal of Antimicrobial Chemotherapy](#)

**Blood culture useful only in selected patients with urinary tract infections – a literature review.** [Infectious Diseases](#)

**Re: Disparities Between Parental Expectations and Pediatric Antibiotic Prescribing.** [Pediatrics](#)

**Concomitant resolution through fecal microbiota transplantation of Clostridium difficile and OXA-48-producing Klebsiella pneumonia.** [Infectious Diseases](#)

**Daptomycin and combination daptomycin-ceftaroline as salvage therapy for persistent methicillin-resistant Staphylococcus aureus bacteremia.** [Infectious Diseases](#)

**Comparison of Empiric Antibiotics for Acute Osteomyelitis in Children.** [Hospital Pediatrics](#)

**Clinical impact of rapid bacterial identification by MALDI-TOF MS combined with the bêta-LACTA™ test on early antibiotic adaptation by an antimicrobial stewardship team in bloodstream infections.** [Infectious Diseases](#)

**Pharmacokinetic and Pharmacodynamic Considerations of Antibiotics of Last Resort in Treating Gram-Negative Infections in Adult Critically Ill Patients.** [Current Infectious Disease Reports](#)

**Preventive Antibiotics in Stroke Study (PASS) - A cost-effectiveness study.** [Neurology](#)

## Prevention and intervention

**Antibiotic stewardship interventions in hospitals in low-and middle-income countries: a systematic review.** [Journal of Antimicrobial Chemotherapy](#)

**Improving antibiotic prescribing by general practitioners: a protocol for a systematic review of interventions involving pharmacists.** [BMJ Open](#)

**A systematic review of non-antibiotic measures for the prevention of urinary tract infections in pregnancy.** [BMC Pregnancy and Childbirth](#)

**Developing core elements and checklist items for global hospital antimicrobial stewardship programmes: a consensus approach.** [Clinical Microbiology and Infection](#)

## Microbiology

**Next-generation sequencing technologies and their application to the study and control of bacterial infections.** [Clinical Microbiology and Infection](#)

**Whole genome sequencing options for bacterial strain typing and epidemiologic analysis based on single nucleotide polymorphism versus gene-by-gene-based approaches.** [Clinical Microbiology and Infection](#)

**Practical issues in implementing whole-genome-sequencing in routine diagnostic microbiology.** [Clinical Microbiology and Infection](#)

**Characterization of integrons, extended-spectrum  $\beta$ -lactamases, AmpC cephalosporinase, quinolone resistance, and molecular typing of *Shigella* spp. from Iran.** [Infectious Diseases](#)

## Other

**Out-of-Pocket Expenditures, Indirect Costs and Health-Related Quality of Life of Patients with Pulmonary Tuberculosis in Thailand.** [PharmacoEconomics Open](#)

**Antibiotic resistance in wastewater treatment plants: Tackling the black box.** [Environment International](#)

*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.*