

Česká data o výskytu fenotypů CHOPN



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Which SCIDs Require Preregistration?

These SCIDs require preregistration:

- The "A to ZZ" of COPD: A Pragmatic Approach to Management of COPD Geneotypes, Phenotypes, and Comorbidities
- Acute Exacerbation of COPD: Practical Strategies to Improve Outcomes and Reduce Readmission Rates
- Chronic Thromboembolic Pulmonary Hypertension: Background, Evolution, and Management
- Counseling on Tobacco Cessation (*Tuesday session only*)
- Hot! Hot! Hot! Drug-Related Hyperthermia in the ICU (*Tuesday session only*)
- Idiopathic Pulmonary Fibrosis Update
- What's New in Pulmonary Arterial Hypertension?

Rozdělení nemocných do „skupin“ – budoucnost cílené léčby ??

[Thorax](#). 2013 Sep 12. doi: 10.1136/thoraxjnl-2013-203897. [Epub ahead of print]

Design of the Subpopulations and Intermediate Outcomes in COPD Study (SPIROMICS).

[Couper D](#), [Lavange LM](#), [Han M](#), [Barr RG](#), [Bleecker E](#), [Hoffman EA](#), [Kanner R](#), [Kleerup E](#), [Martinez FJ](#), [Woodruff PG](#), [Rennard S](#); for the SPIROMICS Research Group.

Collaborators (24)

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Abstract

Subpopulations and Intermediate Outcomes in COPD Study (SPIROMICS) is a multicentre observational study of chronic obstructive pulmonary disease (COPD) designed to guide future development of therapies for COPD by providing robust criteria for subclassifying COPD participants into groups most likely to benefit from a given therapy during a clinical trial, and identifying biomarkers/phenotypes that can be used as intermediate outcomes to reliably predict clinical benefit during therapeutic trials. The goal is to enrol 3200 participants in four strata. Participants undergo a baseline visit and three annual follow-up examinations, with quarterly telephone calls. Adjudication of exacerbations and mortality will be undertaken

KEYWORDS: COPD Exacerbations, COPD epidemiology, Emphysema, Imaging/CT MRI etc

Postupně se dělení nemocných do „skupin“ ujímá ve velkých klinických studiích - příklad non-AE

THE LANCET Respiratory Medicine

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The Lancet Respiratory Medicine, Volume 1, Issue 1, Pages 51 - 60, March 2013








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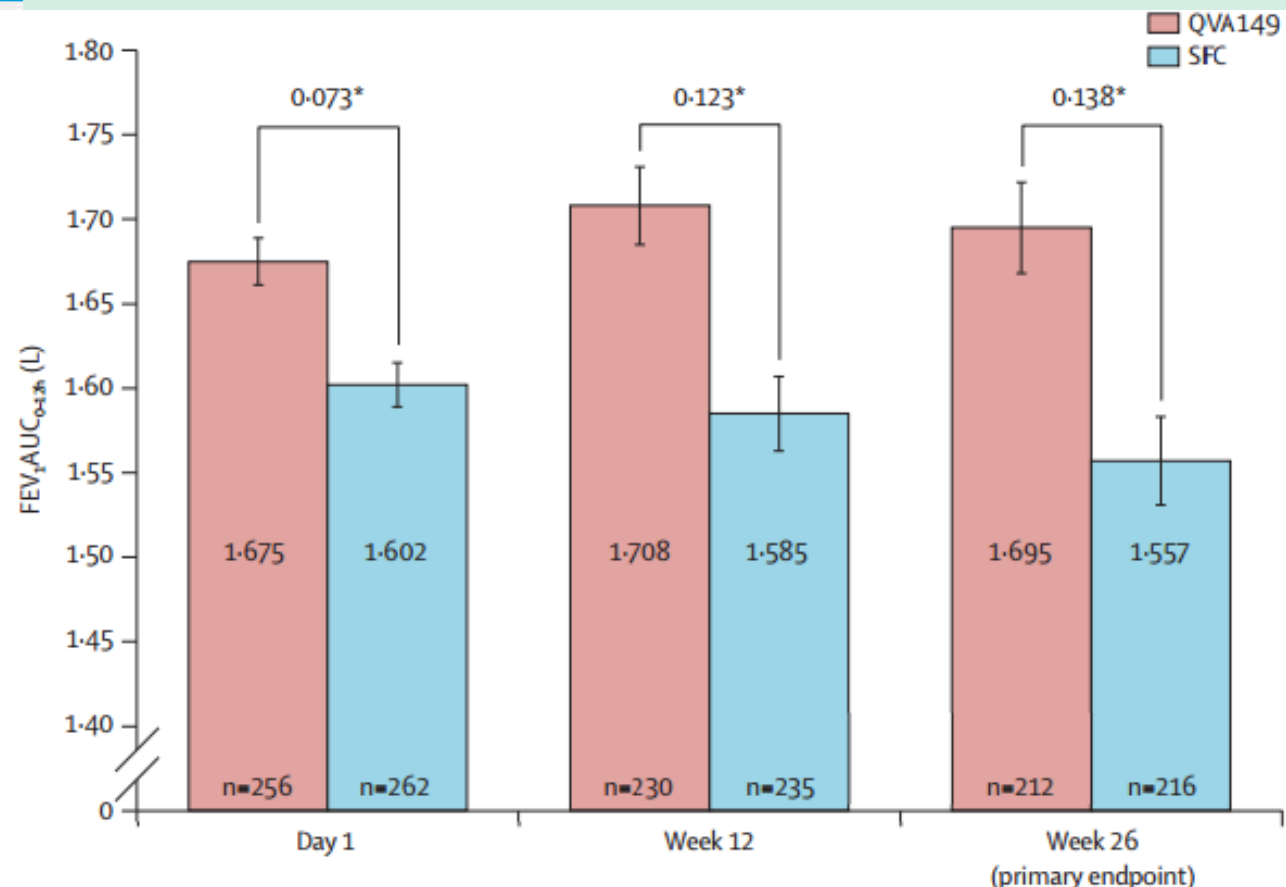
This article can be found in the following collections: [Cardiology & Vascular Medicine](#); [Respiratory Medicine \(COPD\)](#)

Published Online: 06 December 2012

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Efficacy and safety of once-daily QVA149 compared with twice-daily salmeterol–fluticasone in patients with chronic obstructive pulmonary disease (ILLUMINATE): a randomised, double-blind, parallel group study

Prof [Claus F Vogelmeier MD](#) , Prof [Eric D Bateman MD](#) , [John Pallante BS](#) , [Vijay KT Alagappan MD](#) , [Peter D'Andrea MD](#) , [Hungta Chen PhD](#) , [Donald Banerji MD](#) 



Příklad atopické skupiny CHOPN

Respiratory Research



This Provisional PDF corresponds to the article as it appeared upon acceptance. Fully formatted PDF and full text (HTML) versions will be made available soon.

Atopy is a risk factor for respiratory symptoms in COPD patients: results from the EUROSCOP study

Respiratory Research 2013, **14**:10 doi:10.1186/1465-9921-14-10

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Abstract

Background

The pathogenesis of COPD is complex and remains poorly understood. The European Respiratory Society Study on Chronic Obstructive Pulmonary Disease (EUROSCOP) investigated long-term effects of budesonide; 18% of the COPD participants were atopic. So far effects of atopy on the long-term course of COPD have not been elucidated.

Methods

Factors related to the presence of atopy (positive phadiatop) in 1277 mild-to-moderate COPD patients participating in EUROSCOP were analysed using regression analysis. Incidence and remission of respiratory symptoms during 3-year follow-up were analysed using generalised estimating equations models, and association of atopy with lung function decline using linear mixed effects models.

Results

Independent predisposing factors associated with the presence of atopy were: male gender (OR: 2.21; 95% CI: 1.47–3.34), overweight/obese (OR: 1.41; 95% CI: 1.04–1.92) and lower age (OR: 0.98; 95% CI: 0.96–0.99). Atopy was associated with a higher prevalence of cough (OR: 1.71; 95% CI: 1.26–2.34) and phlegm (OR: 1.50; 95% CI: 1.10–2.03), but not with lung function levels or FEV₁ decline. Atopic COPD patients not treated with budesonide had an increased incidence of cough over time (OR: 1.79, 95% CI: 1.03–3.08, $p = 0.038$), while those treated with budesonide had increased remission of cough (OR: 1.93, 95% CI: 1.11–3.37, $p = 0.02$) compared to non-atopic COPD patients.

Conclusions

Atopic COPD patients are more likely male, have overweight/obesity and are younger as compared with non-atopic COPD patients. Atopy in COPD is associated with an increased incidence and prevalence of respiratory symptoms. If atopic COPD patients are treated with budesonide, they more often show remission of symptoms compared to non-atopic COPD patients who are treated with budesonide. We recommend including atopy in the diagnostic work-up and management of COPD.

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The Lancet Respiratory Medicine, [Volume 1, Issue 3](#), Pages 210 - 223, May 2013 [< Previous Article](#) | [Next Article >](#)

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This article can be found in the following collections: [Cardiology & Vascular Medicine](#); [Respiratory Medicine \(COPD\)](#)

Published Online: 19 April 2013

Once-daily inhaled fluticasone furoate and vilanterol versus vilanterol only for prevention of exacerbations of COPD: two replicate double-blind, parallel-group, randomised controlled trials

[Mark T Dransfield](#) MD ^a, [Jean Bourbeau](#) MD ^b, Prof [Paul W Jones](#) PhD ^c, [Nicola A Hanania](#) MD ^d, Prof [Donald A Mahler](#) MD ^e, Prof [Jørgen Vestbo](#) DMSc ^f ^g ^h, [Andrew Wachtel](#) MD ⁱ, [Fernando J Martinez](#) MD ^j, [Frank Barnhart](#) DVM ^k, [Lisa Sanford](#) MSc ^l ^m, [Sally Lettis](#) PhD ⁿ, [Courtney Crim](#) MD ^k, Prof [Peter MA Calverley](#) DSc ^m ⁿ ^o ^p ^q ^r ^s ^t ^u ^v ^w ^x ^y ^z ^{aa} ^{ab} ^{ac} ^{ad} ^{ae} ^{af} ^{ag} ^{ah} ^{ai} ^{aj} ^{ak} ^{al} ^{am} ^{an} ^{ao} ^{ap} ^{aq} ^{ar} ^{as} ^{at} ^{au} ^{av} ^{aw} ^{ax} ^{ay} ^{az} ^{ba} ^{bb} ^{bc} ^{bd} ^{be} ^{bf} ^{bg} ^{bh} ^{bi} ^{bj} ^{bk} ^{bl} ^{bm} ^{bn} ^{bo} ^{bp} ^{bq} ^{br} ^{bs} ^{bt} ^{bu} ^{bv} ^{bw} ^{bx} ^{by} ^{bz} ^{ca} ^{cb} ^{cc} ^{cd} ^{ce} ^{cf} ^{cg} ^{ch} ^{ci} ^{cj} ^{ck} ^{cl} ^{cm} ^{cn} ^{co} ^{cp} ^{cq} ^{cr} ^{cs} ^{ct} ^{cu} ^{cv} ^{cw} ^{cx} ^{cy} ^{cz} ^{da} ^{db} ^{dc} ^{dd} ^{de} ^{df} ^{dg} ^{dh} ^{di} ^{dj} ^{dk} ^{dl} ^{dm} ^{dn} ^{do} ^{dp} ^{dq} ^{dr} ^{ds} ^{dt} ^{du} ^{dv} ^{dw} ^{dx} ^{dy} ^{dz} ^{ea} ^{eb} ^{ec} ^{ed} ^{ee} ^{ef} ^{eg} ^{eh} ^{ei} ^{ej} ^{ek} ^{el} ^{em} ^{en} ^{eo} ^{ep} ^{eq} ^{er} ^{es} ^{et} ^{eu} ^{ev} ^{ew} ^{ex} ^{ey} ^{ez} ^{fa} ^{fb} ^{fc} ^{fd} ^{fe} ^{ff} ^{fg} ^{fh} ^{fi} ^{fj} ^{fk} ^{fl} ^{fm} ^{fn} ^{fo} ^{fp} ^{fq} ^{fr} ^{fs} ^{ft} ^{fu} ^{fv} ^{fw} ^{fx} ^{fy} ^{fz} ^{ga} ^{gb} ^{gc} ^{gd} ^{ge} ^{gf} ^{gg} ^{gh} ^{gi} ^{gj} ^{gk} ^{gl} ^{gm} ^{gn} ^{go} ^{gp} ^{gq} ^{gr} ^{gs} ^{gt} ^{gu} ^{gv} ^{gw} ^{gx} ^{gy} ^{gz} ^{ha} ^{hb} ^{hc} ^{hd} ^{he} ^{hf} ^{hg} ^{hh} ^{hi} ^{hj} ^{hk} ^{hl} ^{hm} ^{hn} ^{ho} ^{hp} ^{hq} ^{hr} ^{hs} ^{ht} ^{hu} ^{hv} ^{hw} ^{hx} ^{hy} ^{hz} ^{ia} ^{ib} ^{ic} ^{id} ^{ie} ^{if} ^{ig} ^{ih} ⁱⁱ ^{ij} ^{ik} ^{il} ^{im} ⁱⁿ ^{io} ^{ip} ^{iq} ^{ir} ^{is} ^{it} ^{iu} ^{iv} ^{iw} ^{ix} ^{iy} ^{iz} ^{ja} ^{jb} ^{jc} ^{jd} ^{je} ^{jf} ^{jj} ^{jk} ^{jl} ^{jm} ^{jn} ^{jo} ^{jp} ^{jq} ^{jr} ^{js} ^{jt} ^{ju} ^{kv} ^{kw} ^{kx} ^{ky} ^{kz} ^{la} ^{lb} ^{lc} ^{ld} ^{le} ^{lf} ^{lg} ^{lh} ^{li} ^{lj} ^{lk} ^{ll} ^{lm} ^{ln} ^{lo} ^{lp} ^{lq} ^{lr} ^{ls} ^{lt} ^{lu} ^{lv} ^{lw} ^{lx} ^{ly} ^{lz} ^{ma} ^{mb} ^{mc} ^{md} ^{me} ^{mf} ^{mg} ^{mh} ^{mi} ^{mj} ^{mk} ^{ml} ^{mn} ^{mo} ^{mp} ^{mq} ^{mr} ^{ms} ^{mt} ^{mu} ^{mv} ^{mw} ^{mx} ^{my} ^{mz} ^{na} ^{nb} ^{nc} nd ^{ne} ^{nf} ^{ng} ^{nh} ⁿⁱ ^{nj} ^{nk} ^{nl} ^{nm} ⁿⁿ ^{no} ^{np} ^{nq} ^{nr} ^{ns} ^{nt} ^{nu} ^{nv} ^{nw} ^{nx} ^{ny} ^{nz} ^{oa} ^{ob} ^{oc} ^{od} ^{oe} ^{of} ^{og} ^{oh} ^{oi} ^{oj} ^{ok} ^{ol} ^{om} ^{on} ^{oo} ^{op} ^{oq} ^{or} ^{os} ^{ot} ^{ou} ^{ov} ^{ow} ^{ox} ^{oy} ^{oz} ^{pa} ^{pb} ^{pc} ^{pd} ^{pe} ^{pf} ^{pg} ^{ph} ^{pi} ^{pj} ^{pk} ^{pl} ^{pm} ^{pn} ^{po} ^{pp} ^{pq} ^{pr} ^{ps} ^{pt} ^{pu} ^{pv} ^{pw} ^{px} ^{py} ^{pz} ^{qa} ^{qb} ^{qc} ^{qd} ^{qe} ^{qf} ^{qg} ^{qh} ^{qi} ^{qj} ^{qk} ^{ql} ^{qm} ^{qn} ^{qo} ^{qp} ^{qq} ^{qr} ^{qs} ^{qt} ^{qu} ^{qv} ^{qw} ^{qx} ^{qy} ^{qz} ^{ra} ^{rb} ^{rc} rd ^{re} ^{rf} ^{rg} ^{rh} ^{ri} ^{rj} ^{rk} ^{rl} ^{rm} ^{rn} ^{ro} ^{rp} ^{rq} ^{rr} ^{rs} ^{rt} ^{ru} ^{rv} ^{rw} ^{rx} ^{ry} ^{rz} ^{sa} ^{sb} ^{sc} ^{sd} ^{se} ^{sf} ^{sg} ^{sh} ^{si} ^{sj} ^{sk} ^{sl} sm ^{sn} ^{so} ^{sp} ^{sq} ^{sr} ^{ss} st ^{su} ^{sv} ^{sw} ^{sx} ^{sy} ^{sz} ^{ta} ^{tb} ^{tc} ^{td} ^{te} ^{tf} ^{tg} th ^{ti} ^{tj} ^{tk} ^{tl} tm ^{tn} ^{to} ^{tp} ^{tq} ^{tr} ^{ts} ^{tt} ^{tu} ^{tv} ^{tw} ^{tx} ^{ty} ^{tz} ^{ua} ^{ub} ^{uc} ^{ud} ^{ue} ^{uf} ^{ug} ^{uh} ^{ui} ^{uj} ^{uk} ^{ul} ^{um} ^{un} ^{uo} ^{up} ^{uq} ^{ur} ^{us} ^{ut} ^{uu} ^{uv} ^{uw} ^{ux} ^{uy} ^{uz} ^{va} ^{vb} ^{vc} ^{vd} ^{ve} ^{vf} ^{vg} ^{vh} ^{vi} ^{vj} ^{vk} ^{vl} ^{vm} ^{vn} ^{vo} ^{vp} ^{vq} ^{vr} ^{vs} ^{vt} ^{vu} ^{vv} ^{vw} ^{vx} ^{vy} ^{vz} ^{wa} ^{wb} ^{wc} ^{wd} ^{we} ^{wf} ^{wg} ^{wh} ^{wi} ^{wj} ^{wk} ^{wl} ^{wm} ^{wn} ^{wo} ^{wp} ^{wq} ^{wr} ^{ws} ^{wt} ^{wu} ^{wv} ^{ww} ^{wx} ^{wy} ^{wz} ^{xa} ^{xb} ^{xc} ^{xd} ^{xe} ^{xf} ^{fg} ^{xh} ^{xi} ^{xj} ^{xk} ^{xl} ^{xm} ^{xn} ^{xo} ^{xp} ^{xq} ^{xr} ^{xs} ^{xt} ^{xu} ^{xv} ^{xw} ^{xx} ^{xy} ^{xz} ^{ya} ^{yb} ^{yc} ^{yd} ^{ye} ^{yf} ^{yg} ^{yh} ^{yi} ^{yj} ^{yk} ^{yl} ^{ym} ^{yn} ^{yo} ^{yp} ^{yq} ^{yr} ^{ys} ^{yt} ^{yu} ^{yv} ^{yw} ^{yx} ^{yy} ^{yz} ^{za} ^{zb} ^{zc} ^{zd} ^{ze} ^{zf} ^{zg} ^{zh} ^{zi} ^{zj} ^{zk} ^{zl} ^{zm} ^{zn} ^{zo} ^{zp} ^{zq} ^{zr} ^{zs} ^{zt} ^{zu} ^{zv} ^{zw} ^{zx} ^{zy} ^{zz}

