

Online supplement

Longitudinal change in quality of life following hospitalisation for acute exacerbations of COPD

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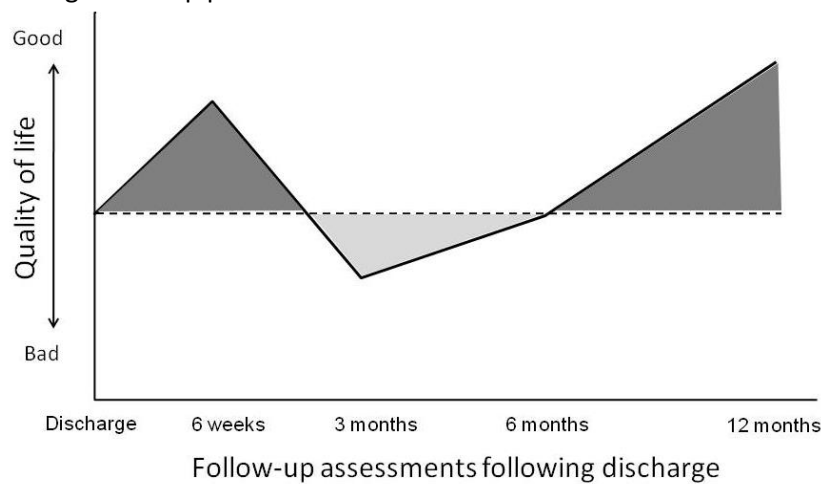
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Figure E1 Graph illustrating calculation and clinical implication of mean change in quality of life during follow-up period*



* Mean change in quality of life ($\bar{\Delta}$) = [area above the patient's baseline value (dark grey shading)] – [area below the patient's baseline value (light grey shading)] divided by length of follow-up.

Figure E2. Flowchart detailing attendance for longitudinal assessments of quality of life and health resource use following hospital discharge

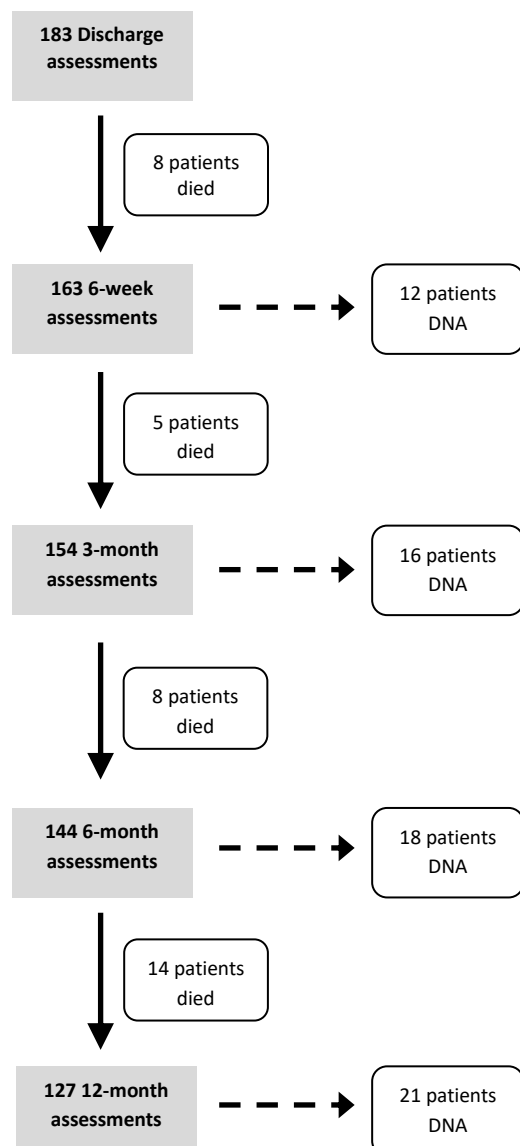


Table E1. QoL at discharge and mortality within 12 months

Quality of life measurement	Died, n =33	Survived, n = 150	p value*
SGRQ Symptoms, mean (SD)†	63.3 (20.8)	66.7 (19.7)	0.38
SGRQ Activity, mean (SD)†	85.0 (12.8)	77.9 (16.3)	0.0209
SGRQ Impacts, mean (SD)†	55.7 (19.1)	48.9 (19.8)	0.0714
SGRQ Total, mean (SD)†	65.6 (15.2)	60.7 (17.1)	0.13
CRQ Dyspnoea, median (IQR)‡	2.8 (1.7 to 4.1)	2.8 (2.15 to 3.8)	0.56
CRQ Emotional, median (IQR)‡	2.3 (1.5 to 3)	2.4 (1.5 to 3.3)	0.83
CRQ Fatigue, median (IQR)‡	3.7 (2.65 to 4.4)	3.4 (2.38 to 4.9)	0.69
CRQ Mastery, median (IQR)‡	3 (2.15 to 4.15)	3.3 (2.2 to 4.5)	0.60
HADS anxiety, median (IQR)†	8 (5 to 12.5)	8 (4 to 14)	0.93
HADS depression, median (IQR)†	8 (5 to 10.5)	6 (3 to 9)	0.0825
NEADL, median (IQR)‡	28 (14 to 37)	38 (28 to 45)	<0.0001

†Lower values indicate improved quality of life; ‡Higher values indicate improved quality of life. SGRQ – St George's Respiratory Questionnaire; CRQ – Chronic Respiratory Disease Questionnaire; HADS – Hospital Anxiety and Depression Scale; NEADL – Nottingham Extended Activity of Daily Living Scale.

