

19. 1. 2022

17.00 Uhr



COPD

Krankheitslast der COPD in Österreich
Priv.Doz. Dr.Sylvia Hartl

**SCHWIERIGKEITEN DER PFLEGE
VON COPD-PATIENTEN IN ZEITEN
DER COVID-PANDEMIE**

Conflict of interest disclosure

X I have no, real or perceived, direct or indirect conflicts of interest that relate to this presentation.

I have the following, real or perceived direct or indirect conflicts of interest that relate to this presentation:

Affiliation / financial interest	Nature of conflict / commercial company name
Tobacco-industry and tobacco corporate affiliate related conflict of interest	no
Grants/research support (to myself, my institution or department):	Ludwig Boltzmann Institute for Lung Health: GSK, Novartis, MSD, Chiesi, TEVA, Böhringer, Astra Zeneca, Menarini, Casinos Austria, NÖGUS,
Honoraria or consultation fees:	GSK, Novartis, MSD, Chiesi, TEVA, Böhringer, Astra Zeneca, Menarini. Roche
Participation in a company sponsored bureau:	no
Stock shareholder:	no
Spouse/partner:	no
Other support or other potential conflict of interest:	no

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Boehringer-Ingelheim



Update

The Austrian LEAD (Lung, hEart, sociAl, boDy) Study

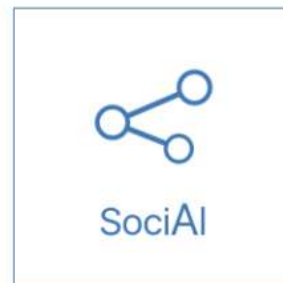
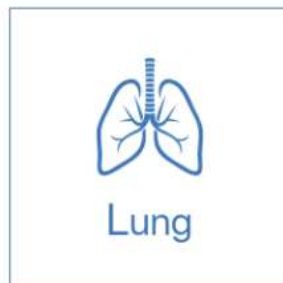
ClinicalTrials.gov; NCT01727518; <http://clinicaltrials.gov>

www.leadstudy.at

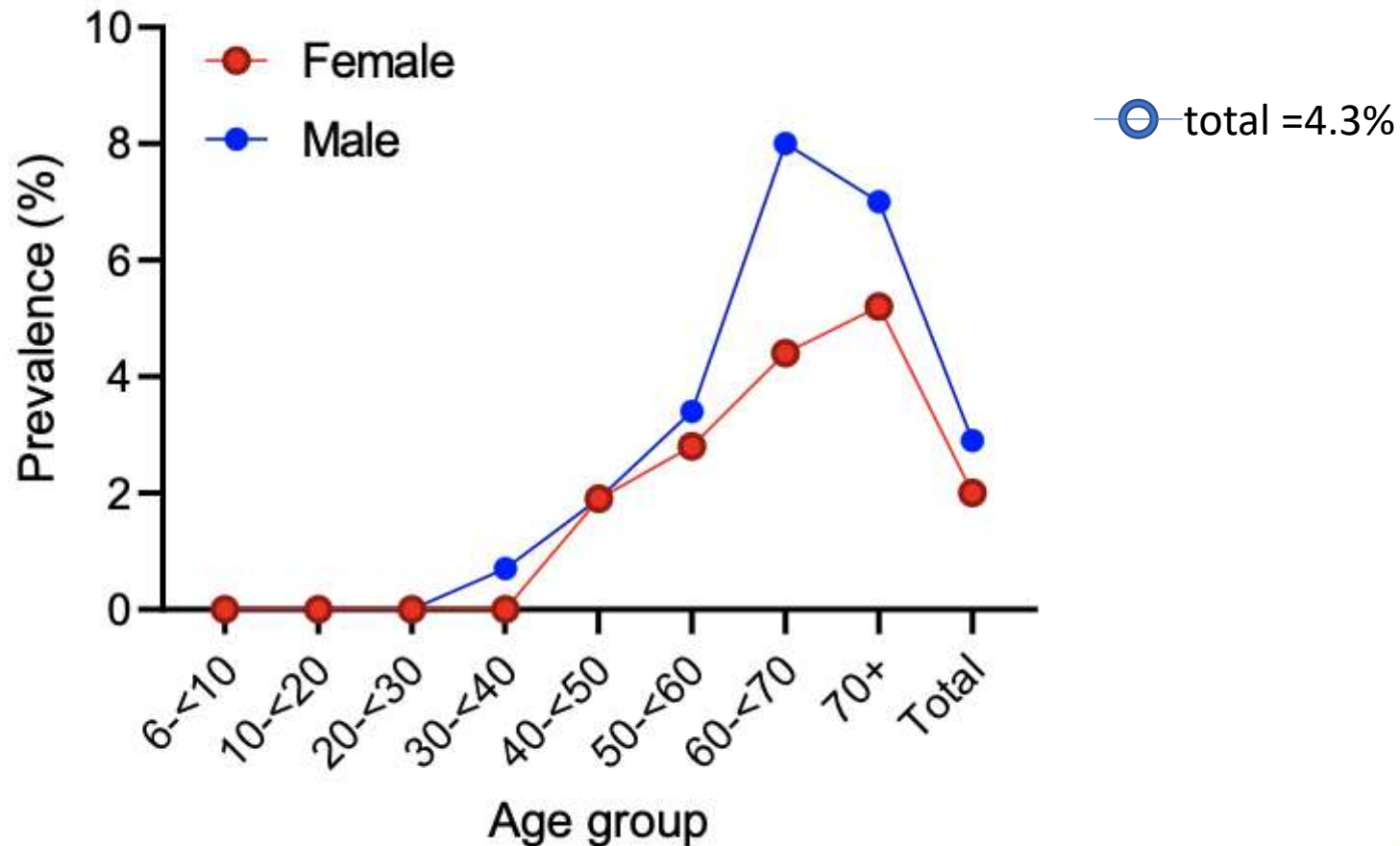
Actual : 14779 after rerecruiting

- ✓ first visit: 2021-2016 n= 11423
- ✓ second visit: 2017- 2021 n= 10500

Running:third visit: Oct 2021- 2024



Prävalenz der COPD in einer österreichischen longitudinalen Gesundheitsstudie (LEAD –Studie)



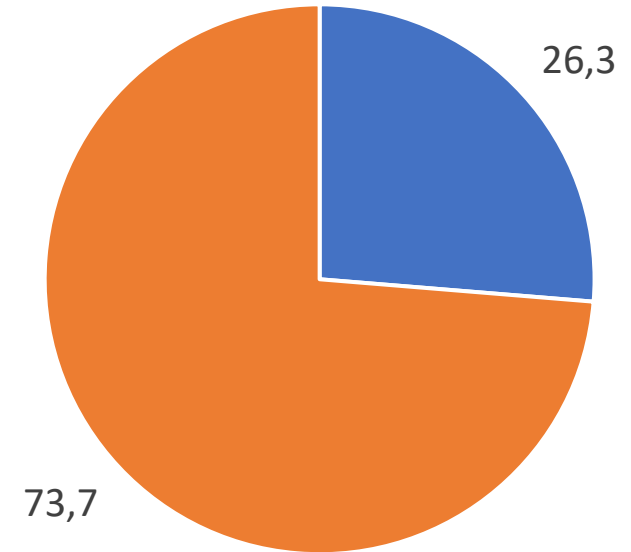
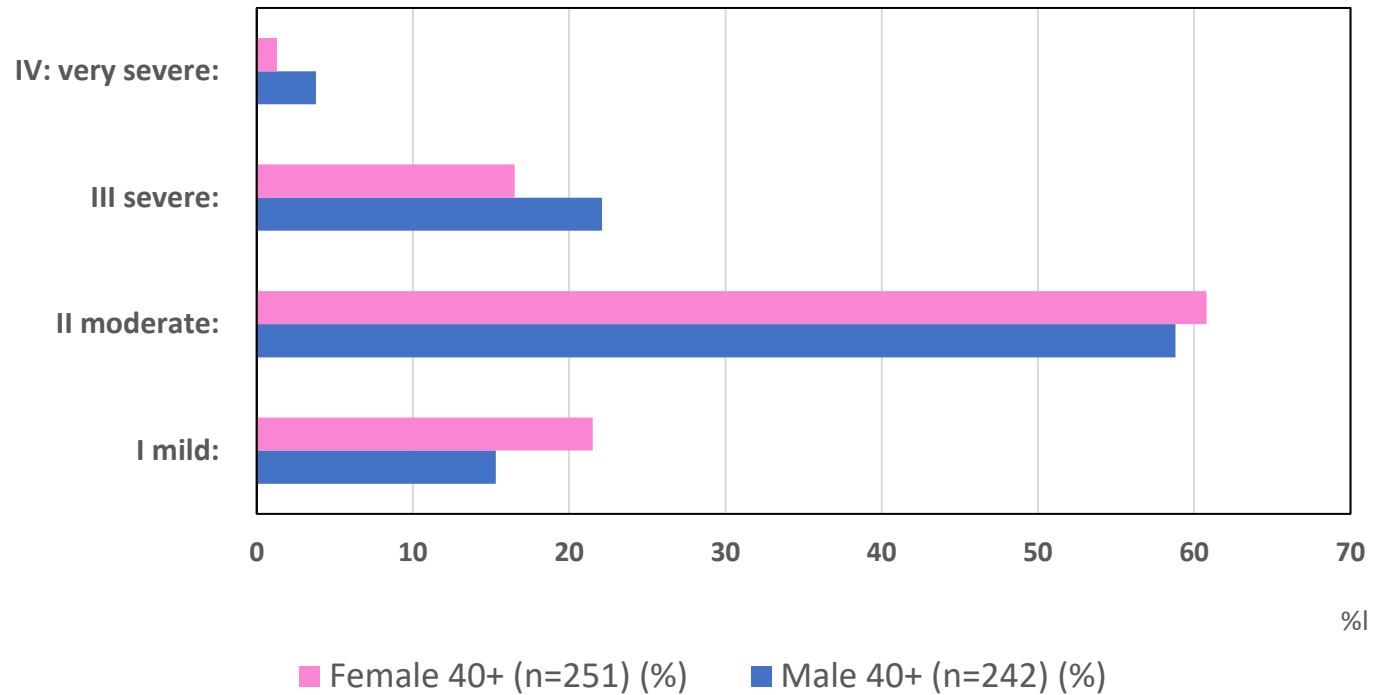
COPD n= 648

