

**Supplementary table S3: Detailed self-reported limitations due to morning symptoms**

Author	Limitations in morning activities			Limitations in daily activities
	Self-care	Domestic activities	Work	
Bateman et al. (2015) [15]	n.a.	n.a.	n.a.	n.a.
Stephenson et al. (2015) [20]	n.a.	n.a.	41.8% of all COPD patients is not working (unclear it is due to morning symptoms)	n.a.
Miravittles et al. (2014) [16]	n.a.	n.a.	n.a.	n.a.
O'Hagan et al. (2014) [19]	Getting up: 62%*; taking a shower: 43%*; grooming: 34%*; dressing: 43%*	Going up and down stairs: 79%*; making bed: 55%*; making breakfast: 34%*; taking children to school: 48%*; travelling to supermarket: 56%*; morning chores: 70%*	41% is not working* (unclear it is due to morning symptoms)  Travelling to work: 59%*	Increased impact on normal daily activities (p=0.007)
Roche et al. (2013) [17]	For patients in paid employment, the disease's impact on getting up and ready for the day was significantly higher in those with morning symptoms (2.99 vs. 2.4 <sup>-</sup> , p<0.001)	n.a.	70.4% is not working (unclear it is due to morning symptoms)  Higher impact during the working day in patients with morning symptoms (2.86 vs. 2.51 <sup>-</sup> , p=0.027)	Limits the amount of housework I can do: 66%‡ Means that I am tired throughout the rest of the day: 64%‡ Means that I do not make commitments before a certain time: 33%‡ Means that I cannot go grocery / supermarket shopping: 27%‡
Kim et al. (2012) [18]	Getting out of bed: 82.9%*; washing yourself: 76.3%*; dressing yourself: 70%*; using the toilet: 77.6%*; drying yourself: 77.6%*; eating breakfast: 56.6%*	Preparing breakfast 44.7%*	n.a.	n.a.
Kessler et al. (2011) [22]	Washing 41.0%; dressing 40.7%; drying 36.2%; getting out of bed 35.4%	n.a.	n.a.	Going up and down stairs 82.5%; doing heavy household chores 56.9%; going shopping 43.1% doing sport or hobbies 35.9%
Partridge et al. (2009) [21]	Severity score± in severe/non severe† COPD. Putting socks on 6.7/4.4; showering 6.1/3.8; drying 6.1/3.8; getting dressed	Severity score± in severe/non severe† COPD. Walking up/down stairs 8.6/6.2; making the bed 6.8/4.3; walking around the	n.a.	n.a.

	6.0/3.8; getting out of bed 4.5/3.0; washing yourself 4.7/3.0; preparing breakfast 4.4/3.0; eating breakfast 3.8/2.7; cleaning your teeth 3.5/2.4	house in the morning 5.4/3.5; washing dishes 5.0/3.3; going to the bathroom 4.2/2.6		
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\*In patients with morning symptoms. ± Rated on a scale from 1 to 10, where 1= it is not affected at all and 10 = it is greatly affected. † "Severe" was defined in this study as: regular use of COPD medication plus a third level of breathlessness or above using Medical Research Council dyspnoea scale and one or more exacerbations in the preceding 12 months. ~Measured on a 7-point Likert scale of 0=no impact to 7=constant impact. ‡ % of COPD patients whose rest of days are impacted by morning symptoms. COPD: chronic obstructive pulmonary disease