

3. Multimorbidity Day 2018

Dyspnoe und Depression



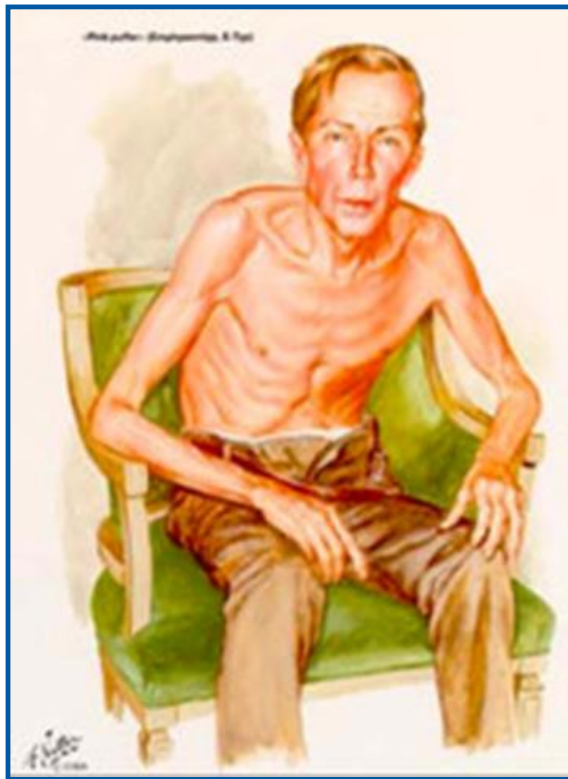
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Helene Fischer, Raucherin

Dyspnoe



= **subjektiv** empfundenenes Gefühl der erschwerten Atmung oder von Lufthunger

≠ Hyperpnoe

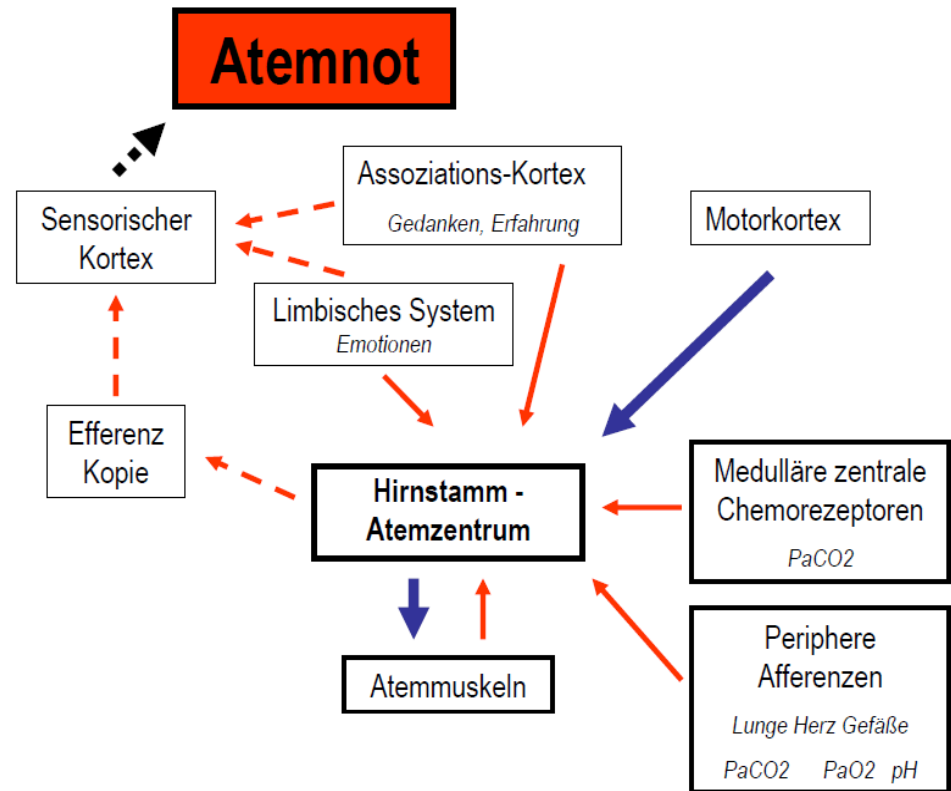
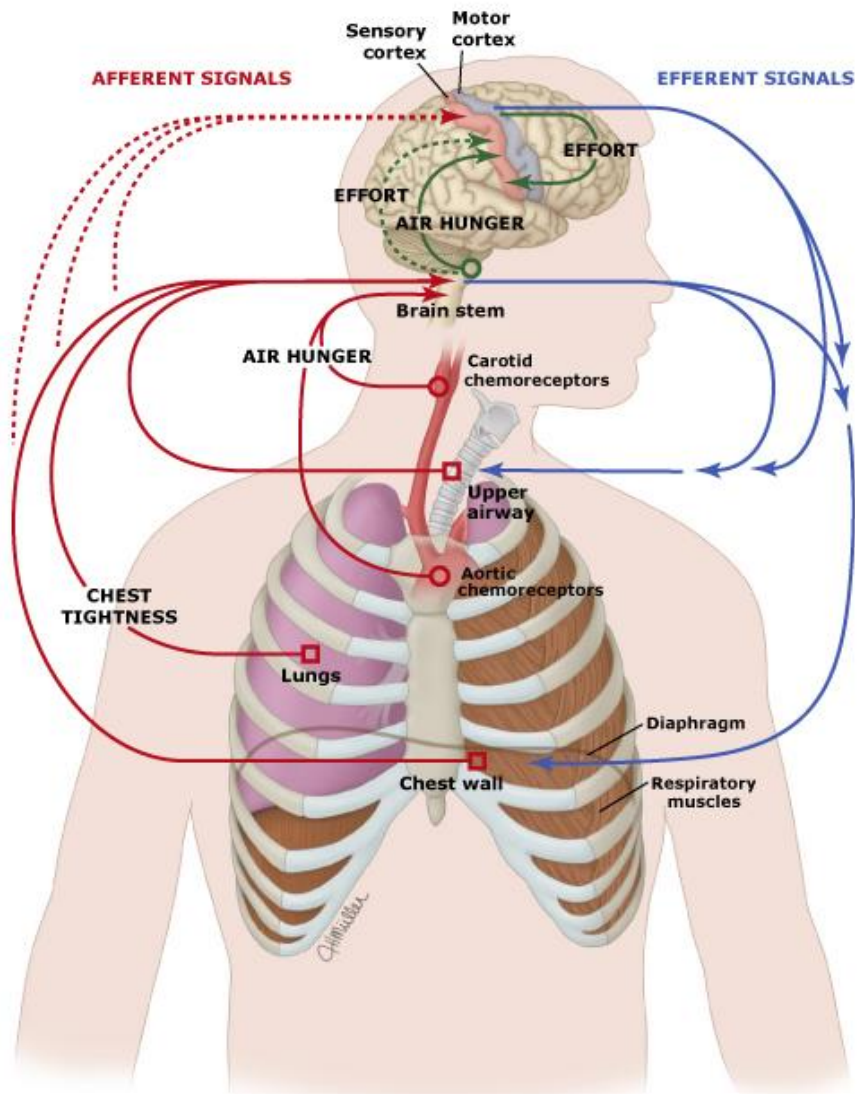
≠ Hypopnoe

