# ABR-Scan Science Week 21-23

## 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 Karin Carlin at* [*ABR-scan@folkhalsomyndigheten.se*](mailto:ABR-scan@folkhalsomyndigheten.se)

## Surveillance

**Carriage of antimicrobial-resistant commensal bacteria in Dutch long-term-care facilities.** [**Journal of Antimicrobial Chemotherapy**](http://jac.oxfordjournals.org/content/early/2016/05/30/jac.dkw183.abstract?papetoc)

**Emergence of the colistin resistance mcr-1 determinant in commensal Escherichia coli from residents of long-term-care facilities in Italy.** [**Journal of Antimicrobial Chemotherapy**](http://jac.oxfordjournals.org/content/early/2016/06/02/jac.dkw195.extract?papetoc)

**Carbapenemase-producing Enterobacteriaceae in hospital wastewater: a reservoir that may be unrelated to clinical isolates.** [**Journal of Hospital Infection**](http://www.journalofhospitalinfection.com/article/S0195-6701(16)00179-1/pdf)

**Etiology of bone and joint infections: a case series of 363 consecutive patients from an orthopaedic infection unit.** [**Infectious Diseases**](http://www.tandfonline.com/doi/full/10.1080/23744235.2016.1183814)

## Enhanced surveillance of Staphylococcus aureus bacteraemia to identify targets for infection prevention. [Journal of Hospital Infection](http://www.journalofhospitalinfection.com/article/S0195-6701(16)00153-5/abstract?rss=yes)

## Transmission Clusters of Methicillin-Resistant Staphylococcus Aureus in Long-Term Care Facilities Based on Whole-Genome Sequencing. [Infection Control & Hospital Epidemiology](http://journals.cambridge.org/action/displayAbstract?aid=10331473)

**Prevalence of Inappropriate Antibiotic Prescriptions Among US Ambulatory Care Visits, 2010-2011.** [**The Journal of the American Medical Association**](http://jama.jamanetwork.com/article.aspx?articleID=2518263)

**Comment on: A systematic review of the public's knowledge and beliefs about antibiotic resistance.** [**Journal of Antimicrobial Chemotherapy**](http://jac.oxfordjournals.org/content/early/2016/05/25/jac.dkw141.full?papetoc)

**Editorial. Addressing the Appropriateness of Outpatient Antibiotic Prescribing in the United States:  An Important First Step.** [**The Journal of the American Medical Association**](http://jama.jamanetwork.com/article.aspx?articleID=2518237)

**Increased Mortality Rates Associated with *Staphylococcus aureus* and Influenza Co-infection, Maryland and Iowa, USA.** [**Emerging Infectious Diseases**](http://wwwnc.cdc.gov/eid/article/22/7/15-1319_article)

**Extended-Spectrum Cephalosporin-Resistant *Salmonella enterica* serovar Heidelberg Strains, the Netherlands.** [**Emerging Infectious Diseases**](http://wwwnc.cdc.gov/eid/article/22/7/15-1377_article)

**Prevalence of maternal colonisation with group B streptococcus: a systematic review and meta-analysis.** [**Lancet Infectious Diseases**](http://www.thelancet.com/journals/laninf/article/PIIS1473-3099(16)30055-X/fulltext?rss=yes)

**Changing epidemiology of group B streptococcal infections among adults in Iceland: 1975–2014.** [**Clinical Microbiology and Infection**](http://www.clinicalmicrobiologyandinfection.com/article/S1198-743X(15)01026-5/abstract?elsca1=etoc&amp;elsca2=email&amp;elsca3=1198-743X_201604_22_4_&amp;elsca4=Infectious%20Diseases)

**Changing characteristics of livestock-associated meticillin-resistant Staphylococcus aureus isolated from humans – emergence of a subclade transmitted without livestock exposure, the Netherlands, 2003 to 2014.** [**Eurosurveillance**](http://eurosurveillance.org/ViewArticle.aspx?ArticleId=22482)

**Serotype/serogroup-specific antibiotic non-susceptibility of invasive and non-invasive Streptococcus pneumoniae, Switzerland, 2004 to 2014.** [**Eurosurveillance**](http://eurosurveillance.org/ViewArticle.aspx?ArticleId=22484)

## Treatment and diagnosis

**A Randomized Trial of Clindamycin Versus Trimethoprim-sulfamethoxazole for Uncomplicated Wound Infection.** [**Clinical Infectious Diseases**](http://cid.oxfordjournals.org/content/early/2016/04/29/cid.ciw177.abstract)

