Clinical Research Results Abstract

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Indacaterol/Mometasone Furoate Fixed-dose Combination vs Salmeterol/Fluticasone in Uncontrolled Asthma: Results of PALLADIUM and IRIDIUM Studies

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Aim: Indacaterol (IND, a long-acting β_2-agonist), and mometasone furoate (MF, an inhaled corticosteroid) once-daily (o.d.) fixed-dose combination is under development for the maintenance treatment of asthma. A pre-specified pooled analyses from the Phase-III PALLADIUM (NCT02554786) and IRIDIUM (NCT02571777) studies evaluated the efficacy of IND/MF o.d. (via Breezhaler®) versus salmeterol/fluticasone (Sal/Flu) twice daily (b.i.d.) via the Diskus® in uncontrolled asthmatic patients.

Methods: Data from two Phase-III multicentre, 52-week, randomised, double-blind, double- or triple-dummy, parallel-group, active-controlled studies were pooled. In both studies, patients (PALLADIUM [age: 12–75 years]; IRIDIUM [age: 18–75 years]) with asthma, characterised by a pre-bronchodilator forced expiratory volume in one second (FEV_1) % predicted (PALLADIUM: ≥50% to <85%; IRIDIUM: <80%), and an Asthma Control Questionnaire 7 (ACQ)-7 score ≥1.5 were included. For this analysis, patients receiving IND/MF medium-dose (150/160 µg) o.d. or high-dose (150/320 µg) o.d. or Sal/Flu high-dose (50/500 µg) b.i.d. for 52-weeks were evaluated. Lung function (trough FEV_1) at Weeks 26 and 52 and the annualised rate of asthma exacerbations over 52-weeks were evaluated in both doses of IND/MF versus Sal/Flu groups. Safety was also assessed.

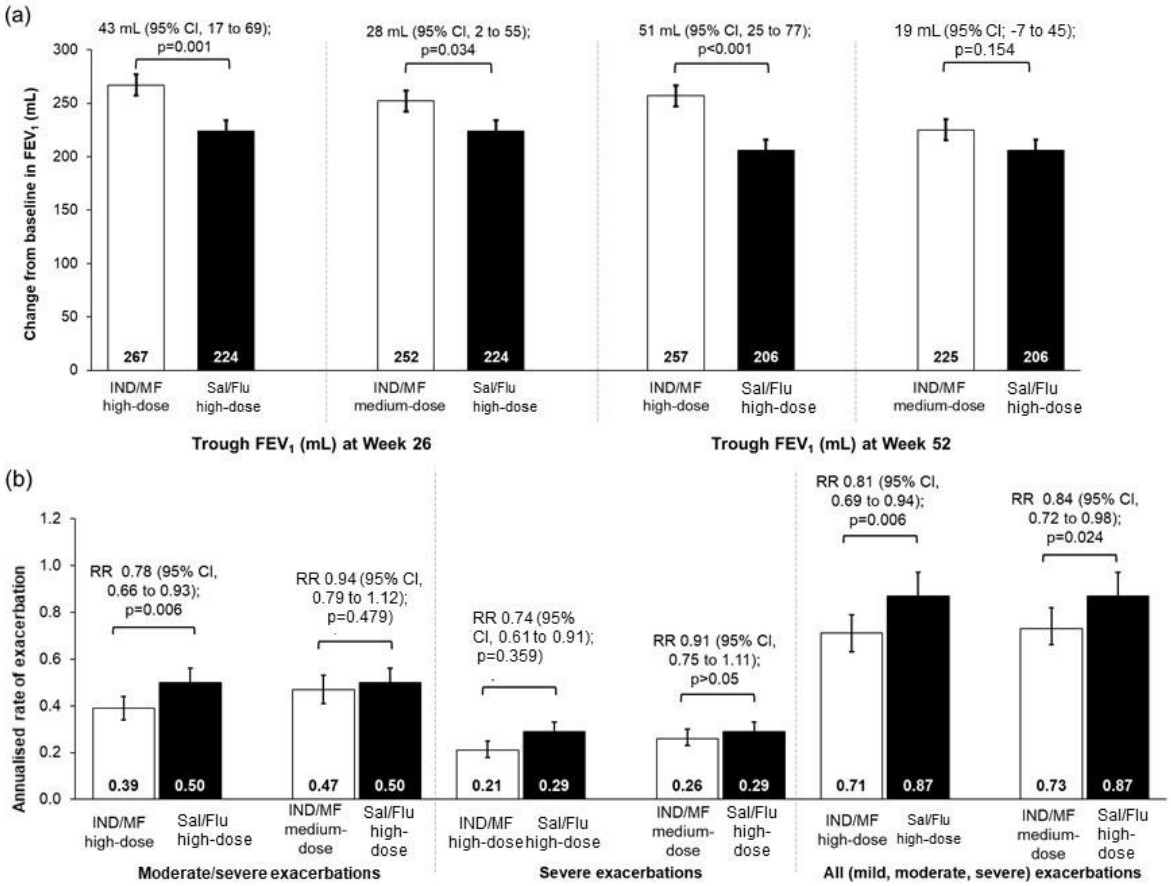
Results: In the pooled population, 1054 patients received IND/MF high-dose o.d., 1044 IND/MF medium-dose o.d., and 1056 Sal/Flu high-dose b.i.d. IND/MF high-dose o.d. significantly improved trough FEV_1 at Weeks 26 and 52 compared with Sal/Flu high-dose b.i.d. with mean treatment differences of 43 mL (p=0.001) and 51 mL (p<0.001), respectively (Figure 1a). IND/MF medium-dose o.d. was comparable with Sal/Flu high-dose b.i.d. in improving trough FEV_1 at Weeks 26 and 52 with mean treatment differences of 28 mL (p=0.034) and 19 mL (p=0.154) , respectively. Over the 52-week treatment period, IND/MF high-dose o.d. significantly reduced the rate of moderate/severe (22%, p=0.006), severe (26%, p=0.005) and all exacerbations (19%, p=0.006) versus Sal/Flu high-dose b.i.d. (Figure 1b). IND/MF medium-dose o.d. significantly reduced all exacerbations versus Sal/Flu high-dose b.i.d. (16%, p=0.024) and was comparable in reducing moderate/severe (6%, p=0.479) and severe exacerbations (9%, p=0.359) versus Sal/Flu high-dose b.i.d. All treatments were well tolerated with favourable safety profiles.

Conclusions: This pre-specified pooled analysis of two Phase III studies indicates that once-daily IND/MF high-dose improves lung function and reduces asthma exacerbations as compared to twice-daily Sal/Flu high-dose in patients with uncontrolled asthma. Once-daily IND/MF medium-dose resulted in comparable improvements in lung function and reductions in exacerbations versus twice-daily Sal/Flu high-dose, with a reduced steroid burden.

Declaration of Interest: The study was funded by Novartis Pharma AG.

References and Clinical Trial Registry Information: Clinicaltrials.gov:PALLADIUM,NCT02554786 and IRIDIUM,NCT02571777

Figure 1. Indacaterol/mometasone furoate (a) improved lung function and (b) decreased exacerbations compared with salmeterol/fluticasone in patients with uncontrolled asthma



CI, confidence intervals, FEV_1, forced expiratory volume in 1 second; IND/MF, indacaterol acetate/mometasone furoate; IND/MF high-dose, 150/320 µg; IND/MF medium-dose, 150/160 µg; RR, rate ratio; Sal/Flu: salmeterol/fluticasone; Sal/Flu high-dose, 50/500 µg

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