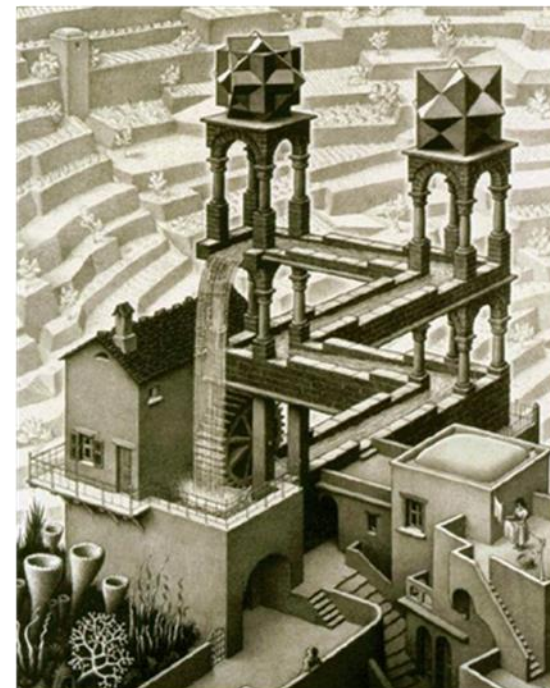
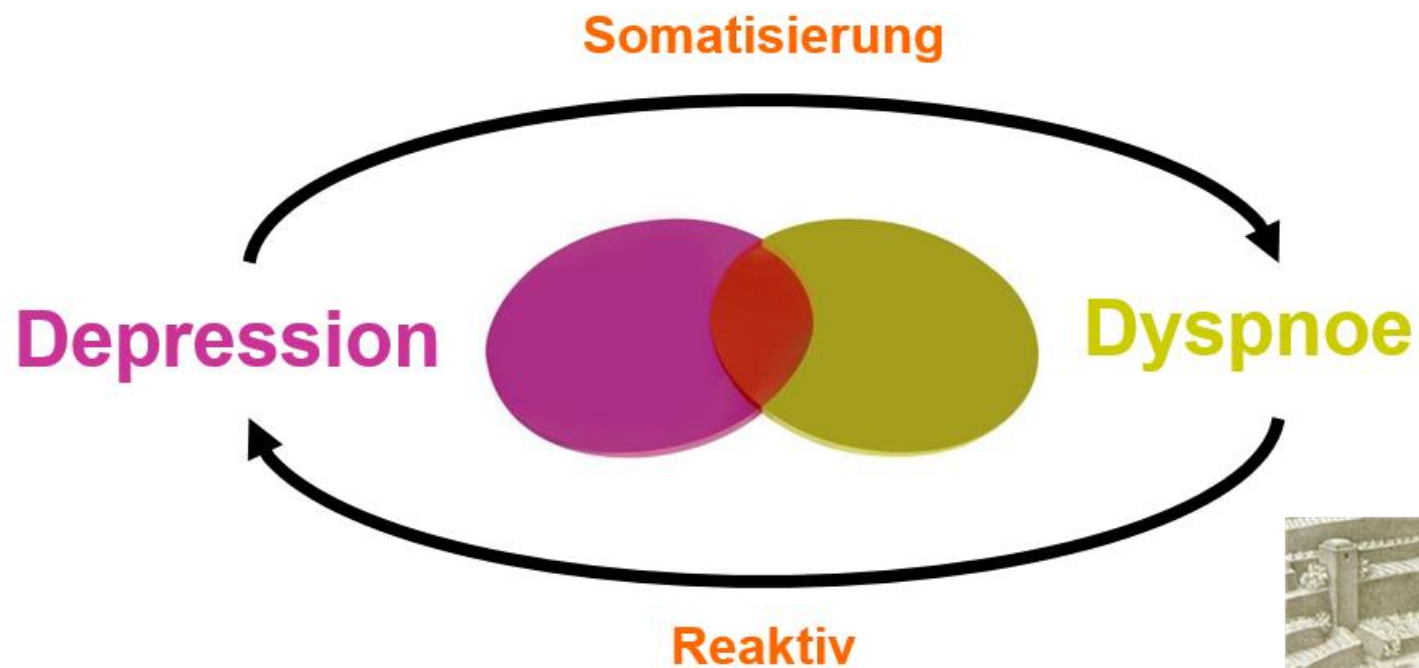
≠ Tachypnoe