**Treatment of complicated skin and skin structure infections in areas with low incidence of antibiotic resistance—a retrospective population based study from Finland and Sweden.** [**Clinical Microbiology and Infection**](http://www.clinicalmicrobiologyandinfection.com/article/S1198-743X(16)00009-4/abstract?elsca1=etoc&amp;elsca2=email&amp;elsca3=1198-743X_201604_22_4_&amp;elsca4=Infectious%20Diseases)

**Ceftazidime-avibactam or best available therapy in patients with ceftazidime-resistant Enterobacteriaceae and Pseudomonas aeruginosa complicated urinary tract infections or complicated intra-abdominal infections (REPRISE): a randomised, pathogen-directed, phase 3 study.** [**Lancet Infectious Diseases**](http://www.thelancet.com/journals/laninf/article/PIIS1473-3099(16)30004-4/abstract)

**Treatment of MDR urinary tract infections with oral fosfomycin: a retrospective analysis.** [**Journal of Antimicrobial Chemotherapy**](http://jac.oxfordjournals.org/content/early/2016/05/30/jac.dkw178.abstract?papetoc)

**Predictors of outcome in ICU patients with septic shock caused by Klebsiella pneumoniae carbapenemase–producing K. pneumoniae.** [**Clinical Microbiology and Infection**](http://www.clinicalmicrobiologyandinfection.com/article/S1198-743X(16)00076-8/abstract?elsca1=etoc&amp;elsca2=email&amp;elsca3=1198-743X_201605_22_5_&amp;elsca4=Infectious%20Diseases)

**Repeat lumbar puncture in adults with bacterial meningitis.** [**Clinical Microbiology and Infection**](http://www.clinicalmicrobiologyandinfection.com/article/S1198-743X(16)00019-7/abstract?elsca1=etoc&amp;elsca2=email&amp;elsca3=1198-743X_201605_22_5_&amp;elsca4=Infectious%20Diseases)

**Clinical and microbiological outcome in septic patients with extremely low 25-hydroxyvitamin D levels at initiation of critical care.** [**Clinical Microbiology and Infection**](http://www.clinicalmicrobiologyandinfection.com/article/S1198-743X(15)01041-1/abstract?elsca1=etoc&amp;elsca2=email&amp;elsca3=1198-743X_201605_22_5_&amp;elsca4=Infectious%20Diseases)

**Interest of [18F]fluorodeoxyglucose positron emission tomography/computed tomography for the diagnosis of relapse in patients with spinal infection: a prospective study.** [**Clinical Microbiology and Infection**](http://www.clinicalmicrobiologyandinfection.com/article/S1198-743X(16)00022-7/abstract?elsca1=etoc&amp;elsca2=email&amp;elsca3=1198-743X_201605_22_5_&amp;elsca4=Infectious%20Diseases)

**Clonal complex 398 methicillin-susceptible Staphylococcus aureus bloodstream infections are associated with high mortality.** [**Clinical Microbiology and Infection**](http://www.clinicalmicrobiologyandinfection.com/article/S1198-743X(16)00078-1/abstract?elsca1=etoc&amp;elsca2=email&amp;elsca3=1198-743X_201605_22_5_&amp;elsca4=Infectious%20Diseases)

**Validation of a treatment algorithm for orthopaedic implant-related infections with device-retention—results from a prospective observational cohort study.** [**Clinical Microbiology and Infection**](http://www.clinicalmicrobiologyandinfection.com/article/S1198-743X(16)00011-2/abstract?elsca1=etoc&amp;elsca2=email&amp;elsca3=1198-743X_201605_22_5_&amp;elsca4=Infectious%20Diseases)

**Comparison of community-onset Staphylococcus argenteus and Staphylococcus aureus sepsis in Thailand: a prospective multicentre observational study.** [**Clinical Microbiology and Infection**](http://www.clinicalmicrobiologyandinfection.com/article/S1198-743X(16)00024-0/abstract?elsca1=etoc&amp;elsca2=email&amp;elsca3=1198-743X_201605_22_5_&amp;elsca4=Infectious%20Diseases)

**Prevalence and molecular characteristics of urinary and intestinal microsporidia infections in renal transplant recipients.** [**Clinical Microbiology and Infection**](http://www.clinicalmicrobiologyandinfection.com/article/S1198-743X(16)00048-3/abstract?elsca1=etoc&amp;elsca2=email&amp;elsca3=1198-743X_201605_22_5_&amp;elsca4=Infectious%20Diseases)

**Combination Regimens for Treatment of Carbapenem-Resistant Klebsiella pneumoniae Bloodstream Infections.** [**Antimicrobial Agents and Chemotherapy**](http://aac.asm.org/content/60/6/3601.abstract?etoc)

