

EUROPEAN RESPIRATORY SOCIETY INTERNATIONAL CONGRESS 2016 LONDON united kingdom, 3–7 september

ERSCONGRESS.ORG



Smoking cessation in difficult population groups

Smoking cessation in Smokers with Respiratory Diseases



Prof. Christina Gratziou Head of ERS Advocacy Council



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I have no real or perceived conflict of interest relevant to this presentation

PLEASURE ?

DEPENDENCE !!



SMOKING PROBLEM !!

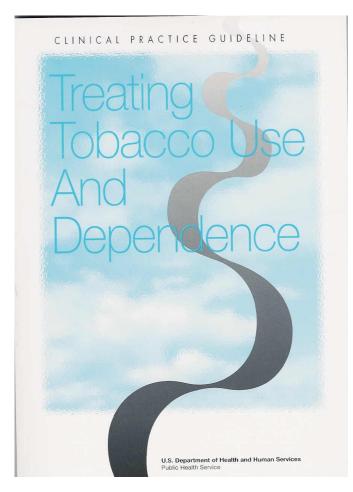


HOW TO STOP IT?



International guidelines on Smoking Cessation

- Jama 2000.
 Fiore et al. (USA)
- Thorax 2000
 West et al. (UK)
- Chest 2002
 Anderson et al. (USA-ACCP)
- JAMA. 2008



US Public Health Service Clinical Practice Guideline

International guidelines on Smoking Cessation

Updated US smoking cessation guideline advises counseling, combining therapies.

- JAMA. 2008 Jun 18;299(23):2736

Clinical Practice Guideline

Treating Tobacco Use and Dependence: 2008 Update

Guideline Panel

Michael C. Fiore, MD, MPH (Panel Chair) Carlos Roberto Jaén, MD, PhD, FAAFP (Panel Vice Chair) Timothy B. Baker, PhD (Senior Scientist) William C. Bailey, MD, FACP, FCCP Neal L. Benowitz, MD Susan J. Curry, PhD Sally Faith Dorfman, MD, MSHSA Erika S. Froelicher, PhD, RN, MA, MPH Michael G. Goldstein, MD Cheryl G. Healton, DrPH Patricia Nez Henderson, MD, MPH Richard B. Heyman, MD Howard K. Koh, MD, MPH, FACP Thomas E. Kottke, MD, MSPH Harry A. Lando, PhD Robert E. Mecklenburg, DDS, MPH Robin J. Mermelstein, PhD Patricia Dolan Mullen, DrPH C. Tracy Orleans, PhD Lawrence Robinson, MD, MPH Maxine L. Stitzer, PhD Anthony C. Tommasello, PhD, MS Louise Villejo, MPH, CHES Mary Ellen Wewers, PhD, MPH, RN

CLINICAL GUIDELINE

Annals of Internal Medicine

Behavioral and Pharmacotherapy Interventions for Tobacco Smoking Cessation in Adults, Including Pregnant Women: U.S. Preventive Services Task Force Recommendation Statement

Albert L. Siu, MD, MSPH, for the U.S. Preventive Services Task Force*



International Guidelines on Smoking Cessation

Smoking is considered as :