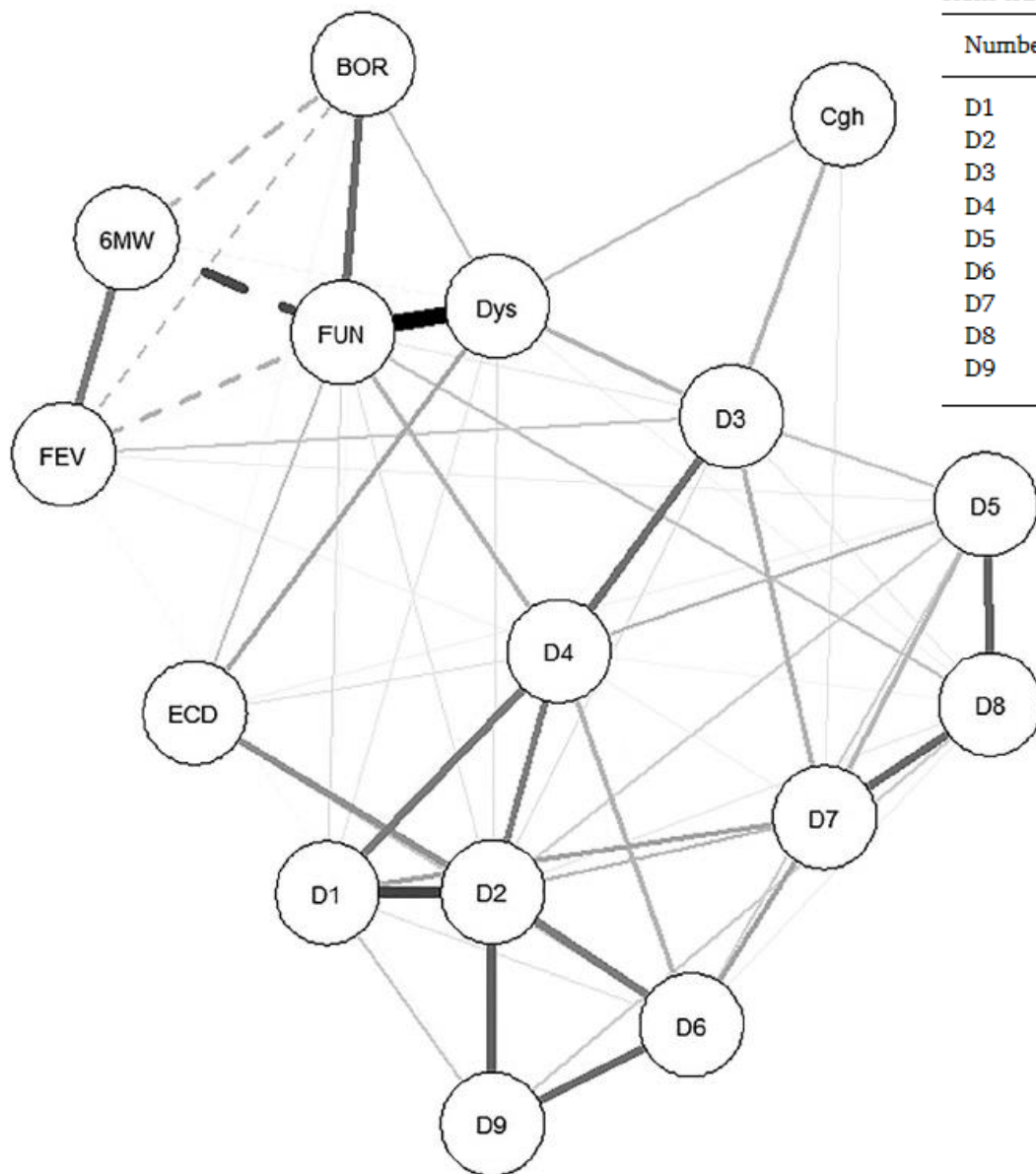
≠ Bradypnoe

≠ Hyperventilation

≠ Hypoventilation



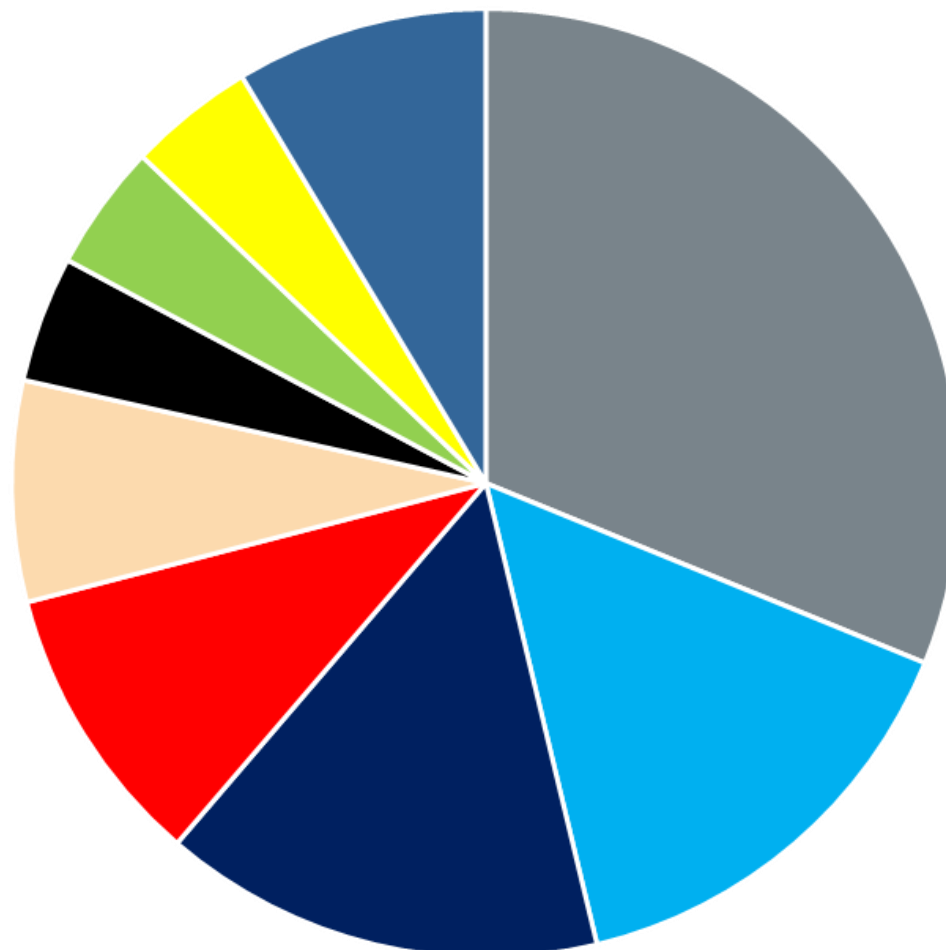




Item numbers and item contents of PHQ-9.

