

treatment of this patient population and may guide future interventions.

**P221** **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.<sup>1</sup> 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 questionnaire<sup>2</sup> 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**

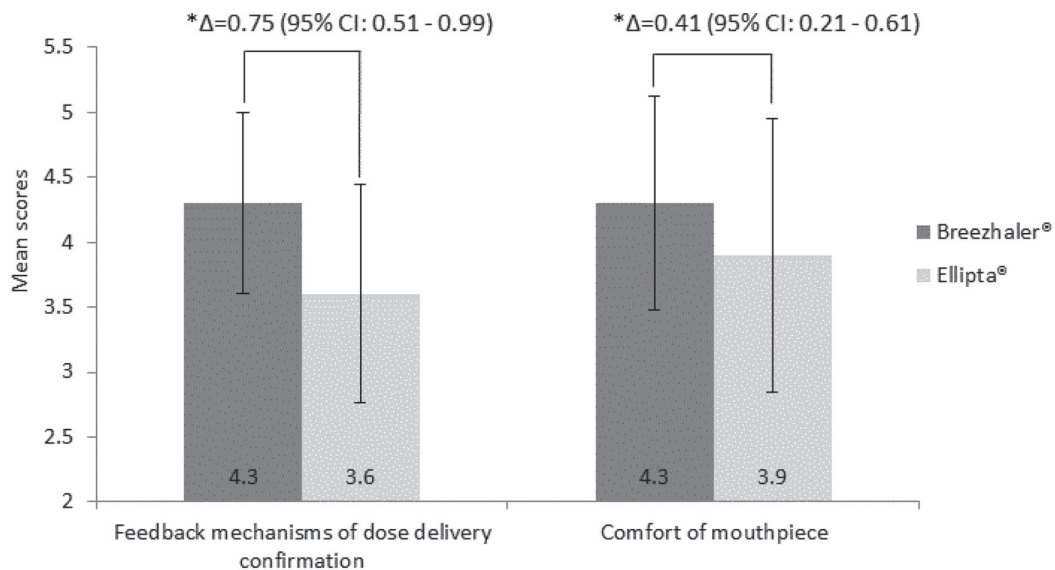
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**P222** **INPUT OF A PATIENT ADVISORY GROUP INTO EVALUATING THE BENEFIT: RISK PROFILE OF EXISTING AND POTENTIAL COPD THERAPIES**

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**Introduction** People with chronic obstructive pulmonary disease (COPD) have considerable disability and reduced life expectancy, despite current treatments. New medicines are required, but few successfully complete clinical trials and become established in practice. During drug development, understanding the nature and magnitude of benefits relevant to patients and risks they will accept to achieve these is important, particularly where the drug has a narrow therapeutic index. Our aim was to explore patient



Data are presented as mean (standard deviation); Δ, treatment difference; CI, confidence interval

\* p<.0001

**Abstract P221 Figure 1** Mean Scores of the analysis of patients preference of the Breezhaler and the Ellipta devices

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<sup>1</sup>. 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**

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**P223 THE PATIENT’S ROLE IN THE CHOICE OF NEW INHALER DEVICES AND DOSING REGIMENS FOR ASTHMA AND COPD: A PREFERENCE STUDY**

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**Introduction** Management guidelines for asthma and COPD guide which inhaled therapies should be prescribed, but not what type of device. There appears to be little evidence in the literature to support if patient involvement influences how concordant patients are with inhaled therapies.

**Aims and objectives** The aim was for patients to rate inhaler devices and dosing regimens so that discreet choices could be made when adding new drugs and devices to the local joint primary and secondary care prescribing formulary.

**Methods** 40 patients with asthma (n = 20) or COPD were purposively selected to participate in the study. 30 patients were seen on a one to one basis and ten patients with COPD seen in a patient education group. They were each given devices not normally prescribed in the locality (asthma = 5, COPD = 6). They were given 2 sets of instructions on how to load and use each device, a patient information leaflet (PIL) produced by the manufacturer, and one designed by the local nursing team. Each patient was asked to complete a 5-point questionnaire. Questions included:

- Which device did they prefer the most
- Which device did they least prefer
- Would they like once daily or twice daily maintenance medication
- Would they like all their drugs in one type of device or different devices
- Did they prefer the manufacturers PIL or the locally devised one

FACTORS	PERSON A	PERSON B
Time to next exacerbation	9 months 	7 months 
Improvement in overall health	Mild	Moderate
Infection, other than exacerbation	1 in 500 (0.2%) 	No chance 
Chance of antibiotic resistance	Increased	No chance
Kidney failure	No chance 	No chance 
New onset of diabetes	No chance 	No chance 



**Abstract P222 Figure 1** Example of conjoint analysis option comparing person A (taking a prophylactic antibiotic) to person B (taking an inhaled bronchodilator)