total cohort =14303

COPD-Charakteristika in LEAD-Kohorte	Diagnostizierte COPD n = 648
	%
Allergy (SPT+)	34.0
Eos > 300	16.4
Current smokers	33.3
Dyspnea	20.9
Cough	40.4
Sputum	37.8
BMI ≥ 30 (≤ 19yrs: ≥ +2SD)	26.4
Central obesity (< 18yrs: waist-height-ratio ≥ 0.5; ≥ 18yrs: waist circumference ≥ 88 for women and ≥ 102cm for men)	57.5
Short acting inhalativa	14.5
Long acting inhalativa	34.4
Short acting without long acting inhalativa	3.5

Exazerbationsfrequenz der COPD - patienten (>30 Jahre)

Prävalenz der COPD in der österreichischen Bevölkerung nach Lungenfunktionseinschränkung und Geschlecht



■ Exace |  Wiener Gesundheitsverbund
Klinik Penzing |  Für die
Stadt Wien

Phenotypes of COPD in an Austrian population

Wien Klin Wochenschr (2018) 130:382–389

National data from the POPE study

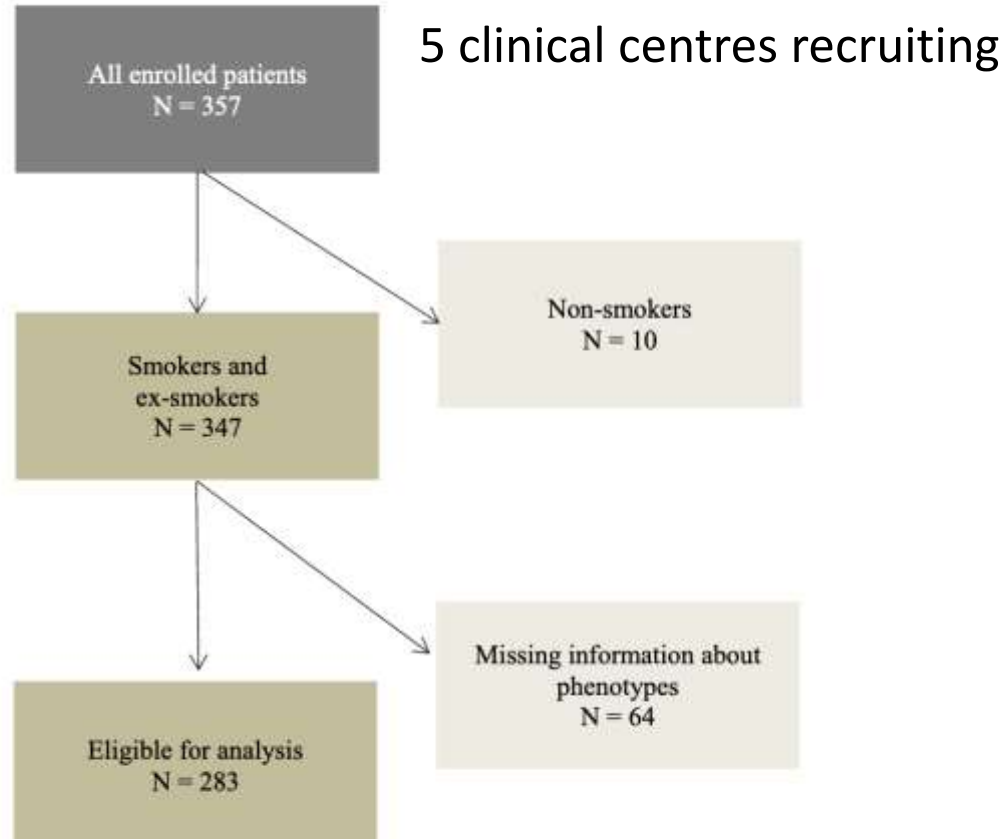


Table 2 Distribution of phenotypes and GOLD categories (A–D) in the Austrian POPE cohort

<i>Phenotypes</i>	
ACO	22 (7.8%)
NON-AE	140 (49.5%)
AE NON-CB	60 (21.2%)
AE CB	61 (21.6%)
<i>GOLD categories</i>	
A	13 (4.6%)
B	33 (11.7%)
C	19 (6.7%)
D	218 (77.0%)

NON-AE non-exacerbator, *AE NON-CB* exacerbator without chronic bronchitis, *AE CB* Exacerbator with chronic bronchitis, *ACO* asthma–COPD overlap

a diagnosis of stable COPD

Phenotypes of COPD in an Austrian population

Wien Klin Wochenschr (2018) 130:382–389

	Phenotypes				P-value
	ACO (a) N= 22	NON-AE (b) N= 140	AE NON-CB (c) N= 60	AE CB (d) N= 61	
Sex male	10 (45.5%)	90 (64.3%)	43 (71.7%)	44 (72.1%)	0.110
Age at inclusion (years)	62.0 (46.0; 75.0)	66.0 (50.5; 76.5)	64.5 (51.5; 79.5)	64.0 (53.0; 75.0)	0.555
<i>Dyspnea</i>					
<i>Exertion</i>	22 (100.0%)	133 (95.0%)	57 (95.0%)	59 (96.7%)	0.832
<i>Rest</i>	5 (22.7%)	11 (7.9%) ^d	5 (8.3%) ^d	18 (29.5%) ^{b, c}	<0.001
<i>Cough</i>	5 (22.7%) ^d	34 (24.3%) ^d	8 (13.3%) ^d	41 (67.2%) ^{a, b, c}	<0.001
<i>Sputum</i>	9 (40.9%)	38 (27.1%)	-	-	0.210*
<i>Fatigue</i>	8 (36.4%)	26 (19.7%) ^d	13 (22.4%) ^d	37 (62.7%) ^{b, c}	<0.001
<i>Smoking</i>					
<i>Ex-smoker</i>	18 (81.8%)	116 (82.9%)	47 (78.3%)	54 (88.5%)	0.501
<i>Current smoker</i>	4 (18.2%)	24 (17.1%)	13 (21.7%)	7 (11.5%)	
BMI	28.5 (22.1; 38.6)	25.6 (18.0; 35.9)	25.3 (18.6; 33.0)	25.2 (17.0; 33.9)	0.250
6MWD (m)	324.0 (120.0; 540.0) N= 7	402.5 (210.0; 580.0) ^d N= 84	347.5 (230.0; 505.0) N= 26	294.0 (95.0; 446.0) ^b N= 33	0.001
FEV1 (%)	47.1 (29.2; 70.8) ^d	37.4 (20.4; 78.7) ^d	39.3 (21.6; 69.8) ^d	29.3 (15.0; 58.1) ^{a, b, c}	0.001
FVC (%)	78.5 (61.5; 108.4) ^d	74.7 (46.9; 108.2)	78.2 (52.7; 113.4)	67.2 (36.4; 106.1) ^a	0.020
CAT total	17.0 (5.0; 32.0)	15.0 (5.0; 29.0) ^d	16.0 (8.0; 26.5) ^d	22.0 (9.0; 34.0) ^{b, c}	<0.001