Methods

We did two replicate double-blind parallel-group 1 year trials. Both studies began on Sept 25, 2009. Study 1 ended on Oct 31, 2011, and study 2 on Oct 17, 2011. Eligible patients were aged 40 years or older, had a history of COPD, a smoking history of 10 or more pack-years, a ratio of forced expiratory volume in 1 s (FEV₁) to forced vital capacity of 0.70 or less after bronchodilators (and an FEV₁ of 70% or less of predicted), and a documented history of one or more moderate or severe disease exacerbations in the year before screening. Patients were randomly assigned (1:1:1:1) on the basis of the Registration and Medication Ordering System to 25 µg vilanterol only or 25 µg vilanterol combined with either 50 µg, 100 µg, or 200 µg fluticasone furoate once daily. Our primary endpoint was the yearly rate of moderate and severe exacerbations. The trials were analysed separately and a pooled analysis was also done. These trials are registered with [ClinicalTrials.gov](#) ([NCT01009463](#) and [CT01017952](#)).

Findings

522 patients in study 1 and 1633 patients in study 2 were randomly assigned. In study 1, no significant difference in exacerbation rate was noted between the 200/25 µg fluticasone furoate/vilanterol group and the vilanterol only group (mean 0.90 events vs 1.05 events per year; ratio 0.9 [95% CI 0.7–1.0]). Because of the statistical hierarchy used, we could not infer significance for the 50 µg and 100 µg groups. In study 2, significantly fewer moderate and severe exacerbations were noted in all fluticasone furoate/vilanterol groups than in the vilanterol only group (p=0.0398 for the 50 µg group, 0.0244 for the 100 µg group, and 0.0004 for the 200 µg group). In the pooled analysis, significantly fewer moderate and severe exacerbations were noted in all fluticasone furoate/vilanterol groups than in the vilanterol only group (0.0141 for the 50 µg group, <0.0001 for the 100 µg group, and 0.0003 for the 200 µg group). Nasopharyngitis was the most frequently reported adverse event in both studies. Pneumonia and fractures were reported more frequently with fluticasone furoate and vilanterol than with vilanterol alone. Eight deaths from pneumonia were noted in the fluticasone furoate/vilanterol groups compared with none in the vilanterol only group.

Interpretation

Addition of fluticasone furoate to vilanterol was associated with a decreased rate of moderate and severe exacerbations of COPD in patients with a history of exacerbation, but was also associated with an increased pneumonia risk.

Funding

GlaxoSmithKline.





46

stručno-znanstveni skup
hrvatskih pulmologa
s međunarodnim sudjelovanjem

■ Mali Lošinj / Hotel Aurora / 26.-29. rujna 2013.

ČETVRTAK, 26. rujna 2013.

- 18.20 Svečano otvorenje i pozdravne riječi
- 18.30 Mini simpozij
- 19.20 Mini simpozij
- 20.00 Koktel dobrodošlice
- 20.20 Večera u hotelu Aurora

PETAK, 27. rujna 2013.

PLUĆNE BOLESTI UZROKOVANE LIJEKOVIMA (8.30 – 10.30)

Voditelj: J. Tekavec - Trkanjec

- 08.30 **J. Tekavec – Trkanjec:** UVOD. Kliničke manifestacije nuspojava lijekova u respiratornom traktu.
- 08.50 **N. Božina:** Farmakogenomika i nuspojave u pulmologiji.
- 09.10 **S. Seiwert, L. Brčić:** Patohistološke manifestacije plućnih nuspojava lijekova.
- 09.30 **M. Koršić, B. Čučević:** Respiratorne nuspojave onkološke terapije.
- 09.50 **A. Andrić:** Farmakovigilancija i prikaz respiratornih nuspojava lijekova prijavljenih HALMED-u.
- 10.10 Rasprava
- 10.30 Stanka uz kavu

FENOTIPOVI KOPB-a, KORAK DALJE OD GOLD-a? (11.00 – 12.50)

Voditelji: N. Tudorić, K. Miše

- 11.00 **Z. Matković:** Značaj kronične bronhalne infekcije u KOPB-u.
- 11.25 **N. Tudorić:** Sindrom preklapanja KOPB-a i astme.
- 11.50 **Ž. Vrbica:** Emfizemski fenotip KOPB-a: povratak u budućnost.

- 12.15 **V. Koblizek, J. Chlumsky, V. Zindr and other members of CPPS:** Chronic Obstructive Pulmonary Disease; a novel phenotypic approach to COPD with patient-oriented care

12.40 Rasprava

12.50 Mini simpozij TAKEDA

13.40 Ručak

SLOBODNE TEME (15.00 – 16.30)

Voditelji: B. Butorac – Petanjek, D. Matanić – Lender

- 15.00 **N. Miculinić:** Kako liječimo egzacerbacije KOPB-a u Hrvatskoj – preporuke ERS-a na temelju ERS COPD Audit studije
- 15.15 **Ž. Vrbica, K. Miše:** Tudice u hrvatskoj pulmologiji
- 15.30 **F. Zukić:** Dijagnostika plućne embolije – CT i MRI.
- 16.00 **I. Aurer:** Limfomi pluća
- 16.30 Stanka uz kavu

MIKOBakterioze (17.00 – 18.10)

Voditelj: V. Katalinić-Janković

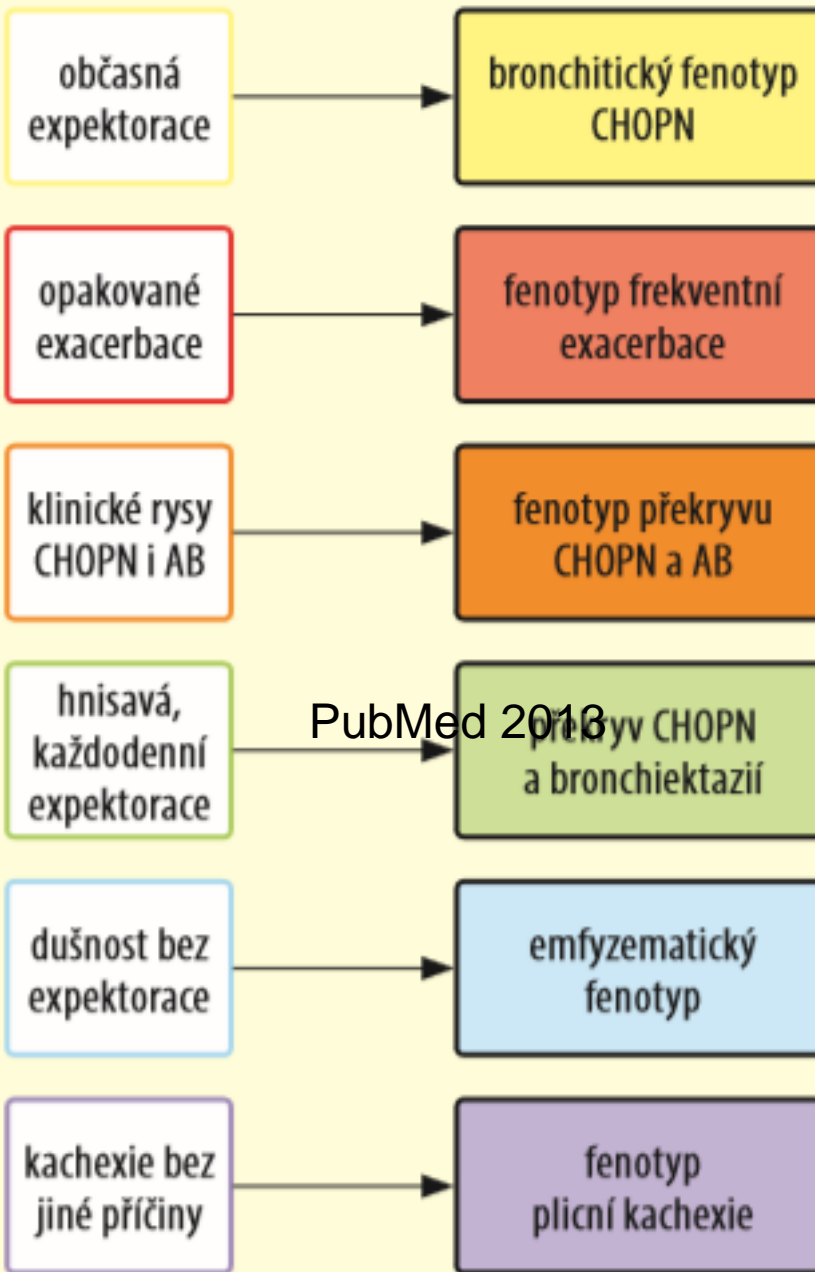
- 17.00 **E. Richter:** NTM in pulmonary infections
- 17.45 **K. Žmak:** Pojavnost i klinička značajnost NTM u Hrvatskoj

18.20 **J. Smith:** Chronic cough

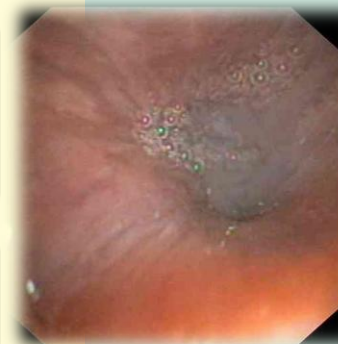
19.10 Godišnja (izborna) skupština Hrvatskog pulmološkog društva HLZ-a

20.30 Večera u hotelu Aurora

Klinické fenotypy



PubMed 2016




Léčebná doporučení – již patrný vliv fenotypů



GOLD 2011-13
„only STRATEGY“

ERS/ATS/ACCP 2011
ERS/ATS 2005
Guidelines

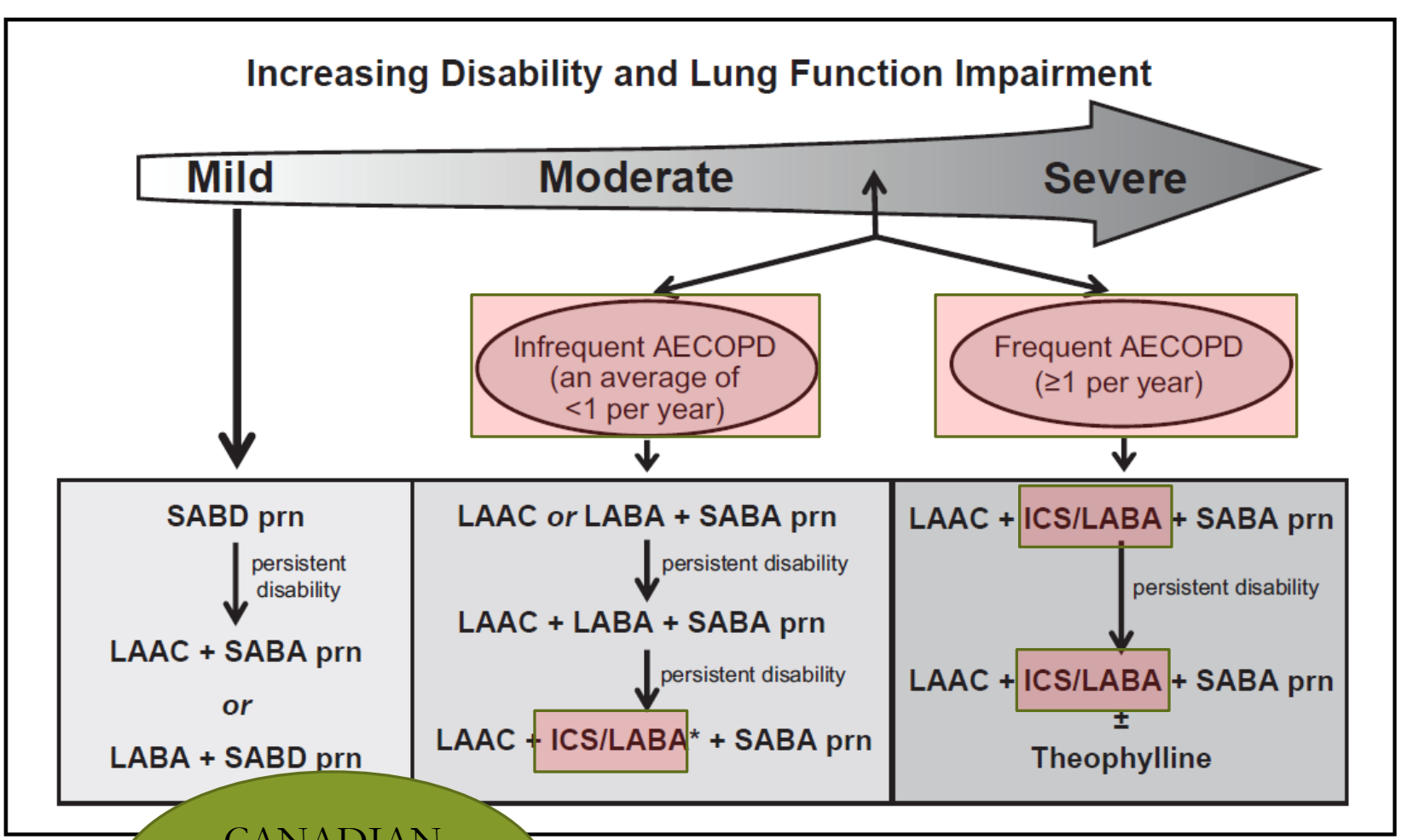
CANADIAN
2007 
pre-phenotypic

CELLI 2008
REHAB +
BODE 

NICE 
2012,2013
EBM guidelines

SPAIN 2012
1st phenotypic
 alone

Czech 2013
 GOLD +
phenotypic



CANADIAN
2007
pre-phenotypic



Canadian Thoracic Society recommendations for management of chronic obstructive pulmonary disease – 2007 update

