

Supplementary Table 3. Quantitative results

Study ID	Instrum ent	Study design	Sample size	Reported format	Result
Bratas 2010	forced choice: treatment	Cross-sectional survey	205	Choice or proportion of choice	A total of 161 patients chose inpatient rehabilitation and 44 chose outpatient clinics. The decision to choose rehabilitation may be determined by impaired health-related quality of life, psychological distress and lack of psychological support from a significant other.
Brophy 2008	forced choice: inhaler	Randomized controlled trial	25	Choice or proportion of choice	Preference for bronchodilator treatment nebulizer vs MDI and spacer : 15 patients vs 10 patients
Bulcun 2014	Conjoint analysis/Discrete choice	Cross-sectional survey	49	Influence or contribution or weight of certain	Extent to which the doctor gives sufficient time to listen to the patient RARELY: -1.5 SOMETIME: -0.5
Carlucci 2016	Forced choice: treatment	Cross-sectional study	55	Odds ratio and 95% CI	OR of choice of NIV as a 'ceiling' treatment for a current use of NIV: OR = 4.93, 95% CI = 1.17–23.54 OR of choice of NIV as a 'ceiling' treatment for a recent family bereavement: OR = 4.77, 95% CI = 1.12–22.95, p = 0.026
Chakrabarti 2009	forced choice: treatment	Cross-sectional survey	50	Choice or proportion of choice	Willingness to accept a IMV during an exacerbation after stage 4: 60% (30/50) willing, 30% (15/50) unwilling.
Chapman 1993	forced choice: inhaler	Cross-sectional survey	80	Choice or proportion of choice	preference for breath actuated device vs conventional MDI: 71.3% vs 18.8% vs 10% no preference MDI familiar group: 72.5% vs 15% vs 12.5% no preference MDI unfamiliar group: 70% vs 22.5% vs 7.5% no difference
Chapman 2011	forced choice: inhaler	Randomized controlled trial	82	Choice or proportion of choice	overall preference for Breezhaler vs Handihaler vs no preference: 60.5% vs 30.9% vs 8.6% Remove/open cap: 58.0% vs 19.8% vs 22.2% Open mouthpiece: 64.2% vs 9.9% vs 25.9%
Chen 2016	EQ-5D utility, willingness to pay	Cross-sectional study	142	Mean (SD), Mean (SE)	COPD: 0.84 (0.21) mild COPD: 0.88 (0.20) moderate COPD: 0.89 (0.16) severe COPD: 0.79 (0.20)
Claessens 2000	Forced choice: treatment	Cohort study	1008	Choice or proportion of choice	Preference for treatment focusing on relieving pain and discomfort rather than extending life : 58% Preference for Do Not Resuscitate order : 37% "Very unwilling" or "Would rather die" than be attached to a ventilator "all the time" :
Dal Negro 2016	Forced choice: inhaler	Cross-sectional study	157 (47% of 333 patients had COPD, the rest had	Choice or proportion of choice	preference device C (the Respimat SMI): 47% COPD patients
Dales 1999	Probability trade off	Repeated surveys	20	Choice or proportion of choice	Baseline Choice ventilation Choice After Decision Aid-yes: 5 (71%), strength of preference for MV (mean): 0.89 Choice After Decision Aid-no: 2 (29%), strength of preference for MV (mean): 0.01 Baseline Choice no ventilation
Dowson 2004	ranking: treatment	Cross-sectional survey	39	Choice or proportion of choice	1. Phone GP or after hours practice 2.6% 2. Take (extra) prednisone 0%
Fox 1999	Forced choice: treatment	Cross-sectional survey	1016	Choice or proportion of choice	preference for paliative care: 33.6%
Fried 2002	Probability trade off	Cross-sectional survey	81	Choice or proportion of choice	treatment preferences (proportion of wanting the treatment under certain circumstance) SCENARIO 1 —LOW BURDEN. RESTORATION OF
Fried 2007	Probability trade off	Repeated surveys	64	Choice or proportion of choice	Willingness to Undergo High-Burden Therapy to Avoid Death: 32 (50%) Willingness to Risk Physical Disability to Avoid Death: 41 (64%) Willingness to Risk Cognitive Disability to Avoid Death: 44 (69%)

Gaber 2004	Forced choice: treatment	Repeated surveys	100	Choice or proportion of choice	Number of patients: Patient's views towards "yes" CPR, IV and NIV: 48 Patient's views towards "yes" IV and NIV: 19 Patient's views towards "yes" IV: 10
Goossens 2014	Willingness to pay, Conjoint analysis/Di	Cross-sectional survey	107	Choice or proportion of choice Mean	always usual hospital care: 29 (25%) always early assisted discharge: 5 (46%) Both: 33 (29%) Willingness to pay
Hanada 2015	Forced choice: treatment	Repeated surveys	First survey: 57 Second survey: 39	Choice or proportion of choice	First survey Preference of Respimat or HandiHaler Preferring Respimat: 45.6% (Respimat is much better 3.5%; Respimat is better: 42.1%); Second survey Preference of Respimat or HandiHaler