- Chronic Disease
- Dependence
- Can be treated
- Needs medical interference

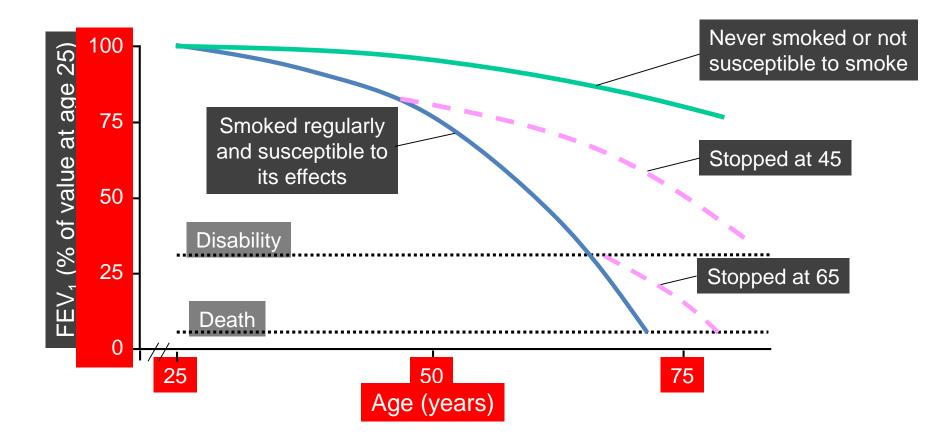
- Frequent Relapses
- Continuous care and treatment
- Motivation of physicians and of smokers
- Treatment approaches
 Pharmacotherapy and behavioral support



SMOKING CESSATION BENEFITS

- The large survival benefits for total, cardiovascular, and lung cancer mortality make smoking cessation the most important treatment for all respiratory patients,
- This is very important for patients with COPD and Asthma.

SMOKING CESSATION AND LUNG FUNCTION



Adapted from: Fletcher et al, Br Med J 1977.

SMOKERS WITH RESPIRATORY DISEASES





"WHY SHOULD I QUIT?

"I AM ALREADY ILL. THE HARM IS DONE."



COMMON REASONS FOR FAILURE

- Withdrawal symptoms
- Strong craving symptoms
- Negative mood-depression
- Weight gain
- Poor motivation
- Poor compliance to treatment
- Strong self-confidence





SPECIAL CHARACTERISTICS OF COPD SMOKER PATIENTS

- Breathing pattern (deep and long breaths, breath holding)
- Airways obstruction (air trapping, hyperinflation- longer smoke exposure)
- High Nicotine Dependence
- Psychological parameters

Drug Safety 2003;26(6):381-403

Characteristics of COPD smokers

Chest 2001;119(5):1365-70

	Smokers				
Characteristics	With COPD $(n = 153)$	Without COPD (n = 870)	p Value		
Cigarettes/d	24.2(14.4)	18.5(11.7)	< 0.0001		
Fagerström test score	4.77(2.45)	3.15(2.38)	< 0.0001		
Low dependence (0–3)	51 (33.6)	501 (57.7)			
Moderate dependence (46)	58 (37.7)	279(32.1)			
$(4 \rightarrow 0)$ High dependence (≥ 7)	44 (28.8)	90 (10.2)			
CO in exhaled air, ppm	19.71 (16.29)	15.38 (12.09)	< 0.0001		
Smoke inhalation, No. (%)			< 0.0001		
Always	113 (73.9)	609 (70)			
Occasionally	24(15.7)	161 (18.5)			
Never	12(7.8)	82(9.4)			
Do not know	4 (2.6)	18 (2.1)			

Table 4—Smoking Characteristics*

*Values given as mean (SD), unless otherwise indicated.

Characteristics of COPD smokers

Chest 2001;119(5):1365-70

	Sm		
	With COPD	Without COPD	
Characteristics	(n = 153)	(n = 870)	p Value
Precontemplation, %	76(49.7)	371 (42.6)	NS
Contemplation, %	20(13.1)	166 (19.1)	NS
Preparation, %	14(9.2)	60(7)	NS
Attempts to quit, %			
Never	52(34.9)	335 (39.4)	
1–3	65 (43.6)	364 (42.8)	
>3	32(21.5)	151 (17.8)	
No answer	4	20	

Table 5—Phase of Smoking Cessation*

*Values given as mean (SD). See Table 2 for abbreviation.



CHARACTERISTICS OF COPD SMOKERS

No significant differences, regarding:

- -The stage of the process of change.
- -The number of attempts to quit.
- -The motivation for stopping smoking

Jiménez-Ruiz at al. CHEST. 2001.



