

764 Efficacy and Safety of Combined Medium-Dose Mometasone Furoate/Formoterol (MF/F) in Persistent Asthmatics

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RATIONALE: The availability of controller therapies at multiple strengths is important to treat different severities of asthma (NHLBI and GINA guidelines). The clinical effect of medium dose mometasone furoate/formoterol (MF/F) combination administered in a single inhaler had never been characterized in asthmatic subjects versus placebo. We report findings from an investigation on the effect of medium dose MF/F administered via an MDI on exacerbations and pulmonary function in moderately severe asthmatics inadequately-controlled on medium dose inhaled corticosteroids (ICS) ± long-acting β₂-agonists (LABA).

METHODS: After 2-3-weeks open-label run-in with MF 200mcg BID, subjects (≥12 years) were randomized to 26-weeks treatment BID with MF/F 200/10mcg, MF 200mcg, F 10mcg, or placebo. Co-primary endpoints were time-to-first severe asthma exacerbation over the treatment-period (MF/F vs F), and the area under the curve (AUC) of the change in serial FEV₁ [0-12 hr] to Week 12 (MF/F vs MF).

RESULTS: 781 subjects (mean: age=42.4 years, asthma duration=16.07 years, FEV₁% predicted=72.62%, reversibility=18.80%, ACQ score=1.51) were randomized. MF/F increased the time-to-first exacerbation and decreased the proportion of subjects who experienced severe exacerbations (MF/F=30.4%; MF=33.9% (p=0.565); F=54.0% (p<0.001); placebo=55.6% (p<0.001)). MF/F treatment improved lung function more than MF within 5 minutes following administration (p<0.001; mean change from ICS treatment baseline FEV₁ AUC (0-12hr) at Week 12: MF/F=11.7%; MF=5.7%; F=8.5%; and placebo=3.9% (this effect was maintained throughout the treatment period). Adverse events were rare and similar across treatment groups.

CONCLUSIONS: MF/F 200/10mcg was more effective in reducing severe exacerbations and improving lung function in asthmatics uncontrolled on medium-dose ICS±LABA than placebo, MF or F.

765 Inhaled Mometasone Furoate Improved Efficacy in Pediatric Asthma Patients Regardless of Previous Inhaled Corticosteroid Therapy: Pooled Data From the Clinical Development Program

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RATIONALE: When patients change asthma controller therapy, it is important for asthma control to be maintained or improved after the switch. The clinical development program for inhaled mometasone furoate (MF) included three 12-week, randomized, placebo-controlled trials in 902 children aged 4-11 years. At baseline, patients switched directly (no washout) to inhaled MF 110-220 μg/d or placebo from previous inhaled corticosteroid (PICS) therapy with beclomethasone, budesonide, fluticasone, flunisolide, or triamcinolone. A post hoc analysis examined the consistency of MF effects across different PICS at endpoint and over time.

METHODS: The primary efficacy variable was the percentage of predicted forced expiratory volume in 1 second (% FEV₁); other pulmonary function variables and response to therapy were also evaluated. Analysis of variance with treatment, study, PICS, and PICS-by-treatment interactions was fitted for each variable on day 4; weeks 1, 2, 4, 8, 12; and endpoint with significance of interactions at P<0.05.

RESULTS: The 2 most common PICS were beclomethasone and fluticasone (42% and 31% of patients, respectively). The % FEV₁ increased significantly in all MF groups at endpoint (P<0.001 vs placebo), with increases ranging from 4.6-6.3 percentage points with MF 110 μg/d and from 5.0-6.8 percentage points with MF 220 μg/d. There was no significant differential treatment response among PICS at endpoint or over time.

CONCLUSION: Regardless of PICS therapy and based on the clinical study variables, asthma control was improved compared with placebo at endpoint and all time points in children who switched to inhaled MF from PICS.

766 Reduction of Relief Medication Use in Children Receiving Inhaled Mometasone Furoate for Control of Mild Persistent Asthma

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RATIONALE: One objective of controller therapy in patients with persistent asthma is to minimize the use of relief medication (RM). When patients exchange one controller treatment for another, it is important for the new therapy to maintain or improve control as measured by RM use. Inhaled mometasone furoate (MF) was evaluated in 3 randomized placebo-controlled trials in children aged 4-11 years with mild persistent asthma previously maintained on inhaled corticosteroids (ICSs). The effects of MF versus placebo on daily use of RM over time were evaluated.

METHODS: Data from three phase III studies were pooled for analysis of the effects of MF 110μg/d and 220μg/d (n=629) vs placebo (n=271) on RM use (puffs/d) over a 12-week study period. ANCOVA examined RM use changes from baseline weekly and at endpoint within groups and for MF vs placebo comparisons.

RESULTS: Use of RM decreased significantly from baseline for MF groups over all 12 study weeks and at endpoint (range -0.25 to -0.57 puffs/d; P<0.01). Significantly greater reductions in RM use for MF 110μg/d vs placebo (range, -0.29 to -0.50 puffs/d) were evident at weeks 29 (P<0.023) and endpoint (P=0.0003). Significantly greater reductions in RM use for MF 220μg/d vs placebo (range, -0.33 to -0.63 puffs/d) were evident at weeks 2-11 (P<0.014) and endpoint (P<0.0001).

CONCLUSIONS: Decreased RM use following MF treatment was maintained over time and at study completion. MF improved asthma control compared with placebo, as indicated by significant reductions of RM use in children with mild persistent asthma who were previously receiving other ICSs.