Denis E O'Donnell MD¹ Chair*, Shawn Aaron MD^{2*}, Jean Bourbeau MD^{3*}, Paul Hernandez MD^{4*}, Darcy D Marciniuk MD^{5*}, Meyer Balter MD⁶, Gordon Ford MD⁷, Andre Gervais MD⁸, Roger Goldstein MD⁶, Rick Hodder MD², Alan Kaplan MD⁹, Sean Keenan MD¹⁰, Yves Lacasse MD¹¹, Francois Maltais MD¹¹, Jeremy Road MD¹⁰, Graeme Rocker MD⁴, Don Sin MD¹⁰, Tasmin Sinuff MD¹², Nha Voduc MD²

Proposal of pharmacological treatment of COPD based on clinical phenotypes and severity



Phenotype	Severity stages			
	I	II	III	IV
A Infrequent exacerbator	LAMA or LABA SABA or SAMA*	LAMA or LABA LAMA+ LABA	LAMA+ LABA	LAMA + LABA + theophylline
B Overlap COPD-asthma	LABA + ICS	LABA + ICS	LAMA + LABA + ICS	LAMA + LABA + ICS (consider adding theophylline or PDE4I if there is expectoration)
C Exacerbator with emphysema	LAMA or LABA	(LABA or LAMA) + ICS LAMA + LABA LAMA or LABA	LAMA + LABA + CI	LAMA + LABA + ICS (consider adding theophylline)
D Exacerbator with chronic bronchitis	LAMA or LABA	(LAMA or LABA) + (ICS or PDE4I) LAMA + LABA LAMA or LABA	LAMA + LABA + (ICS or PDE4I) (LAMA or LABA) + ICS + PDE4I (consider adding carbocisteine)	LAMA + LABA + (ICS or PDE4I) LAMA + LABA + ICS + PDE4I (consider adding carbocisteine) (consider adding theophylline) (consider adding antibiotics)

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ICS=inhaled corticosteroids; LAMA=long-acting anticholinergic; LABA=long-acting β_2 -agonist; PDE4I=phosphodiesterase 4 inhibitor; SABA=short-acting β_2 -agonist; SAMA=short-acting anticholinergic. *In case of intermittent symptoms

SPAIN 2012
 1st phenotypic
 alone



for all symptomatic patients

1st STEP

↓ smoking

↓ occupational risks

↓ ETS

↓ home exposures

RISKS ELIMINATION

2nd STEP

inhaled bronchodilators

comorbidity treatment

vaccination
pulmonary rehabilitation

education
inhalation training
dietary changes

STANDARD TREATMENT

3rd STEP

PDE4i

ICS/LABA
ICS/LABA/
LAMA

mucoactive agents
ABT, special
physiotherapy
nutritional support

LVRS/bullectomy, BVR
AAT
augmentation
theophylline

PHENOTYPICALLY TARGETED THERAPY

4th STEP

LTOT

palliative care

HI-NIV

LuTx

RESPIRATORY FAILURE TREATMENT AND TERMINAL COPD CARE

Fenotyp bronchitický

- přítomnost produktivního kašle (>3 měsíce/rok, v posledních nejméně 2 letech)

Fenotyp emfyzematický

- celoživotní nepřítomnost produktivního kašle (suchý kašel může být přítomen), současně (dle HRCT a TLCO) známky plicního emfyzému

Fenotyp CHOPN a bronchiektázií

- akcentovaná každodenní, expektorace, mladší věk, nekuřáci, prolongované infekce plic a DDC, hemoptýzy, HRCT známky bronchiektázií

Fenotyp overlapu CHOPN s bronchiálním astmatem

(2 hlavní a 1 hlavní + 2 vedlejší kritéria)

- hlavní kritéria: (a) výrazně pozitivní BDT (vzestup $FEV_1 >15\%$ a >400 ml) (b) pozitivní BKT, (c) \uparrow FENO ($\geq 45-50$ ppb) a/nebo \uparrow eo ve sputu ($\geq 3\%$) (d) AB v anamnéze
- vedlejší kritéria: (a) pozitivní BDT (vzestup $FEV_1 >12\%$ a >200 ml) (b) \uparrow celkové IgE (c) atopická anamnéza

Fenotyp frekventní exacerbace

- přítomnost častých akutních exacerbací (≥ 2 /rok) léčených ATB a/nebo systémovými kortikosteroidy

Fenotyp plicní kachexie

- $FFMI < 16$ kg/m² (muži), $FFMI < 15$ kg/m² (ženy), případně $BMI < 21$ kg/m² (nezávisle na pohlaví) - bez jiné zjevné příčiny



Jak na to ?

Nástroje na určení fenotypů

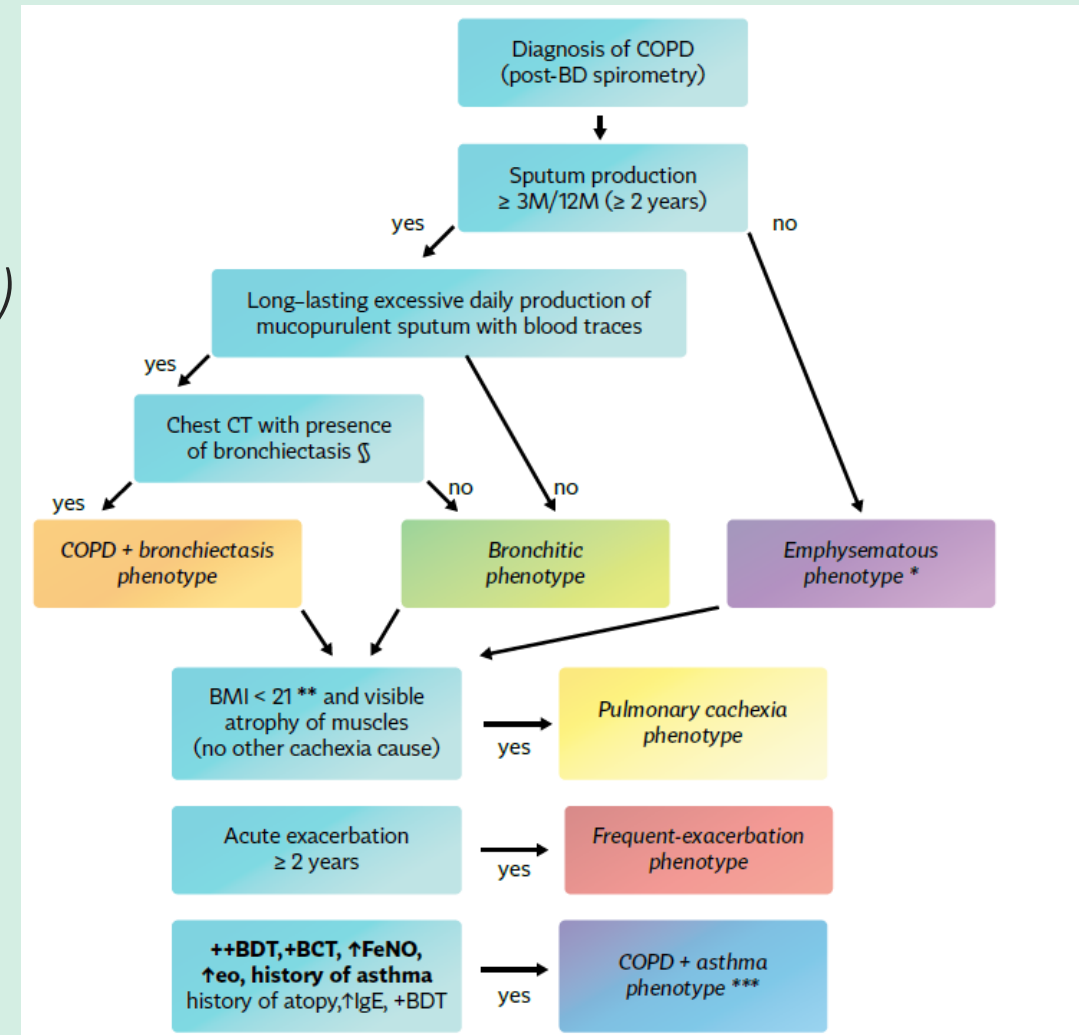
Anamnéza (*AE, vykašlávání hlenu, hnisu + krve, atopie*)

Výsledky (*BDT, BKT, FeNO, IgE*)

Vyšetření (*BMI, atrofie svalů*)

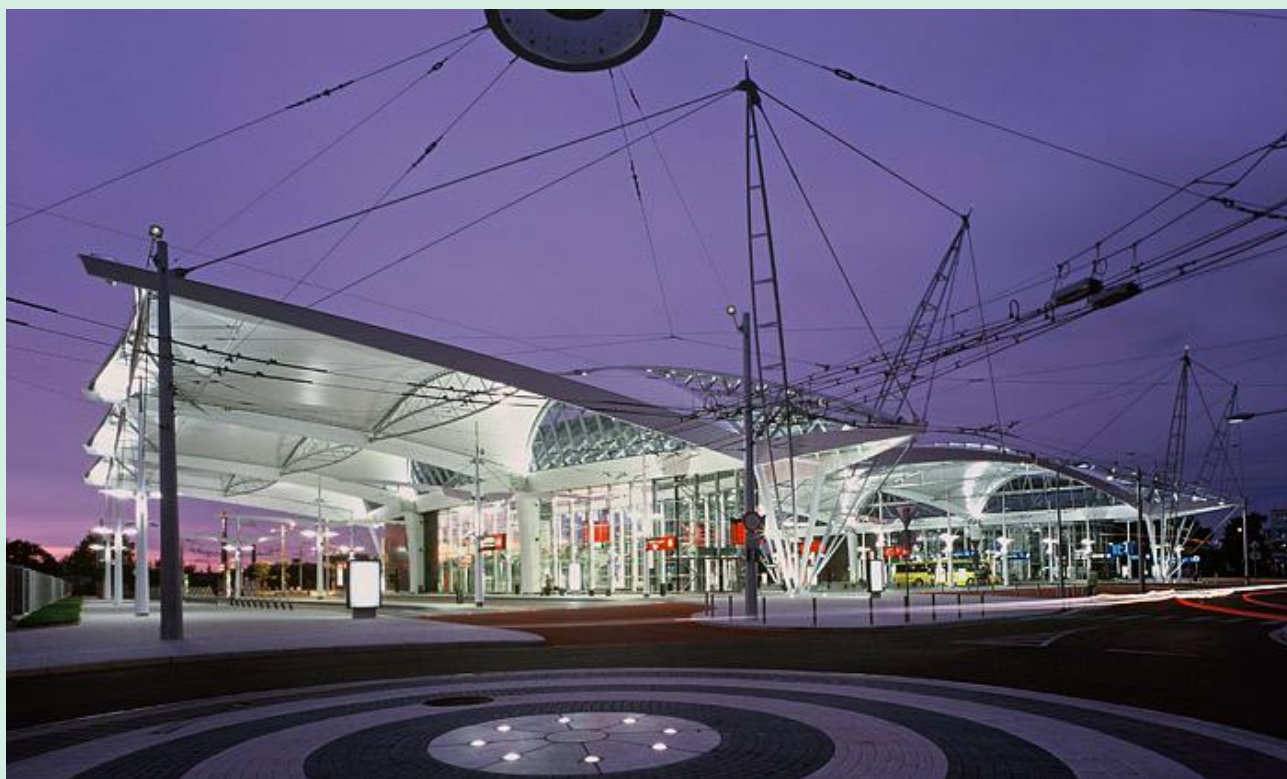
Funkční (*RV + TL_{CO}, K_{CO}*)

CT hrudníku (*EMFYZ./BRONCHIEKTAZIE*)



Česká data

Kolik máme exacerbačních CHOPN ?



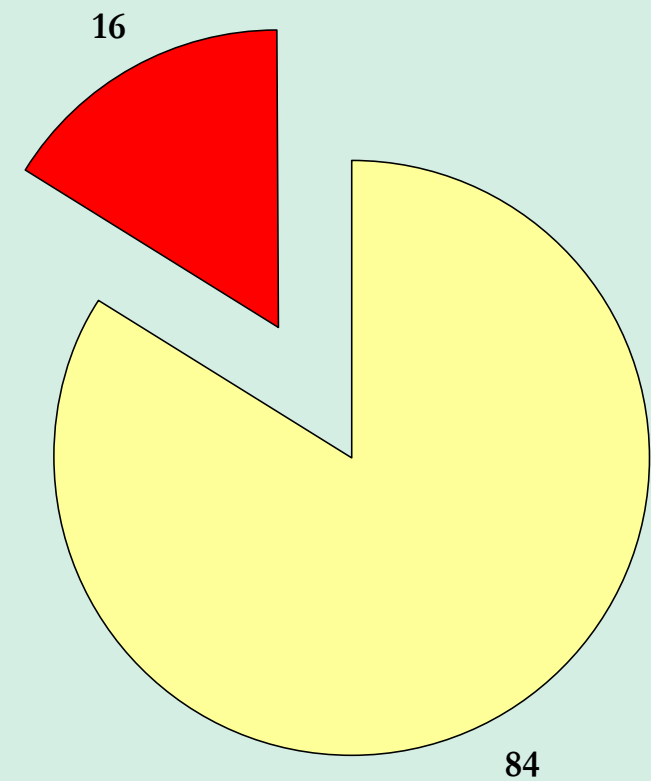
FN HK n 100



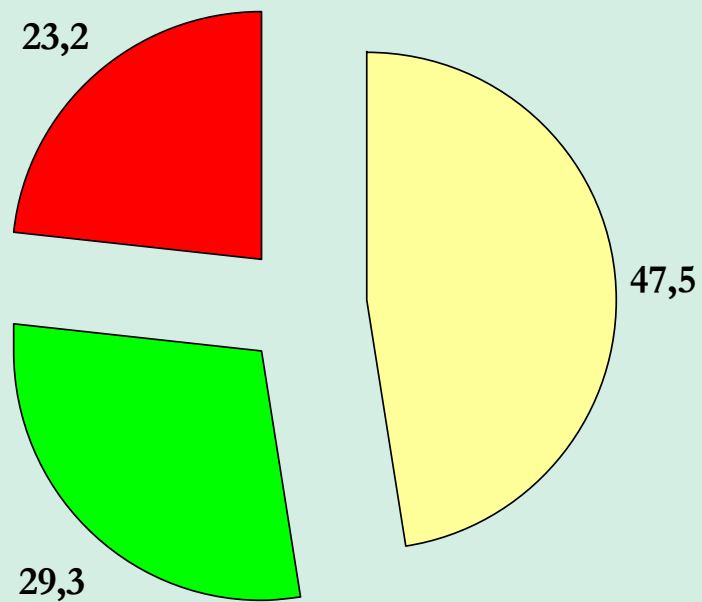
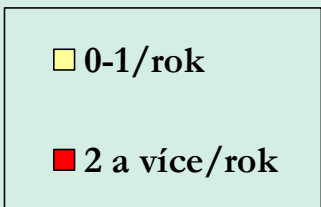
Karlovy Vary n 99

0/rok
1/rok
2 a více/rok

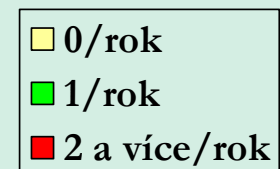
Kolik máme exacerbačních CHOPN ?



FN HK n 100



Karlovy Vary n 99



Kolik máme exacerbačních CHOPN?

