



# Stressful life events in patients with Chronic Obstructive Pulmonary Disease (COPD)

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## Background

COPD: common chronic disease and major public health problem

Comorbidities highly prevalent in patients with COPD

Little is known about occurrence and role of stressful live events (SLE)

Aims of the study:

- To identify SLE that patients with COPD experience
- To estimate their impact on the patients' health status and quality of life



## **Methods**

### **Study design**

Cohort study (ICE COLD ERIC)

### **Study population**

270 primary care COPD patients, still alive and under follow-up at 3.5 years FU

### **Outcomes**

Feeling Thermometer: Patient-reported health status instrument  
modified VAS (0=dead, 100=perfect health)

Chronic Respiratory Questionnaire (CRQ): Health-related quality of life  
instrument (HRQL); subscales dyspnoea, emotional, fatigue, mastery  
7-point Likert type scale (1=worst, 7=best appraisal)



## **Methods**

### **Assessments of SLE**

- Telephone interview with patients by experienced study nurses, FU 3.5 years
- Assessment of SLE last 3 years, categorisation into 8 groups
- Estimation of global burden (1=burdensome, 3=most intensive burdensome)

### **Analyses**

Change in outcomes from baseline to 3.5 years FU

Assessment of impact of at least one reported SLE on change in outcomes:

- Multivariable regression analysis; adjusted for baseline value, sex, age, lung function, number of comorbidities and exercise capacity



## Results

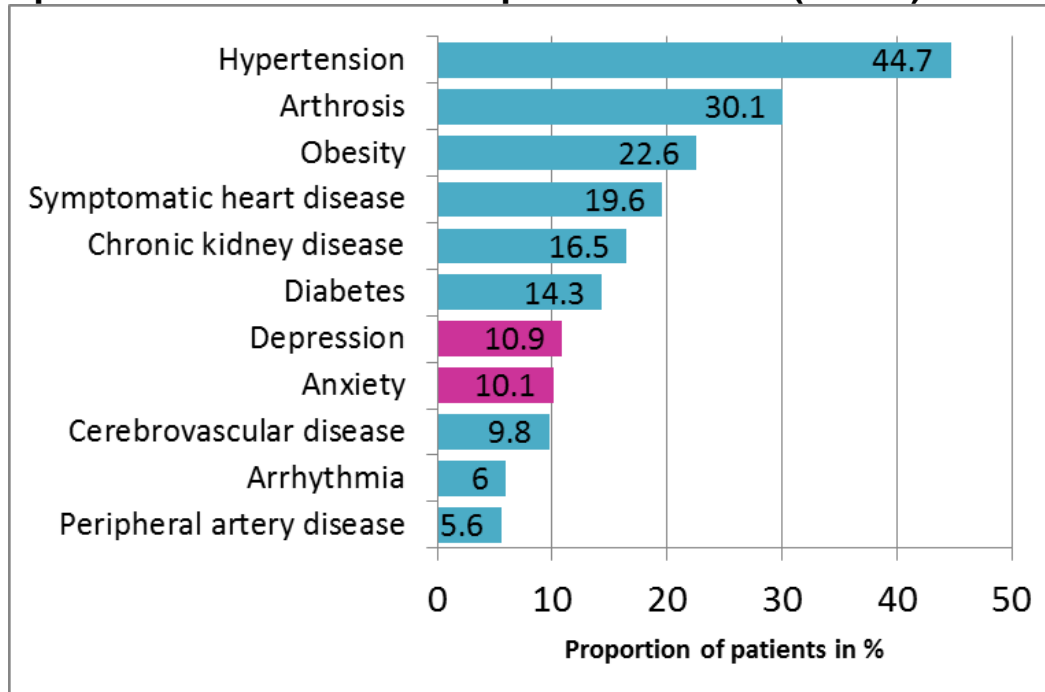
### Characteristics at baseline (n=266)

Mean age: 66 years (SD=9)

