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**Title:** Peak inspiratory flow rates through placebo dry powder inhaler device in various asthma and COPD patients

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**Body:** Dry powder inhalers (DPIs) are inspiratory flow driven. We sought to characterise inspiratory flow parameters of placebo dry powder inhaler devices in asthma patients of various age groups and in patients with chronic obstructive pulmonary disease (COPD) in an open, randomised, multicentre study (SALIF). Preliminary data of the Easyhaler® arm will be presented. The primary variable was the peak inspiratory flow (PIF) rate through the inhaler. Three inspiratory flow curves were recorded and the best of them was analysed. To ensure consistent dose delivery of the drug peak inspiratory flow rates for this device should be 28 L/min or higher. A total of 227 subjects with documented diagnosis of asthma and/or COPD of various severities were included in the open-label study. Asthmatic patients were divided into three different age groups: 4-11 years (n=60), 12-64 years (n=62) and ≥ 65 years (n=52). COPD patients consisted of all ages groups (n=53)

Descriptive statistics of PIF values in different subgroups

Subgroup	N Obs	Mean	Median	10th Pctl	90 Pctl	Min	Max
Asthmatic children	60	47.19	47.93	28.59	63.09	12.83	74.10
Adult ashmatics	62	66.14	69.11	52.99	76.47	19.99	87.01
Elderly asthmatics	52	60.88	60.99	49.05	72.05	34.38	80.25
COPD patients	53	58.51	58.19	48.97	70.92	38.35	74.63

Irrespective of age or the severity of disease, most asthma and COPD patients were able to inhale through

the studied DPI device with an adequate PIF.