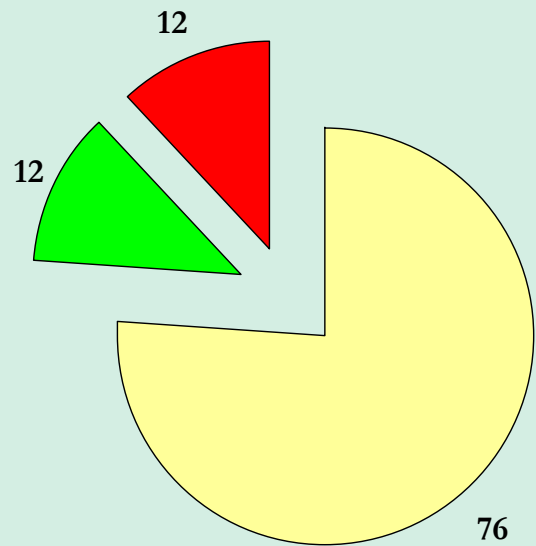


Teplice n 25

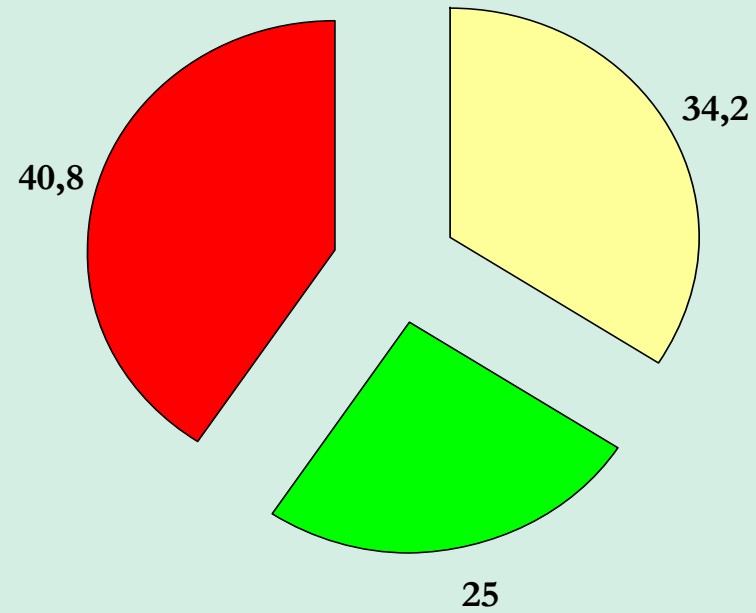
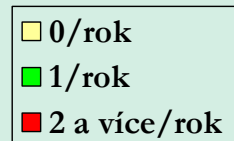


Ostrava n 76

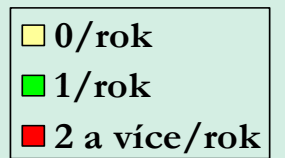
Kolik máme exacerbačních CHOPN?



Teplice n 25



Ostrava n 76



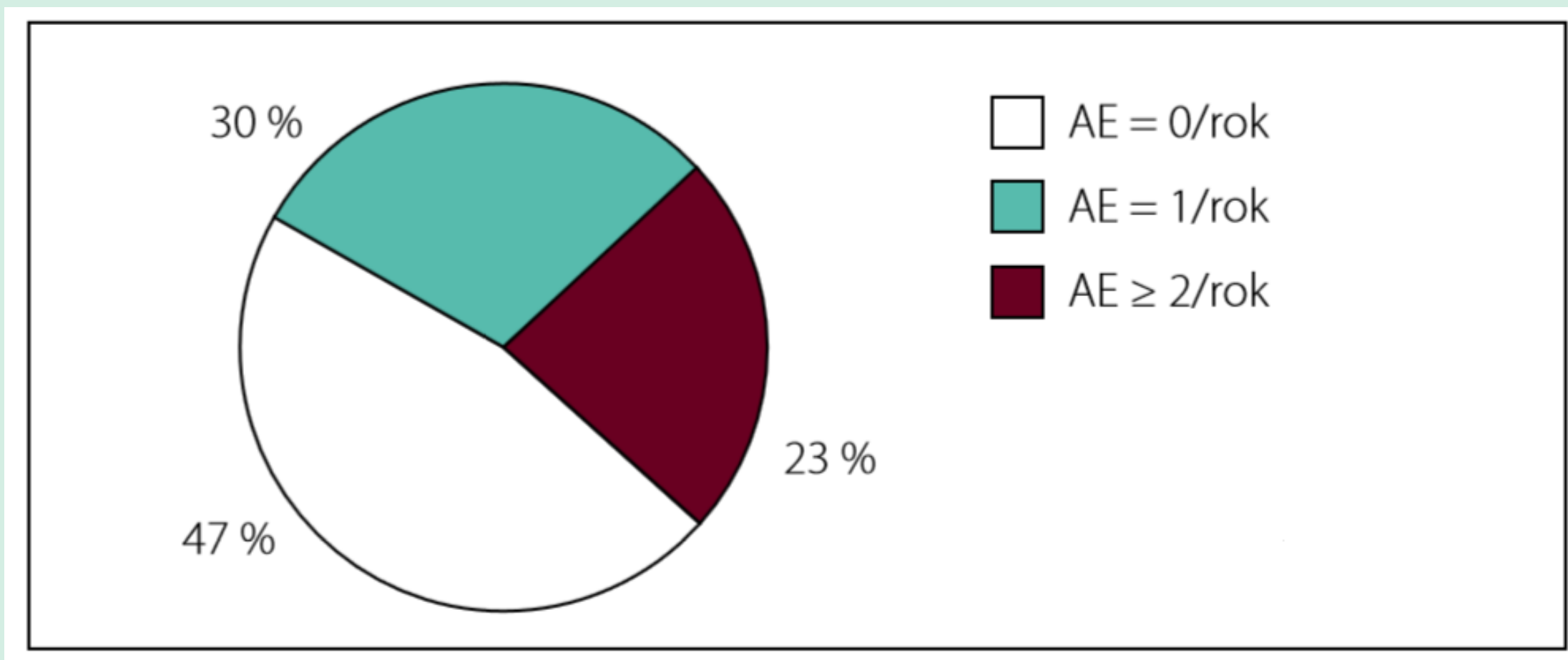
Kolik máme exacerbačních CHOPN ?



ČR n 1355

CEEOR Study

Kolik máme exacerbačních CHOPN ?



ČR n 1355

CEEOR Study

Ambulance – Holice (privátní praxe)

GOLD	Kategorie	Fenotyp	Počet nemocných
GOLD 1	1 A	nevyhraněný	8
GOLD 1	1 A	bronchitický	2
GOLD 2	2 A	nevyhraněný	2
GOLD 2	2 A	bronchitický	6
GOLD 2	2 B	bronchitický	2
GOLD 3	3 C	bronchitický	1
GOLD 3	3 C	overlap s astmatem	2
GOLD 3	3 D	bronchitický	4
GOLD 3	3 D	bronchitický + emfyzematický	1
GOLD 3	3 D	bronchitický + bronchiektazie	1
GOLD 3	3 D	overlap s astmatem	1
GOLD 4	4 C	bronchitický	1
GOLD 4	4 C	emfyzematický	1
GOLD 4	4 D	bronchitický + emfyzematický	3
GOLD 4	4 D	bronchitický	2
GOLD 4	4 D	overlap s astmatem	2
GOLD 4	4 D	bronchitický + exacerbační	1

N 40 pacientů

Ambulance – Holice (privátní praxe)

GOLD	Kategorie	Fenotyp	Počet nemocných
GOLD 1	1.A	nevyhraněný	8
GOLD 1	1.A	bronchitický	2
GOLD 2	2.A	nevyhraněný	2
GOLD 2	2.A	bronchitický	6
GOLD 2	2.B	bronchitický	2
GOLD 3	3.C	bronchitický	1
GOLD 3	3.C	overlap s astmatem	2
GOLD 3	3.D	bronchitický	4
GOLD 3	3.D	bronchitický + emfyzematický	1
GOLD 3	3.D	bronchitický + bronchiektazie	1
GOLD 3	3.D	overlap s astmatem	1
GOLD 4	4.C	bronchitický	1
GOLD 4	4.C	emfyzematický	1
GOLD 4	4.D	bronchitický + emfyzematický	3
GOLD 4	4.D	bronchitický	2
GOLD 4	4.D	overlap s astmatem	2
GOLD 4	4.D	bronchitický + exacerbační	1

N 40 pacientů

Ambulance – Holice (privátní praxe)

GOLD	Kategorie	Fenotyp	Počet nemocných
GOLD 1	1 A	nevyhraněný	8
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GOLD 2	2 B	bronchitický	2
GOLD 3	3 C	bronchitický	1
GOLD 3	3 C	overlap s astmatem	2
GOLD 3	3 D	bronchitický	4
GOLD 3	3 D	bronchitický + emfyzematický	1
GOLD 3	3 D	bronchitický + bronchiektazie	1
GOLD 3	3 D	overlap s astmatem	1
GOLD 4	4 C	bronchitický	1
GOLD 4	4 C	emfyzematický	1
GOLD 4	4 D	bronchitický + emfyzematický	3
GOLD 4	4 D	bronchitický	2
GOLD 4	4 D	overlap s astmatem	2
GOLD 4	4 D	bronchitický + exacerbační	1

N 40 pacientů

Ambulance – Holice (privátní praxe)

GOLD	Kategorie	Fenotyp	Počet nemocných
GOLD 1	1.A	nevyhraněný	8
GOLD 1	1.A	bronchitický	2
GOLD 2	2.A	nevyhraněný	2
GOLD 2	2.A	bronchitický	6
GOLD 2	2.B	bronchitický	2
GOLD 3	3.C	bronchitický	1
GOLD 3	3.C	overlap s astmatem	2
GOLD 3	3.D	bronchitický	4
GOLD 3	3.D	bronchitický + emfyzematický	1
GOLD 3	3.D	bronchitický + bronchiektazie	1
GOLD 3	3.D	overlap s astmatem	1
GOLD 4	4.C	bronchitický	1
GOLD 4	4.C	emfyzematický	1
GOLD 4	4.D	bronchitický + emfyzematický	3
GOLD 4	4.D	bronchitický	2
GOLD 4	4.D	overlap s astmatem	2
GOLD 4	4.D	bronchitický + exacerbační	1

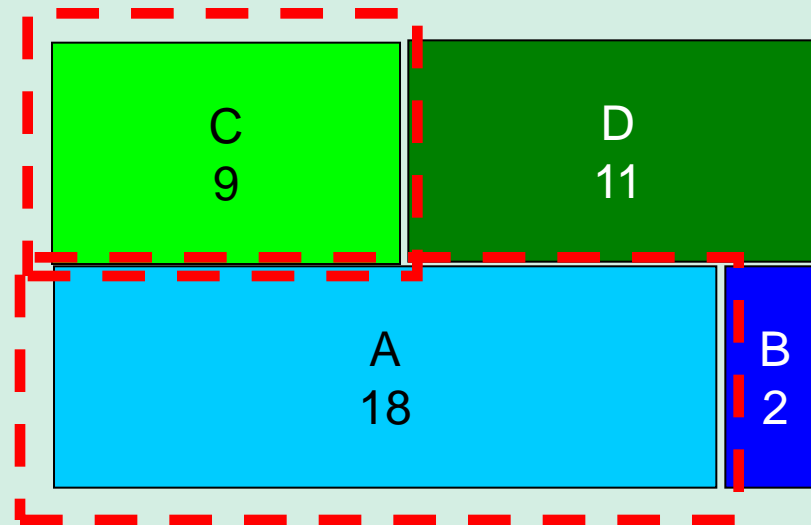
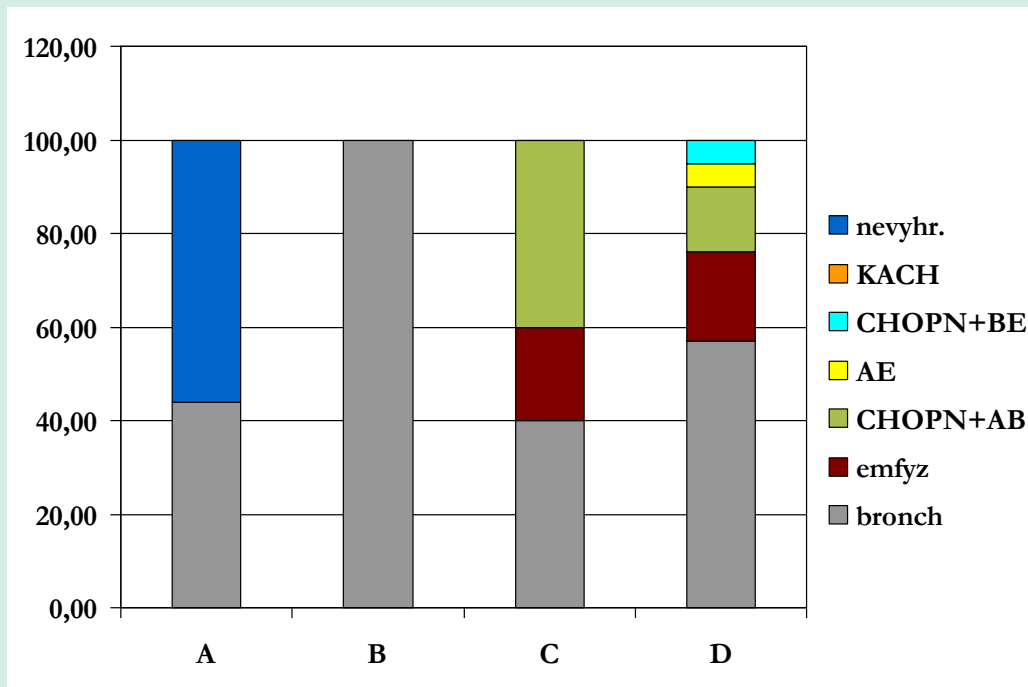
N 40 pacientů

Ambulance – Holice (privátní praxe)

GOLD	Kategorie	Fenotyp	Počet nemocných
GOLD 1	1 A	nevyhraněný	8
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GOLD 2	2 A	bronchitický	6
GOLD 2	2 B	bronchitický	2
GOLD 3	3 C	bronchitický	1
GOLD 3	3 C	overlap s astmatem	2
GOLD 3	3 D	bronchitický	4
GOLD 3	3 D	bronchitický + emfyzematický	1
GOLD 3	3 D	bronchitický + bronchiektazie	1
GOLD 3	3 D	overlap s astmatem	1
GOLD 4	4 C	bronchitický	1
GOLD 4	4 C	emfyzematický	1
GOLD 4	4 D	bronchitický + emfyzematický	3
GOLD 4	4 D	bronchitický	2
GOLD 4	4 D	overlap s astmatem	2
GOLD 4	4 D	bronchitický + exacerbační	1

N 40 pacientů

Ambulance – Holice (privátní praxe)



N 40 pacientů

Ambulance – Nový Jičín (nemocnice)

GOLD	Kategorie	Fenotyp	Počet nemocných
GOLD 1	1 A	overlap s astmatem	3
GOLD 1	1 B	overlap s astmatem	3
GOLD 1	1 A	bronchitický	1
GOLD	1 B	bronchitický	1
GOLD 1	1 B	overlap s astmatem + BE + emfyzemat.	1
GOLD 1	1 C	overlap s astmatem	1
GOLD 2	2 A	bronchitický	4
GOLD 2	2 B	overlap s astmatem	3
GOLD 2	2 B	bronchitický	2
GOLD 2	2 D	overlap s astmatem + AE	1
GOLD 3	3 C	bronchitický	1
GOLD 3	3 C	BE	1
GOLD 3	3 C	emfyzematický	1
GOLD 3	3 D	bronchitický	2
GOLD 3	3 D	bronchitický + AE	2
GOLD 3	3 D	AE	2
GOLD 3	3 D	emfyzematický	1
GOLD 4	4 C	bronchitický	2
GOLD 4	4 C	emfyzematický	1
GOLD 4	4 D	bronchitický	3
GOLD 4	4 D	emfyzematický + kachexie	2
GOLD 4	4 D	emfyzematický + AE	1
GOLD 4	4 D	overlap s astmatem + AE + BE	1

N 40 pacientů

Ambulance – Nový Jičín (nemocnice)