Number	Content
D1	Little interest/pleasure
D2	Feeling down, depressed, or hopeless
D3	Sleep problems
D4	Feeling tired/little energy
D5	Poor appetite/overeating
D6	Feeling bad about yourself
D7	Trouble concentrating
D8	Moving, speaking slowly/restlessly
D9	Suicidal thoughts

Ecd= emotional/cognitive response to dyspnea



- Asthma
- Interstitielle Pneumopathie
- COPD
- Herzinsuffizienz
- Obere Atemwegsprobleme
- Dekonditionierung
- Reflux
- Psychogen
- Übrige

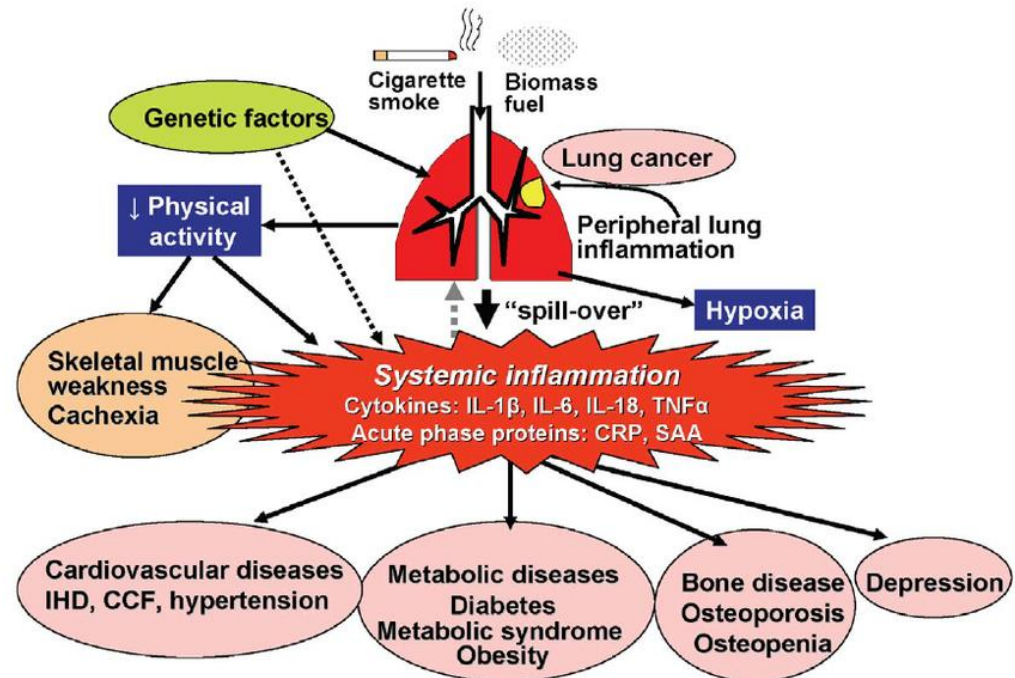
Depression bei COPD

- Prävalenz der COPD: ca. 10%
- RR für Depression bei COPD: 1.69
- Prävalenz der Depression bei COPD: 10-57%
- Mechanismus

- Zigarettenrauchen?
- Inflammation («spill over»)?
- Hypoxie?

- **Konsequenzen**

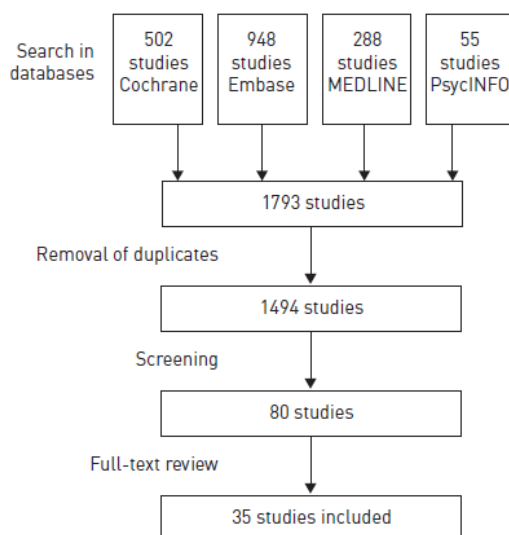
- **Mortalität (HR 2.29)**
- **Exazerbationen (HR 1.12)**
- **QOL**