Sex, male (n): 154 (58%)

Number of comorbidities: **0**: 28 (11%) / **1**: 46 (17%) / **2**: 44 (16%) / **≥3**: 148 (56%)

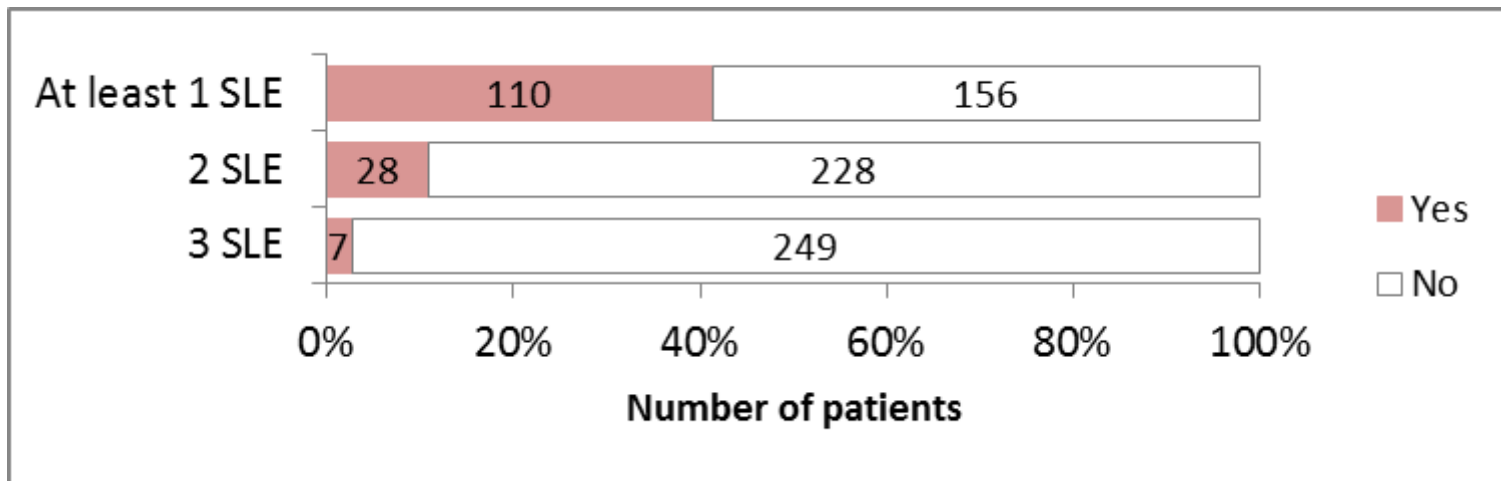
### Specific comorbidities with prevalence >5% (n=266)





## Results

Number of patients who experienced SLE within last 3 years (n=266)



