

## Chronic obstructive pulmonary disease – importance of active case finding and consideration of comorbidities

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Chronic obstructive pulmonary disease (COPD) is projected to be the third leading cause of death in the world by 2020. Globally, the prevalence of COPD is expected to increase over the next decades as a result of continued exposure to risk factors (mainly tobacco smoking; environmental tobacco smoke; outdoor, occupational and indoor air pollution) and aging of the population. The global prevalence in the total population is estimated to be around 12%, with a wide variation between countries (up to 20%) [1]. COPD is often accompanied by relevant comorbidities, such as lung cancer, cardiovascular disease, osteoporosis, depression, anxiety, muscle weakness and diabetes [2]. Cardiovascular disease is frequent in COPD [3], as is the subset of peripheral artery disease (PAD) [4].

Currently in *Swiss Medical Weekly*, Tschopp et al. report their prospective study on the prevalence of COPD in their tertiary care hospital and the association of COPD and PAD [5]. They screened all consecutive patients  $\geq 45$  years of age who were admitted to their internal medicine ward over a period of 5 months. COPD was confirmed in 81 of 888 screened patients (9%). Out of these, a new diagnosis of COPD was made in 16 of 97 patients at risk (16%). As acknowledged in the discussion, the real prevalence of COPD is probably higher, because a relevant proportion of screened patients had to be excluded for various reasons (figure 1 of the publication). PAD was identified in 43% of COPD patients compared with 24% of patients without COPD ( $p < 0.01$ ). In 36 of 57 PAD patients (63%), this diagnosis was newly established.

The Global Initiative for Chronic Obstructive Lung Disease (GOLD) advocates active case finding by considering COPD and performing spirometry in any person aged  $\geq 40$  years with any of the following features: chronic dyspnoea, chronic cough or sputum production, recurrent lower respiratory tract infections, history of risk factors, family history of COPD or childhood factors [1]. Being a “patient at risk” for COPD in the current study was mainly based on these criteria, and as mentioned above, in 16% of these a new diagnosis of COPD (mostly mild or moderate) was established by means of spirometry with a resultant “number

needed to screen” (NNS) of 6. The prevalence of PAD was very high in the study and significantly higher in COPD than in non-COPD patients. A possible selection bias cannot be excluded as possible reason for the discrepancy in the reported prevalence of PAD [4].

In conclusion, the study of Tschopp et al. clearly supports two important messages of the latest GOLD report [1]:

1. COPD is underdiagnosed and can be easily and cheaply assessed by use of spirometry in a population at risk with a low NNS – keyword: active case finding.
2. There is a high correlation between COPD and PAD, which is worth screening for in all COPD patients – keyword: consideration of comorbidities.

These are in my opinion important direct clinical impacts of the current work that could contribute to an improved care and cost saving and possibly avoiding end stage disease (COPD and/or PAD).

### Disclosure statement

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### References

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