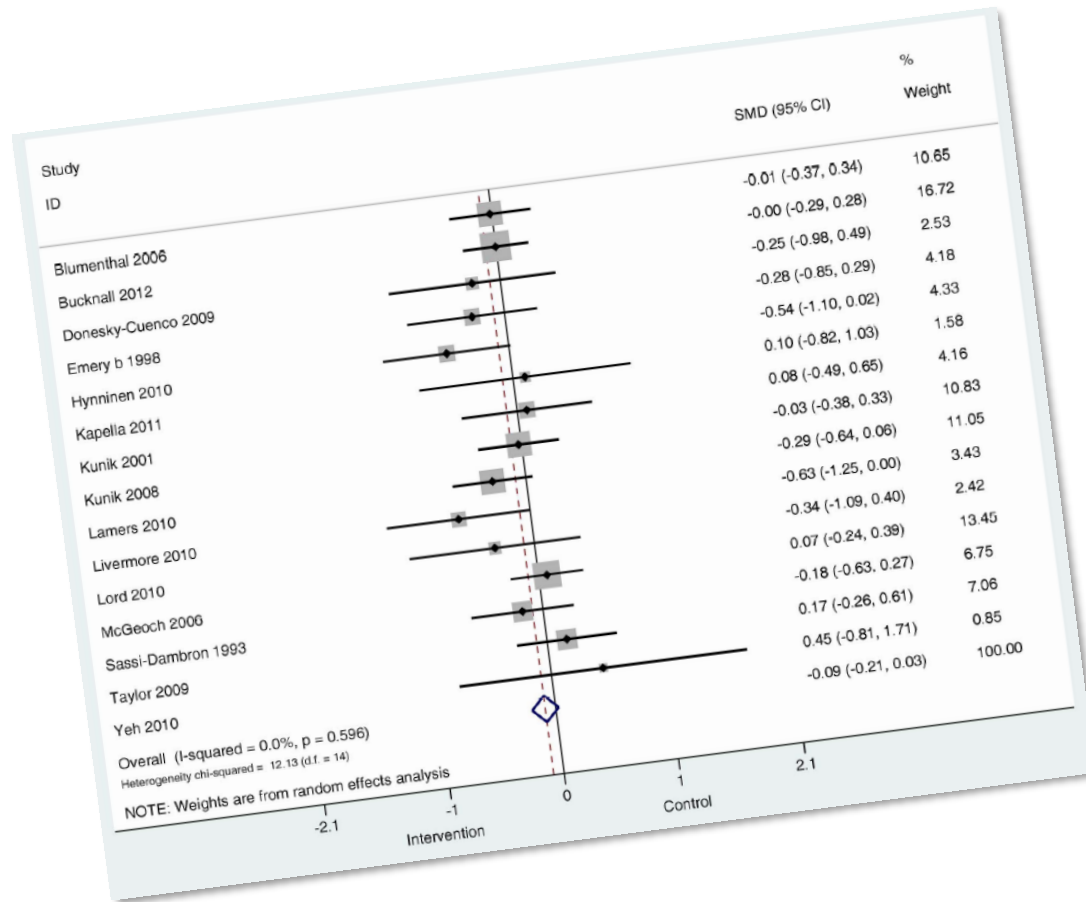
The frequent and underrecognised co-occurrence of acute exacerbated COPD and depression warrants screening: a systematic review

Leopold Lecheler¹, Maximilian Richter², Daniel P. Franzen³,
Silvana K. Rampini^{1,4}, Marcus Cheetham^{1,4,5}, Josef Jenewein⁶,
Edouard Battegay^{1,4,5} and Albina Nowak^{1,4}



- “The co-occurrence of AECOPD and depression seems to result in increased readmission rates and long-term mortality»
- Trotzdem «unter-beforschtes» Thema

Depression bei COPD



- Tiefe Fallzahlen
 - Ungleiche Populationen
 - Heterogene Screeningtools
 - COPD Schweregrade nicht immer berücksichtigt
- Entspannungstherapie
 - Kognitive Verhaltenstherapie
 - Self-Management Programme
 - Keine Routineverschreibung von Antidepressiva (NICE)
 - U.a. Disease-Disease-Interaction (Anticholinergika)

Pulmonale Rehabilitation

= Strukturierte
Bewegungstherapie
+ Patientencoaching
+ Raucherentwöhnung
+ Beratung und
Hilfsmittelabgabe
+ Ernährungsberatung

- Depression → Frühzeitiges Abbrechen des Programms
- ABER weniger Depression nach Rehabilitation (zumindest kurzfristig)

	6 Wochen	p=	1 Jahr	p=
6MWD	76	0.0001	28	0.002
SGRQ	-9	0.0001	-4.8	0.01
CRDQ (emotion)	7.8	0.0001	2.2	0.064
SF36 (mental component score)	8.8	0.0001	2.5	0.084
HAD (depression)	-2.1	0.0001	-1.3	0.004

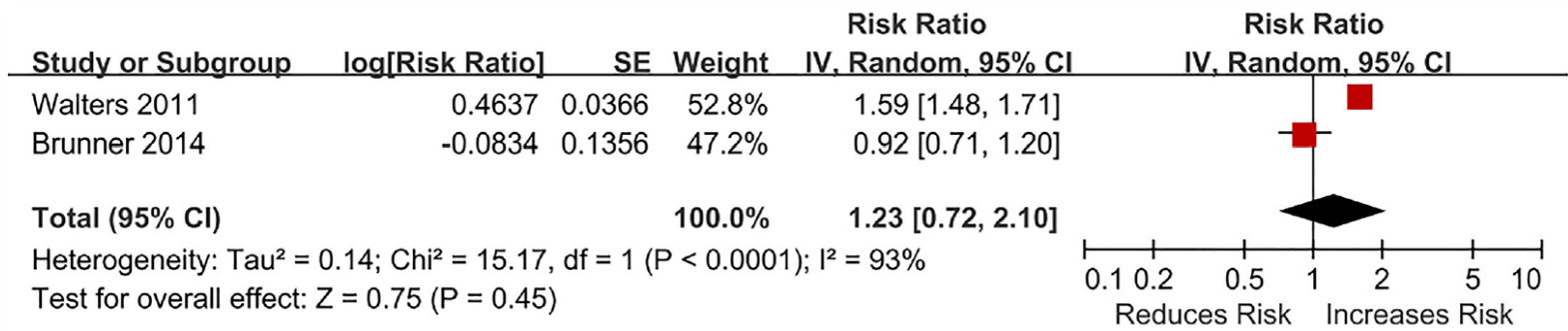
Griffiths et al, Lancet 2000

- Benefit der Rehabilitation bezüglich körperlicher Belastbarkeit und QOL unabhängig von Depression
 - → Depression kein Ausschlusskriterium für pulmonale Rehabilitation (BTS-Guidelines 2013)

