The implementation of GOLD 2011 among pulmonary specialists in the Czech Republic

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Background

COPD is a serious yet preventable and treatable disease. In addition to global treatment strategies and guidelines, there are several national therapeutic recommendations. Physicians' knowledge of global recommendations on COPD diagnostics and treatment varies widely across countries.

Purpose

The main objective of this survey was to assess the awareness and implementation of COPD among specialists-pulmonologists in the Czech Republic. We analysed how theoretical knowledge is implemented into the real care for the COPD patients. Within the survey objectives, we investigated theoretical acceptance and practical adherence to GOLD 2011 strategy.

Methods

This was a multicentre cross-sectional study of COPD treatment practice among Czech pulmonology specialists. The overall study consisted of two types of surveys; a general questionnaire and a patient-specific electronic case report form (eCRF). The study was supported and promoted by the Czech Pneumological and Phthisiological Society.
The survey was conducted between October and December 2012. In total, data from 144 pulmonologists were obtained of those 55.6 % worked at outpatient ambulatory care, 13.2 % at ambulatory care within a hospitalisation facility, and 31.2 % at ambulatory care within a university hospital.

Results

In total 143 (99.3%) of all respondents indicated the GOLD 2011 guidelines as leading guidelines in their practice, often along with another guidelines, most frequently Czech guidelines (83.3%), the ERS/ATS standards (50.7%), IPCRG - COPD guidelines (10.4%), NICE guidelines (8.3%) and others. In total 1355 consecutive patients were reported into the eCRF. The average age of a patient was 68.5 (SD 10.0). There was an obvious discrepancy between the correct and physician's classifications indicating misclassification in 32.8% of reported cases ($p<0.0001$) – Figure 1 and Graph 1. The most important reason for misclassification was incorrect assessment of symptoms – Figure 2. Evaluating the trends closely, 23.9% of all cases were underestimated and 8.9% of all cases were overestimated. The greatest error rate (36.7%) was observed in a group of specialists with more than 120 patients per month, followed by a group of specialists with fewer than 80 patients per month (33.4%) – Figure 3. The smallest error rate was in the middle group with 80 to 120 patients per month (27.0%) (p 0,0273). Considering that the observed classification into A, B, C and D as pronounced by specialists, 19.5% of patients have been over-prescribed ICS while 12.2% had ICS under-prescribed – Figures 4 and 5. Female specialists failed in correct prescription more frequently than male specialists (33.6% vs. 27.3%, p=0.042), predominantly by over-prescribing ICS.

Conclusion

Although there seems to be high awarness of GOLD 2011, the implementation shows rather insufficient. There is an obvious tendency towards underclassification of patients and simultaneous overtreatment of COPD patients. These results provide further justification for conducting education targeted at pulmonologists in the Czech Republic.

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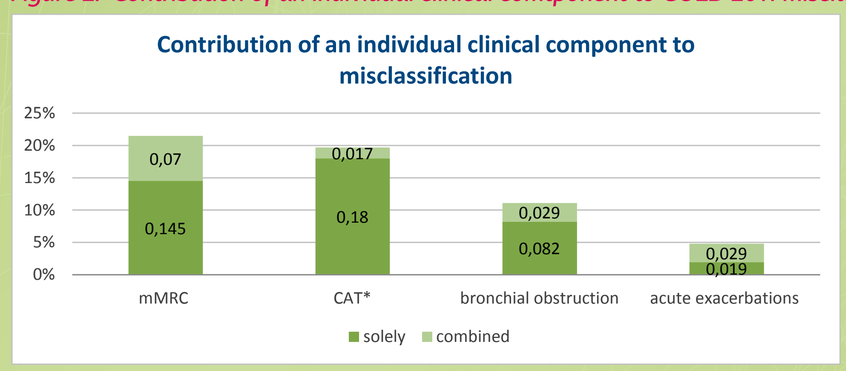
Figure 1: Correct rigorous GOLD 2011 classification by authors of this poster versus subjective classification by pulmonary specialist

