Title	***9.*** ***Open-Label Phase 2 Trial to Evaluate the Safety and Efficacy of Aztreonam for Inhalation Solution (AZLI) in Pediatric Patients with Cystic Fibrosis (CF) and New Onset of Lower Respiratory Tract Culture Positive for Pseudomonas aeruginosa (PA) (Aztreonam Lysine for Pseudomonas Infection Eradication: ALPINE Study)***
Project Coordinator	C. Braggion, MD (c.braggion@meyer.it)
Internal Collaborators	R. Pasotto (study coordinator); nurses and chest physiotherapists
Study design	Phase II, multicentric study, which involve different countries in Europe and include 5 Centres in Italy (Eudract no. 2011-001255-36)
Grant by	Gilead Sciences Inc.
Background and aims	Gilead Sciences, Inc. (Gilead) has developed aztreonam for inhalation solution (AZLI), a lyophilized formulation of the monobactam antibiotic aztreonam, for the treatment of CF patients with PA infection. The EU approved indication is for the suppressive therapy of chronic pulmonary infections due to Pseudomonas aeruginosa (PA) in patients with CF aged 18 years and older. The aim is to evaluate safety and efficacy of a 28-day course of AZLI in patients with initial PA pulmonary colonization/infection at Day 28 (end of treatment) and Days 56, 112, and 196 (1, 3, and 6 months after the end of treatment, respectively). For children 6 year old or less, pharmacokinetic data will be assessed.
Inclusion criteria	Male or female patients with CF aged 3 months to less than 18 years; documented new onset of positive lower respiratory tract culture for PA within 30 days of study entry (screening visit), defined as either first lifetime documented PA-positive culture, or PA recovered after at least a 2-year history of PA-negative respiratory cultures (at least 2 cultures per year); FEV1 ≥ 80% predicted (for patients ≥ 6 years of age); clinical stability (no evidence of significant respiratory symptoms or, if obtained for clinical evaluation, no chest radiograph findings at screening that would require administration of iv antipseudomonal antibiotics, oxygen supplementation, or hospitalization).
Exclusion criteria	Known hypersensitivity or adverse reaction to aztreonam, or beta-agonists; use of iv or inhaled antipseudomonal antibiotics within 2 years of study entry (screening visit); use of oral antipseudomonal antibiotics within 30 days of study entry (screening visit); use of any investigational drug, or device within 28 days of screening visit; presence of a condition or abnormality that would compromise the patient's safety or the quality of study data, in the opinion of the investigator.
Methods	This is an open-label, multicenter study in pediatric patients aged 3 months to less than 18 years with CF and newly detected PA pulmonary colonization/infection. The study schedule will consist of a minimum of 5 visits: Screening/Baseline (Day 1), Day 28, Day 56, Day 112, and Day 196 (End of Study). At Day 1, all eligible subjects will begin a 28-day course of AZLI 75 mg 3 times daily (TID). After completion of study drug, subjects will be followed up through Day 196 for safety and recurrence of PA. The total study period will be 28 weeks. Safety endpoints will include adverse events, airway reactivity (study drug-induced bronchspasm), vital signs, blood biochemistry and hematology.
Expected results and anticipated output	To evaluate safety and efficacy of a 28-day course of AZLI in patients with initial PA pulmonary colonization/infection at Day 28 (end of treatment) and Days 56, 112, and 196 (1, 3, and 6 months after the end of treatment, respectively).
Start of recruitment	For our Centre at April 2012.
End of experimental plan	For our Centre at October 2012.
Pubblication on medical Journal	2-3 paediatric patients (age 3 months to less than 18 years) will be enrolled.