Hansen 1990	Forced choice: treatment	Randomized controlled trial	48	Choice or proportion of choice	Number of patients Patients preferred turbutaline: 23 Patients preferred placebo: 9 Patients indicated not difference between treatments: 16
Hansen 1994	VAS, Forced choice: inhaler	Trial, non-randomized or non-controlled	25	Median (Range) Choice or proportion of	VAS 2 weeks after treatment: 67 (1-100) for turbuhaler and 48 (7-99) for pari-inhaler boy
Haughney 2005	Conjoint analysis/Discrete choice	Cross-sectional survey (A fractional	125	Mean	Impact on everyday life Little impact on activities, able to go for a short walk: 7.6; Able to wash and dress and move around the house: 4.4; Able to wash and dress, walking almost impossible : 3
Hohmeier 2016	patient perception survey	Cohort study	12	Choice or proportion of choice	I would participate in a research study even if it was inconvenient for me but it concluded with an improvement in my COPD management and improvement in my overall health and quality of life strongly agree: 4
Hwang 2011	Forced choice: treatment	Cross-sectional survey	300		
Janssen 2011b	Probability trade off	Cross-sectional survey		Choice or proportion of choice	COPD patients preferring CPR: 70.50% COPD patients preferring MV: 70.50% Low-burden likelihood of death 0%: 95.2%
Janssen 2011c	Forced choice: treatment	Cross-sectional survey	Dutch patients: 122 US patients:	Choice or proportion of choice	Patients' preferences in their current health state for MV: 70.5% of Dutch population and 58.2% of US patients reported they would accept Patients' preferences in their current health state for CPR: 69.7% of Dutch and 70.2% of US patients
Jarvis 2007	Forced choice: inhaler	Cross-sectional survey	53	Choice or proportion of choice	Patients pMDI device difficult to use: 46% Patients DPI use device difficult to use: 17% Patients using a pMDI alone felt able to identify a "clinical benefit": 58% Patients using a DPI alone felt able to identify a "clinical benefit": 33%
Jordan 2014	Forced choice: Preferences of	Cross-sectional survey	44	Choice or proportion of choice	Preference of information What are all possible side effects of treatment: absolutely want 80 (80.8%); would like 16 (16.2%); do not want 3 (3%) What effect can I expect from this treatment: absolutely want 85 (85.9%); would like 9
Kawata 2014	Willingness to pay, Conjoint analysis/Di	Cross-sectional survey	515	Mean (95% CI)	Utility score Little or no relieve (complete relief as reference) : -1.23 (-1.33, -1.12) some relieve (complete relief as reference) : -0.54 (-0.64, -0.43) Feel medicine start to work within 20 min (within 5 min as reference) : -0.19 (-0.24, -
Lynn 2000	Forced choice: treatment	Cohort study	416 died among 1016 enrolled	Choice or proportion of choice	preference for Do-Not-Resuscitate (DNR) 29% of patients who were long-term survivors 43% of those who survived to leave the hospital but lived less than a year 42% of those who died during the first hospitalization
Mahler 2014	Forced choice: treatment	Randomized controlled trial	20	Choice or proportion of choice	Preferences of treatment: Eight patients preferred salmeterol Diskus, seven patients preferred arformoterol solution, and five patients had no preference.
Martínez 2012	Forced choice: treatment	Cross-sectional survey	568	Choice or proportion of choice	Males prefers dry-powdered inhalers: 62.30% Females prefers dry-powdered inhalers: 54.60% Males prefers metered dose inhalers: 57.5 Females prefers metered dose inhalers: 54.20%

McDowell 2015	VAS, EQ-5D utility, forced choice:	Randomized controlled trial	110	Mean (SD), Mean (95% CI), choice or proportion of	Telemonitoring with usual care (EQ-5D scores at baseline) 0.49 (0.35) Usual care (EQ-5D scores at baseline) 0.52 (0.30) Telemonitoring with usual care (EQ-5D VAS scores at baseline) 50.1 (18.0) Usual care (EQ-5D VAS scores at baseline) 45.5 (23.1)
McNamara 2015	Forced choice: place of treatment	Randomized controlled trial	53	Choice or proportion of choice	28 of the 53 participants (53%) indicated the pool as their preferred environment, 23/53 (43%) the gym and 2/53 (4%) reported no preference for either environment. Of the 18 water-based exercise training participants, 16/18 (89%) indicated they would prefer to continue exercise training in the pool whilst 2/18 (11%) indicated they would
Molimard 2005	Conjoint analysis/Discrete choice	Cross-sectional survey	245	Mean Choice or proportion of choice	I am extremely satisfied with my main inhaler: 5.5 The three main inhaler attributes that the patients considered to be most important were ease of use/convenience, efficacy, and inhaler size which were given primary importance by 66%, 29%, and 27% patients, respectively.