Correct classification GOLD 2011	GOLD 2011 classification by pulmonary specialist ← Under-/Over-classification →				
	A	B	C	D	Total
A	303 22.36%	75 5.54%	7 0.52%	0 0%	385 28.41%
B	42 3.1%	230 16.97%	26 1.92%	6 0.44%	304 22.44%
C	7 0.52%	14 1.03%	47 3.47%	6 0.44%	74 5.46%
D	4 0.3%	108 7.97%	149 11%	331 24.43%	592 43.69%
Total	356 26.27%	427 31.51%	229 16.9%	343 25.31%	**1355** **100%**

Figure 2: Contribution of an individual clinical comtponent to GOLD 2011 misclassification



**CAT was determined only in 29.9% of patients*

Figure 3: Misclassification rate versus number of COPD patients per month (in out-patient clinic)

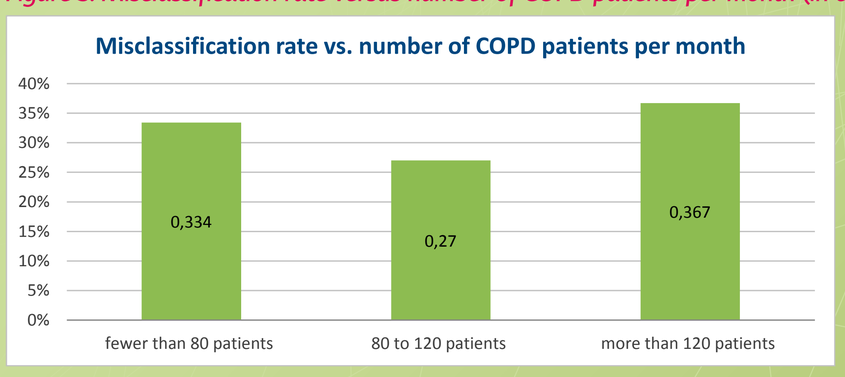


Figure 4: Inhaled corticosteroids in routine pulmonary out-patient care

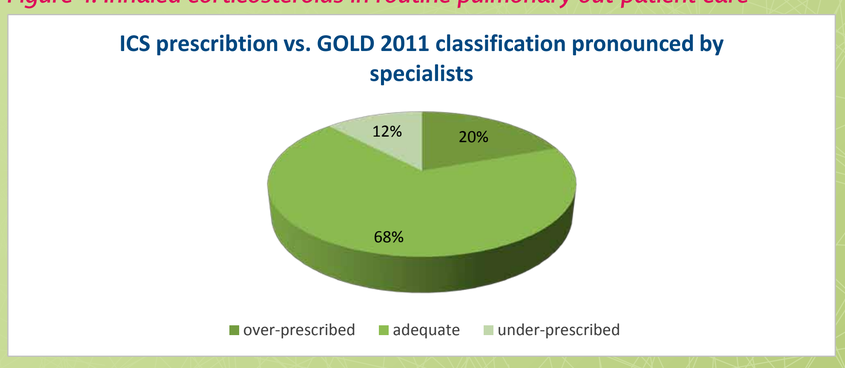
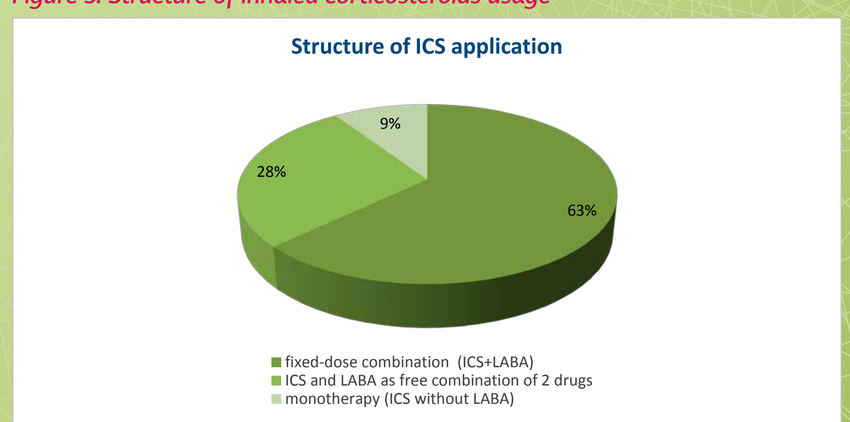


Figure 5: Structure of inhaled corticosteroids usage



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