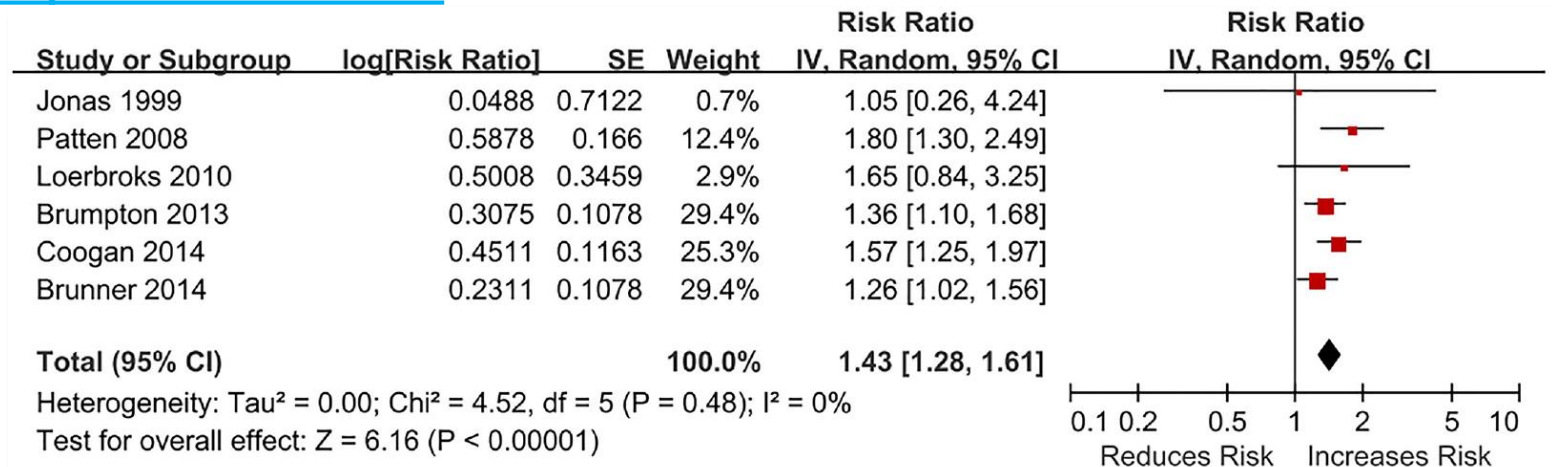
Depression und Asthma

- Bi-direktionale Assoziation?

- Asthma → Depression



- Depression → Asthma



Depression und Asthma

- Depression → Asthma (Pathogenese):
 - IL-1, IL-4, IL6, TNF-a («Inflammatory Response»)
 - Neuroendokrine Effekte
 - Assoziation mit Adipositas und Rauchen
 - Oxidativer Stress

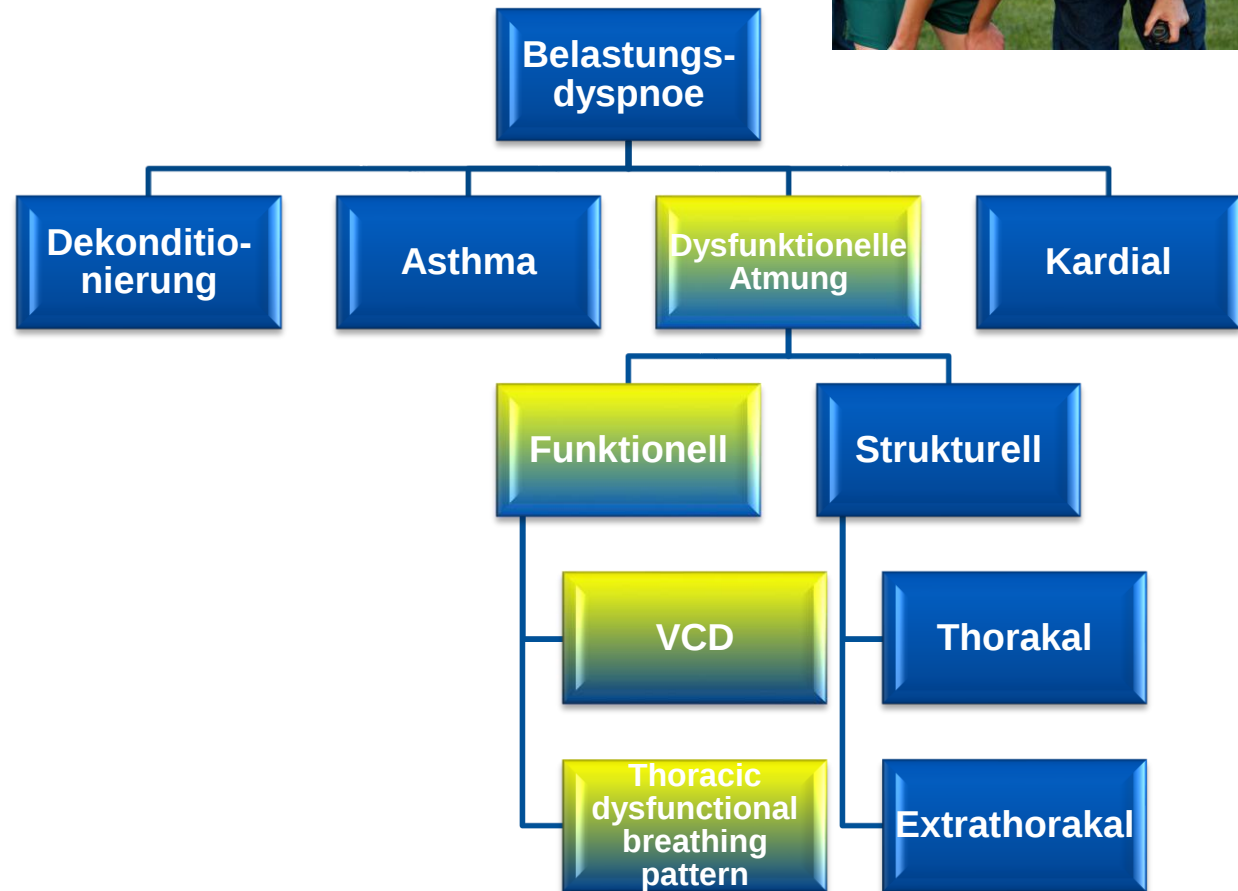
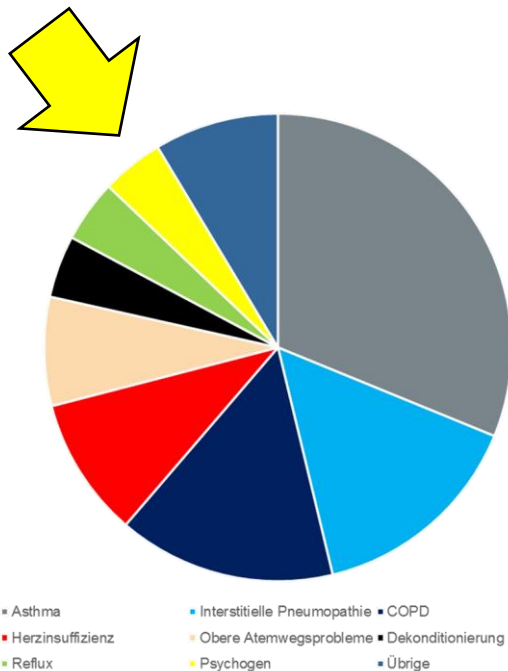
Depression und Asthma Outcome