GOLD	Kategorie	Fenotyp	Počet nemocných
GOLD 1	1 A	overlap s astmatem	3
GOLD 1	1 B	overlap s astmatem	3
GOLD 1	1 A	bronchitický	1
GOLD	1 B	bronchitický	1
GOLD 1	1 B	overlap s astmatem + BE + emfyzemat.	1
GOLD 1	1 C	overlap s astmatem	1
GOLD 2	2 A	bronchitický	4
GOLD 2	2 B	overlap s astmatem	3
GOLD 2	2 B	bronchitický	2
GOLD 2	2 D	overlap s astmatem + AE	1
GOLD 3	3 C	bronchitický	1
GOLD 3	3 C	BE	1
GOLD 3	3 C	emfyzematický	1
GOLD 3	3 D	bronchitický	2
GOLD 3	3 D	bronchitický + AE	2
GOLD 3	3 D	AE	2
GOLD 3	3 D	emfyzematický	1
GOLD 4	4 C	bronchitický	2
GOLD 4	4 C	emfyzematický	1
GOLD 4	4 D	bronchitický	3
GOLD 4	4 D	emfyzematický + kachexie	2
GOLD 4	4 D	emfyzematický + AE	1
GOLD 4	4 D	overlap s astmatem + AE + BE	1

N 40 pacientů

Ambulance – Nový Jičín (nemocnice)

GOLD	Kategorie	Fenotyp	Počet nemocných
GOLD 1	1 A	overlap s astmatem	3
GOLD 1	1 B	overlap s astmatem	3
GOLD 1	1 A	bronchitický	1
GOLD	1 B	bronchitický	1
GOLD 1	1 B	overlap s astmatem + BE + emfyzemat.	1
GOLD 1	1 C	overlap s astmatem	1
GOLD 2	2 A	bronchitický	4
GOLD 2	2 B	overlap s astmatem	3
GOLD 2	2 B	bronchitický	2
GOLD 2	2 D	overlap s astmatem + AE	1
GOLD 3	3 C	bronchitický	1
GOLD 3	3 C	BE	1
GOLD 3	3 C	emfyzematický	1
GOLD 3	3 D	bronchitický	2
GOLD 3	3 D	bronchitický + AE	2
GOLD 3	3 D	AE	2
GOLD 3	3 D	emfyzematický	1
GOLD 4	4 C	bronchitický	2
GOLD 4	4 C	emfyzematický	1
GOLD 4	4 D	bronchitický	3
GOLD 4	4 D	emfyzematický + kachexie	2
GOLD 4	4 D	emfyzematický + AE	1
GOLD 4	4 D	overlap s astmatem + AE + BE	1

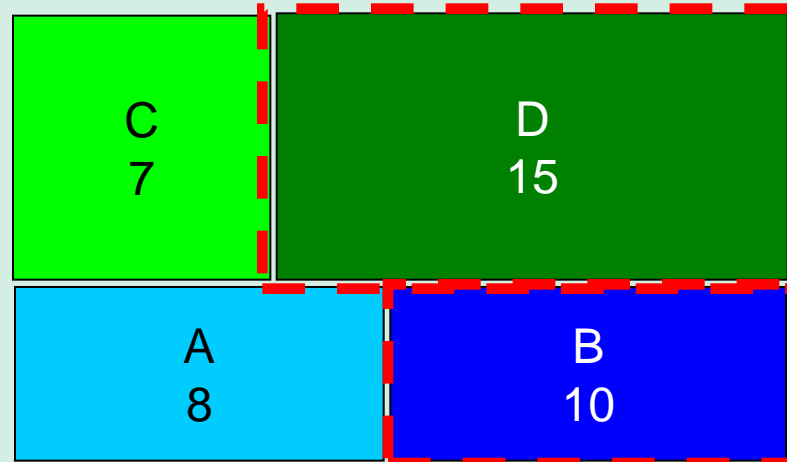
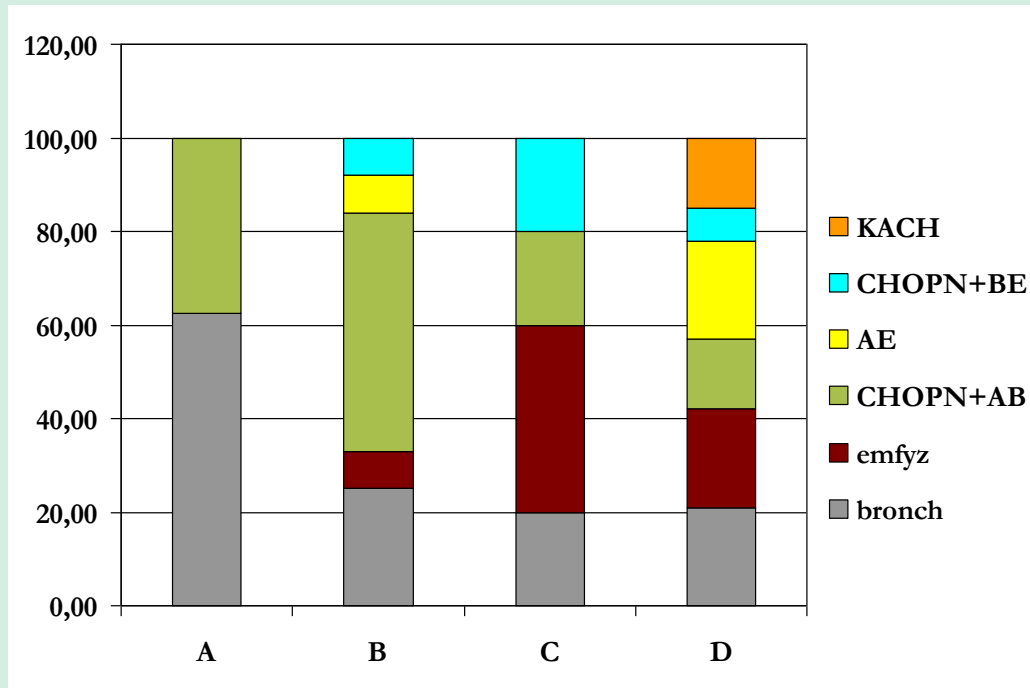
N 40 pacientů

Ambulance – Nový Jičín (nemocnice)

GOLD	Kategorie	Fenotyp	Počet nemocných
GOLD 1	1 A	overlap s astmatem	3
GOLD 1	1 B	overlap s astmatem	3
GOLD 1	1 A	bronchitický	1
GOLD	1 B	bronchitický	1
GOLD 1	1 B	overlap s astmatem + BE + emfyzemat.	1
GOLD 1	1 C	overlap s astmatem	1
GOLD 2	2 A	bronchitický	4
GOLD 2	2 B	overlap s astmatem	3
GOLD 2	2 B	bronchitický	2
GOLD 2	2 D	overlap s astmatem + AE	1
GOLD 3	3 C	bronchitický	1
GOLD 3	3 C	BE	1
GOLD 3	3 C	emfyzematický	1
GOLD 3	3 D	bronchitický	2
GOLD 3	3 D	bronchitický + AE	2
GOLD 3	3 D	AE	2
GOLD 3	3 D	emfyzematický	1
GOLD 4	4 C	bronchitický	2
GOLD 4	4 C	emfyzematický	1
GOLD 4	4 D	bronchitický	3
GOLD 4	4 D	emfyzematický + kachexie	2
GOLD 4	4 D	emfyzematický + AE	1
GOLD 4	4 D	overlap s astmatem + AE + BE	1

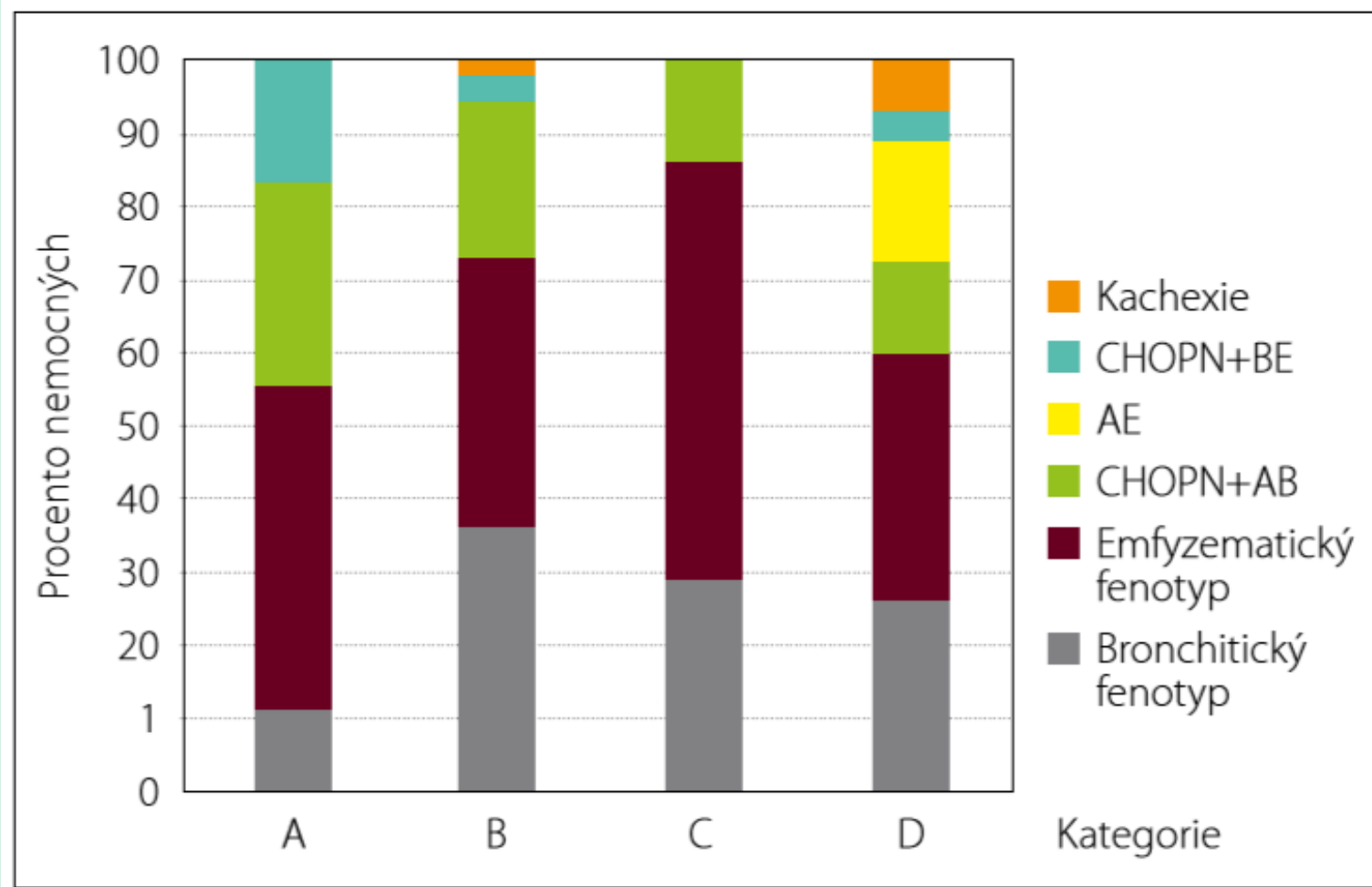
N 40 pacientů

Ambulance – Nový Jičín (nemocnice)



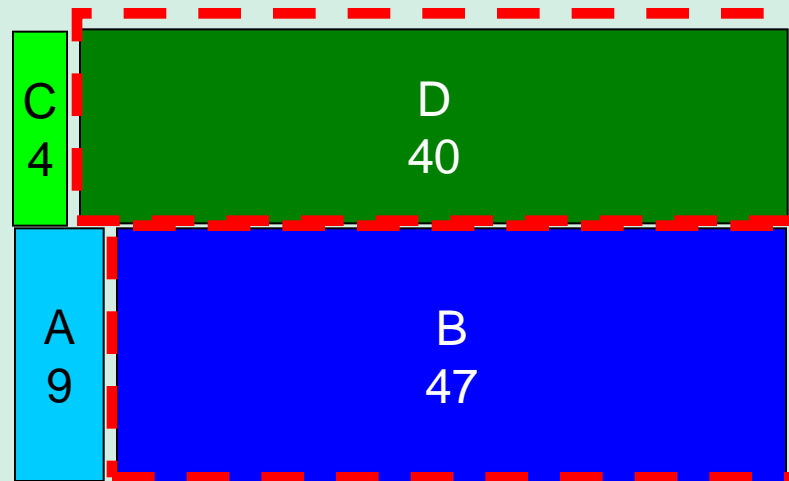
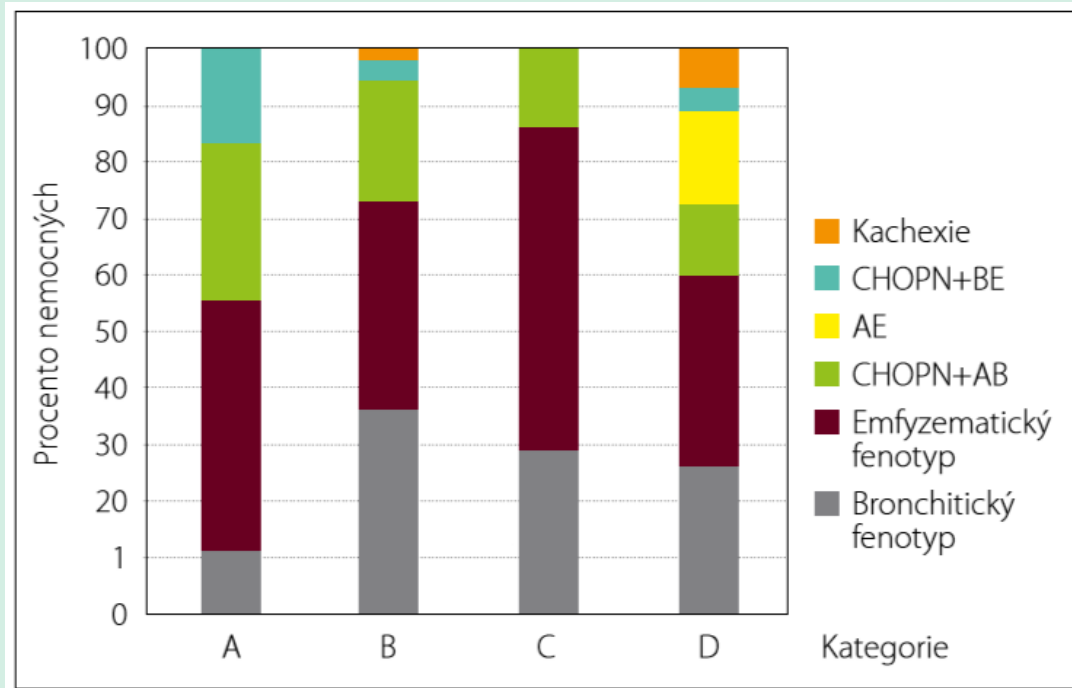
N 40 pacientů

Ambulance – Hradec Králové (FN)



N 100 pacientů

Ambulance – Hradec Králové (FN)

