Session N.00388

06. Optimising current and novel TB combination therapy based on PK/PD science and biological variability

Wednesday, 29 October 2014, 09:00 - 12:30

Room 132

Type Post-graduate Course

Track Tuberculosis

Topic Medical management of TB and drug resistant TB

Duration Half-day

Max attendees 40

Description The fundamental basis such as the critical drug concentration levels upon which the current approaches used for TB diagnosis and treatment, were derived from studies in the 1960s. Meanwhile, tremendous progress made over the past two decades in PK/PD has improved our understanding of how the shape of the drug exposure curve relates to bacterial kill rates and resistance suppression. PK/PD studies of existing and new anti-TB drugs performed in the hollow-fibre models as well the murine models have provided insights suggesting that TB therapy can be improved.

Target audience Clinicians (physicians, nurses and laboratory experts) and TB policy experts.

Objectives
1. To present existing and new PK/PD data of anti-TB drugs and its role in Bayesian dose optimiSation
2. To present new data on MIC anti-TB drugs from developing countries
3. To discuss proposed drug susceptibility breakpoints of first-line anti-TB drugs and their implications
4. To discuss the feasibility of routine monitoring of drug concentrations in patient care

Keywords PK/PD; drug concentration; MIC; optimised therapy

Coordinator(s) Pasipanodya Jotam (USA), Bekitemba Magazi (South Africa)

Chair(s) Tawanda Gumbo (USA), Helen Mcilleron (South Africa)

Presentations

1. Background PK/PD of anti-TB drugs: lessons learnt to date
Charles Peloquin (USA)

2. Proposed combination regimens for drug-susceptible and drug resistant TB
Helen Mcilleron (South Africa), Beki Magazi (South Africa)

3. Therapeutic drug monitoring in targeted patient populations
R Aarnoutse (Netherlands), Jwc Alffenaar (Netherlands)

4. Biological variability and its role in patients' outcomes
Beki Magazi (South Africa), Jwc Alffenaar (Netherlands)

5. Bayesian adaptive feedback control dosing and routine drug concentrations: is it feasible?
Tawanda Gumbo (USA), Pasipanodya Jotam (USA)

6. PK/PD anti-TB drugs 2013 in vitro and in vivo models
Eric Nuermberger (USA)