**Epidemiology of Acute Kidney Injury among Patients Receiving Concomitant Vancomycin and Piperacillin-Tazobactam: Opportunities for Antimicrobial Stewardship.** [**Antimicrobial Agents and Chemotherapy**](http://aac.asm.org/content/60/6/3743.abstract?etoc)

**Clarithromycin Leads to Long-Term Survival and Cost Benefit in Ventilator-Associated Pneumonia and Sepsis.** [**Antimicrobial Agents and Chemotherapy**](http://aac.asm.org/content/60/6/3640.abstract?etoc)

**Challenging Clinical Case in Antimicrobial Resistance. An Immunocompromised Child with Bloodstream Infection Caused by Two Escherichia coli Strains, One Harboring NDM-5 and the Other Harboring OXA-48-Like Carbapenemase.** [**Antimicrobial Agents and Chemotherapy**](http://aac.asm.org/content/60/6/3270.abstract?etoc)

## Prevention and intervention

**Travel to Asia and traveller’s diarrhoea with antibiotic treatment are independent risk factors for acquiring ciprofloxacin-resistant and extended spectrum betalactamase-producing Enterobacteriaceae - a prospective cohort study.** [**Clinical Microbiology and Infection**](http://www.clinicalmicrobiologyandinfection.com/article/S1198-743X(16)30127-6/abstract)

**Effectiveness of insertion and maintenance bundles to prevent central-line-associated bloodstream infections in critically ill patients of all ages: a systematic review and meta-analysis.** [**Lancet Infectious Diseases**](http://www.thelancet.com/pdfs/journals/laninf/PIIS1473-3099(15)00409-0.pdf)

### SHEA White Paper. Research Methods in Healthcare Epidemiology and Antimicrobial Stewardship. [Infection Control & Hospital Epidemiology](http://journals.cambridge.org/action/displayAbstract;jsessionid=8FF9793465BD57DA0ABD36BD5082BEED.journals?aid=10331606&fileId=S0899823X1600091X)

### SHEA White Paper. Research Methods in Healthcare Epidemiology and Antimicrobial Stewardship: Randomized Controlled Trials. [Infection Control & Hospital Epidemiology](http://journals.cambridge.org/action/displayAbstract?aid=10331640&fileId=S0899823X16000933)

**A Pragmatic Randomized Controlled Trial of 6-Step vs 3-Step Hand Hygiene Technique in Acute Hospital Care in the United Kingdom.** [**Infection Control & Hospital Epidemiology**](http://journals.cambridge.org/action/displayAbstract?aid=10331578&fileId=S0899823X16000519)

**Predictors of Heavy Stethoscope Contamination Following a Physical Examination.** [**Infection Control & Hospital Epidemiology**](http://www.ncbi.nlm.nih.gov/pubmed/?term=Predictors+of+Heavy+Stethoscope+Contamination+Following+a+Physical+Examination)

**An observational study of the universal use of octenidine to decrease nosocomial bloodstream infections and MDR organisms** [**Journal of Antimicrobial Chemotherapy**](http://jac.oxfordjournals.org/content/early/2016/05/26/jac.dkw170.abstract?papetoc)

**Fecal microbiota transplantation for the intestinal decolonization of extensively antimicrobialresistant opportunistic pathogens: a review.** [**Infectious Diseases**](http://www.tandfonline.com/doi/pdf/10.1080/23744235.2016.1177199)

**Editorial Commentary. Environmental management in the gut: fecal transplantation to restore the intestinal ecosystem.** [**Infectious Diseases**](http://www.tandfonline.com/doi/full/10.1080/23744235.2016.1177200)

**Editorial. Cleaning up after carbapenemase-producing organisms.** [**Journal of Hospital Infection**](http://www.journalofhospitalinfection.com/article/S0195-6701(16)00176-6/abstract?rss=yes)

**Environmental decontamination following occupancy of a burns patient with multiple carbapenemase-producing organisms.** [**Journal of Hospital Infection**](http://www.journalofhospitalinfection.com/article/S0195-6701(16)00052-9/fulltext)

**Prevention and control of carbapenemase-producing organisms at a regional burns centre.** [**Journal of Hospital Infection**](http://www.journalofhospitalinfection.com/article/S0195-6701(16)00150-X/pdf)

**Carbapenemase-bearing Klebsiella spp. in sink drains: investigation into the potential advantage of copper pipes.** [**Journal of Hospital Infection**](http://www.journalofhospitalinfection.com/article/S0195-6701(16)00196-1/fulltext)

**Outbreak of multidrug-resistant Escherichia coli sequence type 131 in a neonatal intensive care unit: efficient active surveillance prevented fatal outcome.** [**Journal of Hospital Infection**](http://www.journalofhospitalinfection.com/article/S0195-6701(16)00134-1/abstract?rss=yes)

