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ICAAC/ICC 2015

The 55th, and final stand-alone, ICAAC took place on Sept 17–21, in collaboration with the International Congress of Chemotherapy. John McConnell reports from San Diego

The Interscience Conference on Antimicrobial Agents and Chemotherapy (ICAAC), organised by the American Society for Microbiology (ASM), has been going strong since 1961. But in recent years the conference has faced stiff competition for delegates and exhibitors in the cycle of infectious diseases meetings from events such as ECCMID, CROI, and ID Week. As a result, from 2016 ICAAC will amalgamate with the ASM General Meeting to become ASM Microbe. But even at its swansong, ICAAC had much to offer, a small selection of which is reported below.

Emerging infections

A satellite symposium organised by the International Society of Infectious Diseases discussed emerging infectious diseases in the time of Ebola. Giving the keynote lecture, Kevin De Cock (CDC, Nairobi, Kenya) described as the “greatest scandal” the lack of attention by the health and development community to improving sanitation as a means to prevent disease emergence. Talking on human and animal migration, Nina Marano (CDC, Nairobi, Kenya) proposed that the Middle East respiratory syndrome coronavirus had first jumped from bats to camels in sub-Saharan Africa, and that camels carried the virus to the Middle East as part of an extensive livestock trade. Oyewale Tomori (Redeemer’s University, Ibadan, Nigeria) was highly critical of Africa’s unpreparedness for disease emergence, and of the role of African political leaders in failing to control the Ebola outbreak.

Clostridium difficile

Recurrent disease is common after initial treatment for *Clostridium difficile* infection. The MODIFY I and MODIFY

II phase 3 trials were designed to test the efficacy of monoclonal antibodies actoxumab and bezlotoxumab (which act by binding *C difficile* toxins A and B, respectively) for preventing recurrence of infection. MODIFY I (reported by Mark Wilcox, Leeds Teaching Hospital, Leeds, UK) and MODIFY II (reported by Dale Gerding, Hines VA Hospital, Hines, IL, USA) recruited 1412 and 1168 adult patients, respectively, being treated for *C difficile* infection. Patients received standard of care antibiotic treatment, and in addition were randomised to receive a single infusion of actoxumab plus bezlotoxumab, actoxumab alone, bezlotoxumab alone, or placebo. Patients were followed up for 12 weeks for the primary endpoint of recurrent *C difficile* infection. In both trials, patients treated with bezlotoxumab were significantly less likely to have *C difficile* recurrence than the placebo group (17.4% vs 27.6%, $p=0.0003$, and 15.7% vs 25.7%, $p=0.0003$, for MODIFY I and MODIFY II, respectively). The combination of actoxumab and bezlotoxumab provided no added benefit over bezlotoxumab alone, and actoxumab alone was not more effective than placebo. Adverse events occurred at similar rates in the bezlotoxumab and placebo groups in both trials.

Kelly R Reveles (poster K-816; University of Texas, Austin, TX, USA) reported that among Veterans Health Administration enrollees in a retrospective cohort study, incidence of *C difficile* infection increased from 6.7 to 9.4 per 10000 enrollees between 2003 and 2005, but then decreased to 7.7 per 10000 in 2012. 30-day mortality decreased from 22% in 2003 to 13% in 2012, and median length of hospital stay decreased from 17 to 10 days over the same period.

Urinary tract infections

Andreas Vente (poster L-1251; MerLion Pharmaceuticals, Berlin, Germany) presented results of a phase 2, randomised trial of finafloxacin, a new fluoroquinolone antibiotic, in adult patients with complicated urinary tract infections or pyelonephritis. 226 patients were randomised to receive 800 mg intravenous or oral finafloxacin once daily for 5 or 10 days, or twice daily ciprofloxacin (400 mg intravenous or 500 mg oral) for 10 days. Clinical and microbiological test of cure measured on day 17 was 70% and 68% in the 5-day and 10-day finafloxacin groups, respectively, and 57% in the 10-day ciprofloxacin group. Compared with ciprofloxacin, the antimicrobial activity of finafloxacin was not reduced by acidic urine pH.

Infection control by personality

Lindsay Grayson (University of Melbourne, VIC, Australia) described research showing how infection prevention and control messages might be tailored to personality types of health-care workers (HCWs; poster S-409). Grayson and colleagues used the ColourGrid profiling tool to assess personality differences among HCW categories at five Australian hospitals. HCWs showed more individualism, lower power distance, less uncertainty avoidance, and greater cynicism about advertising messages than the general population. Outcomes varied among HCW types (doctors, nurses, etc) and between senior and junior doctors. The former are more like to respond to messages around evidence-based compliance, whereas messages for the latter should focus on leadership opportunity and career risk for non-adherence.

John McConnell

For more on ICAAC/ICC 2015 see <http://www.icaac.org/>