- Asthmakontrolle
- QOL
- Arztbesuche
- Adhärenz

Jiang et al, J Affect Disord 2014

Krauskopf et al, J Asthma 2013

«Psychogene Dyspnoe»



Depression und ILD

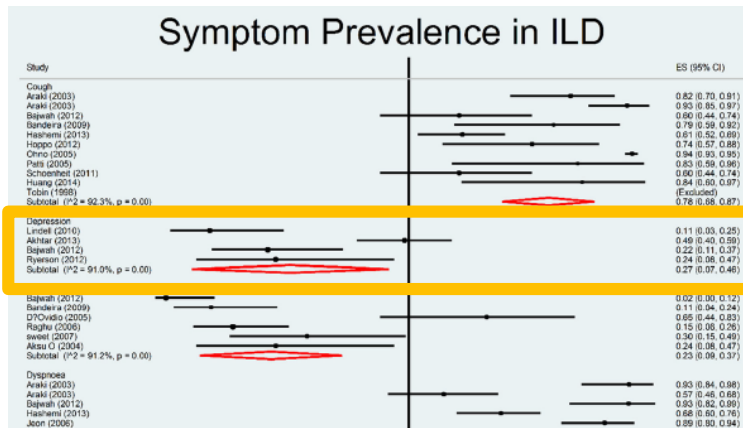


Table 2 Summary of the prevalence of symptoms in Cancer, AIDS, CHF, COPD, ESRD and PIF-ILD (figures for other conditions taken from Solano et al. 2006 [36])

Symptoms	PIF-ILD	Cancer	AIDS	CHF	COPD	ESRD
Pain	9%	30–94%	30–98%	14–78%	21–77%	11–93%
Depression	10–49.2%	4–80%	17–82%	6–59%	17–77%	2–61%
Anxiety	22–58%	3–74%	13–76%	2–49%	23–53%	7–52%
Fatigue	7.6–29%	23–100%	43–95%	42–82%	32–96%	13–100%
Breathlessness	54.7–98%	16–77%	43–62%	18–88%	56–98%	11–82%
Insomnia	6–46.6%	3–67%	40–74%	36–48%	15–77%	1–83%
Nausea	13%	2–78%	41–57%	2–48%	4%	8–52%
Diarrhea	2%	1–95%	29–53%	12%		8–36%

AIDS Adult Immune Deficiency Syndrome, *CHF* Chronic Heart Failure, *COPD* Chronic Obstructive Pulmonary Disease, *ESRD* End-stage Renal Disease

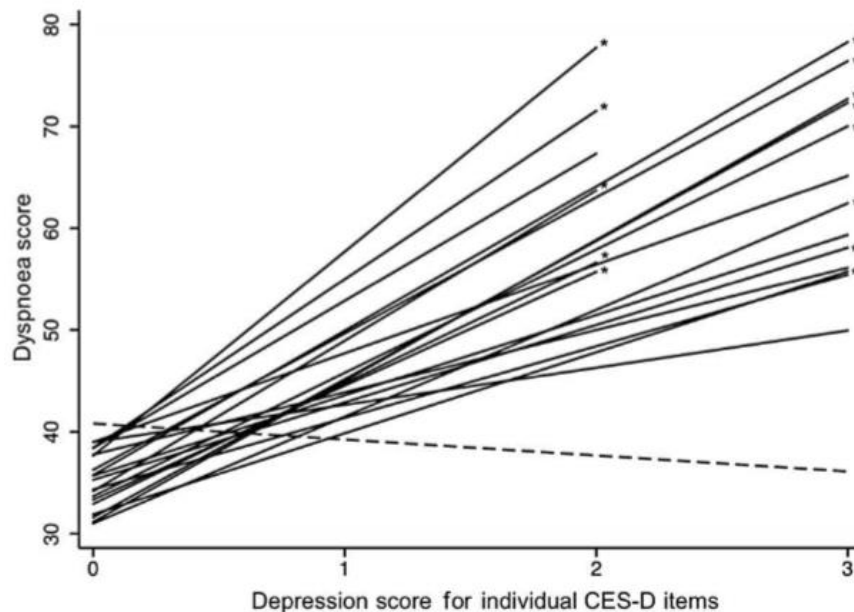
Depression und ILD



Table 3 Multinomial logistic regression model for depression

		Beta	Standard error of beta	P value	Odds ratio	95% CI of odds ratio
Borderline case (n = 21)	Intercept	-5.860	2.224	0.008		
	Number of comorbidities	0.815	0.282	0.004	2.26	1.301–3.925
	MMRC	0.891	0.386	.021	2.438	1.145–5.193
	6MWD	0.003	0.003	.364	1.003	0.997–1.009
Case (n = 9)	Intercept	-8.895	3.434	0.010		
	Number of comorbidities	0.705	0.374	0.06	2.024	0.972–4.212
	MMRC	1.345	0.572	0.019	3.840	1.251–11.782
	6MWD	0.006	0.005	0.218	1.006	0.997–1.015

6MWD, 6-min walk distance; CI, confidence interval; MMRC, Modified Medical Research Council Dyspnoea Scale.



