Background
Malnutrition and skeletal muscle wasting are significant extra-pulmonary manifestations of COPD, affects its morbidity and mortality [2,3]. Associates comorbidities are another important factor affecting prognosis of COPD patients.

Aim
The aim of this study is to evaluate the nutritional status, comorbidities according to nutritional status and their impact on the other parameters – pulmonary function tests (PFTs), symptoms, frequency of exacerbations and survival in COPD patients from the Czech Multicentre Research Database (CMRD).

Methods
CMRD is a prospective study focused on long-term follow-up and on disease evolution in a real-life COPD patient cohort [4]. We analyzed baseline data of 343 patients from the CMRD in this study.

Patients characteristics

Fat free mass index (FFMI) measured by skinfold anthropology (SFA) [5] and NA-Arm Muscle Circumference (MAC) in non-dominant upper arm were used to evaluate the nutritional status and muscle mass loss. Medical history and data from the healthcare reports were used to assess the comorbidities.

Kaplan-Meier survival analyses in the 48-month follow-up were performed.

Results
We found significant differences of nutritional status among patients with different Czech COPD phenotypes [6], but not in GOLD groups (GOLD 2016) neither GOLD 2017. In the group of the underweight patients, there was lower FEV1, lower FEV1/VCmax and lower TLOQ at baseline than in the group of the obese patients, but there were no significant differences among the groups in declination of PFTs during 24 month follow-up.

Associates comorbidities were different too. Obesit.

Conclusion
Poor nutrition and non-physiological muscle mass loss are associated primarily with emphysematous COPD phenotypes. They are associated with worse PFTs, higher frequency of symptoms and exacerbations and worse survival. Poor nutritional status was not associated with faster decline of lung function. Comorbidity patterns differ in cachectic and obese COPD population. The underweight and cachectic COPD patients had the lowest life expectancy, the overweight patients had the best. The proportion of the obese and overweight COPD patients mainly depends on metabolic and cardiovascular comorbidities.

References

4. Plutinsky M, Svoboda M, Bulovka H, Pulmonary Department, Regional Hospital – Liberec (Czech Republic), Pulmonary Department, Regional Hospital – Liberec (Czech Republic).
5. The authors are responsible for the choice of treatments provided to patients and the data provided by them. They were not provided with any information about the study design or interpretation of the data.
6. The authors are responsible for the choice of treatments provided to patients and the data provided by them. They were not provided with any information about the study design or interpretation of the data.