

Table 1: Clinical evidence profile: Comparison 1.1. Home versus hospital care for the administration of IV antibiotics in people with CF experiencing an acute pulmonary exacerbation

Quality assessment							No of treatments		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Home care for the administration of IV antibiotics	Hospital care for the administration of IV antibiotics	Relative (95% CI)	Absolute		
Lung function: change in FEV ₁ % predicted (follow-up 21 days; range of scores: 0-100; Better indicated by higher values)												

Quality assessment							No of treatments		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Home care for the administration of IV antibiotics	Hospital care for the administration of IV antibiotics	Relative (95% CI)	Absolute		
1 (Wolter 1997)	randomised trials ¹	serious ²	no serious inconsistency	no serious indirectness	very serious ³	none	13 ^a	18 ^a	-	MD 3 lower (13.61 lower to 7.61 higher)	VERY LOW	CRITICAL
Lung function: change in FEV₁ % predicted (follow-up mean 18 days; range of scores: 0-100; Better indicated by higher values)												
1 (Donati 1987)	observational studies	no serious risk of bias	no serious inconsistency	no serious indirectness	serious ⁴	none	31 ^b	32 ^b	-	MD 5.60 lower (12.29 lower to 1.09 higher) ^c	VERY LOW	CRITICAL
Lung function: change in FEV₁ % predicted (follow-up 15 days; range of scores: 0-100; Better indicated by higher values)												
1 (Esmond 2006)	observational studies	serious ⁵	no serious inconsistency	no serious indirectness	serious ⁴	none	15 ^d	15 ^d	-	MD 3.1 lower (6.93 lower to 0.73 higher)	VERY LOW	CRITICAL
Patients starting next course of antibiotics more than 12 weeks after completing the previous course (proxy outcome for time to next exacerbation) (follow-up mean 18 days)												

Quality assessment							No of treatments		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Home care for the administration of IV antibiotics	Hospital care for the administration of IV antibiotics	Relative (95% CI)	Absolute		
1 (Bosworth 1997)	observational studies	no serious risk of bias	no serious inconsistency	no serious indirectness	serious ⁶	none	13/27 (48.1%) ^e	28/32 (87.5%) ^e	RR 0.55 (0.36 to 0.83)		VERY LOW	CRITICAL
Weight (change) kg (follow-up 18 days; Better indicated by higher values)												
1 (Donati 1987)	observational studies	no serious risk of bias	no serious inconsistency	no serious indirectness	serious ⁶	none	37 ^b	37 ^b	-	MD 1.10 lower (4.29 lower to 2.09 higher) ^a	VERY LOW	CRITICAL
Weight change (kg) (follow-up ≤10 days post treatment; Better indicated by higher values)												
1 (Wolter 1997)	observational studies	serious ²	no serious inconsistency	no serious indirectness	very serious ⁷	none	13 ^a	18 ^a	-	MD 0.5 lower (8.06 lower to 7.06 higher)	VERY LOW	IMPORTANT
BMI (follow-up 15 days; Better indicated by higher values)												
1 (Emond)	observational studies	serious ⁵	no serious inconsistency	no serious indirectness	serious ⁶	none	15 ^d	15 ^d	-	MD 0.2 lower (0.63)	VERY LOW	IMPORTANT

Quality assessment							No of treatments		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Home care for the administration of IV antibiotics	Hospital care for the administration of IV antibiotics	Relative (95% CI)	Absolute		
2006)										lower to 0.23 higher)		
Change in quality of life – CF-QOL-Physical (follow-up 15 days; range of scores: 0-100; Better indicated by higher values)												
1 (Esmond 2006)	observational studies	serious ⁵	no serious inconsistency	no serious indirectness	very serious ^{3, f}	none	15 ^d	15 ^d	-	MD 2.2 lower (13.21 lower to 8.81 higher)	VERY LOW	IMPORTANT
Change in quality of life – CF-QOL-Social (follow-up 15 days; range of scores: 0-100; Better indicated by higher values)												
1 (Esmond 2006)	observational studies	serious ⁵	no serious inconsistency	no serious indirectness	very serious ^{3, f}	none	15 ^d	15 ^d	-	MD 3.4 lower (18.87 lower to 12.07 higher)	VERY LOW	IMPORTANT
Change in quality of life – CF-QOL-Treatment (follow-up 15 days; range of scores: 0-100; Better indicated by higher values)												
1 (Esmond 2006)	observational studies	serious ⁵	no serious inconsistency	no serious indirectness	very serious ^{3, f}	none	15 ^d	15 ^d	-	MD 2 lower (17.15 lower to 13.15 higher)	VERY LOW	IMPORTANT