PLACE FOR MOTIVATION

- In order to move into preparation and action smoker needs
- To believe that is is important enough to do so
- To feel confident in his /her ability to succeed

Health professionals may

- Give advise regarding personal health risks
- Strengthen the personal benefits
- Start to indicate the need for skill training

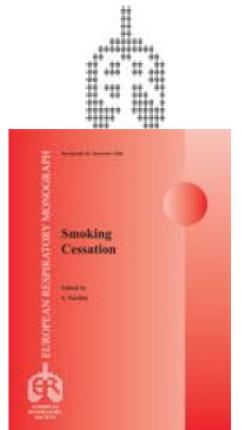
ERS Task Force Recommendations on SC ERJ 2007 ERS Monograph 2008

Eur Respir J 2007; 29: 390–417 D0: 10.1183/09031936.00060.806 Copyright©ERS Journals Ltd 2007

ERS TASK FORCE

Smoking cessation in patients with respiratory diseases: a high priority, integral component of therapy

P. Tønnesen*, L. Carrozzi[#], K.O. Fagerström¹, C. Gratziou⁺, C. Jimenez-Ruiz⁵, S. Nardini[†], G. Viegi**, C. Lazzaro^{##}, I.A. Campell¹¹, E. Dagli⁺⁺ and R. West⁵⁵





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EUROPEAN RESPIRATORY *journal*

OFFICIAL SCIENTIFIC JOURNAL OF THE ERS

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a systematic literature review page 96 / Coeliac disease and asthma association in children: the role of antibiotic consumption page 115 / Future trends in cystic fibrosis demography in 34 European countries page 133 Sources /

Series / Therapeutic management of ALK* nonsmall cell lung cancer patients page 230



New ERS Scientific Task Force ERS Statement on SC ERJ Publication in 2015

> TASK FORCE REPORT ERS STATEMENT

Statement on smoking cessation in COPD and other pulmonary diseases and in smokers with comorbidities who find it difficult to quit

Carlos A. Jiménez-Ruiz¹, Stefan Andreas², Keir E. Lewis³, Philip Tonnesen⁴, C.P. van Schayck⁵, Peter Hajek⁶, Serena Tonstad⁷, Bertrand Dautzenberg⁸, Monica Fletcher⁹, Sarah Masefield¹⁰, Pippa Powell¹⁰, Thomas Hering¹¹, Stefano Nardini¹², Thomy Tonia¹³ and Christina Gratziou¹⁴

European Respiratory Journal Jul 2015, 46 (1) 61-79;



Qualitative review.

- COPD
- Lung Cancer
- Asthma
- Tuberculosis

Description

- Epidemiological
- Benefits of stopping smoking
- To assess tobacco dependence
- Interventions
- Characteristics and management of "hardcore" smokers

european respiratory society every breath counts



Methodology

- MEDLINE Studies
 - Dealing with pulmonary disorders
 - RCTs and longitudinal studies
 - Evaluation of a smoking cessation intervention
 - Published in English



- COPD
 - Tobacco smoking is the major etiological factor for the development of COPD.
 - Smoking cessation is the only therapeutic intervention that can avoid chronic progression of COPD.



- Benefits of smoking cessation in COPD
 - It reduces the annual decrease of FEV1.
 - It improves responses to bronchodilator drugs and inhaled corticosteroids.
 - It reduces the incidence of acute exacerbations.
 - It reduces bronchial infections.



COUNSELLING TIPS FOR SC IN COPD

TABLE 2 Characteristics of counselling for smoking cessation in smokers with chronic obstructive pulmonary disease (COPD)

Clear explanation of the relationship between smoking and COPD, and the relationship between smoking cessation and improvement of COPD Use of spirometric results, CO monitors and "lung age" to increase motivation to quit Setting a quit date, identifying high-risk situations and developing coping skills Arranging follow-up visits in order to specifically address smoking cessation Explanation of the withdrawal syndrome Providing self-help materials Sending personal letters, e-mails and SMS



TABLE 3 Pharmacological treatments for smokers with chronic obstructive pulmonary disease (COPD)