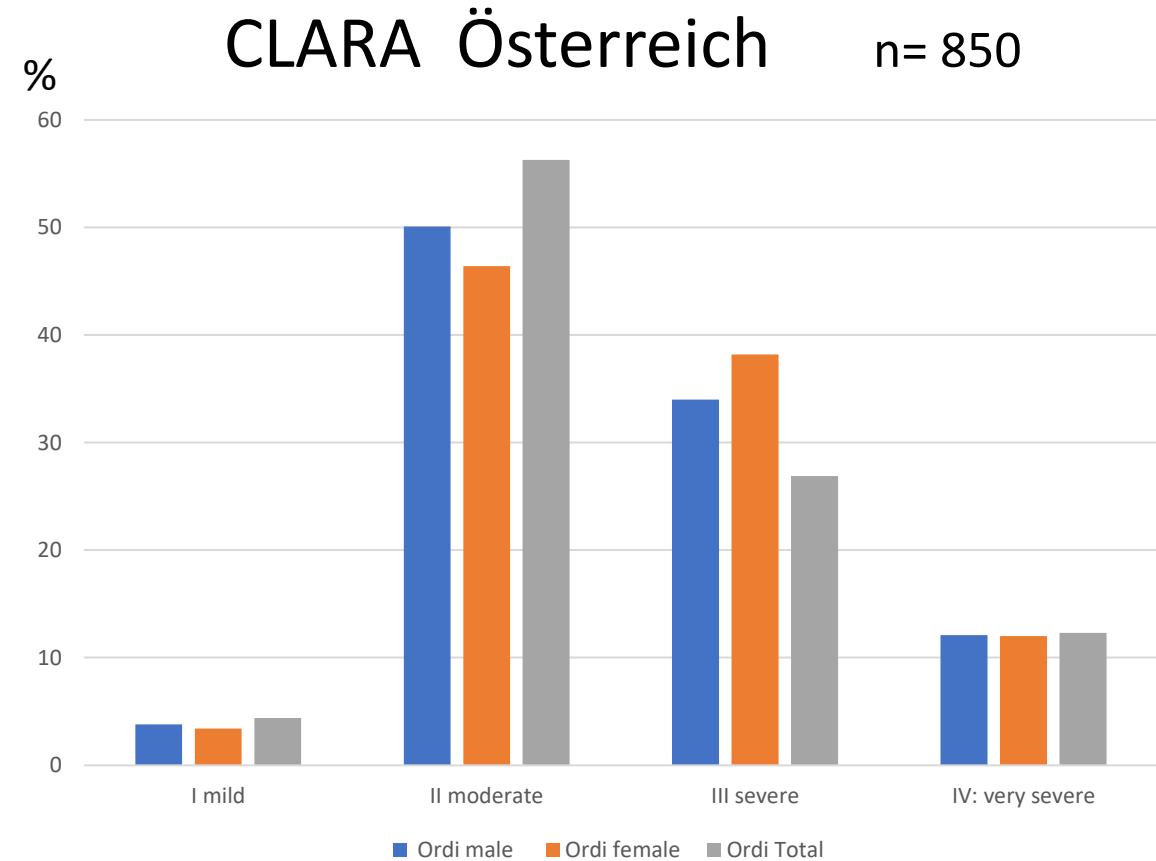
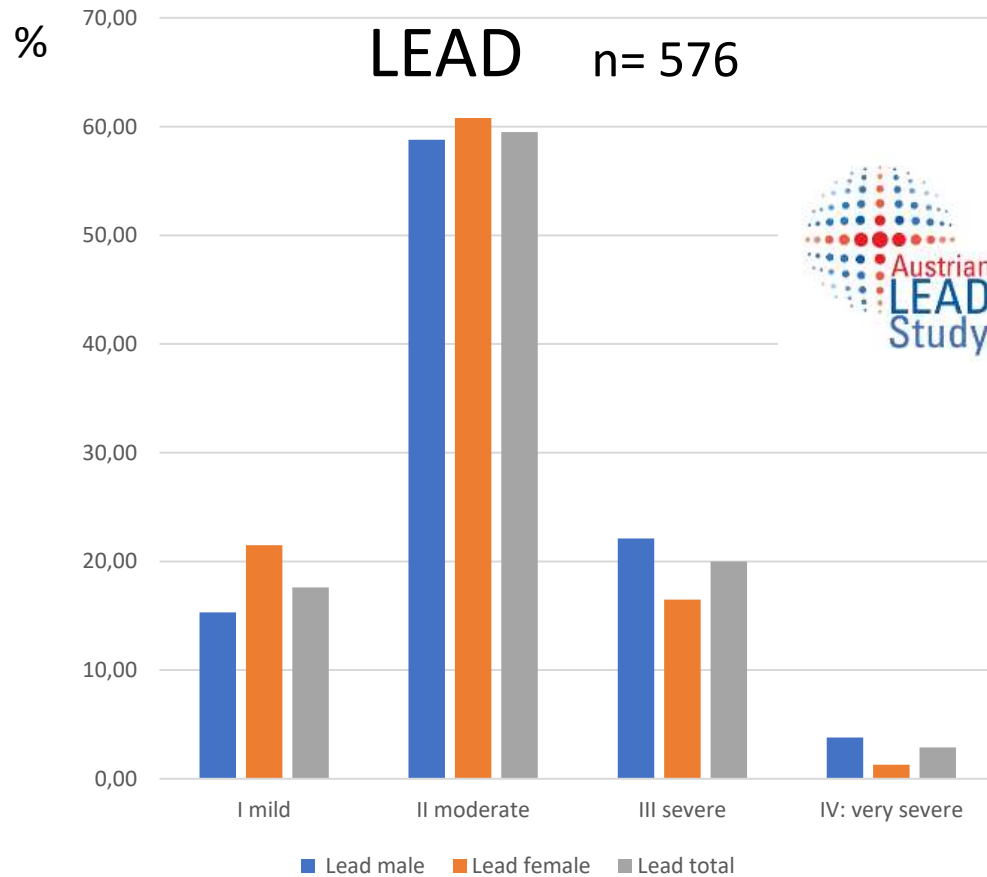
Quality of Life and Limitations in Daily Life of Stable COPD Outpatients in a Real-World Setting in Austria – Results from the CLARA Project

This article was published in the following Dove Press journal:
International Journal of Chronic Obstructive Pulmonary Disease

73 pulmonologists' and general practitioners (GPs)' offices all over Austria.

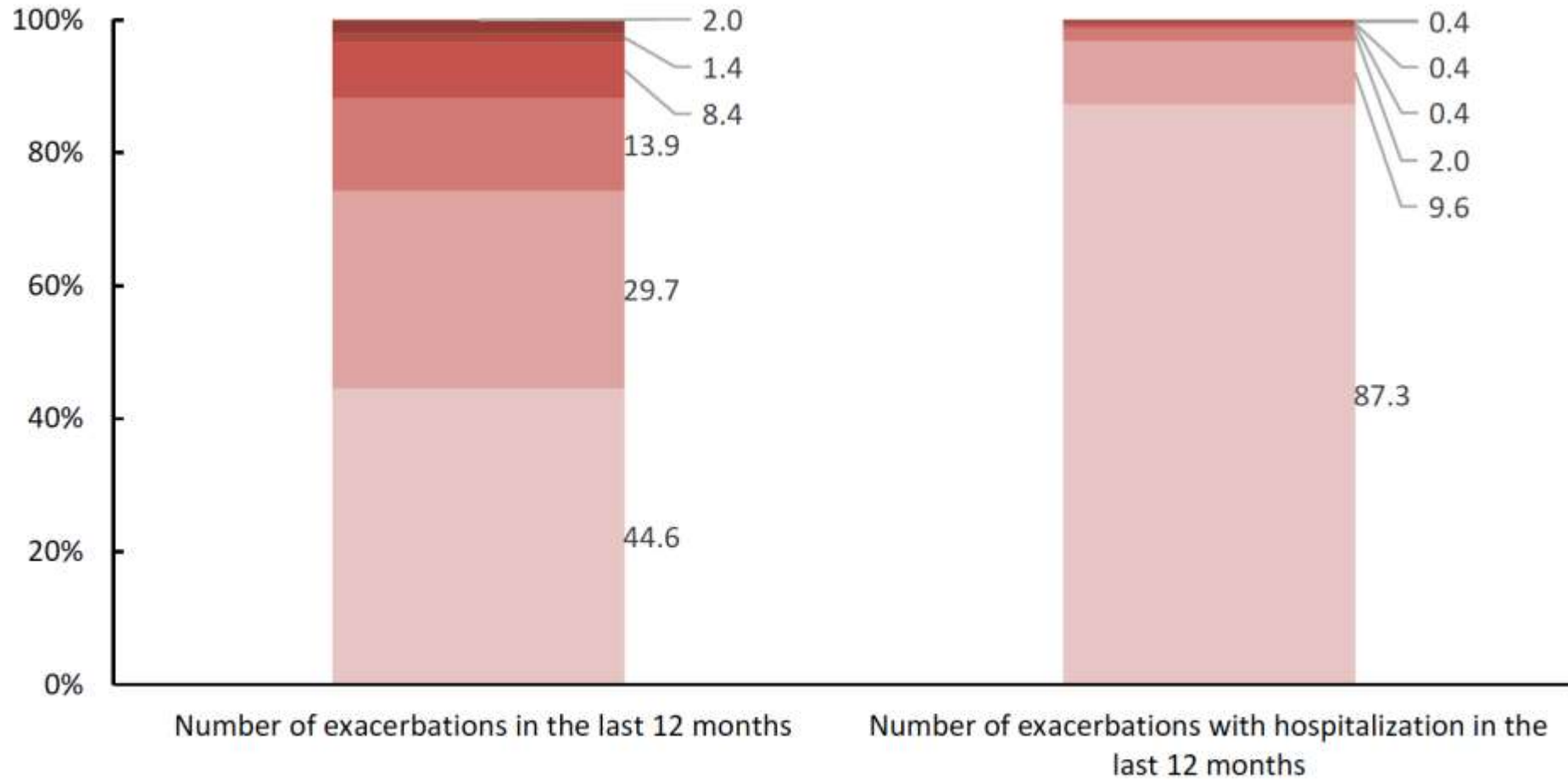
n = 850 , 62.8% men

Vergleich der COPD Prävalenzen in der Bevölkerung und der Praxis in der Niederlassung