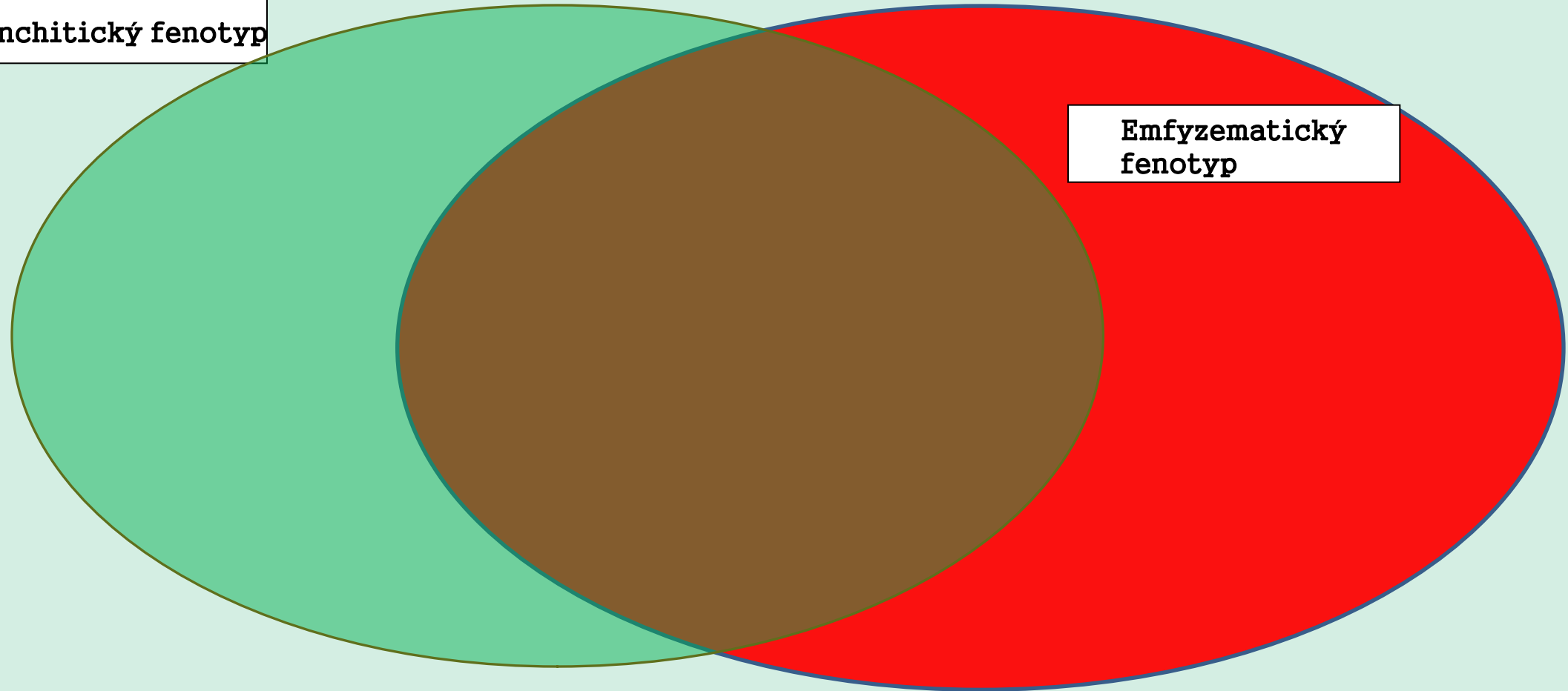


N 100 pacientů

Překryv fenotypů

Bronchitický fenotyp

Emfyzematický
fenotyp



N 100 pacientů

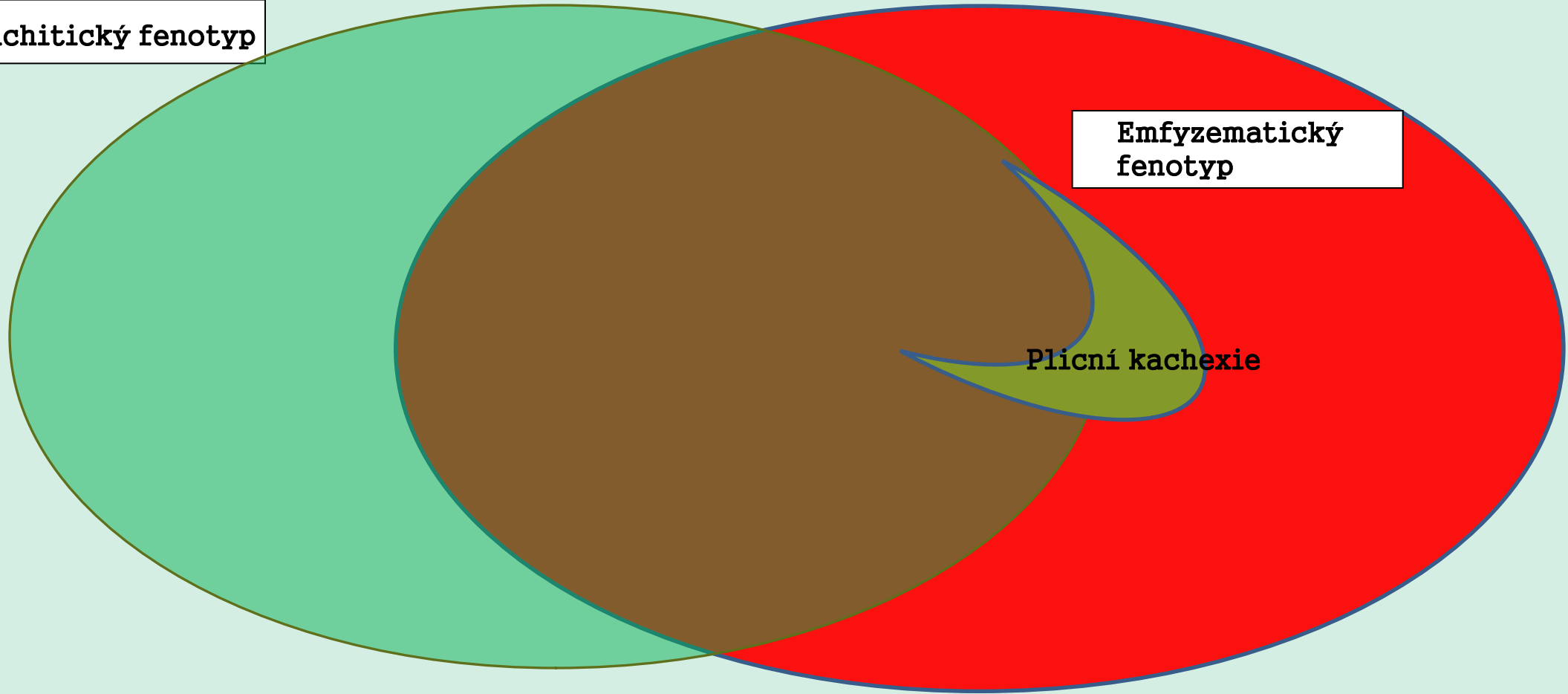
Překryv fenotypů

Bronchitický fenotyp

Emfyzematický fenotyp

Plicní kachexie

N 100 pacientů



Překryv fenotypů

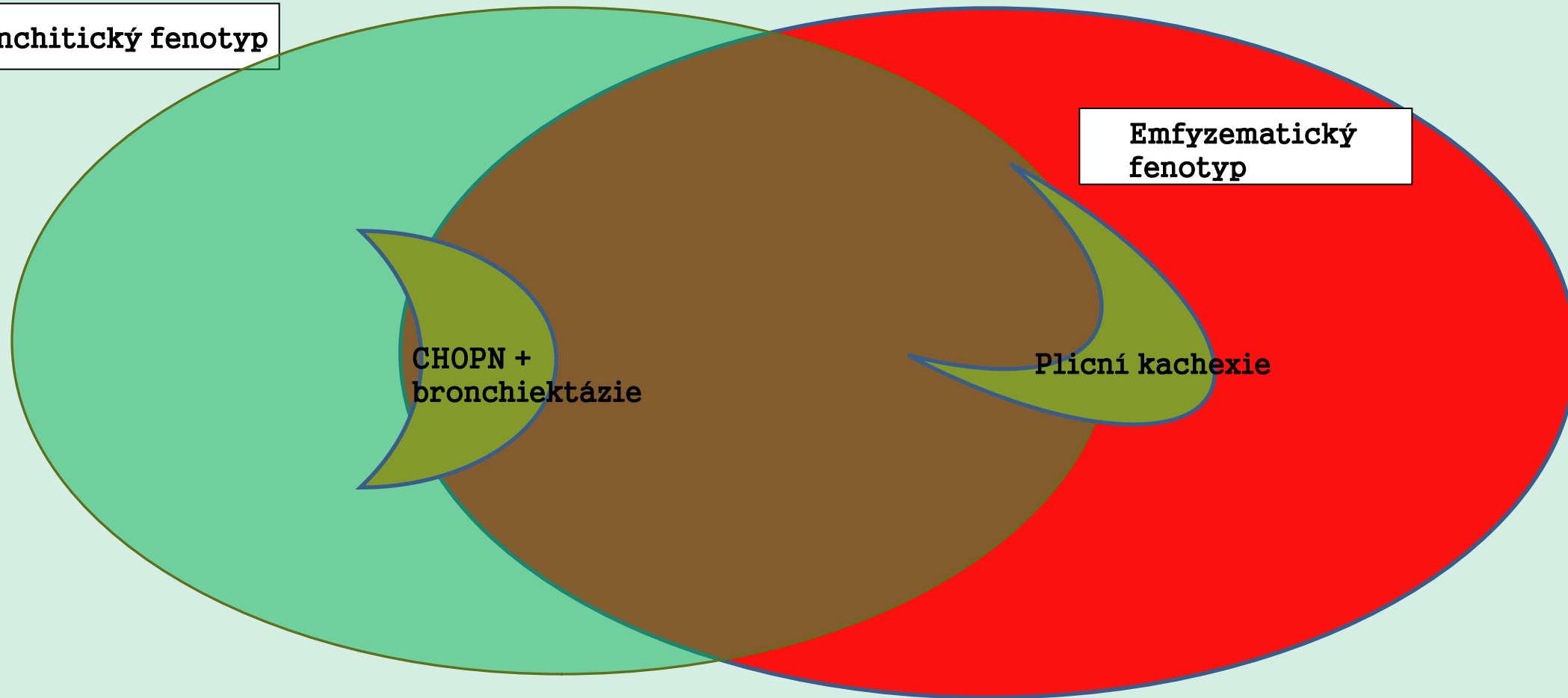
Bronchitický fenotyp

Emfyzematický fenotyp

CHOPN +
bronchiektázie

Plicní kachexie

N 100 pacientů



Překryv fenotypů

Bronchitický fenotyp

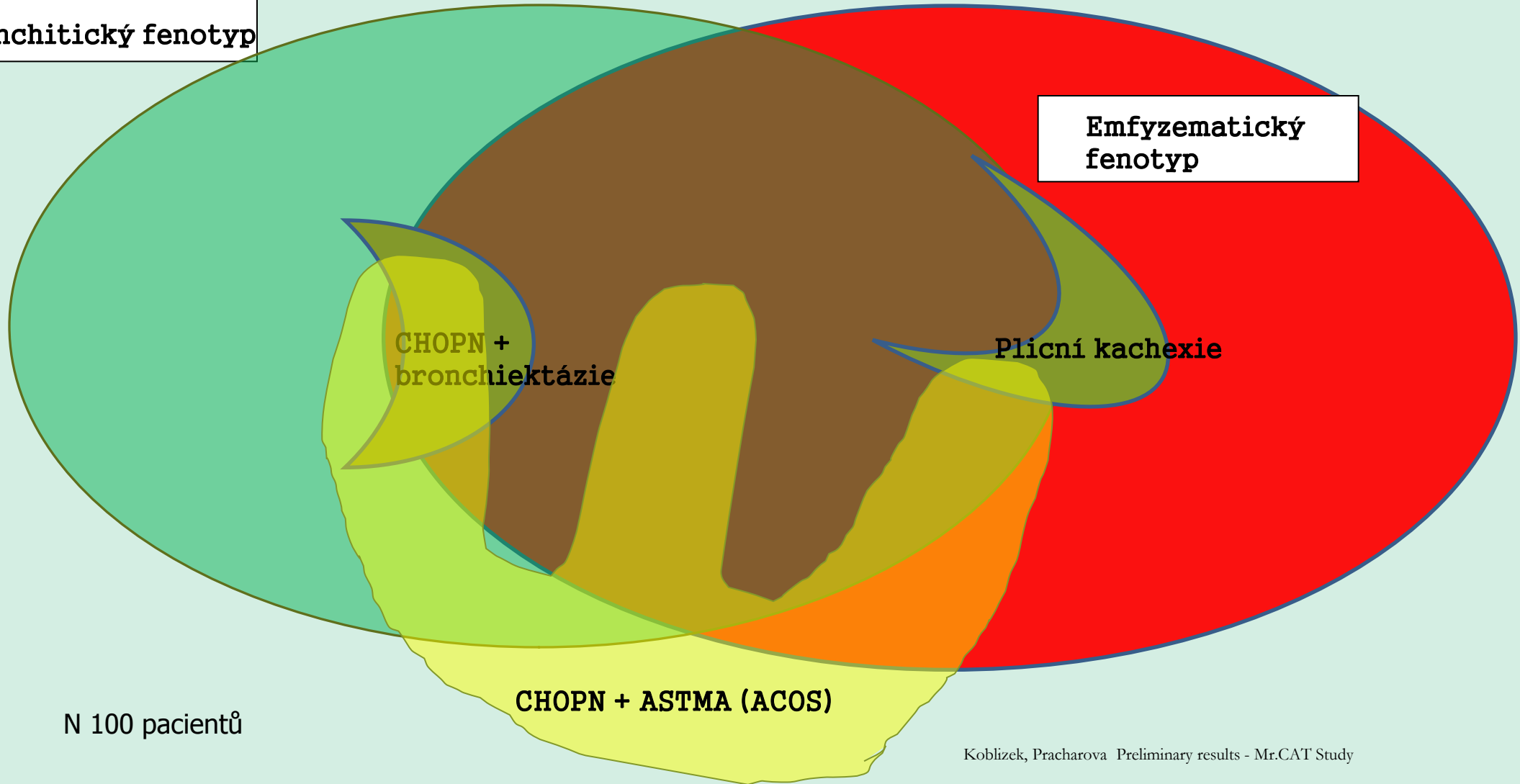
Emfyzematický fenotyp

CHOPN +
bronchiektázie

Plicní kachexie

CHOPN + ASTMA (ACOS)

N 100 pacientů



Překryv fenotypů

Bronchitický fenotyp

Exacerbační fenotyp

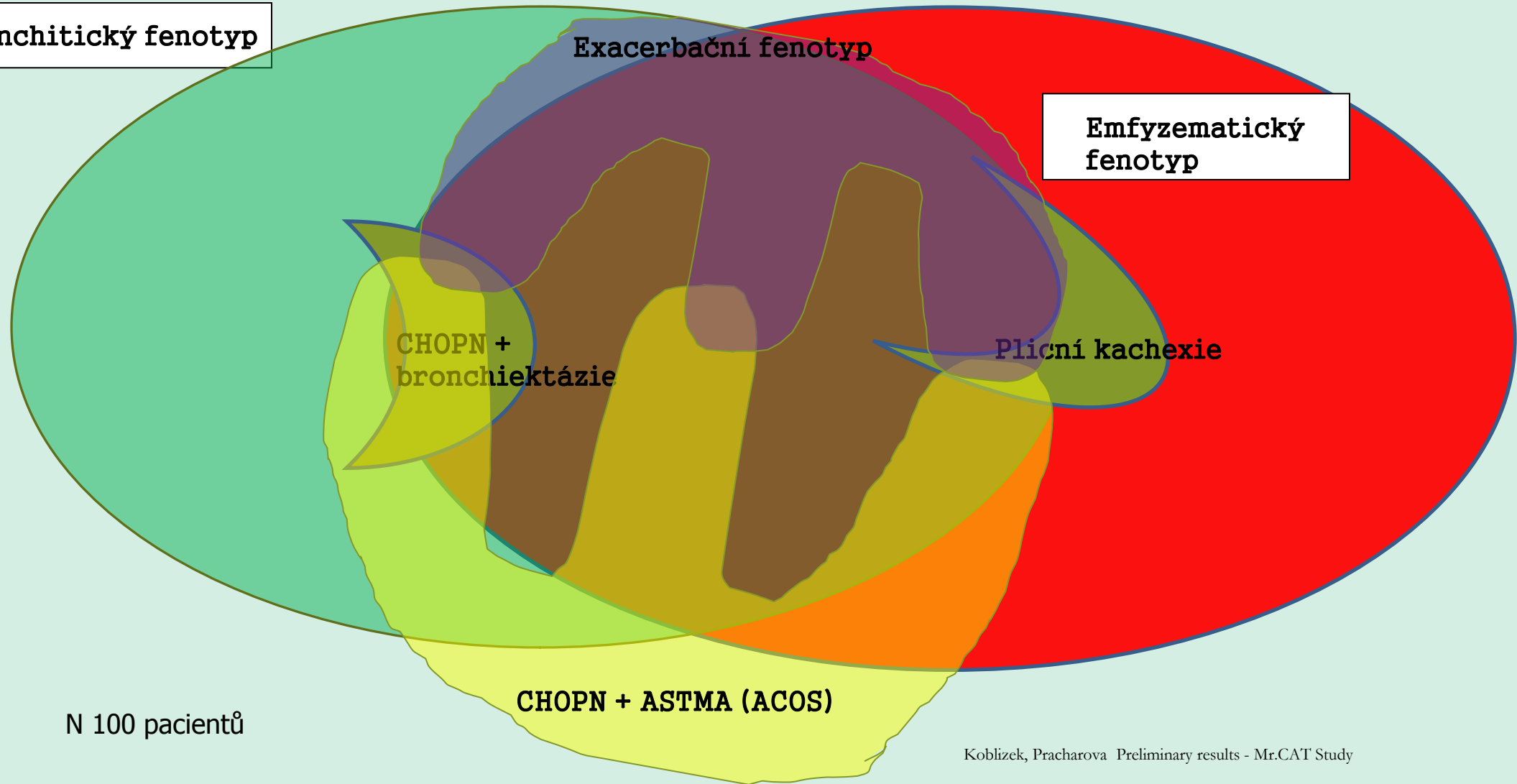
Emfyzematický fenotyp

CHOPN +
bronchiektázie

Plicní kachexie

CHOPN + ASTMA (ACOS)

