

Update in infection related meetings 2018

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Some highlights of the content of the San Francisco ID-Week, in the area of bacterial infection

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The Infectious Diseases Week (ID Week), is the great annual meeting of the infectious diseases of the United States of America and its international referents. This year, it took place in October 2018 in the city of San Francisco and gathered more than 12,000 people.

The Congress had impressive learning offerings that can be summarised in figures such as: 281 numbered sessions, 74 symposia, some 60 workshops, interactive sessions or meet the professor, 870 poster sessions and 24 oral communication sessions, with some 2500 approved abstracts. The orientation of the congress was clearly educational and aimed at updating the attendees. The organization, understanding the diversity of interests of the attendees, organized a series of tracks that included thematic areas such as: infectious diseases for adults, pediatric infectious diseases, HIV, Transplant Infectious Diseases, etc.

Symposia focused on a wide variety of topics but I was struck by the interest in topics such as antimicrobial stewardship, the new antimicrobials, the situation of the human microbiome and the very striking epidemic of opiate use that affects an enormous number of Americans with devastating consequences in the field of systemic infections. There was no shortage of symposia dedicated to vaccines, the treatment of multi-resistant bacterial infections and other diverse topics.

In the field of antimicrobials, I include a table with those who are at an advanced stage of development and who caught my attention the most (table 1). They include tetracycline derivatives, new β -lactamase inhibitors and a new antifungal, lbrexafungerp, with action against yeast, filamentous fungi and *Pneumocystis jirovecii*.

Staphylococcal infection had 202 presentations with very interesting data. One of them was a Spanish study suggesting the superiority potential of the combination of daptomycin associated with fosfomycin versus daptomycin alone in the treatment of methicillin-resistant *Staphylococcus aureus* bacteremia. In this area, I liked a meta-analysis that collected data on the non-inferiority of cefazolin compared with isoxazolic penicillins in the treatment of methicillin-susceptible *S. aureus* bacteremia.

Of the 10 communications related to tedizolid, I was particularly interested in the one that collected safety data on the prolonged use of this drug in osteoarticular infections, showing very good tolerance with long treatment courses.

Following with Gram-positive bacteria, *Clostridioides difficile* was the reason for 238 presentations. Particularly relevant were papers demonstrating the growing importance of *C. difficile* infection (CDI) as a cause of community-acquired infection. A study referred to the convenience of reducing the unnecessary use of laboratory tests for the diagnosis of CDI. One person examined all requests for diagnostic tests in the laboratory and advised on whether or not to perform them, while giving therapeutic advice. This person managed to reduce the use of laboratory tests for CDI by 32%, eliminating unnecessary tests and generating savings of economic resources much greater than their salary.

Again, data were presented on the controversial issue of the meaning of PCR tests in patients with direct detection of *C. difficile* toxin in fecal samples, negative, with very discordant results.

One of the data that motivated several posters was the value of quantifying the PCR tests for CDI by evaluating the positivity cycle of the amplification curves. The data agreed that early amplification cycles are associated with more severe disease, while PCR positivity in late amplification cycles is associated with simple colonization.

With regard to the prevention of recurrences, a study was

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Drug	Company	Family	Target
TP-6076	Tetraphase	Tetracycline	<i>Acinetobacter</i>
CF-301	Exebacase	Bacteriophage-derived lysin	Gram-positives
Tebipenem	Spero	Oral carbapenem	<i>Enterobacteriaceae</i> ESBL, quinolone resistance
ETX2514+Sulbactam	Entasis	β -lactamase inhibitor	<i>Acinetobacter</i>
WCK 5222 Cefepime-Zidebactam	Hartford	β -lactam + β -lactamase inhibitor	Carbapenem-resistant <i>Acinetobacter</i>
Ibrexafungerp (SCY-078)	Scynexis	Triterpenoids (glucan synthase inhibitors)	Yeast, filamentous fungi, and <i>P. jirovecii</i>

presented evaluating bezlotoxumab as an agent that can be used in ambulatory infusion centres. The administration of bezlotoxumab was associated with a very clear decrease in the risk of CDI recurrences.

Moving to the Gram-negative bacterial infections, there were 252 references to this topic in which we highlighted the 37 relative to ceftolozane-tazobactam. Ceftolozane-tazobactam showed in vitro activity against more than 96% of all *E. coli*, *K. pneumoniae* and *P. aeruginosa* isolates in the entire USA. One study offered results from 65 patients with different infections in patients in critical situation, who received ceftolozane-tazobactam. Survival at 30 days was 86%. One study retrospectively compared cohorts of patients treated with ceftolozane-tazobactam and the combination of polymyxin and aminoglycosides.

Two studies compared patients treated with piperacillin-tazobactam with patients treated with other antibiotics demonstrating a higher nephrotoxicity in those treated with piperacillin-tazobactam.

I would like to highlight the great involvement of American Infectious Diseases physicians in antimicrobial stewardship. A total of 504 communications contained the term "Antimicrobial Stewardship".

Finally, a new concept is making its way into the world of infection counselling, "telemedicine". The term TeleID as a reflection of the work of many electronic consultations on Infectious Diseases and the demonstration that their quality and impact are comparable to direct consultation, open a new way for the way of working in our discipline.

Although they are not the subject of this summary, suffice it to say that the contributions to the world of viral and fungal infection were equally interesting.

CONFLICTS OF INTEREST

The author declares no conflicts of interest.