Lead unpublished data 2021

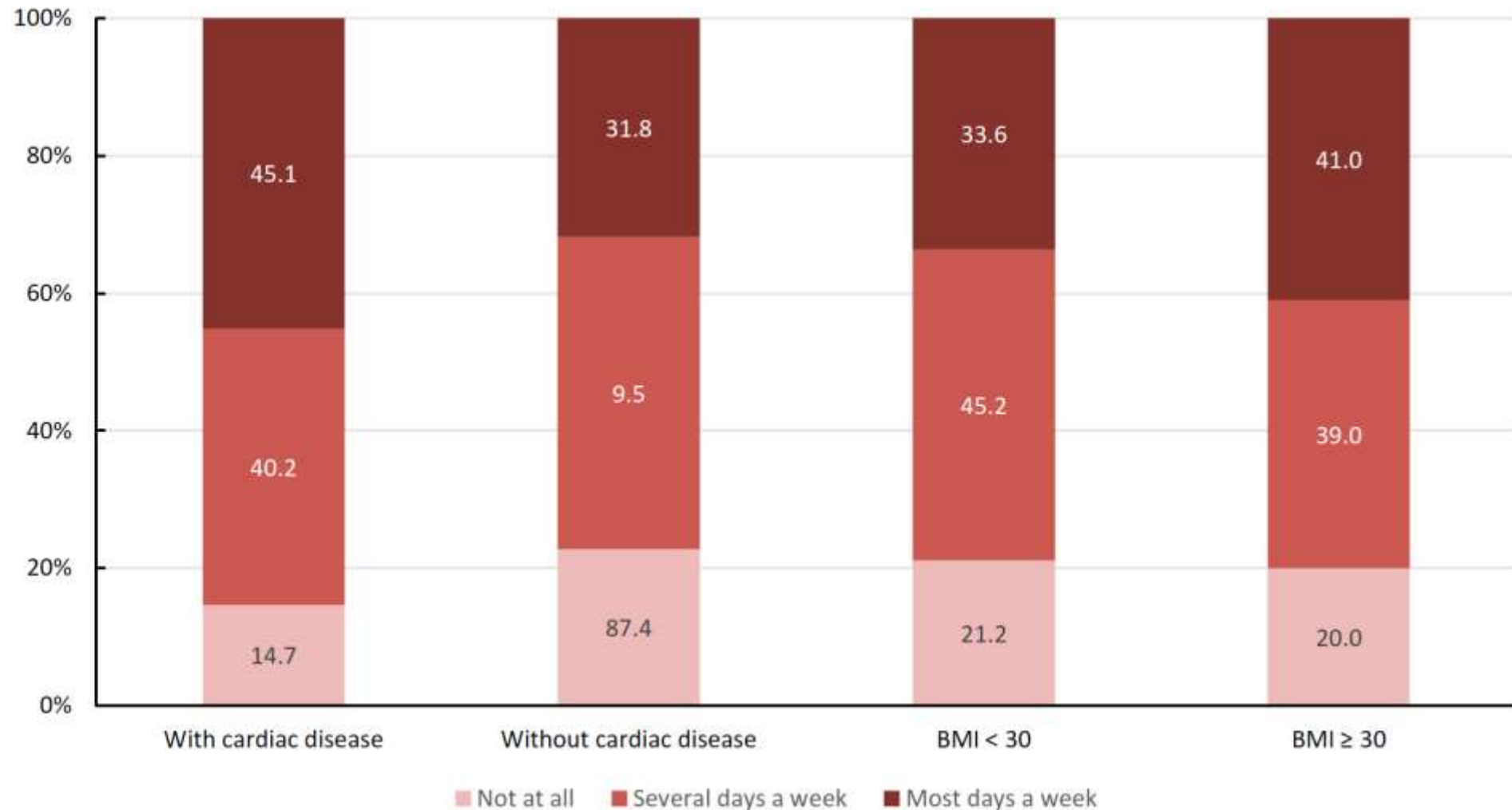
Inzidenz der Exazerbationen/y + Hospitalisierungsrate



0 1 2 3 4 ≥5

Horner et al; International Journal of Chronic Obstructive Pulmonary Disease 2020;15 1655–1663

Dyspnoe-Prävalenz in Abhängigkeit von Komorbiditäten



Einfluss auf Tgl. Leben setzt sehr früh ein –
Symptomlast beeinträchtigt die Aktivität bereits bei milden Stadien!

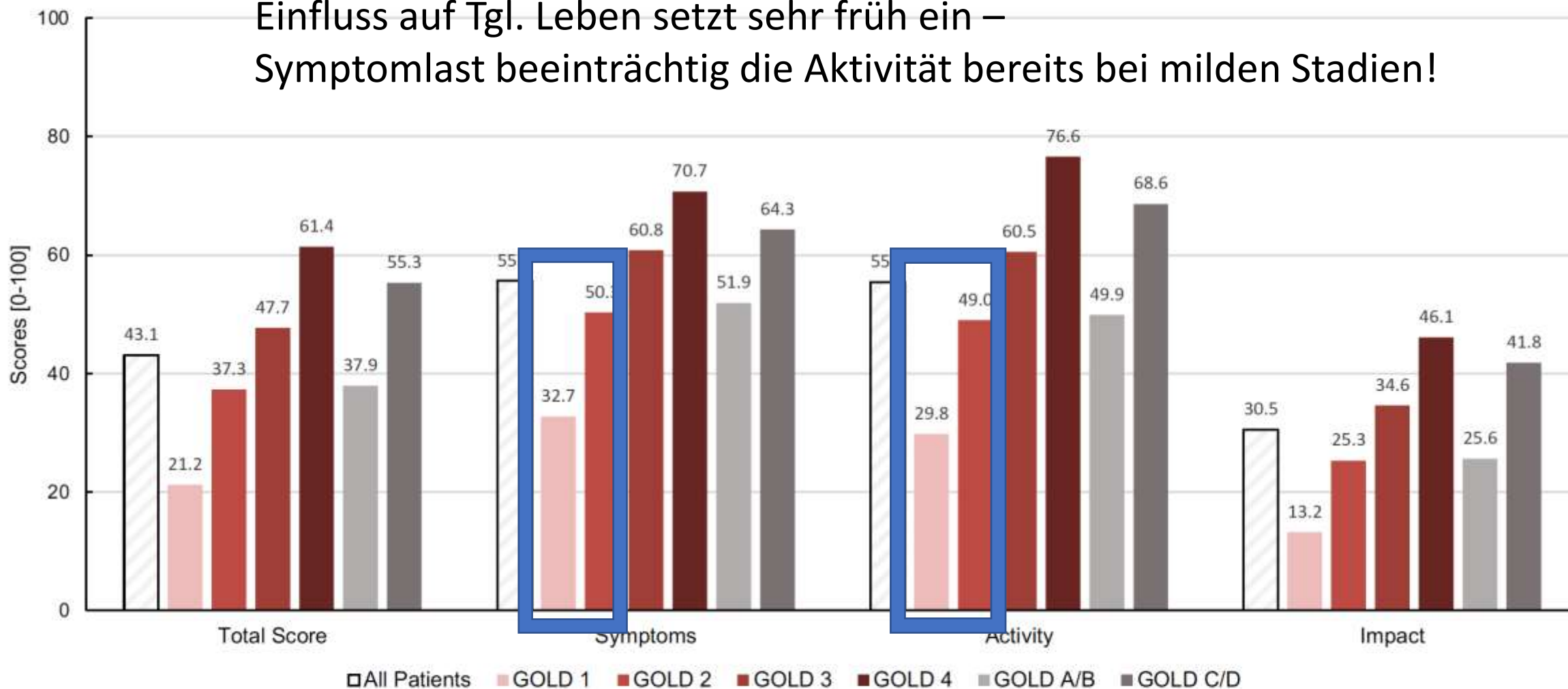


Figure 1 SGRQ-C (total score and component scores; scores range from 0 to 100, with higher scores indicating more limitations) by FEV₁% predicted (as defined by GOLD classes 1–4) and by exacerbation history (as defined by GOLD classes A/B vs C/D).

GLOBAL STRATEGY FOR THE DIAGNOSIS, MANAGEMENT, AND PREVENTION OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE

2022 REPORT

▶ KEY POINTS FOR THE USE OF BRONCHODILATORS

- LABAs and LAMAs are preferred over short-acting agents except for patients with only occasional dyspnea (**Evidence A**), and for immediate relief of symptoms in patients already on long-acting bronchodilators for maintenance therapy.
- Patients may be started on single long-acting bronchodilator therapy or dual long-acting bronchodilator therapy. In patients with persistent dyspnea on one bronchodilator treatment should be escalated to two (**Evidence A**).
- Inhaled bronchodilators are recommended over oral bronchodilators (**Evidence A**).
- Theophylline is not recommended unless other long-term treatment bronchodilators are unavailable or unaffordable (**Evidence B**).

GOLD

▶ FACTORS TO CONSIDER WHEN INITIATING ICS TREATMENT

Factors to consider when initiating ICS treatment in combination with one or two long-acting bronchodilators (note the scenario is different when considering ICS withdrawal):

• STRONG SUPPORT •

- History of hospitalization(s) for exacerbations of COPD#
- ≥ 2 moderate exacerbations of COPD per year#
- Blood eosinophils >300 cells/ μL
- History of, or concomitant, asthma