N 100 pacientů



Frekvence výskytu fenotypů (%)

- Kachexie 9 %
- CHOPN + bronchiektazie 10%



- Exacerbační fenotyp 16%
- CHOPN + astma 37%

- Bronchitický 62% (40%)
- Emfyzematický 78% (40%)

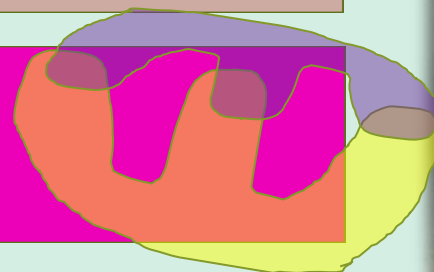


Frekvence výskytu fenotypů (%)

- Kachexie 9 %
- CHOPN + bronchiektazie 10%



- Exacerbační fenotyp 16%
- CHOPN + astma 37%



- Bronchitický 62% (40%)
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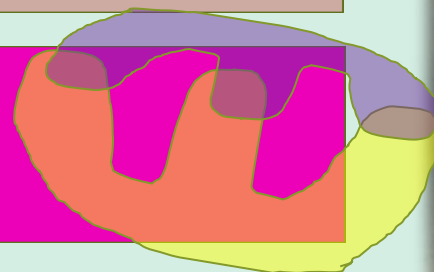


Frekvence výskytu fenotypů (%)

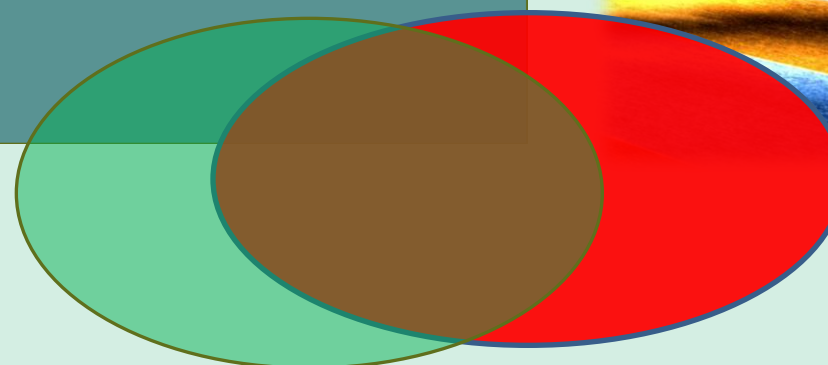
- Kachexie 9 %
- CHOPN + bronchiektazie 10%



- Exacerbační fenotyp 16%
- CHOPN + astma 37%

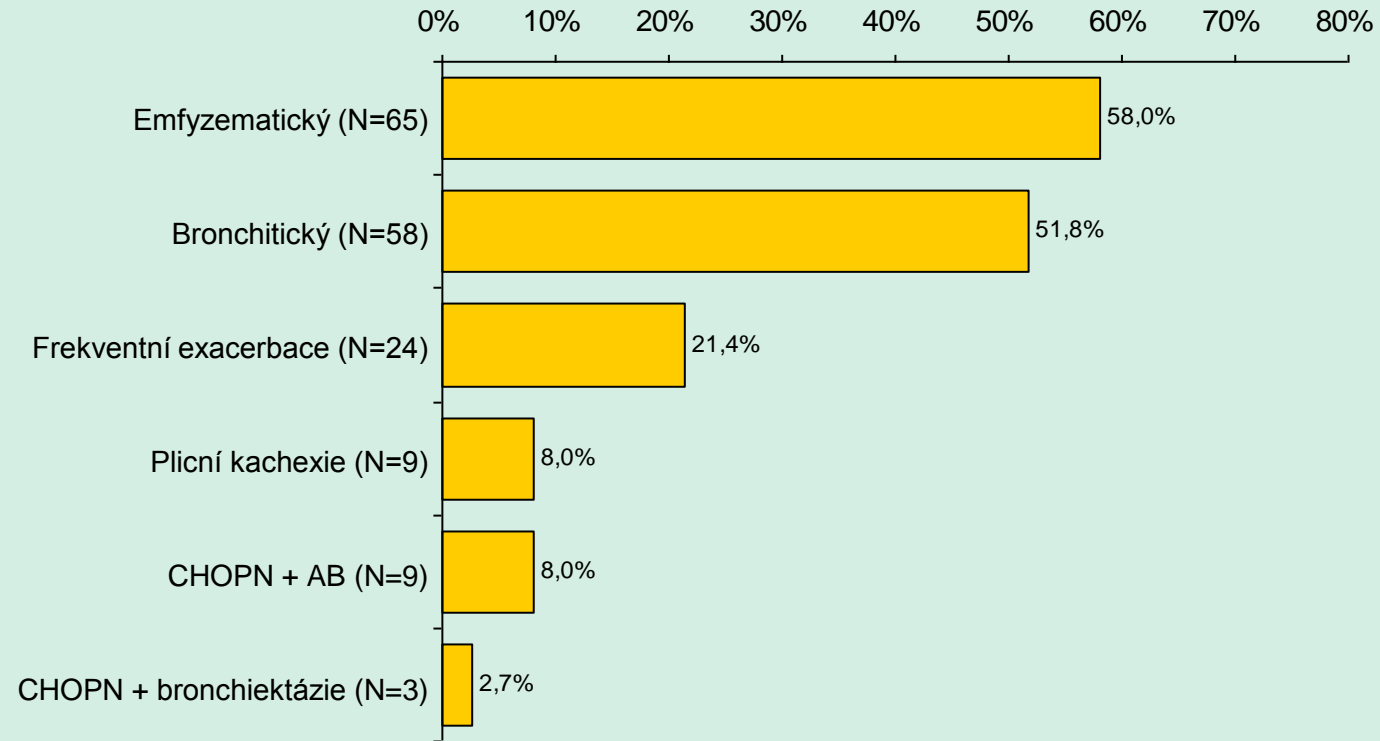


- Bronchitický 62% (40%)
- Emfyzematický 78% (40%)



Fenotyp CHOPN (dominantní, hodnoceno lékařem)

N=112



Dominantní fenotyp CHOPN – REGISTR těžkého CHOPN 2013

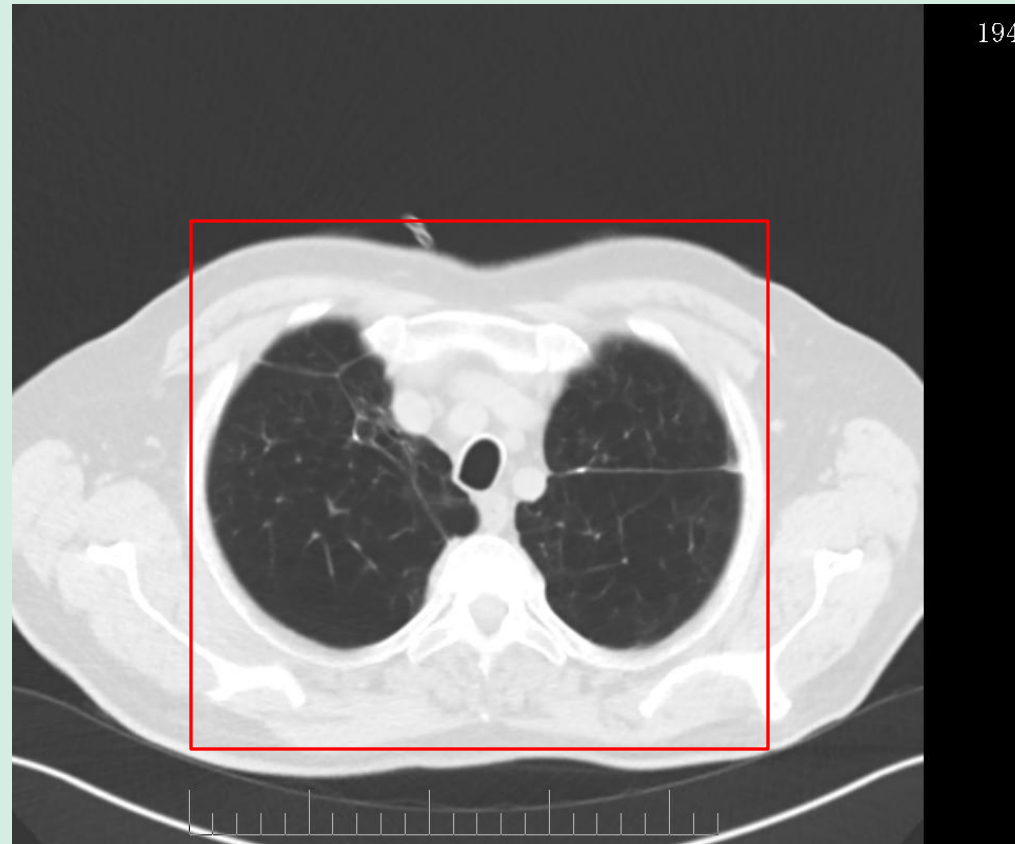
Souhrn

- Fenotypy se vyskytují v reálné klinické praxi
- Jejich identifikace je možná ve všech typech ambulancí
- Mohou ukázat na specifické léčebné možnosti

- Optimální nástroje k jejich vyhledávání ?
- Vývoj fenotypů v čase ?
- Prognostický význam ?



Klinický příklad I



2005 – IV.CHOPN, PaO₂ 7,5, FEV₁ 32%, TLCO 32%, mMRC 2-3, 6MWD 350m

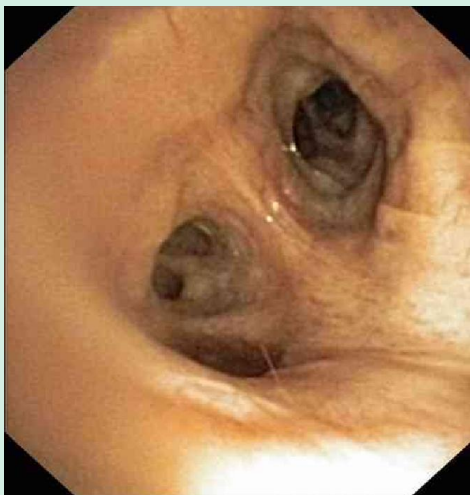
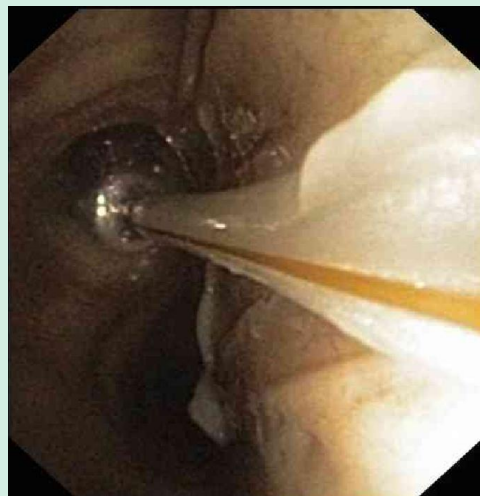
2006 – LVRS (bilaterálně, VTS) po 2M PaO₂ 8,25, FEV₁ 41%, mMRC 2, 6MWD 385m



2012 – BVR (vlevo B6) zlepšení symptomů a tolerance zátěže, ale za 12M
2013 – opak.AE, PaO₂ 8,82 (se 3L O₂), mMRC 4, 6MWD 180m – extrakce IBV
(hlenoprodukce a AE) – PDE4i + IKS/LABA