Holland et al, Respiriology 2014

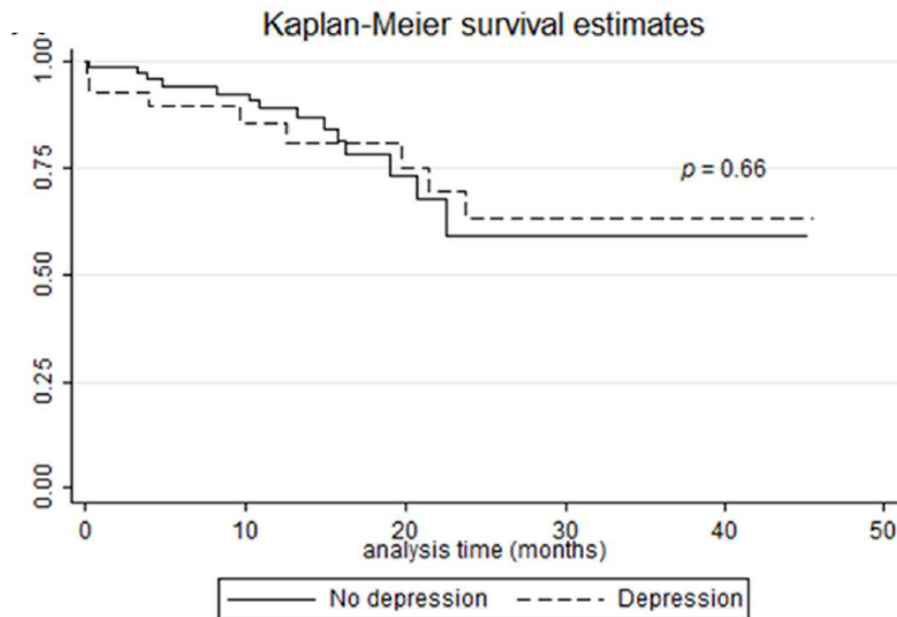
Ryerson et al, Respiriology 2011

Depression und ILD

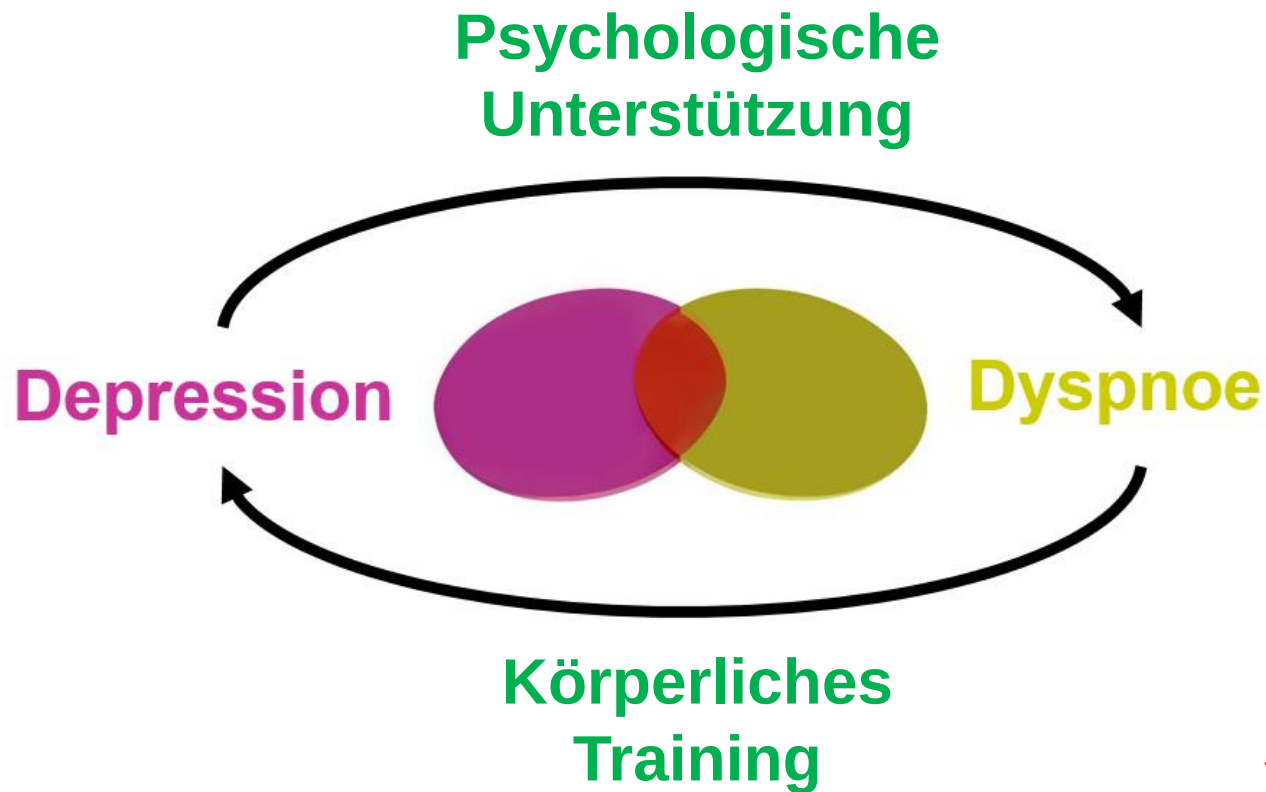


	9 Wochen	6 Monate	p
6MWD (m)	25	21	0.03
CRDQ (Dyspnoe)	2.5	1.2	0.02
CRDQ (Emotion)	3.3	2.0	0.008
SGRQ (Total)	-5.8	-1.4	0.04

Depression und ILD



	HADS < 7	HADS > 8	p=
Hospitalisationsrisiko	1.00	1.07	0.8



Schlusswort

- Depression ist eine häufige, aber auch unter-diagnostizierte Komorbidität bei den meisten Erkrankungen mit Dyspnoe
- Depression verschlechtert die Prognose von COPD und Asthma (nicht jedoch von ILD)
- Erster Schritt = frühe Diagnose der Depression (Screening?)
- Allerdings wenig Evidenz für pharmakologische und nicht-pharmakologische Therapien (Analogien von Nicht-Dyspnoe-Patienten)
- COPD / ILD → Pulmonale Rehabilitation / Körperliches Training
- COPD / Asthma: Pathogenetische Assoziationen (Spill Over)
- ILD → Pathogenetische Zusammenhänge unklar

Danke



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