**Costs and possible benefits of a two-tier infection control management strategy consisting of active screening for multidrug-resistant organisms and tailored control measures.** [**Journal of Hospital Infection**](http://www.journalofhospitalinfection.com/article/S0195-6701(16)00133-X/pdf)

**Lessons learned from a prolonged and costly norovirus outbreak at a Scottish medicine of the elderly hospital: case study.** [**Journal of Hospital Infection**](http://www.journalofhospitalinfection.com/article/S0195-6701(16)00094-3/pdf)

**The ANTIBIOPERF study: a nationwide cross-sectional survey about practices for beta-lactam administration and therapeutic drug monitoring among critically ill patients in France.** [**Clinical Microbiology and Infection**](http://www.clinicalmicrobiologyandinfection.com/article/S1198-743X(16)30116-1/abstract)

## Microbiology

**Emergence and evolution of an international cluster of MDR Bacteroides fragilis isolates.** [**Journal of Antimicrobial Chemotherapy**](http://jac.oxfordjournals.org/content/early/2016/05/30/jac.dkw175.abstract?papetoc)

**Editorial. Plasmid-mediated colistin resistance: an additional antibiotic resistance menace.** [**Clinical Microbiology and Infection**](http://www.clinicalmicrobiologyandinfection.com/article/S1198-743X(16)30024-6/fulltext)

***Staphylococcus aureus* Regulatory RNAs as Potential Biomarkers for Bloodstream Infections.** [**Emerging Infectious Diseases**](http://wwwnc.cdc.gov/eid/article/22/9/15-1801_article)

## Other

**Is there a terrible issue with bacterial resistance: pro–con.** [**Clinical Microbiology and Infection**](http://www.clinicalmicrobiologyandinfection.com/article/S1198-743X(16)30017-9/abstract)

**Do we need new antibiotics?** [**Clinical Microbiology and Infection**](http://www.clinicalmicrobiologyandinfection.com/article/S1198-743X(16)30027-1/abstract)

**Why is antibiotic resistance a deadly emerging disease?** [**Clinical Microbiology and Infection**](http://www.clinicalmicrobiologyandinfection.com/article/S1198-743X(16)00028-8/fulltext)

**Hospitalization in double-occupancy rooms and the risk of hospital-acquired influenza: a prospective cohort study.** [**Clinical Microbiology and Infection**](http://www.clinicalmicrobiologyandinfection.com/article/S1198-743X(16)00026-4/fulltext)

**The negative impact of antibiotic resistance.** [**Clinical Microbiology and Infection**](http://www.clinicalmicrobiologyandinfection.com/article/S1198-743X(15)01028-9/abstract?elsca1=etoc&amp;elsca2=email&amp;elsca3=1198-743X_201605_22_5_&amp;elsca4=Infectious%20Diseases)

**The refusal of the Society to accept antibiotic toxicity: missing opportunities for therapy of severe infections.** [**Clinical Microbiology and Infection**](http://www.clinicalmicrobiologyandinfection.com/article/S1198-743X(16)30044-1/abstract?elsca1=etoc&amp;elsca2=email&amp;elsca3=1198-743X_201605_22_5_&amp;elsca4=Infectious%20Diseases)

**Impact of Antibiotic Use on the Evolution of Enterococcus faecium.** [**Journal of Infectious Diseases**](http://jid.oxfordjournals.org/content/213/12/1862.extract?etoc)

**Gastrointestinal Tract Colonization Dynamics by Different Enterococcus faecium Clades.** [**Journal of Infectious Diseases**](http://jid.oxfordjournals.org/content/213/12/1914.abstract?etoc)

**Fecal Microbial Transplants Reduce Antibiotic-resistant Genes in Patients With Recurrent Clostridium difficile Infection.** [**Clinical Infectious Diseases**](http://cid.oxfordjournals.org/content/early/2016/05/03/cid.ciw185.full)

**Should we provide acute care in single or double room occupancy?** [**Clinical Microbiology and Infection**](http://www.clinicalmicrobiologyandinfection.com/article/S1198-743X(16)00080-X/abstract?elsca1=etoc&amp;elsca2=email&amp;elsca3=1198-743X_201605_22_5_&amp;elsca4=Infectious%20Diseases)

**Late mortality after sepsis: propensity matched cohort study.** [**BMJ**](http://www.bmj.com/content/353/bmj.i2375?etoc)

**European Medicines Agency publishes draft advice on the use of colistin products in animals, for consultation.** [**Eurosurveillance**](http://eurosurveillance.org/ViewArticle.aspx?ArticleId=22492)

*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.*