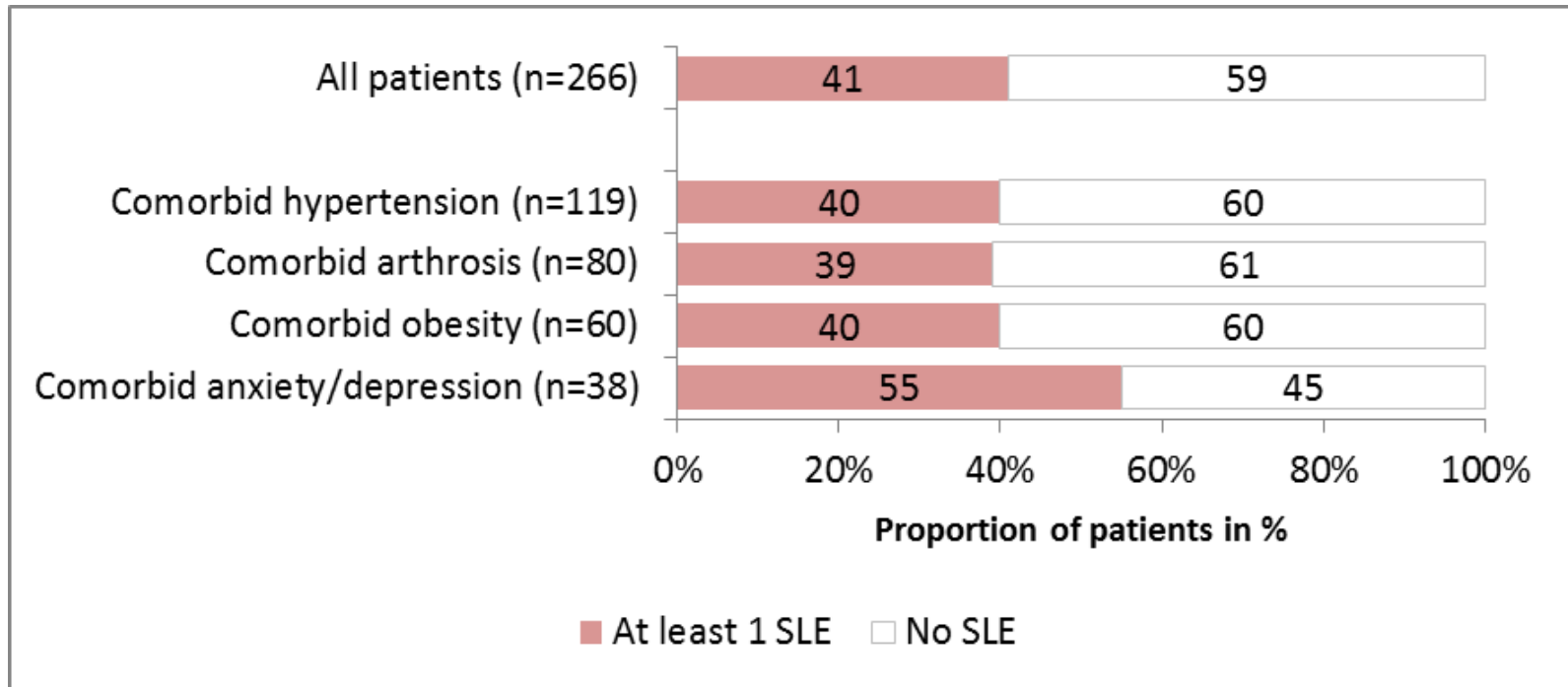
Differences between patients with at least 1 SLE / without SLE at baseline:

- No difference: Sex, country, lung function, exercise capacity, number of comorbidities
- Significant difference: Age (64.7 (with SLE) vs. 67.1 years)