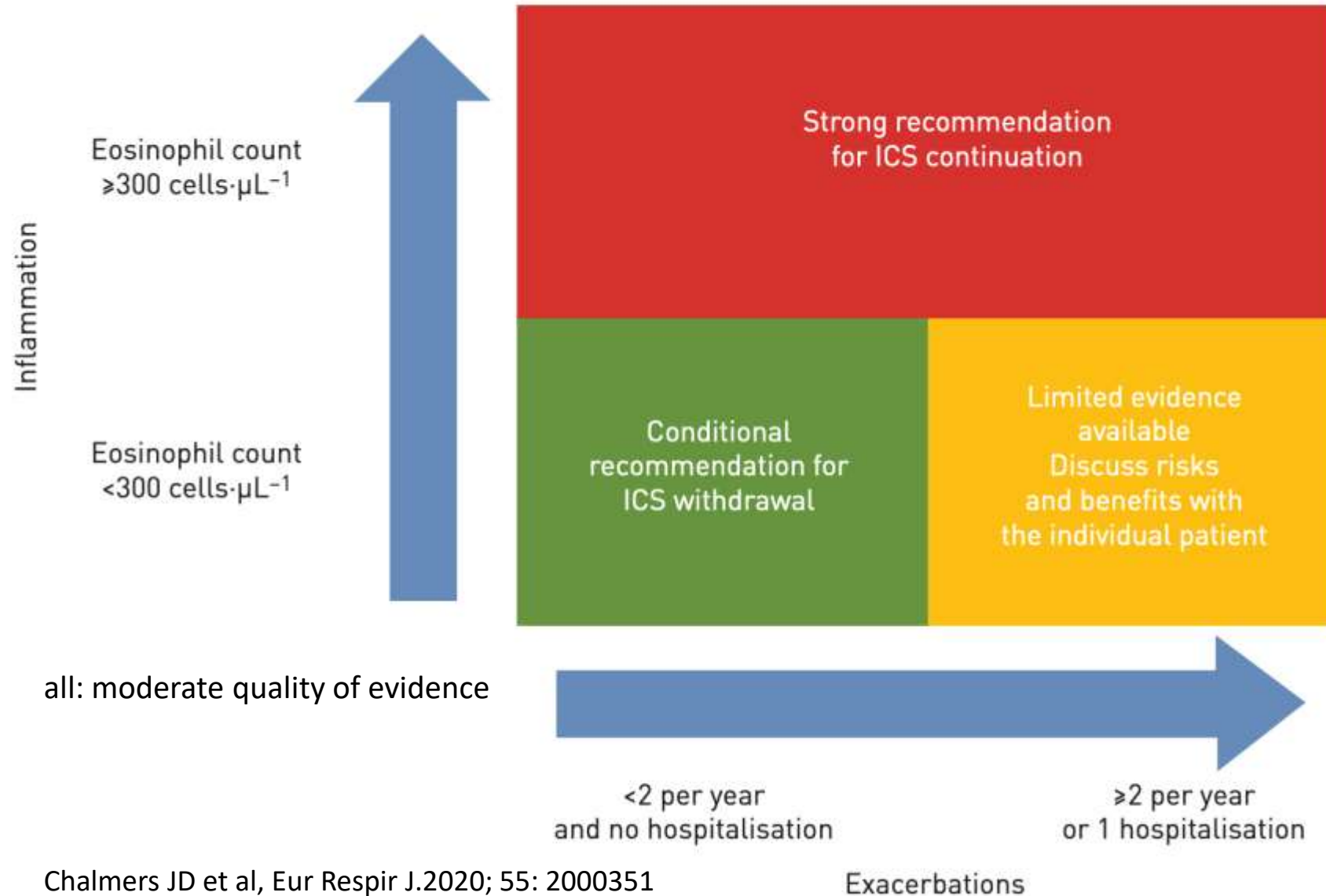
• CONSIDER USE •

- 1 moderate exacerbation of COPD per year#
- Blood eosinophils 100-300 cells/ μL

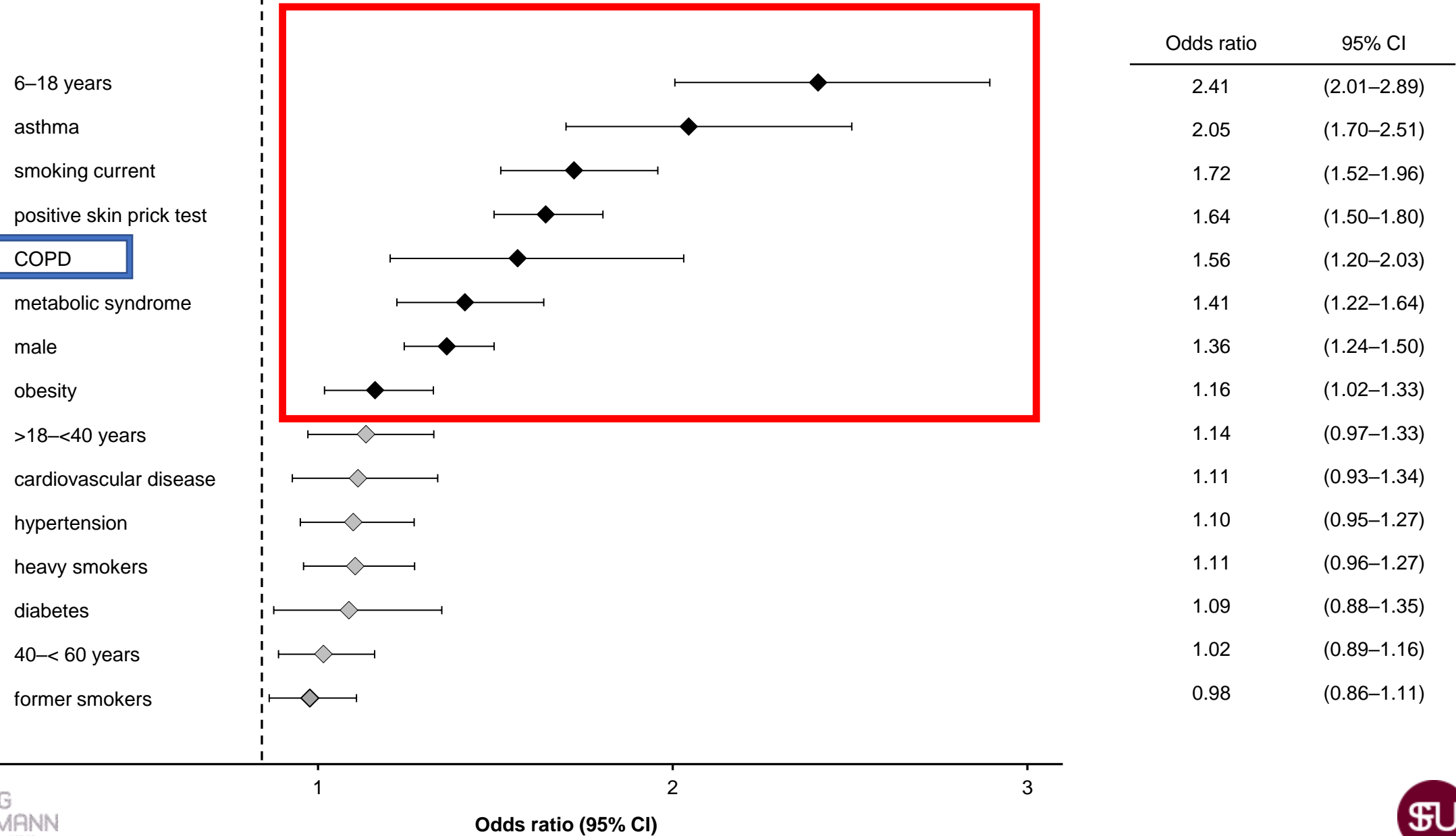
• AGAINST USE •

- Repeated pneumonia events
- Blood eosinophils <100 cells/ μL
- History of mycobacterial infection

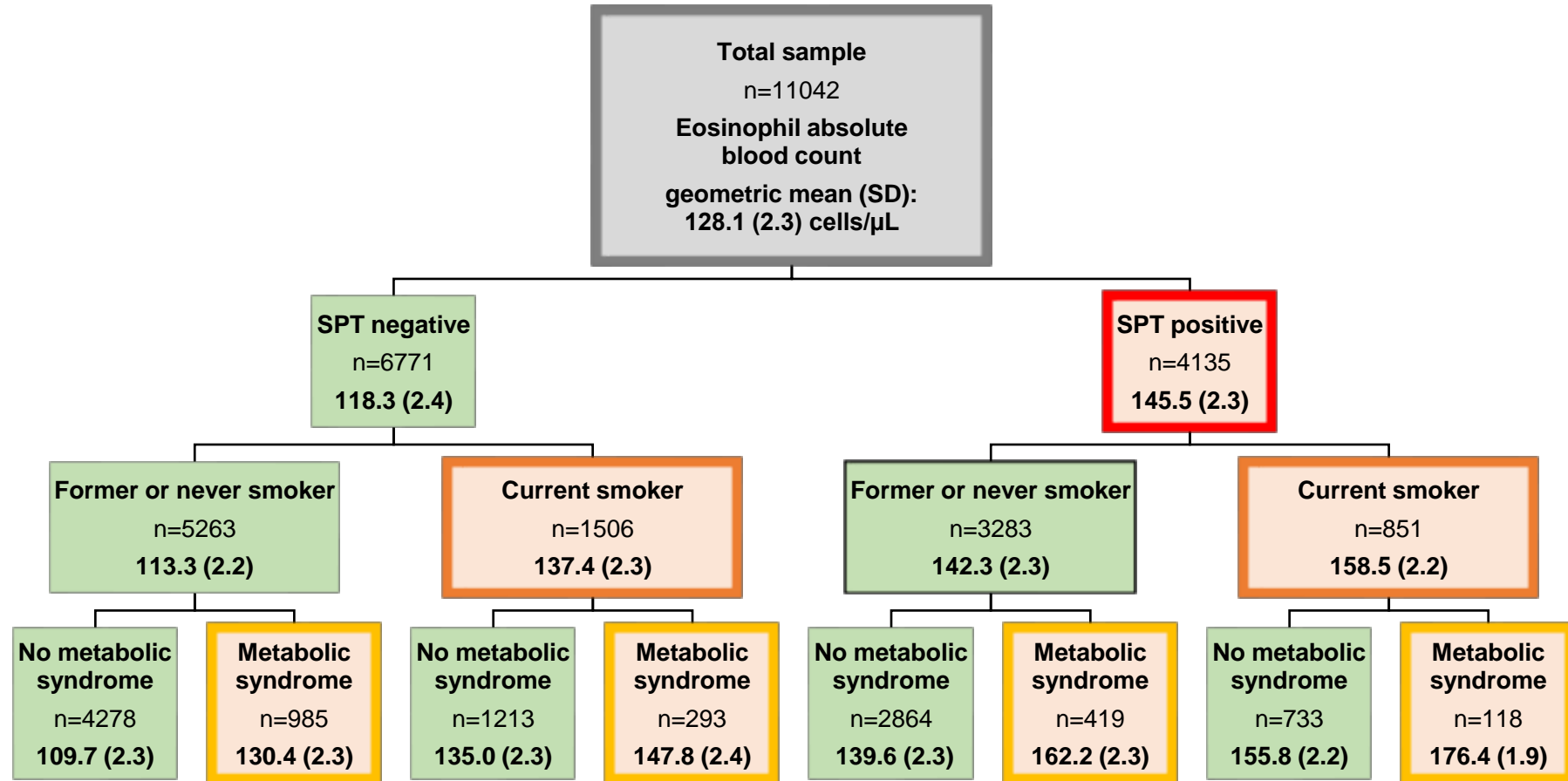
Zusammenfassung der ERS- guideline Empfehlungen



