COMPARING THE PERCEPTION OF FEED-BACK MECHANISM OF THE BREEZHALER® DEVICE WITH THE ELLIPTA® DEVICE IN PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD): THE ADVANTAGE STUDY

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Background and aims: Patient preference and satisfaction with inhalers are important factors that may impact adherence to treatment and hence its outcome.1 The ADVANTAGE study compared the Breezhaler® and the Ellipta® inhalers for patient perception of feedback mechanism and the comfort of the mouth piece, in COPD patients, naïve to dry powder inhaler use.

Methods: This open-label cross-over study randomised (1:1) patients (>40 years) with COPD [all severities as per GOLD 2014] and smoking history of >10 pack-years to use both the Breezhaler® and Ellipta® devices in differing sequences with a separation of ≥5 minutes between devices. After inhalation, patients completed a questionnaire2 containing 4 questions that captured patients’ perception of the feedback mechanism (mean of first three questions) and comfort of the mouth piece (fourth question). Questions were answered on a scale of 1 (lower preference) to 5 (higher preference), a Wilcoxon signed rank test was performed to test the difference between devices at a 2-sided 2.5% level of significance for both endpoints. Safety assessments included adverse events, physical examination, vital signs, height and weight.

Results: One hundred patients (64 men and 36 women) with a mean (SD) age of 65.2 (9.07) years were randomised to inhale sequentially through both devices. Thirty two patients were current smokers and had a mean (SD) duration of COPD for 6.1 (4.82) years. Overall, patients perceived that the Breezhaler® inhaler offered greater confidence of dose delivery and better comfort of the mouth piece (mean (SD) score 4.3 (0.70) and 4.3 (0.82); respectively) vs. the Ellipta® inhaler [mean (SD) score 3.6 (1.05) and 3.9 (0.84); respectively] (Figure). No safety signals were identified during the study.

Conclusions: In this study, COPD patients had greater confidence of receiving full dose with the Breezhaler® device and better comfort with the mouth piece compared with the Ellipta® device.

REFERENCES
perceptions of the benefit:risk profile of existing and potential COPD therapies.

Methods Our local respiratory patient advisory group meets every 3 months to provide input into research. A focus group completed a conjoint analysis exercise. Four current (aclidinium, azithromycin, carbocisteine) or potential (drug X) COPD medicines were presented iteratively in pairs (Figure 1), comparing the magnitude of likely benefits (reduced exacerbations, improved overall health) and harms (risk of infection, antibiotic resistance, kidney failure, diabetes). For each pairing, participants indicated which medicine they would choose. Participants also ranked potential benefits (reduced exacerbations, increased survival, increased walking distance) and risks (death, kidney failure, diabetes) of medicines in order of importance and discussed how these should be prioritised.

Results 9 male and 9 female COPD patients (age range 66–86 years, median 77 years, GOLD 1–4) and 2 carers took part. When confronted with two treatment options, participants consistently chose the treatment with a better safety profile, even if this meant less clinical benefit. Being able to walk further was the most important benefit (70% participants), over preventing exacerbations (5%) or increasing life expectancy (5%). Kidney failure was selected as the most concerning potential risk (50% participants) over chance of death (10%). A strong theme emerged that quality of life was more important than life expectancy.

Conclusions Potential users of new treatments can weigh potential benefits and risks and judge their relative importance. This has potential to improve design of clinical trials, patient participation and development of medicines with real relevance to users.

REFERENCE