Moore 2004	Forced choice: inhaler	Cross-sectional survey	256	Choice or proportion of choice	Proportion of patients considering following attributes "very important" Overall ease of using: 86% Being quick to use when you need it: 84% Ease of holding or gripping: 79%
Mutterlein 1990	Forced choice: device	Cross-over study	60		
Norris 2005	Forced choice: treatment	Cross-sectional survey	111	Choice or proportion of choice	Current health (No ventilation): 39.60% Current health (No CPR): 38.40% Permanent coma (No ventilation): 93.60% Permanent coma (No CPR): 91.00%
Ohno 2014	Forced choice: treatment	Trial, non-randomized or non-controlled	28	Choice or proportion of choice	continuation of Onbrez Definitely want to continue: 2 (7.7%) Want to continue: 14 (53.8%) Equivocal: 10 (38.5%)
Ojoo 2002	Forced choice: treatment	Randomized controlled trial	61	Choice or proportion of choice	treatment preferences Sixteen of the 27 patients (59.3%) in the conventional arm and 26 of the 27 (96.3%) in the domiciliary arm would have preferred domiciliary management. Thirty four carers completed the questionnaires and the respective carer preference
Oliver 1997	Ranking: treatment	Cross-over study	20		
Pallin 2012	Willingness to pay, Forced choice:	Cross-sectional survey	146 patient approached/142 completed	Choice or proportion of choice	In making a decision to be screened, screening convenience is important Former smoker: 64% Current smoker: 71.4% total: 66.9%
Pascual 2015	Forced choice: inhaler	Cross-over study	127	Choice or proportion of choice, Mean (SE)	Proportion of patients preferring Genuair to Breezhaler (after 2 weeks): 72.7% vs. 27.3% Willingness to continue using each inhaler (Genuair vs. Breezhaler; on a scale of 0–100): 79.6 (2.60) vs. 63.6 (2.60)
Pisa 2013	Conjoint analysis/Discrete choice	Cross-sectional survey	300	Choice or proportion of choice	Relative importance of the COPD attributes (%): Total Dyspnea: 36% Performance capability (bodily resilience) due to COPD: 19%
Price 2013b	Forced choice: treatment	Cohort study	2138	Choice or proportion of choice	agreement of preference for once-daily therapy Strongly agree: 12% Agree: 32.6% Not sure: 24.9%
Reinke 2011	Forced choice: treatment	Cross-sectional survey	1292 invited but 376 meet the inclusion	Choice or proportion of choice	Preferences on CPR Total: 266 (77.8%) history of depression: 97 (75.2%) no history of depression: 169 (79.3%)
Riley 2016	Forced choice: inhaler	Randomized controlled trial	618	Choice or proportion of choice	In the attribute of "the number of steps" preference for Ellipta™ DPI: 59%, HandiHaler®: 17%, no preferences: 24% "time taken to use" preference for Ellipta™ DPI: 62%, HandiHaler®: 14%, no preference:
Rinnenburger 2012	Preferences of decision making mode	Repeated surveys	84 (what was the 84% of whole)	Choice or proportion of choice	Therapeutic or care choices affecting you may have to be made during the treatment (decisions about hospital admission, medical tests, therapies). Would you like to be involved in the decision making process, alongside doctors, or would you rather delegate decisions to others?

Siler 2014	Patient's expectation of treatment	Randomized controlled trial	40	Least squares mean (SEM)	Patient's expectation of treatment adherence Indacaterol group: 2.1 (0.21) ; placebo 2.3 (0.21)
Stapleton 2005	Forced choice: treatment	Cross-sectional survey	101	Choice or proportion of choice	want mechanical ventilation: 62.20% want CPR: 63.60%
Stavem 2002b	Time trade off, Standard gamble.	Cross-sectional survey		Median (95% CI, Range) Median (95% CI)	SG 0.95 (0.88-0.97) range: 0.05-1 TTO 0.91 (0.70-0.93) range: 0.05-1 EQ-VAS 0.54 (0.50-0.65) range: 0.05-0.95 15D 0.80 (0.77-0.83) range: 0.54-1
Sutherland 2009	Forced choice: device	Randomized controlled trial	99/ 109	Choice or proportion of choice	for all participants: 40.3% for IPR-ALB MDI and 50% for FFIS Nebulizer, 9.9% no difference; for severe patients: 28.3% for IPR-ALB MDI and 63.0% for FFIS Nebulizer, 8.7% no difference
Svedsater 2013	Forced choice: inhaler	Cross-sectional survey	42	Choice or proportion of choice	No (%) of patients expressing preference for the ELLIPTA DPI For patients using DISKUS as comparator device: 18 (86%); For patients using MDI/HFA as comparator device: 17 (85%); For patients using HandiHaler as comparator device: 19 (95%).