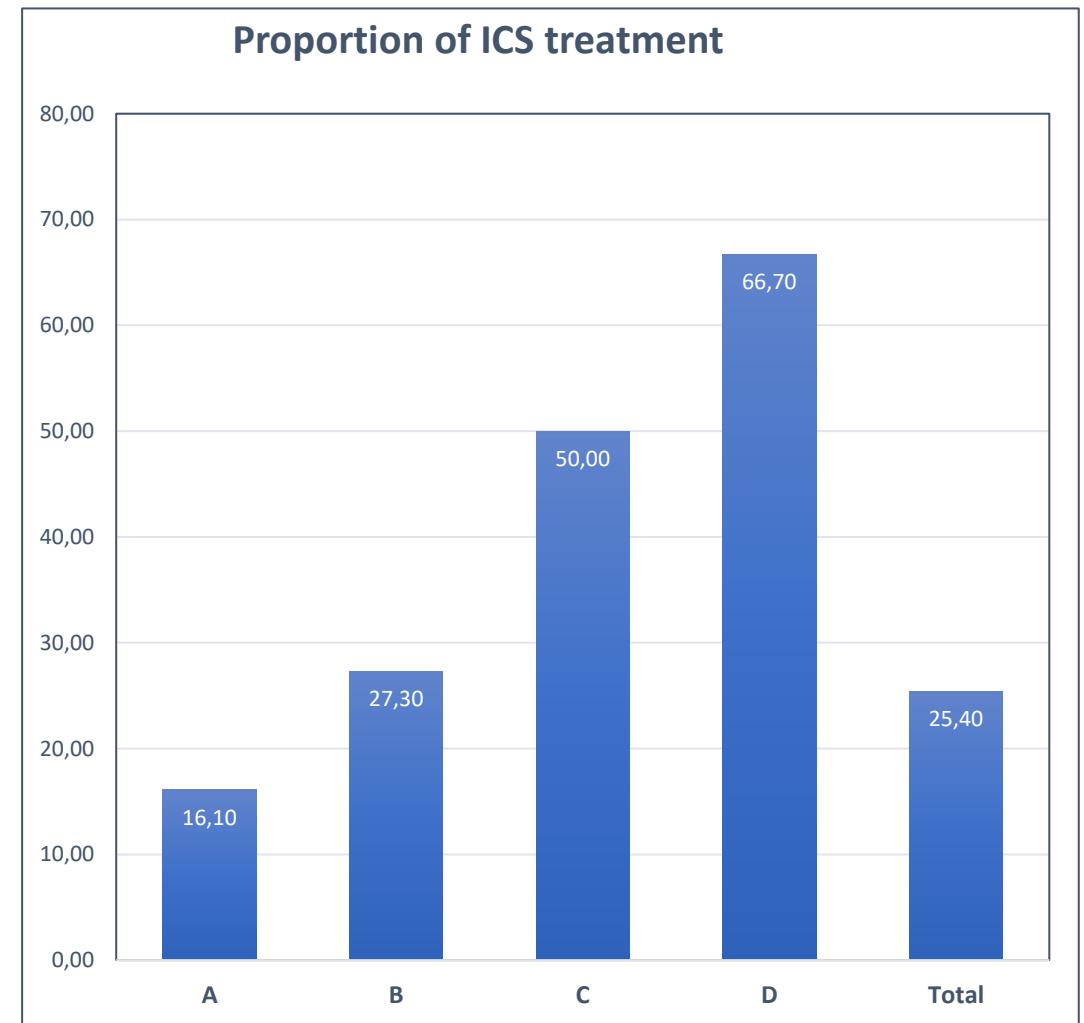
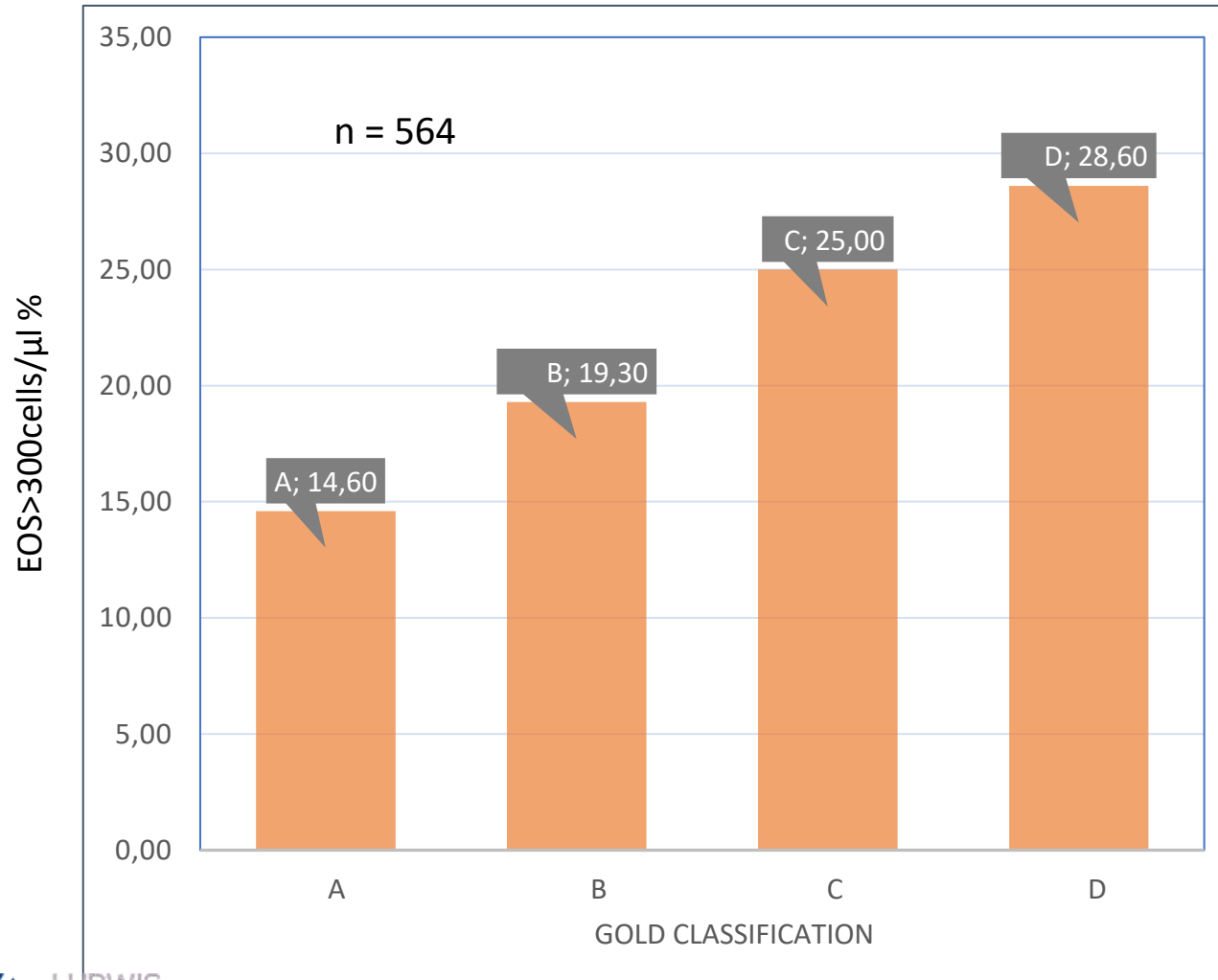
Factors associated with high blood eosinophils (>75% percentile)