Intervention	First author [ref.]	Subjects	Design	Duration	Outcome quit rate %	Statistical significance?
Nicotine replacement therapy	TØNNESEN [47]	370 smokers with COPD	NST/ placebo, low CBT/ high CBT	12 weeks	At 12 months: NST 17%; placebo 10% No difference between high or low CBT	Yes OR 2.88 (1.34-6.16)
Bupropion (BP) and nortriptyline (NT)	TASHKIN [48]	404 smokers with COPD	BP/ placebo	12 weeks	At 6 months: BP 16%; placebo 9%	Yes p<0.005
	WAGENA [49]	255 smokers at risk of or with COPD	BP/NT/ placebo	12 weeks	At 6 months: BP 28%; NT 25%; placebo 15%	Yes for BP versus placebo No for NT versus placebo
	VAN SCHAYCK [50]	255 smokers at risk of or with COPD	BP/NT/ placebo	12 weeks	At 12 months: BP 20.9%; NT 20%; placebo 13.5%	No
Varenicline (VRN)	TASHKIN [51]	504 smokers with COPD	VRN/ placebo	12 weeks	At 12 months: VRN 18.6%; placebo 5.6%	Yes OR 4.04 (2.13-7.67)

The table only shows randomised, double-blind, placebo-controlled trials. All studies, but VAN SCHAYCK *et al.* [50], assessed cessation by measuring CO in expired air. VAN SCHAYCK *et al.* [50] assessed cessation by measuring urinary cotinine. NST: nicotine sublingual tablets; CBT: cognitive behavioural therapy.



Lung Cancer

- 85 % of lung cncer are caused by smoking
- 10–13% of lung cancer patients still smoke 6 months after diagnosis
- Smoking cessation advice can start at the moment of diagnosis (is a teachable moment)
- SC strategy include counselling and use of pharmacotherapy (NRTs, Bupropion, Varenicline)



BENEFITS OF SMOKING CESSATION IN LUNG CANCER

TABLE 4 Benefits of smoking cessation in lung cancer

Reduction in surgical complications

Reduction in the incidence of surgical wound complications

Reduction in the incidence of post-operative pulmonary complications

Reduction in the incidence of post-operative cardiovascular complications

Reduction in the incidence of re-operations

Reduction in the length of hospital stay

Reduction in hospital mortality

Improvement of responses to chemotherapy and radiotherapy

Improvement of response to platinum-based chemotherapy

Avoiding the effects of smoking on the metabolism of drugs used for chemotherapy

Reduction in the side-effects of chemotherapy and radiotherapy

Increase in survival time

Diminishing the risk of recurrence

Diminishing the risk of having a second primary malignancy

Improvement of quality of life



SMOKING CESSATION IN LUNG CANCER

TABLE 5 Characteristics of counselling for smoking cessation in smokers with lung cancer

Direct, sensible and empathic Provided at every visit Considers that lung cancer patients can be depressed, antidepressants are sometimes used Considers that lung cancer patients can suffer from a high degree of nicotine dependence The use of pharmacological treatment for smoking cessation is standard practice Sending positive messages to patients (see table 4) Addressing fatalistic beliefs (see table 4)



Asthma

 Smoking rate among asthma patients is similar to the general population

TABLE 7 Summary of the relevant issues for smoking cessation in patients with asthma

Smoking rate among asthma patients is similar to the general population Smoking has detrimental effects on asthma

Greater decline in forced expiratory volume in 1 s

Lack of response to medications (bronchodilator drugs and inhaled corticosteroids)

Increased need for use of concomitant medications

Asthma patients who smoke can suffer from higher nicotine dependence and are less likely to attend education programmes

Counselling and use of pharmacological treatments is a good approach for smoking cessation in asthma patients; nevertheless, there is a lack of smoking cessation trials in these patients



Tuberculosis

Smoking rate among people with TB is higher than in the general population

TABLE 8 Summary of the relevant issues for smoking cessation in patients with tuberculosis (TB)