Table E2. QoL at discharge and readmission during follow-up

Mean change in quality of life	Readmitted, n =130	Not readmitted, n = 53	p value*
SGRQ Symptoms, mean (SD)†	66.3 (19.5)	65.6 (20.8)	0.85
SGRQ Activity, mean (SD)†	81.1 (14.8)	74.6 (17.8)	0.0119
SGRQ Impacts, mean (SD)†	51.4 (20.5)	47.1 (17.6)	0.19
SGRQ Total, mean (SD)†	62.6 (17.6)	59.1 (14.9)	0.21
CRQ Dyspnoea, median (IQR)‡	2.8 (2 to 4)	2.8 (2 to 3.6)	0.46
CRQ Emotional, median (IQR)‡	3.4 (2.4 to 4.9)	3.6 (2.4 to 4.8)	0.90
CRQ Fatigue, median (IQR)‡	2.3 (1.5 to 3)	2 (1.3 to 3.2)	0.56
CRQ Mastery, median (IQR)‡	3 (2.3 to 4.3)	3.3 (1.8 to 4.9)	0.92
HADS anxiety, median (IQR)†	8 (4 to 14)	9 (4.5 to 13)	0.83
HADS depression, median (IQR)†	6 (3 to 10)	6 (3 to 8)	0.37
NEADL, median (IQR)‡	34 (24 to 42)	42 (33 to 51)	0.0001

†Lower values indicate improved quality of life; ‡Higher values indicate improved quality of life. SGRQ – St George's Respiratory Questionnaire; CRQ – Chronic Respiratory Disease Questionnaire; HADS – Hospital Anxiety and Depression Scale; NEADL – Nottingham Extended Activity of Daily Living Scale.

Table E3 Mean change in QoL, HADS and functional status and hospital readmission

<i>Mean change in quality of life</i>	<i>Readmitted, n = 126</i>	<i>Not readmitted, n = 50</i>	<i>p value</i>	<i>Frequent (>2) AECOPD, n = 78</i>	<i>Infrequent (≤2) AECOPD, n = 98</i>	<i>p value</i>
SGRQ Symptoms [†]	-4.95 (17.6)	-17.9 (21.2)	<0.001	-7.82 (15.6)	-9.66 (23.6)	0.55
SGRQ Activity [†]	3.06 (8.70)	-1.42 (17.6)	0.091	2.48 (10.1)	0.93 (14.1)	0.40
SGRQ Impacts [†]	0.75 (13.8)	-12.2 (15.3)	<0.001	-2.61 (12.5)	-3.42 (18.5)	0.75
SGRQ Total [†]	0.46 (11.4)	-9.79 (14.1)	<0.001	-1.90 (9.95)	-3.15 (16.1)	0.55
CRQ Dyspnoea [‡]	-0.16 (1.20)	0.80 (1.37)	0.003	0.20 (1.19)	0.51 (1.38)	0.43
CRQ Emotional [‡]	0.25 (1.05)	0.86 (1.22)	0.001	0.45 (0.99)	0.39 (1.29)	0.72
CRQ Fatigue [‡]	0.20 (1.06)	0.84 (1.28)	0.001	0.35 (1.09)	0.43 (1.24)	0.65
CRQ Mastery [‡]	0.48 (1.19)	1.53 (1.38)	<0.001	0.69 (1.17)	0.88 (1.52)	0.38
HADS anxiety [†]	-1.16 (3.31)	-2.39 (3.28)	0.029	-1.42 (3.27)	-1.66 (3.45)	0.65
HADS depression [†]	-0.34 (2.94)	-0.68 (2.99)	0.50	-0.59 (3.06)	-0.23 (2.79)	0.43
NEADL [‡]	-4.39 (7.73)	-1.05 (8.17)	0.012	-3.45 (7.49)	-3.43 (8.60)	0.98

Values shown as mean (SD). [†]Lower values indicate improved quality of life; [‡]Higher values indicate improved quality of life. SGRQ – St George's Respiratory Questionnaire; CRQ – Chronic Respiratory Disease Questionnaire; HADS – Hospital Anxiety and Depression Scale; NEADL – Nottingham Extended Activity of Daily Living Scale.