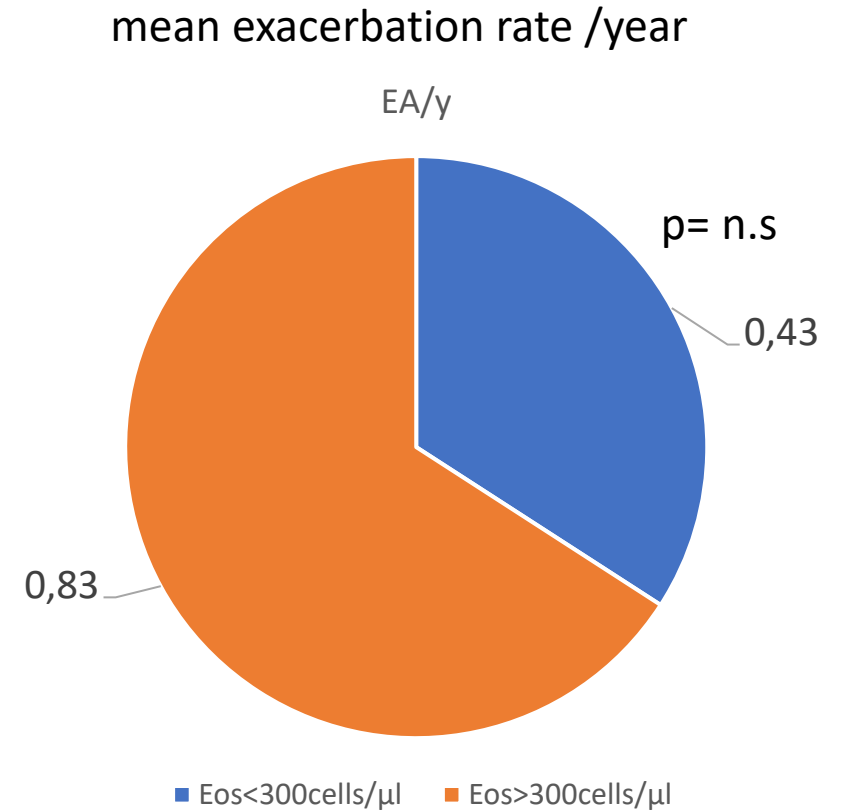
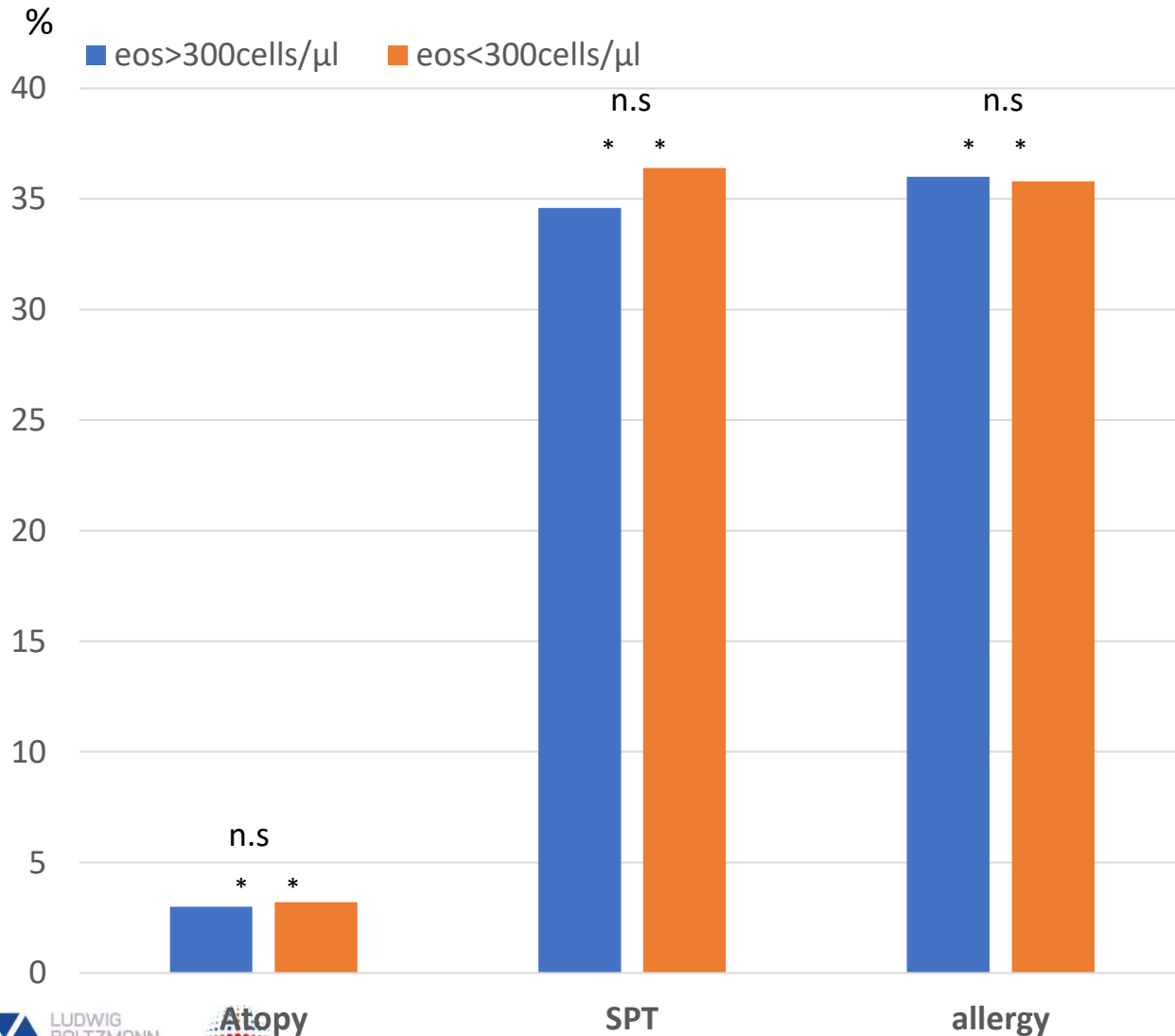
Independence of associated risk factors and additive effect



Proportion (%) of EOS >300 cells/ μ l in diagnosed COPD according to the GOLD



Allergieprofil & Exazerbationsrate von COPD \leq / $>$ 300cells/ μ l



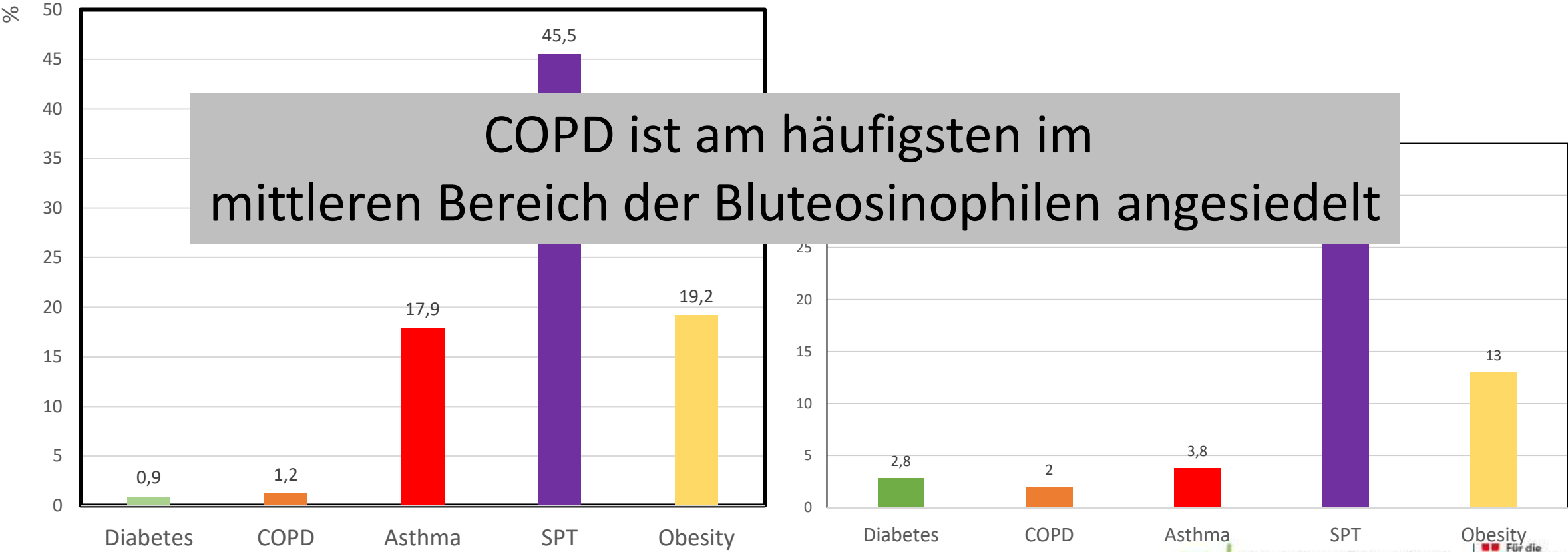
Eosinophilenkonstanz innerhalb von 4 Jahren: Prävalenz der EOS-assozierten Erkrankungen von LEAD

