Conclusions Most patients with staphylococcal infections can be treated with vancomycin, which also contributes to cost reduction. A Bayesian approach shows better pharmacodynamic results than conventional dosing, with a 90% of patients successfully treated in a real setting.

No conflict of interest.

Background Patients with Cystic Fibrosis (CF) can absorb oral drugs differently, which could be translated into reduced blood levels of immunosuppressant drugs in transplant patients.

Purpose To evaluate the blood levels of immunosuppressant drugs in patients with CF after lung transplantation during the first months of oral treatment and their effect on the development of acute rejection (AR) and renal failure (RF).

Materials and Methods Retrospective observational study (study period: April 2008 to October 2012). Tacrolimus and mycophenolic acid blood levels of lung transplant patients were collected during the first three months of oral treatment. Blood levels were corrected by dose and body weight [(Concentration/(dose/weight))]. The primary outcome was to compare immunosuppressant blood levels between patients with CF and other transplant patients (control group). The incidence of AR and RF (Chi-square test) and overall survival (Kaplan-Meier method) were calculated in both groups.

Results Sample size 49 patients (69.0% male, mean age = 45.2 (SD = 16.2) years), of which 27.0% were CF patients. Immunosuppressant blood levels were lower in the CF group compared with the control group (mean(SD)): Tacrolimus: month 1: 67.6(34.9) vs. 105.6(58.2); month 2: 64.9(36.5) vs. 140.2(106.3)*; month 3: 97.0(76.6) vs. 129.8(128.2). Mycophenolic acid: month 1: 0.05(0.08) vs. 0.09(0.14)*, month 2: 0.09(0.08) vs. 0.09(0.04) month 3: 0.20(0.17) vs. 0.16(0.14) (* p < 0.05, Wilcoxon-T test). The incidence of AR was higher in the CF group (53.8% vs. 47.2%, p = 0.20), while the incidence of RF was higher in the control group (27.8% vs. 10.0%, p = 0.74). Overall survival after transplantation was higher in the CF group (51.1 vs. 39.1 months, p = 0.08).

Conclusions Patients with CF have lower immunosuppressant blood levels than the control group. However, there were no significant differences in the incidence of AR, the development of RF or in overall survival after transplantation between the two groups.

No conflict of interest.