Quality assessment							No of treatments		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Home care for the administration of IV antibiotics	Hospital care for the administration of IV antibiotics	Relative (95% CI)	Absolute		
Change in quality of life – CF-QOL-Symptoms (follow-up 15 days; range of scores: 0-100; Better indicated by higher values)												
1 (Emond 2006)	observational studies	serious ⁵	no serious inconsistency	no serious indirectness	serious ^{4, f}	none	15 ^d	15 ^d	-	MD 17.1 lower (31.25 to 2.95 lower)	VERY LOW	IMPORTANT
Change in quality of life – CF-QOL-Emotional (follow-up 15 days; range of scores: 0-100; Better indicated by higher values)												
1 (Emond 2006)	observational studies	serious ⁵	no serious inconsistency	no serious indirectness	very serious ^{3, f}	none	15 ^d	15 ^d	-	MD 4.2 higher (8.67 lower to 17.07 higher)	VERY LOW	IMPORTANT
Change in quality of life – CF-QOL-Future (follow-up 15 days; range of scores: 0-100; Better indicated by higher values)												
1 (Emond 2006)	observational studies	serious ⁵	no serious inconsistency	no serious indirectness	very serious ^{3, f}	none	15 ^d	15 ^d	-	MD 5.5 lower (17.96 lower to 6.96 higher)	VERY LOW	IMPORTANT
Change in quality of life – CF-QOL-Relationships (follow-up 15 days; range of scores: 0-100; Better indicated by higher values)												

Quality assessment							No of treatments		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Home care for the administration of IV antibiotics	Hospital care for the administration of IV antibiotics	Relative (95% CI)	Absolute		
1 (Esmond 2006)	observational studies	serious ⁵	no serious inconsistency	no serious indirectness	very serious ^{3, f}	none	15 ^d	15 ^d	-	MD 7.4 higher (5.6 lower to 20.4 higher)	VERY LOW	IMPORTANT
Change in quality of life – CF-QOL-Body image (follow-up 15 days; range of scores: 0-100; Better indicated by higher values)												
1 (Esmond 2006)	observational studies	serious ⁵	no serious inconsistency	no serious indirectness	very serious ^{3, f}	none	15 ^d	15 ^d	-	MD 0.9 higher (13.92 lower to 15.72 higher)	VERY LOW	IMPORTANT
Change in quality of life – CF-QOL-Career (follow-up 15 days; range of scores: 0-100; Better indicated by higher values)												
1 (Esmond 2006)	observational studies	serious ⁵	no serious inconsistency	no serious indirectness	very serious ^{3, f}	none	15 ^d	15 ^d	-	MD 8.3 higher (5.76 lower to 22.36 higher)	VERY LOW	IMPORTANT

Abbreviations: BMI: body mass index; CI: confidence interval; CF: cystic fibrosis; CF-QOL: cystic fibrosis quality of life questionnaire; FEV₁: forced expiratory volume in 1 second; IV: intravenous; MD: mean difference; RR: risk ratio

1 Cross-over trial

2 The quality of the evidence was downgraded by 1 as this is an open-label study

3 The quality of the evidence was downgraded by 2 because the 95% CI crossed 2 clinical MIDs.

4 The quality of the evidence was downgraded by 1 because the 95% CI crossed 1 clinical MID

5 The quality of the evidence was downgraded by 1 as there is a high-risk of bias in relation to the comparability of the groups

6 The quality of the evidence was downgraded by 1 because the 95% CI crossed 1 default MID

7 The quality of the evidence was downgraded by 2 because the 95% CI crossed 2 default MIDs

a Number of people in each group not reported

b Number of people included in the analysis in each group unclear

c The mean difference was calculated by the NGA technical team after calculating mean change from baseline and related SD in each group (using the mean and SE at baseline and follow-up and assuming a correlation of 0.75)

d There were 15 people in each group, but the total N of people is 28. Two people had both home care and hospital care.

e There were 19 people in the home group, 21 people in the hospital group (40 in total)

f Imprecision for quality of life was assessed using a clinical MID of 5 because the study by Esmond et al. used the CFQOL questionnaire (Gee et al. 2000)