Group High-High
n= 429

Group Low-Low
n= 1721

EOS assoz. Erkrankungen , die longitudinal konstant **>300 Zellen/ μ l** haben

EOS assoz. Erkrankungen , die longitudinal konstant **<100 Zellen/ μ l** haben



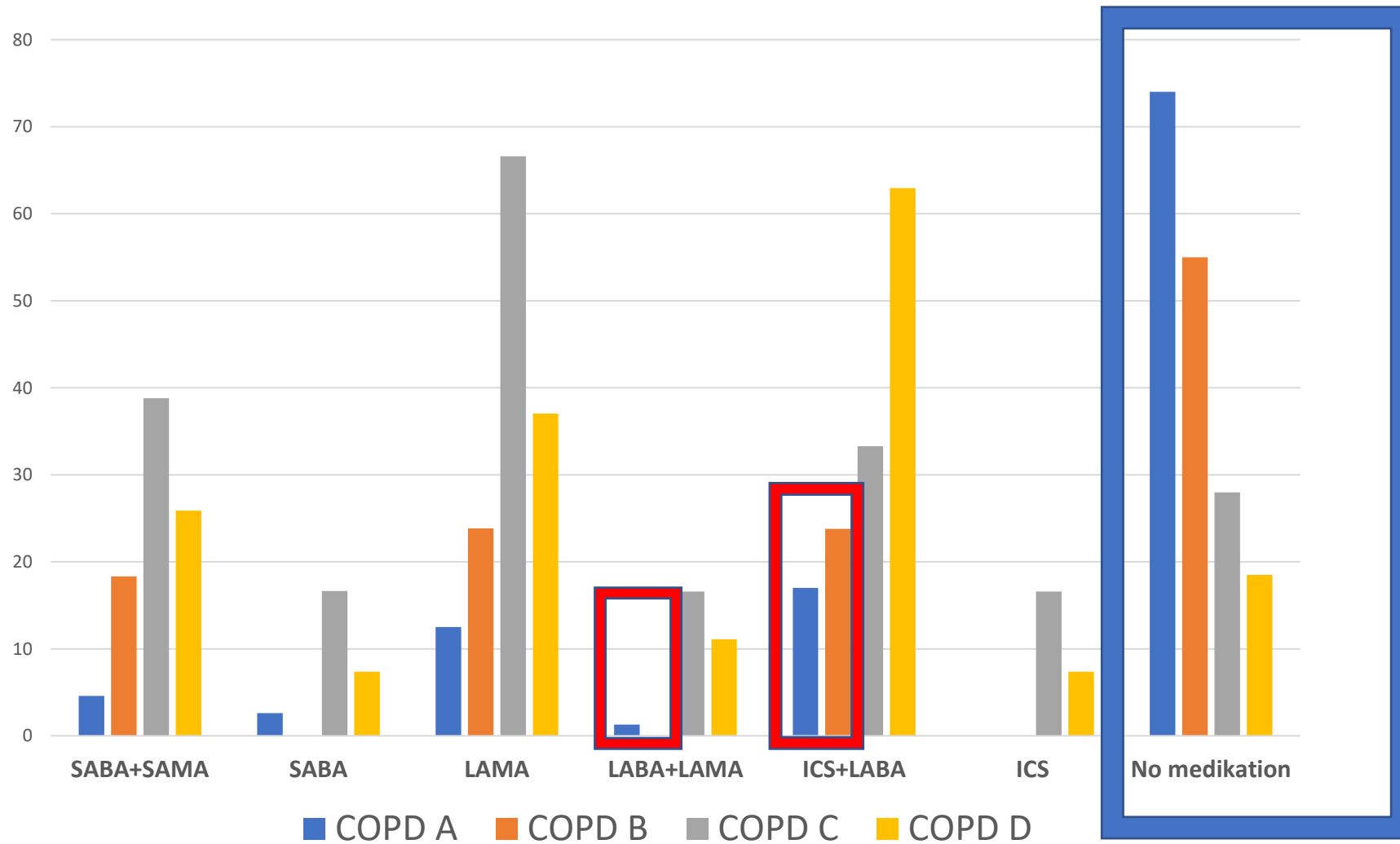
COPD ist am häufigsten im mittleren Bereich der Bluteosinophilen angesiedelt



Lead unpublished data 2021



Medikation nach GOLD Stadien in LEAD



Phenotypes of COPD in an Austrian population

Wien Klin Wochenschr (2018) 130:382–389

Table 5 Treatment according to phenotypes in the Austrian POPE cohort

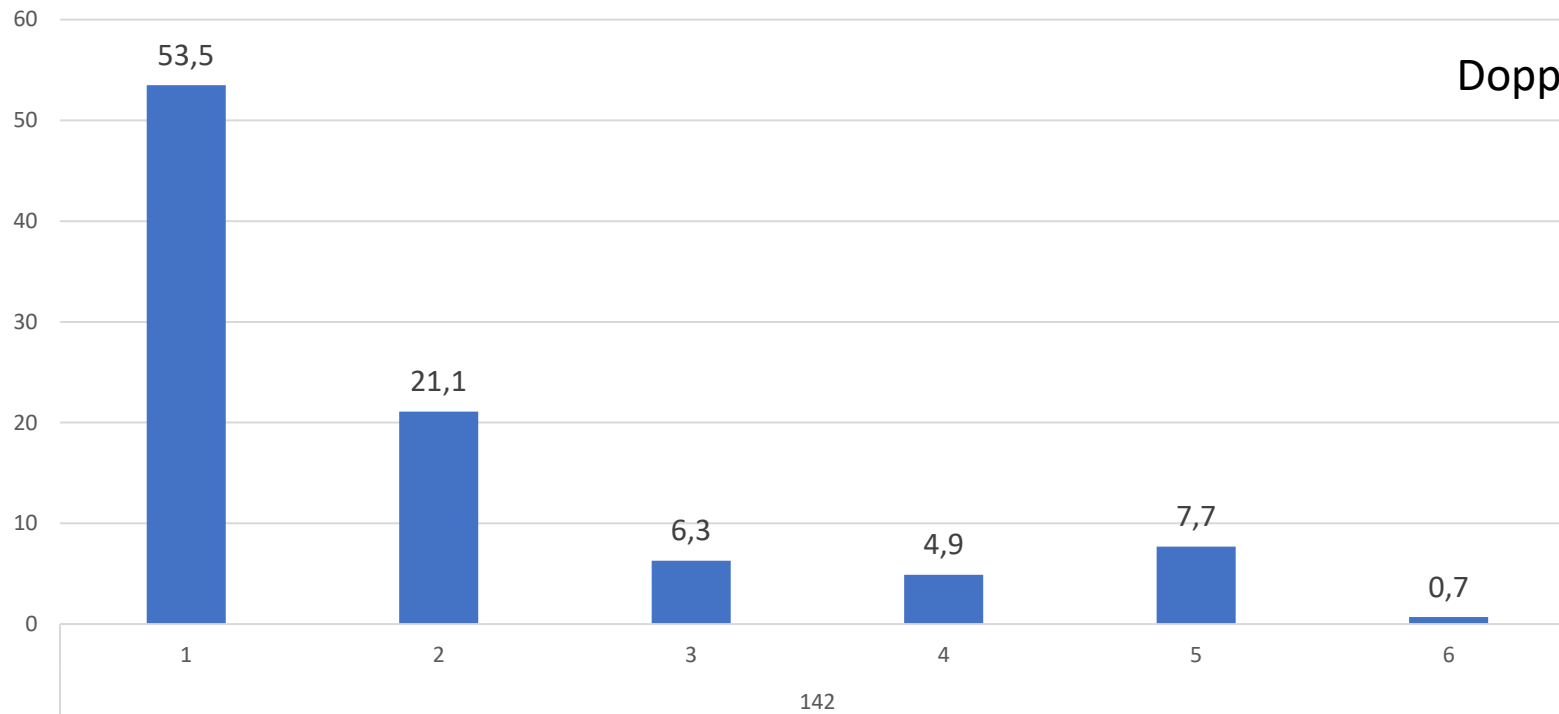
	Phenotypes				P-value
	ACO (a)	NON-AE (b)	AE NON-CB (c)	AE CB (d)	
LAMA mono	0 (0.0%)	11 (7.9%)	1 (1.7%)	5 (8.2%)	0.206
LABA mono	0 (0.0%)	1 (0.7%)	0 (0.0%)	0 (0.0%)	0.999
LAMA+LABA	3 (13.6%)	7 (5.0%)	7 (11.7%) ^d	1 (1.6%) ^c	0.047
LAMA+ICS	1 (4.5%)	1 (0.7%)	0 (0.0%)	0 (0.0%)	0.240
LABA+ICS	4 (18.2%)	8 (5.7%)	6 (10.0%)	4 (6.6%)	0.183
LAMA+LABA+ICS	14 (63.6%)	109 (77.9%)	45 (75.0%)	51 (83.6%)	0.266
ICS-containing treatment regimen	19 (86.4%)	118 (84.3%)	51 (85.0%)	55 (90.2%)	0.747
Roflumilast	0 (0.0%)	7 (5.0%)	5 (8.3%)	9 (14.8%)	0.064
Mucoactive drugs	4 (18.2%) ^b	4 (2.9%) ^a	5 (8.3%)	6 (9.8%)	0.018
Antibiotic therapy (long-term or pulse therapy)	3 (13.6%) ^b	2 (1.4%) ^{a, d}	2 (3.3%)	6 (9.8%) ^b	0.007
No maintenance therapy	0 (0.0%)	3 (2.1%)	1 (1.7%)	0 (0.0%)	0.760

Categorical parameters are described by absolute (relative) frequencies. Statistical significance is tested by Fisher's exact test. Indices a–d indicate statistical significant difference between two phenotypes (Fisher's exact test); *NON-AE* Non-exacerbator, *AE NON-CB* Exacerbator without chronic bronchitis, *AE CB* Exacerbator with chronic bronchitis, *ACO* Asthma–COPD overlap, *ICS* inhaled corticosteroid, *LABA* long-acting beta-agonist, *LAMA* long-acting antimuscarinic agent; categorical variables are described by absolute (relative) frequencies. asthma; differences between phenotypes are tested by Fisher's exact test

Pneumonieprävalenz bei COPD self reported (ever)

21,4 % sind Influenza geimpft

Doppelt so viel wie die Bevölkerung!



n= 579

Take home message

- COPD ist fast so häufig wie Diabetes in Österreich !
- Milde Formen haben bereits sehr häufig Einschränkungen in Ihrem Leben
- Therapie spiegelt die Behandlung der Dyspnoe nicht sehr gut wieder (Therapieeskalation LAMA/LABA in milden Formen)
- Eosinophile > 300 Zellen/ μ l nur 16%!
- Longitudinal nur 2 % aller EOS high > 300 Zellen/ μ l