138 Lung transplantation in *Burkholderia* and *Ralstonia* infected CF patients

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Whereas lung transplantation is the only therapeutic option in CF patients with end-stage pulmonary disease, patients colonized with multiresistant organisms such as *Burkholderia* species and especially *B. cenocepacia* are at risk of postoperative infections and poor outcomes, and often considered non eligible. In the present study, we report the clinical outcomes in 19 patients transplanted between 2005 and 2007 and colonized with *Burkholderia* species (*B. cenocepacia*: 4; *B. multivorans*: 8; *B. pyrrocinia*: 1; *B. vietnamiensis*: 2; *B. gladioli*: 1), or *Ralstonia mannitolilytica* (3 patients). Perioperative or early septicaemia occurred in 6 patients, caused by *B. cenocepacia* (1 patient), *B. multivorans* (2 patients), *B. vietnamiensis* (1 patient), *B. gladioli* (1 patient) and *R. mannitolilytica* (1 patient). One late septicaemia (at month 15) occurred in a *B. multivorans* infected patient. Eleven of the 19 patients died, and five deaths were related to postoperative infectious complications. Eight of the 19 patients are still alive, 10 to 34 months after transplantation. In summary, this study shows that *B. cenocepacia*, but also other members of the *B. cepacia* complex, as well as *B. gladioli* and *R. mannitolilytica* may be responsible for post-tranplantation systemic infections, and that the evaluation of patient eligibility requires further refinement of outcome predictive criteria.

139* In vitro activity of tigecycline and other antibiotics against *Burkholderia cepacia* complex (Bcc) and other cystic fibrosis (CF)-associated Gram negative bacteria

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Objective: To ascertain the in vitro activity of tigecycline (TGC) and other antibiotics against *Burkholderia cepacia complex* (Bcc) and other CF-associated Gram negative bacteria.
Methods: 159 non-duplicate isolates, comprising of *B. multivorans* (BM) (38 isolates), *B. cenocepacia* (BC) (23), other Bcc members (12), *S. maltophilia* (SM) (49), *A. xylosoxidans* (AX) (20) and other species (16) were used. MICs of TGC and 10 other agents were determined using Etest. Synergy testing with TGC in combination with one of eight other agents was performed using an Etest method.
Results: TGC exhibited good activity against AX and SM, with 85% and 78% of isolates susceptible. However, only 9% of BC, 3% of BM, and 33% of other Bcc members were TGC-susceptible, compared to 83% of BC, 92% of BM and 92% of other Bcc members being minocycline-susceptible. Antagonism between TGC and other agents was rarely encountered, except when used with colistin. The occurrence of synergy between TGC and others was variable. The most synergistic combination against Bcc was with ceftazidime, with enhanced activity against 17% of BC and 24% of BM. Synergy with meropenem was less common with enhanced activity occurring against 0% of BC and 21% of BM.
Conclusions: These data suggest TGC is a useful option against some difficult-to-treat Gram-negative pathogens in people with CF, and could be used as an alternative to an aminoglycoside when combined with a beta-lactam. Clinical studies are needed to ascertain the correlation between in vitro susceptibility, synergy testing and patient outcomes.
Supported by: This study was supported by an unrestricted educational grant from Wyeth Pharmaceuticals.

140 Microbiological and epidemiological features of clinical respiratory isolates of *Burkholderia gladioli*

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Burkholderia gladioli, primarily known as a plant pathogen, is involved in human infections, especially in patients with cystic fibrosis (CF). In the present study, the first respiratory isolates recovered from 14 CF and 4 non CF French patients, identified by use of 16S rDNA analysis, were tested for growth on *B. cepacia* selective media, identification with commercial systems, antimicrobial susceptibility, and compared using PFGE.OFPBL and PCA media grew all 18 isolates, and BCSA only 13. API20NE strips did not differentiate *B. gladioli* from *B. cepacia*, whereas Vitek2 GN cards provided identification to the species level. Some misidentifications occurred with both systems. All isolates were susceptible to piperacillin, imipenem, aminoglycosides and ciprofloxacin. Fifteen PFGE types were observed among the 18 isolates, but shared types were not identified within epidemiologically related patients. Colonization was chronic in 3 of 13 documented CF patients, and *B. gladioli* was isolated from post-transplant blood cultures in 1 patient. In non CF patients, *B. gladioli* was associated with intubation (3 cases) or bronchiectasis (1 case). In summary, inclusion of *B. gladioli* in recent commercial identification systems' databases should improve diagnosis. In CF, this organism is more frequently involved in transient than in chronic infections, but may be responsible for post-transplant complications; patient-to-patient transmission has not been demonstrated to-date. Lastly, *B. gladioli* appears naturally susceptible to aminoglycosides and ciprofloxacin, though resistant isolates may emerge in the course of chronic infections.

141 Evaluation of a novel chromogenic medium for isolation and characterization of *Pseudomonas aeruginosa* from the sputa of cystic fibrosis (CF) patients

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Background: The aim of this study was to evaluate chromID *P. aeruginosa* (PAID) (bioMérieux), a novel chromogenic medium for the isolation and identification of *Pseudomonas aeruginosa*. This selective medium contains a chromogenic substrate which when hydrolysed by beta-alanyl aminopeptidase results in the formation of pigmented colonies.
Methods: Thirty-four sputum samples from 31 CF patients were cultured onto PAID and on the Pseudomonas cetrimide agar medium (Bio-Rad) routinely used in the laboratory. The media were incubated aerobically at 37ºC. Growth was noted at 24, 48, 72, 96 and 120 h. All Gram-negative and oxidase-positive colonies culturing on both media were further identified by conventional phenotypic methods.
Preliminary results: After 72 h incubation, PAID recovered *P. aeruginosa* from 13 samples compared with 12 samples for cetrimide agar. All the 13 strains produced pink or purple colonies on the chromogenic medium after 2 or 3 days of incubation. While a few other bacterial species could also develop on PAID, none of them showed the typical pigmentation of *P. aeruginosa*. Interestingly, more colony morphotypes were observed on the chromogenic medium compared with cetrimide agar.
Conclusions: This preliminary study shows that chromID *P. aeruginosa* is a sensitive and specific medium for routine detection of *P. aeruginosa* in sputa of CF patients.
Supported by: bioMérieux (Craponne, France).