Smoking rate among people with TB is higher than in the general population Smoking is an important risk factor for both pulmonary and extrapulmonary TB TB risk increases in those exposed to passive smoking

Smoking leads to worse TB outcomes

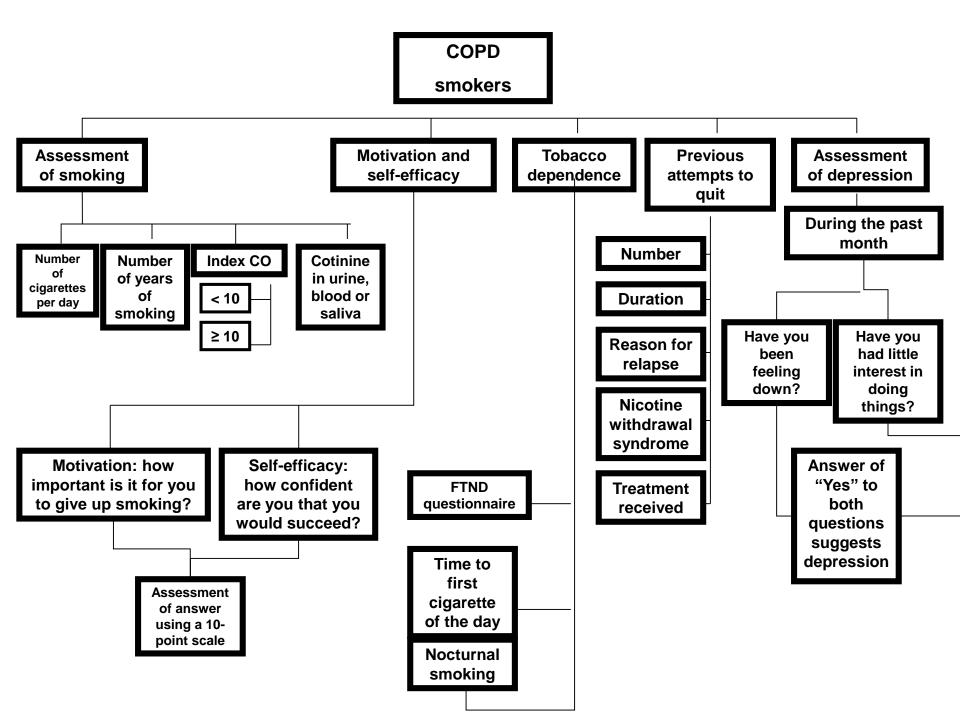
Smokers present later to healthcare providers

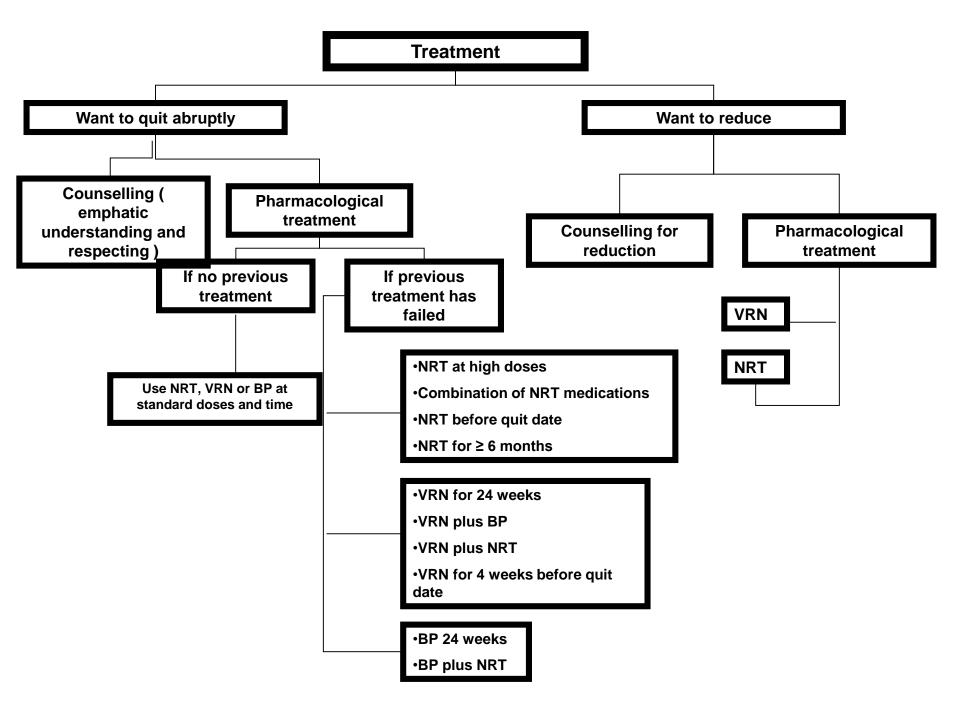
Smokers are less compliant with TB medications

