Table 85: Clinical evidence profile: Comparison 3. High-intensity interval training versus standard aerobic and anaerobic exercise programme

Quality assessment							No of patients		Effect			
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	High intensity interval training programme	Standard combined aerobic and anaerobic exercise programme	Relative (95% CI)	Absolute	Quality	Importance
Change in FEV_1 - *Unsupervised programme*												
No evidence available												
Change in FEV_1% predicted - *Supervised programme* (follow-up 6 weeks; range of scores: 0-100; Better indicated by higher values)												
1 (Gruber 2014)	observational studies	very serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	20	23	-	MD 3.9 lower (7.61 to 0.19 lower) 5	VERY LOW	CRITICAL
Change in vital capacity (VC) % predicted - *Unsupervised programme*												
No evidence available												
Change in vital capacity (VC) % predicted - *Supervised programme* (follow-up 6 weeks; range of scores 0-100; Better indicated by higher values)												
1 (Gruber 2014)	observational studies	very serious[1]	no serious inconsistency	no serious indirectness	serious[3]	none	20	23	-	MD 5.1 lower (11.05 lower to 0.85 higher) 5	VERY LOW	IMPORTANT
Change in FEV_1 peak												
No evidence available												

Quality assessment							No of patients		Effect			
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	High intensity interval training programme	Standard combined aerobic and anaerobic exercise programme	Relative (95% CI)	Absolute	Quality	Importance
Change in FEV_1 peak - *Supervised programme* (follow-up 6 weeks; Better indicated by higher values)												
1 (Gruber 2014)	observational studies	very serious[1]	no serious inconsistency	no serious indirectness	serious[3]	none	20	23	-	MD 0.8 lower (4.59 lower to 2.99 higher)[5]	VERY LOW	IMPORTANT
Time to next exacerbation												
No evidence available												
Change in BMI - *Unsupervised programme*												
No evidence available												
Change in BMI - *Supervised programme* (follow-up 6 weeks; Better indicated by higher values)												
1 (Gruber 2014)	observational studies	very serious[1]	no serious inconsistency	no serious indirectness	very serious[4]	none	21	23	-	MD 0 higher (1.34 lower to 1.34 higher)[5]	VERY LOW	IMPORTANT
Quality of life												
No evidence available												
Preference for training programme												
No evidence available												

Quality assessment							No of patients		Effect			
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	High intensity interval training programme	Standard combined aerobic and anaerobic exercise programme	Relative (95% CI)	Absolute	Quality	Importance
Adverse events												
No evidence available												

Abbreviations: BMI: body mass index; CI: confidence interval; CF: cystic fibrosis; FEV_1: forced expiratory volume in 1 second; VC: vital capacity; kg: kilogrammes MD: mean difference; min: minute; ml: millilitres; FEV_1 max/ peak: maximal oxygen consumption

1 The quality of the evidence was downgraded by 2 because of high risk of bias in relation to the selection of the participants for each group and the comparability of the groups

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

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

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

5 Calculated by the NGA technical team