significant differences between the treatments. There were no statistically significant differences between the groups either in clinical symptoms nor in the number of doses of rescue medication. Due to deterioration of the disease five patients in the TBH group and four in the prednisolone group needed additional steroid treatment.

Conclusion: For follow-up treatment after an acute asthma attack inhaled steroids may substitute oral therapy.

P0393 The Effectiveness of Inhaled Steroids as First-Line Therapy in the Treatment of Newly Detected Asthma in the Open Population

**Aim:** To determine the effectiveness and safety of DPI, the therapeutic equivalence of DPI and MDI and the in-use stability of the DPI product.

**Method:** 54 Adult asthma patients were selected for participation in a randomized, double-blind, placebo-controlled trial. All patients had been treated with a constant dosage of a systemic corticosteroid (20 mg prednisolone) for at least three months or more. They complied to the following inclusion criteria for the trial (objective asthma criteria): FEV₁ (forced expiratory volume in one second) < reference value minus 2 standard deviations on at least two separate assessments 3 months apart or a PC²₀ submaximal < 2 ml/min combined with a reversibility of the airway obstruction > 15% of the reference value. 31 subjects were willing to participate in this 1 year trial. The experimental group (15 patients) were treated with clenbuterol propionate 600 μg two times daily, the control group consisted of 16 patients. FEV₁ and PC²₀ were monitored once every three months, symptoms and peakflow weekly.

The influence of clenbuterol on the effect parameters was estimated by repeated measurement analysis.

**Results:** Patient characteristics of both trial groups did not differ significantly at baseline. At the end of the trial the difference in FEV₁ was 76 ml in favour of the experimental group (p = 0.02). In the experimental group the PC²₀ showed an improvement of 1.4 doubling doses (p = 0.002) during the trial. There was no significant improvement in symptoms or peakflow but a tendency of improvement in number of exacerbation.

**Conclusion:** Inhaled steroids have shown to be effective as first-line therapy in newly detected asthma patients with no prior diagnosis of asthma.

P0394 Comparison of the Efficacy and Safety of Salbutamol Delivered Via a Novel Multidose Dry Powder Inhaler (DPI) or Metered Dose Inhaler (MDI) before and after a Period of Routine Clinical Use

**Aim:** To determine the efficacy and safety of DPI, the therapeutic equivalence of DPI and MDI and the in-use stability of the DPI product.

**Method:** 86 patients (54 women), mean age 38 years, mean FEV₁ 37% predicted normal.

**Results:** No statistically significant differences were observed in the increase of FEV₁ between the groups: 55 min (165 min) after the first dose the mean increase was 47% (63%) in the TBH group and 42% (65%) in the pMDI group. Mean PIF through TBH was 49 (range 26–68) L/min at first inhalation and increased to 60 (range 38–60) L/min. There was no correlation between the initial PIF through TBH and the FEV₁ response. The p-salbutamol and s-potassium values correlated well. Significant decrease in s-potassium in the pMDI group was noticed compared with the Turbohaler group (p = 0.02).

**Conclusion:** A dry powder inhaler such as Turbohaler can be used in acute asthma. Half the dose of salbutamol via Turbohaler was as effective as the full dose given via pMDI with spacer.