Smoking alters immunological responses and reduces mucociliary clearance

Smoking increases clearance of TB medications

Smoking cessation strategies for TB patients include: a combination of counselling (brief behavioural intervention at diagnosis followed by monthly behavioural support throughout the TB treatment course) and pharmacological treatment (nicotine replacement therapy, bupropion and varenicline)







Conclusions.

According to ERS consensus document

- There are evidence-based links among smoking and respiratory disorders.
- Smoking cessation in these smokers with respiratory problems must be a priority.
- A combination of counseling plus pharmacological medications is crucial to help these patients quit.



A REAL LIFE STUDY OF SC IN COPD & ASTHMA

Respiratory Medicine (2014) 108, 577-583

Table 1Demographics and smoking attitudes characteristics of the study population.

	$COPD^a$ ($n = 166$)	Asthma ($n = 120$)	$ROAD^{b}$ ($n = 286$)	Control ($n = 1854$)
Age	55.4 (±9.3)	41.9 (±10.0)	49.7 (±11.8)	45.7 (±10.4)
Cigarettes/day	38.0 (±18.1)	32.7 (±15.3)	36.0 (±17.0)	33.3 (±14.4)
Packs/year	66.7 (±38.3)	37.0 (±29.7)	54.5 (±37.8)	43.6 (±27.0)
FDNT ^c	7.1 (±1.8)	7.0 (±2.1)	7.1 (±1.9)	7.1 (±2.0)
DSM-IV ^d	15.0 (±7.8)	14.5 (±7.4)	14.7 (±7.6)	13.4 (±7.6)
Motivation scale	8	9	8.5	8

Ch Gratziou^{a,*}, A. Florou^{a,1}, E. Ischaki^{b,2}, K. Eleftheriou^b, A. Sachlas^c, S. Bersimis^c, S. Zakynthinos^b

SMOKING ABSTINENCE IN SMOKERS WITH COPD OR ASTHMA : A REAL LIFE STUDY

Table 3 Continuous Abstinence Rate at 3 months (end of pharmacological treatment) and at 6, 9, 12 months after Target Quit Date (TQD) in smokers with ROAD vs control group and in smokers with COPD vs asthmatic smokers in the whole study population.

CAR ^a , <i>n</i> (%)	3 months	6 months	9 months	12 months
Control group	890 (48.0%)	549 (29.6%)	454 (24.5%)	295 (15.9%)
Smokers with ROAD ^b	145 (50.7%)	89 (31.2%)	81 (28.4%)	45 (16.0%)
p-Value	0.425	0.632	0.191	0.999
Smokers with COPD ^c	82 (49.4%)	48 (28.9%)	44 (25.9%)	23 (13.9%)
Smokers with asthma	63 (51.7%)	41 (34.2%)	37 (30.8%)	22 (18.3%)
p-Value	0.796	0.414	0.434	0.389

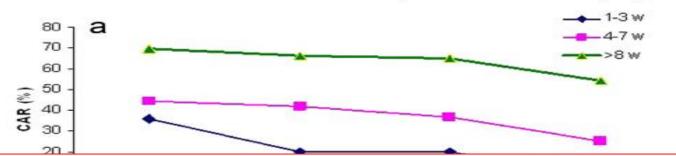
Table 4 Continuous Abstinence Rate at 3 months (end of pharmacological treatment) and at 6, 9, 12 months after Target Quit Date (TQD) in smokers with ROAD vs control group and in smokers with COPD vs asthmatic smokers in smokers with good compliance to the program.

