

Supplementary file: sensitivity analysis

Table 1: Complete case analysis: BDZ and opioid adjusted risk of hospital and mortality in 682 patients with oxygen dependent COPD and complete data

	Adjusted hazard ratio (95%CI)	
	Admission	Mortality
Benzodiazepines:		
Low dose	1.16 (0.81 to 1.64)	1.25 (0.92 to 1.70)
High dose	1.38 (0.79 to 2.41)	1.62 (0.98 to 2.67)
Opioids:		
Low dose	1.18 (0.82 to 1.68)	1.11 (0.74 to 1.66)
High dose	1.51 (1.07 to 2.14)	1.34 (0.97 to 1.85)

Table 2: Excluding concurrent users: BDZ and opioid adjusted risk of hospital and mortality in 1544 patients with oxygen dependent COPD (using imputed data), excluding patients with concurrent BDZ and opioid use (n=59)

	Adjusted hazard ratio (95%CI)	
	Admission	Mortality
Benzodiazepines:		
Low dose	1.26 (0.98 to 1.62)	1.07 (0.83 to 1.36)
High dose	1.37 (0.94 to 2.01)	1.62 (1.11 to 2.34)
Opioids:		
Low dose	1.24 (0.96 to 1.61)	1.23 (0.98 to 1.55)
High dose	1.15 (0.90 to 1.48)	1.08 (0.84 to 1.39)

Adjusted hazard ratios with 95% confidence intervals, adjusted for BDZ and opioid dose, age, gender, VC % of predicted, FEV1/VC, PaO2 breathing air, PaCO2 breathing air, PaO2 breathing oxygen, Smoking status, BMI, WHO performance status, number of cardiovascular diseases, comorbidities, previous hospitalisations 4 years before baseline, number of hospitalised days 91 days before baseline, oral corticosteroids, azathioprine and NAC.