Torrance 1999	HUI, willingness to pay	Randomized controlled trial	222 in 240	Mean (SD) Median	HUI first AECB Ciprofloxacin: 0.72 (0.20), usual care: 0.68 (0.19) At regular visit no.1 Ciprofloxacin: 0.78 (0.21), usual care: 0.77 (0.19) At regular visit no.2 Ciprofloxacin: 0.80 (0.20), usual care: 0.78 (0.18)
Travaline 1995	Forced choice: treatment	Cross-sectional survey	37	Choice or proportion of choice	decision to use MV yes 15 (40%); no 8 (22%); unsure: 14 (38%)
Utens 2013	Forced choice: place of treatment	Randomized controlled trial	139	Choice or proportion of choice	Preference to be treated at home at T+4 days 25(42%) in the usual hospital treatment group and 56 (86%) in the early assisted group Preference to be treated at home at T+90 days 17 (35%) in the usual hospital treatment group and 33 (59%) in the home treatment
Utens 2014	Forced choice: place of treatment	Randomized controlled trial	124 (62 caregivers each in either	Choice or proportion of choice	Preference to be treated at home at the end of the 7-day treatment 15 (33.3%) of informal caregivers of patients allocated to usual hospital care and 37 (71.2%) of informal caregivers allocated to hospital-at-home Preference to be treated at home at the end of the follow up
van der Palen 2013a	Forced choice: inhaler , willingness	Randomized controlled trial	129	Mean (SD) Choice or proportion of choice	willingness to continue inhaler use (scale 0 = not willing to 100 = definitely willing) 84.0 (3.2) for Genuair and 62.5 (3.2) for HandiHaler more patients preferred Genuair than HandiHaler (79.1 vs 20.9%: p < 0.0001)
van der Palen 2013b	Forced choice: inhaler , willingness	Randomized controlled trial	113, while 82 for COPD	Choice or proportion of choice Mean (SD)	COPD inhaler preference 52 (72.2%) for Diskus, 20 (27.8%) for Elpenhaler willingness to continue inhaler use (scale 0 = not willing to 100 = definitely willing)
van der Palen 2016	Forced choice: inhaler	Cross-over study	567	Choice or proportion of choice	patients preferred the ELLIPTA inhaler overall compared with the comparator devices (Figure 2). The majority of patients also preferred the ELLIPTA inhaler for most individual criteria (number of steps for correct use, time taken to use, size of the device, dose counter, comfort of mouthpiece and ease of opening: Po0.001) with some exceptions Overall, a significantly greater proportion of patients preferred Genuair (73.7%) than Accuhaler (26.3%) (p<0.0001), with similar proportions of patients preferring Genuair over Accuhaler for each of the device attributes assessed (all p<0.0001). The willingness of patients to continue using each device was greater for Genuair (78.6%) than
Vogelmeier 2016	Forced choice: inhaler	randomized controlled trial	933	Choice or proportion of choice	COPD Intubation not needed 53.9 (19.8) COPD Intubation not needed 50 (40, 66) COPD Intubation not needed 52.3 (32.5) COPD Intubation not needed 62 (36, 74)
Wildman 2009	VAS, forced choice: treatment	Cohort study	752 COPD (832 in total)	Mean (SD) Median (IQR) Choice or proportion of choice	COPD Intubation not needed 53.9 (19.8) COPD Intubation not needed 50 (40, 66) COPD Intubation not needed 52.3 (32.5) COPD Intubation not needed 62 (36, 74)
Wilson 2005	Forced choice: treatment, importance	Trial, non-randomized or non-controlled	33	Choice or proportion of choice Median (IQR)	MV choices after the decision aid After reviewing the decision aid, 31 participants (94%) reported that they had reached a decision about whether they personally would accept or forego MV in the event of a serious exacerbation: only two individuals remained completely uncertain. Of those
Wilson 2007	Forced choice: device	Randomized controlled trial	30	Ranking	Preference for Accuhaler 2 people ranked it as the first, 13 as the second, 8 as the third, and 7 as the fourth Preference for Aerolizer 5 people ranked it as the first, 7 as the second, 13 as the third, and 5 as the fourth

Yun Kirby 2016	Forced choice: inhaler	Cross-over study	287	Choice or proportion of choice	Inhaler attribute 1: size of the numbers on the dose counter (primary endpoint) 193 patients (68%) preferred ELLIPTA; 57 individuals (20%) preferred DISKUS; 35 participants (12%) expressed no preferences between the treatment options. Inhaler attribute 2: number of steps to take the COPD medication. 190 patients (67%)
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