CAR ^a , <i>n</i> (%)	3 months	6 months	9 months	12 months
Control smokers	890 (56.8%)	549 (52.1%)	454 (46.6%)	295 (39.3%)
Smokers with ROAD ^b	144 (59.3%)	89 (56.4%)	80 (51.9%)	45 (39.5%)
p-Value	0.500	0.361	0.249	0.999
Smokers with COPD ^c	82 (59.4%)	48 (55.2%)	43 (50.6%)	23 (37.7%)
Smokers with asthma	62 (57.9%)	41 (56.9%)	37 (51.4%)	22 (40.0%)
p-Value	0.919	0.949	0.999	0.950

Gratziou et al Respiratory Medicine 2014

SMOKING ABSTINENCE IN SMOKERS WITH COPD OR ASTHMA : A REAL LIFE STUDY

CAR in COPD smokers according to attendance of the program



Conclusion: The results support the view that smokers with respiratory obstructive airway diseases of any severity should be offered an intensive smoking cessation program with regular and long-term follow-up. This will help them to achieve high abstinence rates and prevent relapses.

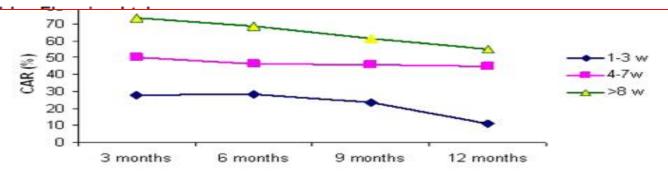


Figure 1 a. CAR at 3, 6, 9 and 12 months after TQD in smokers with COPD. b. CAR at 3, 6, 9 and 12 months after TQD in smokers with asthma.

Gratziou et al Respiratory Medicine 2014

SMOKING ABSTINENCE IN SMOKERS WITH COPD OR ASTHMA : A REAL LIFE STUDY

Regular attendance with frequent follow-up visits mainly for the first three months are important and the combination of medical counseling with individual behavioral supand pharmaceutical treatment can increase port abstinence rates through reinforcing the quit effort and overcoming possible withdrawal symptoms. Doctor's optimistic approach and more motivational tools to increase the patient compliance can be helpful. Quitting smoking is the healthiest intervention to affect the natural progression, the treatment response and quality of life in all respiratory patients.





BRINGING THE EVIDENCE TO POLICY MAKERS WEBSITE ON SMOKING AND LUNG HEALTH IN EUROPE



Lung Health and Smoking in Europe

SMOKEHAZ: The new ERS website on the effects of active and passive smoking Press Conference with keynote addresses from the President of ERS and the Greek Minister of Health

May 8th 2014, 11:00am

Royal Olympic Hotel, Athens Greece A collaboration project between

European Respiratory Society (ERS) University of Nottingham/UK Centre of Excellence for Tobacco and Alcohol Studies (UKCTAS) European Lung Foundation (ELF)













National Steering Committee on Tobacco Control



WHO IS IT AIMED AT?

The SMOKEHAZ website is aimed mainly at

- 1. policy makers and those who need to find easily and quickly reliable evidence based information, on the effect of active and passive smoking on respiratory health, which they can confidently know to come from a valid scientific source
- **2. all health practitioners** and **other health researchers** to facilitate their work to find evidence based information for their education and research
- **3. general public and patients with respiratory diseases** as they can find simple messages that can also be very easily understood





Home

f the health hazards of smoking				٩	KEEP UPDATED
What is the project?	Methods	Lung Conditions	Recommendations	Useful terms	Contact



Almost 6 million people in the EU die from tobacco each year. 5 million people die of active smoking and more than 600,000 non-smokers die from exposure to passive smoke. The aim of this website is to provide a one-stop web platform assessing the relationship between active and passive smoking and a range of health outcomes, focusing on lung health.

