

## The prevalence of poor sleep quality and its associated factors in patients with interstitial lung disease: a cross-sectional analysis

### Supplementary data

Category		PSQI ≤ 5 (n)	PSQI > 5 (n)	Odds ratio	95% CI	Wald $\chi^2$	DF	P
Age (years)	< 61	6	15	1.0*		2.56	3	0.15
	61 to 69.9	5	21	1.68	0.43-6.54			
	70 to 75.9	12	13	0.43	0.13-1.48			
	≥ 76	12	17	0.57	0.17-1.88			
Gender	Male	23	26	1.0*		0.02	1	0.89
	Female	16	36	1.06	0.49-2.28			
BMI (kg/m <sup>2</sup> )	< 25	12	17	1.0*		1.35	2	0.51
	25 to 29.9	10	26	1.84	0.65-5.18			
	≥ 30	13	23	1.25	0.46-3.41			
FEV1 predicted	< 50%	6	14	1.0*		1.49	3	0.68
	≥ 50 to < 60%	7	14	0.86	0.23-3.20			
	≥ 60 to < 75%	8	19	1.02	0.29-3.60			
	≥ 75%	13	17	0.56	0.17-1.86			
VC predicted	< 50%	9	18	1.0*		0.62	3	0.89
	≥ 50 to < 60%	5	12	1.20	0.32-4.47			
	≥ 60 to < 75%	8	16	1.00	0.31-3.20			
	≥ 75%	12	18	0.75	0.25-2.22			
Smoking status	Never smoked	15	26	1.0*		0.11	1	0.74
	Ex smoker/current	20	40	1.15	0.50-2.65			
MMRC	0 to 1	13	15	1.0*		2.99	2	0.22
	2 to 3	11	20	1.58	0.55-4.48			
	4	11	31	2.44	0.89-6.72			
SGRQT	< 40	14	10	1.0*		14.1	3	0.003
	≥ 40 to < 55	13	15	1.62	0.54-4.85			
	≥ 55 to < 65	2	17	11.9	2.23-63.5			
	≥ 65	5	23	4.81	1.82-22.76			
HADS-A	0 to 2	13	10	1.0*		9.37	3	0.025
	3 to 4	7	12	2.23	0.64-7.74			
	5 to 9	11	22	2.60	0.87-7.79			
	≥ 10	3	22	9.53	2.21-41.09			
HADS-D	0 to 2	13	7	1.0*		13.54	3	0.004
	3 to 4	10	13	2.41	0.70-8.3			
	5 to 8	6	26	8.05	2.24-28.88			
	≥ 9	5	20	7.43	1.94-28.47			
ESS	0 to 2	11	11	1.0*		7.71	3	0.05
	3 to 5	12	13	1.08	0.34-3.41			
	6 to 8	5	15	3.0	0.81-11.15			
	≥ 8	7	27	3.86	1.19-12.54			
STOP-Bang	< 3	8	12	1.0*		0.27	1	0.60
	≥ 3	27	53	1.19	0.48-3.58			

Table S1. Univariable logistic regression. PSQI = Pittsburgh Sleep Quality Index; BMI = body mass index; FEV1 = forced expiratory volume in 1 second; FVC = forced vital capacity; mMRC = modified Medical Research Council Dyspnoea Scale; SGRQT = St George's Respiratory Questionnaire Total score; HADS = Hospital Anxiety and Depression Scale; ESS = Epworth Sleepiness Scale; CI = confidence interval; DF = degrees of freedom.

### **PSQI 0 to 5 (good sleep quality)**

Patient

1. Mirtazepine
2. Gabapentin
3. Gabapentin, amitriptyline

### **PSQI > 5 (poor sleep quality)**

Patient

1. Gabapentin
2. Aripiprazole, duloxetine
3. Gabapentin
4. Escitalopram
5. Amitriptyline, escitalopram
6. Mirtazepine
7. Tramadol
8. Paroxetine
9. Sertraline
10. Tranylcypromine, pregabalin
11. Amitriptyline, oxycodone
12. Oxazepam
13. Oxycodone with naloxone, tramadol, zolpidem
14. Pregabalin
15. Venlafaxine
16. Oxycodone
17. Pregabalin
18. Oxycodone with naloxone, amitriptyline
19. Duloxetine, pregabalin, oxycodone
20. Tramadol, diazepam

Table S2. Patients on medications that could affect sleep.

There were 3 of 35 patients with good sleep quality that were on sleep altering medications compared with 20 of 66 patients with poor sleep quality ( $p=0.014$ ; Fisher's exact test). Medications included opiate analgesia, anticonvulsants for neuropathic pain, antidepressants and benzodiazepines.