2012



2013

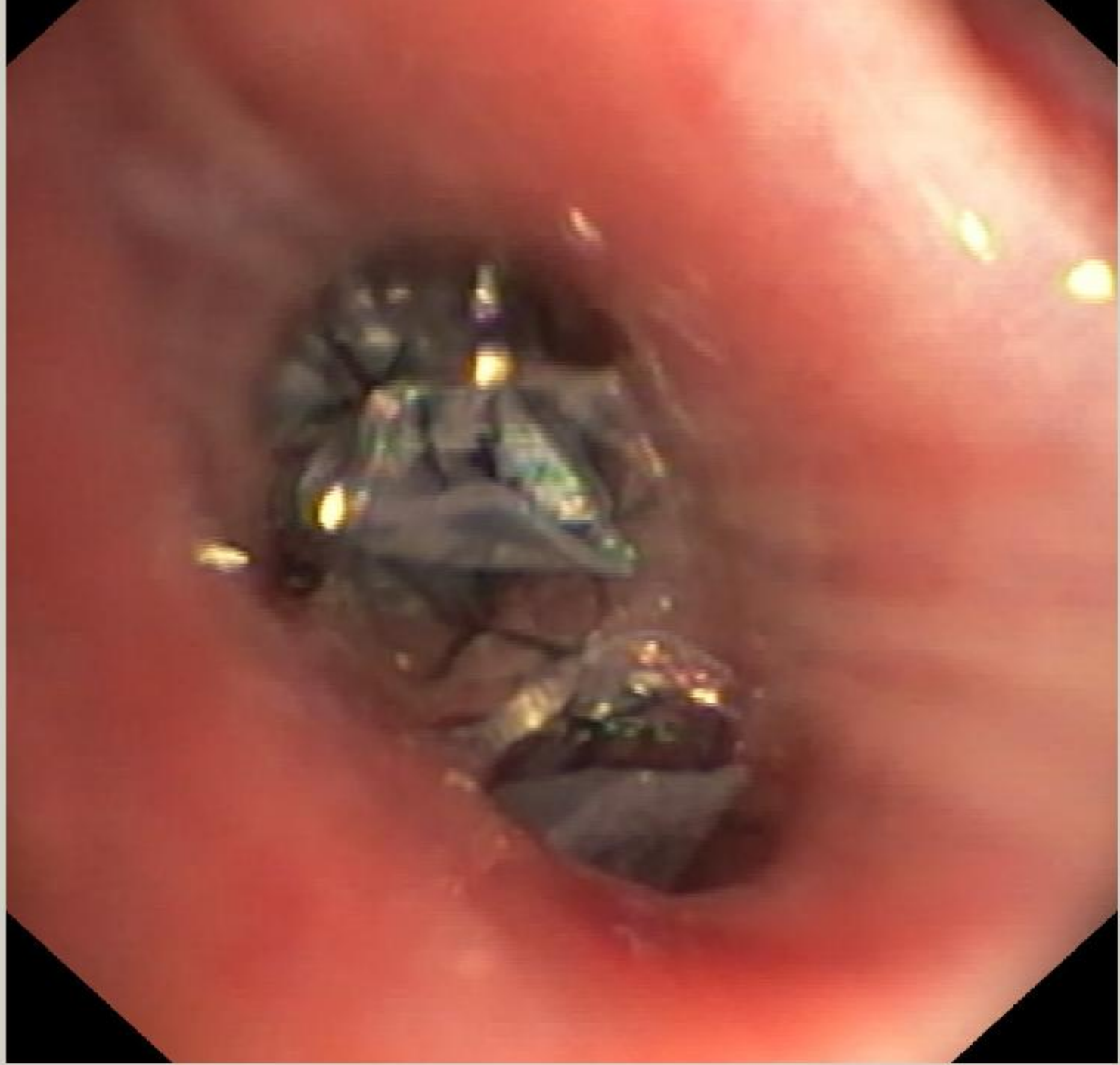


Klinický příklad II

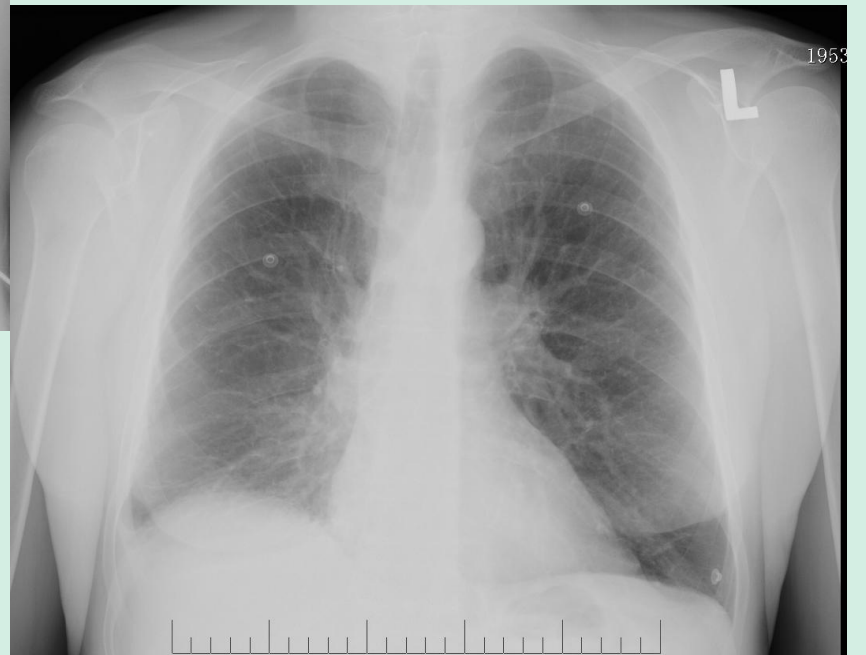
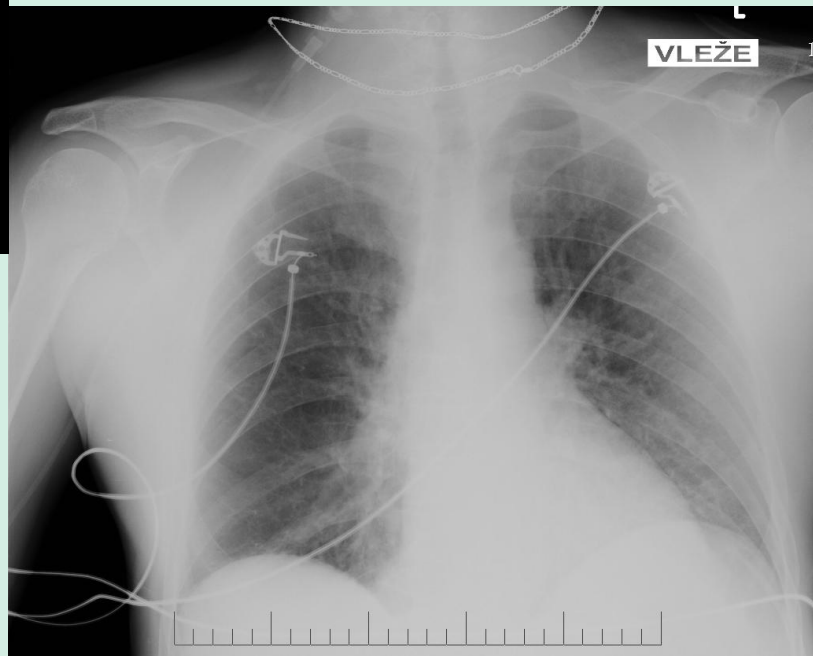








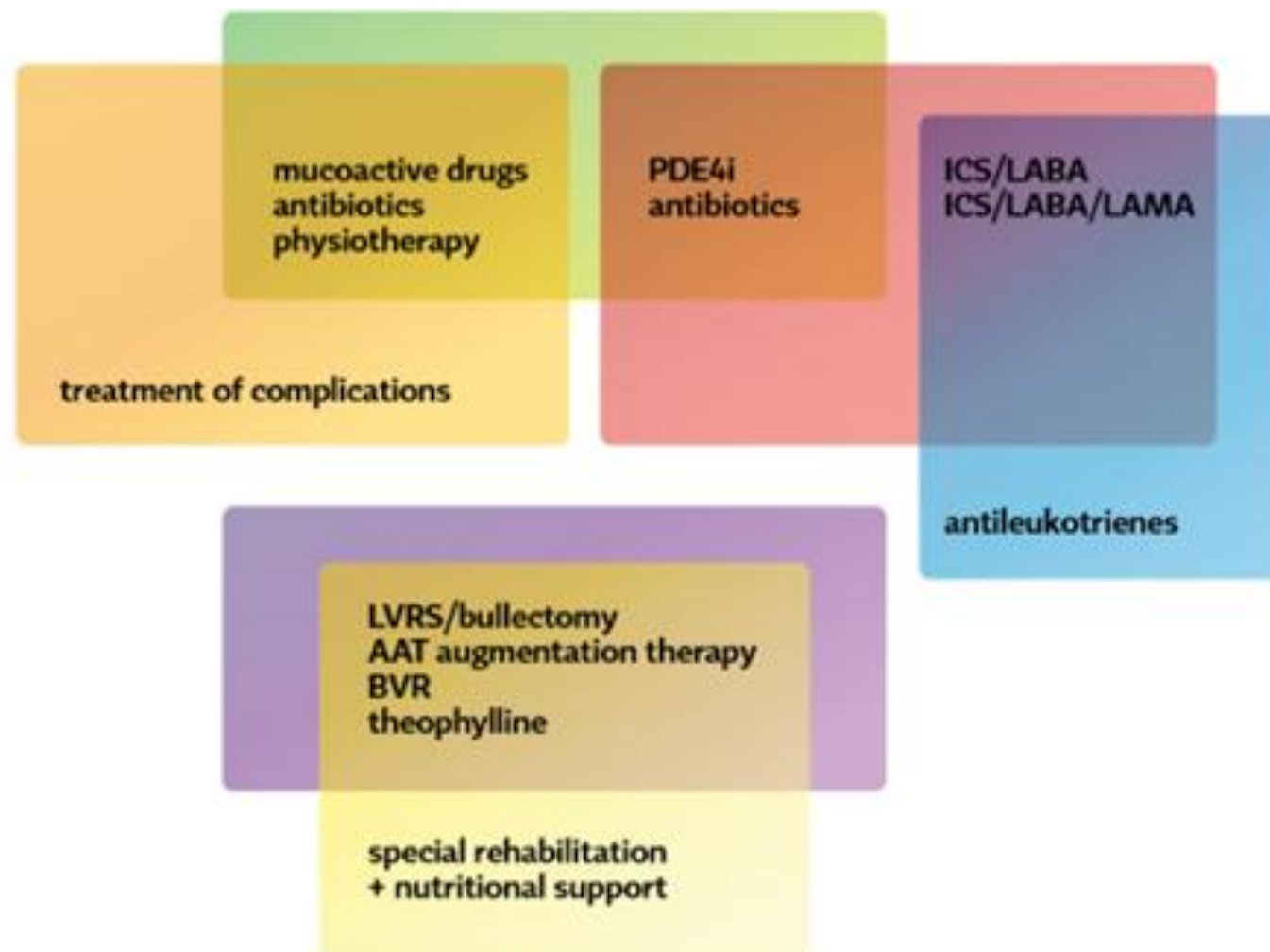




Výsledky klinického příkladu II.

- Před výkonem mMRC 3, 6MWD 330m, FEV₁ 27%, RV 273%
- Po 2M od výkonu mMRC 1, 6MWD 420m, FEV₁ 52%, RV 187%

Figure 4: Simplified diagram of phenotype-specific COPD treatment (3rd step)



- bronchitic phenotype
- COPD + bronchiectasis phenotype
- frequent-exacerbation phenotype
- COPD + asthma phenotype
- emphysematous phenotype
- phenotype of pulmonary cachexia



NEVAŘTE
NIC, DOKUD
JSTE NEČETLI
TUTO KNIHU!

VAŘTE JAKO ŠÉF!

ŠKOLA VAŘENÍ ZDEŇKA POHLREICHA



Validace fenotypického pohledu (studie ČR)

ClinicalTrials.gov

A service of the U.S. National Institutes of Health

Example: "Heart attack" AND "Los Angeles"

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Text Size

Czech National Research Database of Chronic Obstructive Pulmonary Disease (COPD)

This study is currently recruiting participants.

Verified August 2013 by Masaryk University

Sponsor:

Karel Hejduk

Information provided by (Responsible Party):

Karel Hejduk, Masaryk University

ClinicalTrials.gov Identifier:

NCT01923051

First received: August 7, 2013

Last updated: August 13, 2013

Last verified: August 2013

[History of Changes](#)



CHOPN

COPD

Full Text View

Tabular View

No Study Results Posted

[Disclaimer](#)

[How to Read a Study Record](#)

Purpose

The chronic obstructive pulmonary disease (COPD) is the occurrence of chronic bronchitis or emphysema, a pair of commonly co-existing diseases of the lungs in which the airways narrow over time. This limits airflow to and from the lungs, causing shortness of breath (dyspnoea). In clinical practice, COPD is defined by its characteristic airflow limitation on lung function tests. In contrast to asthma, this limitation is poorly reversible and usually gets increasingly worse over time.

The COPD registry is a non-interventional multicentre observational prospective database focusing on the collection and analysis of data on real mortality and morbidity in COPD population of the Czech Republic population of COPD patients. Monitoring is done at the occasion of regular check-ups, followed by retrospective search of data in the documentation, and a record into the registry.

The aim of Czech National Research Database of Chronic Obstructive Pulmonary Disease is to establish the clinical course of severe forms of COPD, establish the cause for deterioration of clinical status of our patients and describe the progression of COPD to death.

Condition

Chronic Obstructive Airway Disease



Study Type: Observational
Study Design: Observational Model: Cohort
Time Perspective: Prospective

Official Title: Czech National Research Database of Chronic Obstructive Pulmonary Disease (COPD): Registry of the Czech Pneumological Society (ČPPS) at the Czech Medical Association (CzMA)

Validace fenotypického pohledu (studie CEE)

Protocol Title:	POPE-Study: <u>Phenotypes Of COPD in Central and Eastern Europe Study</u>
Protocol Draft:	1.0
Protocol Date	Oct 29 th , 2013
Steering Committee of the COPD PLATFORM	Arschang Valipour, AU Vladimir Koblizek, CZ Ruzena Tkacova, SK Nestor Tudoric, HR Kyrill Zykov, RU Attila Somfay, HU Adam Barczyk, PL Marc Miravittles, SP
CRO	IBA Brno, CZ Zuzana Zbozinkova,
Aims of the study	To assess the distribution of patients with COPD in clinical practice within the CEE region according to disease severity, disease category, and phenotypes.
Primary outcome	<ul style="list-style-type: none">To determine the proportion of patients within the GOLD 2011 strategy disease severity (Stage 1,2,3,4) and risk classification category (A,B,C,D) in an unselected group of consecutively examined patients with COPD in the CEE region.

Secondary outcomes	<ul style="list-style-type: none">To evaluate the prevalence of disease phenotypes according to predefined criteriaTo evaluate the diagnostic approach to COPD in CEE countriesTo assess the differences in treatment habits in CEE countries
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Inclusion Criteria	A) Age > 40 years B) Diagnosis of COPD and post BD FEV ₁ /FVC < 0.7 C) Stable disease for at least 4 weeks D) Smoking history of > 10 packyears E) Informed Consent
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Exclusion Criteria	A) Post-BD FEV ₁ /FVC > 0.7 B) Life-long non-smoker C) Patient is not willing to participate
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Statistical analysis	Institute of Biostatistics and Analyses, Masaryk University, Brno, Czech Republic
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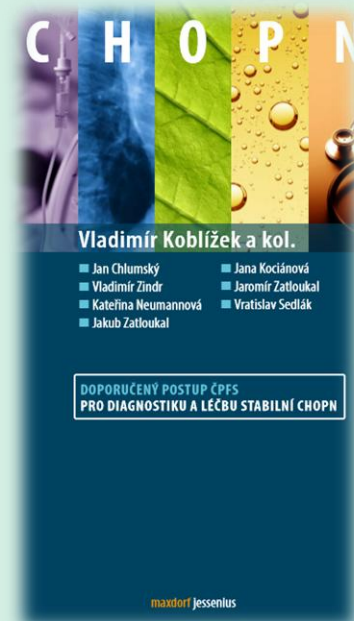
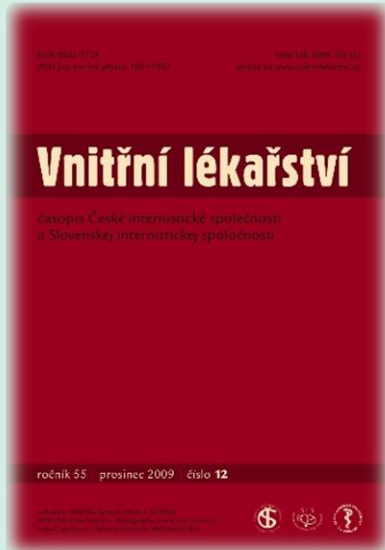
Statistical plan	According to power calculation analysis and equal distribution of patients per participating country, a total of 3500 patients from the CEE region will be required for an estimated 20% prevalence of frequent disease categories with a precision of roughly $\pm 1.3\%$ in the CEE region and $\pm 3.6\%$ within each participating country. Prevalence of less frequent categories (5% prevalence) will be estimated with a precision of roughly $\pm 0.7\%$ in the CEE region and $\pm 2.0\%$ within each participating country. This sample size allows to detect statistically significant differences in the relative risk of categories between different countries
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Zdroje informací



Kategorie pacientů: Fenotyp pacientů Diagnostická kritéria pacientů Porovnání s doporučením

Kategorie pacienta 2/D
Fenotyp pacienta bronchitický CHOPN a bronchiektázie • neterminální CHOPN s respiračním selháním

Pokud lze u pacienta stanovit, zaškrtně některý z níže uvedených parametrů:

Fenotyp bronchitický
 Přítomnost produktivního kašle (3 měsíce/rok, v posledních nejméně 2 letech)

Fenotyp emfyzematický
 Celoživotní nepřítomnost produktivního kašle (suchý kašel může být přítomen) • současně známky plic. emfyzému (dle HRCT a TLCO)

Fenotyp CHOPN a bronchiektázie
 Akcentovaná kachexie, expirace, mladší věk, nekuřáci, prodloužené infekce plic a DDC, hemoptýzy, HRCT známky bronchiektázie

Fenotyp overlapu CHOPN s bronchiálním astmatem (2 hlavní nebo 1 hlavní + 2 vedlejší kritéria)

Hlavní kritéria:	Vedlejší kritéria:
<input type="checkbox"/> Výrazný pozitivní BDT (vzestup FEV1 15% a 400 ml)	<input type="checkbox"/> Pozitivní BDT (vzestup FEV1 12% a 200 ml)
<input checked="" type="checkbox"/> Vzestup FENO a/nebo vzestup Eo ve sputu	<input type="checkbox"/> Vzestup celkové IgE
<input type="checkbox"/> AB v anamnéze	<input type="checkbox"/> Alergická anamnéza

Fenotyp frekventní exacerbace
 Přítomnost častých akutních exacerbací (2/rok) léčených ATB a/nebo systémovými kortikosteroidy

Fenotyp plicní kachexie
 FFM1 16 kg/m² (muži)
 FFM1 15 kg/m² (ženy)
 BMI 21 kg/m² (bez před-zevn. příčiny)

neterminální CHOPN s respiračním selháním respirační selhávání s terminálním CHOPN