## Results

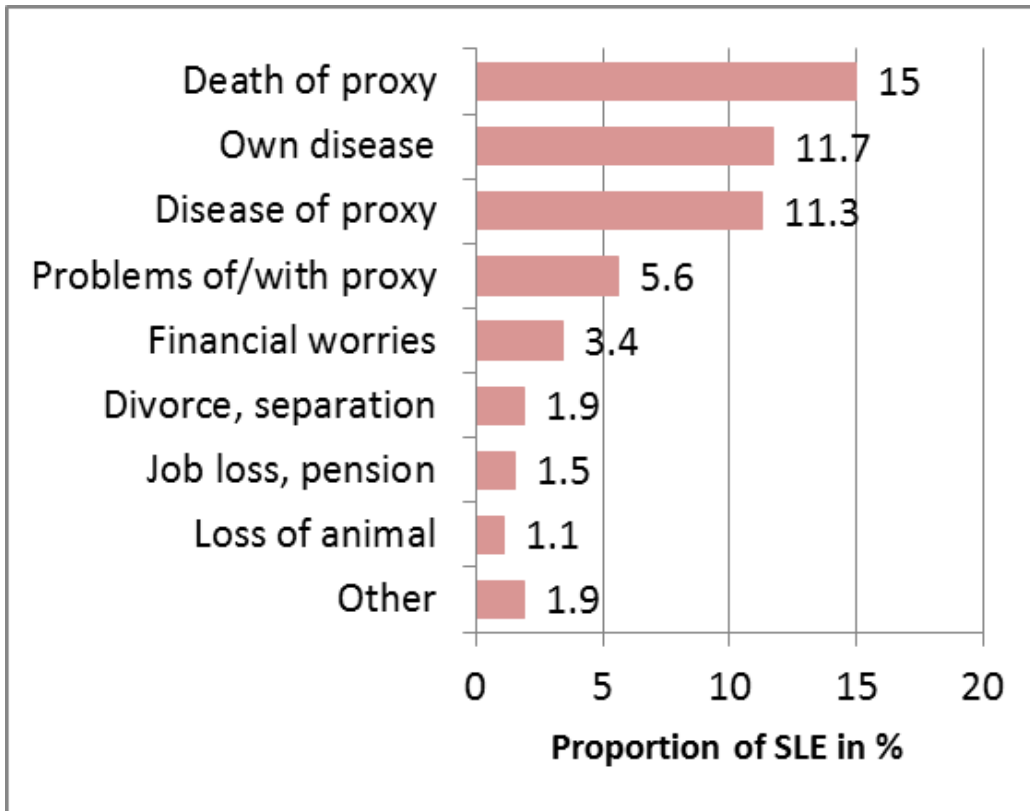
### At least 1 SLE within last 3 years according to most frequent comorbidities



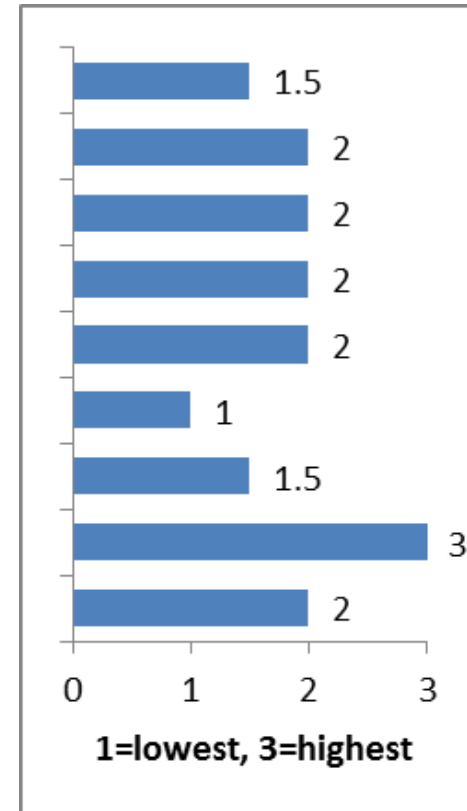


# Results

Categories and proportion in % of SLE (n=266)



Burden of SLE (median)







## Results

Impact of at least 1 reported SLE on change from baseline to 3.5 years follow-up assessment (0 SLE: n=156, at least 1 SLE: n=110):

Variables	Coefficient <sup>1)</sup>	95% CI
Health status <sup>2)</sup>	-3.3	-6.8 to 1.1
HRQL: Emotional subscale <sup>3)</sup>	<b>-0.31</b>	<b>-0.55 to -0.08</b>
HRQL: Dyspnoea subscale <sup>3)</sup>	-0.04	-0.41 to 0.33

1) Multivariable regression analysis; adjusted for baseline value, sex, age, lung function, number of comorbidities and exercise capacity

2) Feeling Thermometer (0-100)

3) Chronic Respiratory Questionnaire (1-7)



## Summary and conclusions

Over 40% of COPD patients reported SLE within the last 3 years, most frequently death or disease of close person, own disease

Having experienced SLE associated with worsening of more psychological but not physical constructs:

- Trend for decline in health-status after 3.5 years
- Significant decline in emotional HRQL subscale (not dyspnoea)

Patients with comorbid psychiatric diagnosis are more likely to report SLE



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