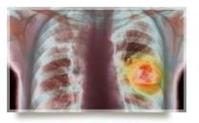
EUROPEAN LUNG WHITE BOOK

For more facts and figures about the impact of active and passive smoke on lung health please go to the European Lung White book published by the ERS.





COPD



LUNG CANCER



R

ALL LUNG CONDITIONS RECOMMENDATIONS european respiratory society every breath counts



A edentific review of the health hezende of emolding

www.smokehaz.eu El tabaquismo activo y pasivo está relacionado con muchas enfermedades pulmonares.

En adultos:

El cáncer de pulmón es:

El asma en adultos es:

en fumadores activos

fumadores activos

- 11 veces más probable en fumadores activos
- 1,41 veces (41%) más probable en personas expuestas al tabaquismo pasivo

1,61 veces (61%) más probable en

Las exacerbaciones del asma son:

1,71 veces(71%) más probables

La EPOC (Enfermedad Pulmonar Obstructiva Crónica) es:

- 4 veces más probable en fumadores activos
- Más probable en no fumadores expuestos al tabaquismo pasivo

La tuberculosis es:

- 1,57 veces(57%) más probable en fumadores activos
- 1,44 veces (44%) más probable en no fumadores expuestos al tabaquismo pasivo

La apnea del sueño es:

 2 vecesmás probable en fumadores activos

En niños:

Las infecciones respiratorias inferiores son:

 1,82 veces (82%) más probables en niños expuestos al tabaquismo pasivo de ambos padres

Las exacerbaciones del asma son:

 más probables en niños con asma expuestos al tabaquismo pasivo.

El asma infantil y las sibilancias

son:

- 1,65-1,70 veces (65-70%) más probables en niños expuestos al tabaquismo pasivo originado de la madre
- 1,30-1,50 veces (30-50%) más probables en niños expuestos al tabaquismo prenatal

La apnea del sueño es:

 más probable en niños expuestos al tabaquismo pasivo originado de la madre, durante o después del embarazo

www.smokehaz.eu

www.europeanlung.org

www.ersnet.org

The summary document available in 9 language

- English
- Greek
- German
- Italian
- Polish
- Portuguese
- Spanish
- Russian
- Arabic



Publications of SmokeHaz meta-analysis in CHEST Apr 2016

SmokeHaz: Systematic reviews and meta-analyses of the effects of smoking on respiratory health.

Jayes L, Haslam PL, Gratziou CG, Powell P, Britton J, Vardavas C, Jimenez-Ruiz C, Leonardi-Bee J; Tobacco Control Committee of the European Respiratory Society.

FURTHER DATA EXPOSURE TO SECONDHAND SMOKE

Eur J Public Health. 2016 Apr;26(2):344-9 Relationship of secondhand smoke exposure with sociodemographic factors and smoke-free legislation in the European Union. Filippidis FT, Agaku IT, Girvalaki C, Jiménez-Ruiz C, Ward B, Gratziou C, Vardavas CI; Tobacco Control Committee of the European Respiratory Society.





WHO Collaboration

New Project on Smoking Cessation training to organize Educational Courses to

"Help Smokers with Respiratory Diseases to Quit

• 3 years (2016-2019) project –funded by ERS



RESPIRATORY PHYSICIANS ROLE

- Need for Aggressive Disease Management
- NOT a PESSIMISTIC Approach
- It is possible to Break the chain of nicotine addiction
- We can offer smoking cessation opportunities to all smokers
- We can organise smoking cessation clinics
- We can use effective and safe treatments





Tobacco Control Policy

This is a major issue in ERS Health Policy Health Professionals have an important role to play

