MDI versus DPI initiating with 500 mcg/day of FP/SAL; no significant difference was observed between MDI and DPI for those initiating at 1000 mcg/day. There were no significant differences in the odds of diagnosis of diabetes mellitus or pneumonia between MDI and DPI, irrespective of the initiation dose of FP/SAL (Table 1). LAMA prescription during the outcome period was significantly lower for patients prescribed MDI versus DPI initiating at 1000 mcg/day; no significant difference was observed between MDI and DPI for those initiating at 500 mcg/day.

Conclusions This study showed greater reduction in exacerbations for patients using MDI than those using DPI when initiating with FP/SAL 500 mcg/day; no differences in exacerbation reduction and safety were seen for FP/SAL at 1000 mcg/day. Fewer patients using MDIs than DPIs at 1000 mcg/day were prescribed LAMAs, suggesting less need for treatment intensification.

P131 EFFICACY OF TIOTROPIUM AND OLODATEROL COMBINATION IN PATIENTS WITH COPD ON β -BLOCKERS

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Rationale The efficacy and safety of a new once-daily combination with tiotropium (T), a long-acting muscarinic antagonist, and olodaterol (O), a long-acting β_2 -agonist, was established for the treatment of chronic obstructive pulmonary disease (COPD) in the TONADO studies (NCT01431274; NCT01431287). This analysis evaluates the efficacy of the combination in a subpopulation of patients receiving β -blockers in these studies.

Methods Two replicate, randomised, double-blind, parallel-group, 52-week, Phase III trials assessed the efficacy and safety of T+O (2.5/5 μ g; 5/5 μ g; via Respimat[®] inhaler) once daily compared to the monocomponents. Key primary end-point data for the combined analysis of the replicate trials in patients with COPD receiving β -blockers during treatment are presented.

Results 5136 patients were evaluable; 556 (10.8%) received β -blockers. At 24 weeks, similar improvements in mean forced expiratory volume in 1 s (FEV₁) area under the curve from 0–3 h (AUC_{0–3}) responses for T+O compared to monocomponents were seen across β -blocker subgroups (Table 1), with no significant treatment interaction effect observed. A similar trend was observed with trough FEV₁ and quality of life scores.

Abstract P131 Table 1 Efficacy of T+O versus monocomponents by β -blocker use

Treatment comparison, μ g	Treatment difference	
	Adjusted mean FEV ₁ AUC _{0–3} , L	
	[95% confidence interval]	
	β -blockers (n = 556)	No β -blockers (n = 4580)
T+O 5/5 – O 5	0.114 [0.06, 0.169]	0.129 [0.111, 0.147]
T+O 5/5 – T 5	0.078 [0.025, 0.131]	0.114 [0.097, 0.132]
T+O 2.5/5 – O 5	0.122 [0.069, 0.174]	0.114 [0.096, 0.132]
T+O 2.5/5 – T 2.5	0.108 [0.058, 0.158]	0.113 [0.095, 0.130]
T+O 2.5/5 – T 5	0.085 [0.034, 0.136]	0.099 [0.081, 0.117]

Conclusions While the β -blocker patient group analysed was small, these data demonstrated similar sustained improvements in lung function, irrespective of β -blocker use. These data support the efficacy of T+O in this patient group.

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P132 HEALTH CARE UTILISATION AND COSTS AMONG COPD PATIENTS NEWLY PRESCRIBED MAINTENANCE THERAPY IN THE UNITED KINGDOM (UK)

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Aim To characterise disease burden, health care resource utilisation (HCRU), and costs among a cohort of COPD patients newly prescribed maintenance therapy in UK general practice.

Method A retrospective cohort of COPD patients aged ≥ 40 yrs and newly prescribed COPD monotherapy (long acting beta-agonists [LABA] or long acting muscarinic antagonist [LAMA]), dual therapy (LABA+LAMA; LABA+inhaled corticosteroid (ICS); LAMA+ICS) or open triple therapy (LAMA+LABA+ICS) between 1/1/2009 and 30/11/2012 was identified from UK Clinical Practice Research Datalink (CPRD).

Health care resource utilisation assessed in the 12 months prior to maintenance therapy initiation included moderate (community treated) and severe (hospital or A&E treated) COPD exacerbations (rate per 100 person years [PY]), general practice (GP) interactions, other COPD treatments, and non-COPD related hospitalisations. The costs associated with HCRU were calculated using National Health Services reference costs for 2013–14 and PSSRU costs for 2014.

Results A total of 39,639 COPD patients were included (54% male, mean age 68 yrs (SD: 11)). LABA+ICS (39%) and LAMA (34%) were the most commonly initiated LABD; 13% were first exposed to LABD as part of an open triple regimen (Table 1). Patients initiating an ICS-containing regimen had a higher exacerbation rate (moderate or severe) in the 12 months prior to maintenance therapy initiation (LABA+ICS: 0.74 per PY [95% CI: 0.72–0.75]; LAMA+ICS: 0.86 per PY [0.82–0.90] and LAMA+LABA+ICS: 0.83 per PY [0.80–0.85]) compared to patients on bronchodilators alone (LAMA: 0.55 per PY [0.54–0.57]; LABA: 0.56 per PY [0.54–0.59]; LAMA+LABA: 0.50 per PY [0.44–0.56]). Patients on open triple therapy demonstrated the highest rates of non-COPD related hospitalisations. The annual per patient cost ranged from £2,139 (LABA) to £2,876 (LAMA+LABA+ICS); approximately half were due to GP visits and a third resulted from non-COPD related hospitalisations (Table 1).

Abstract P132 Table 1 Annual per patient health care utilisation costs 12 months prior to LABD initiation

	LABA (N = 2899)	LAMA (N = 13511)	LABA +LAMA (N = 525)	LABA +ICS (N = 15374)	LAMA +ICS (N = 2370)	LAMA +LABA+ICS (N = 4960)
Total costs	£2,139	£2,223	£2,240	£2,334	£2,410	£2,876
GP visits	£1,230	£1,249	£1,237	£1,224	£1,313	£1,272
All exacerbations	£173	£192	£179	£247	£287	£400
Non-COPD hospitalisations	£709	£759	£795	£811	£703	£1,159
Treatment	£27	£23	£29	£51	£106	£46