Διακοπή καπνίσματος σε νοσηλευόμενους ασθενείς

(αναπνευστικούς και όχι)

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Πανεπιστήμιο Κρήτης

Smoking and Mental Illness — Breaking the Link

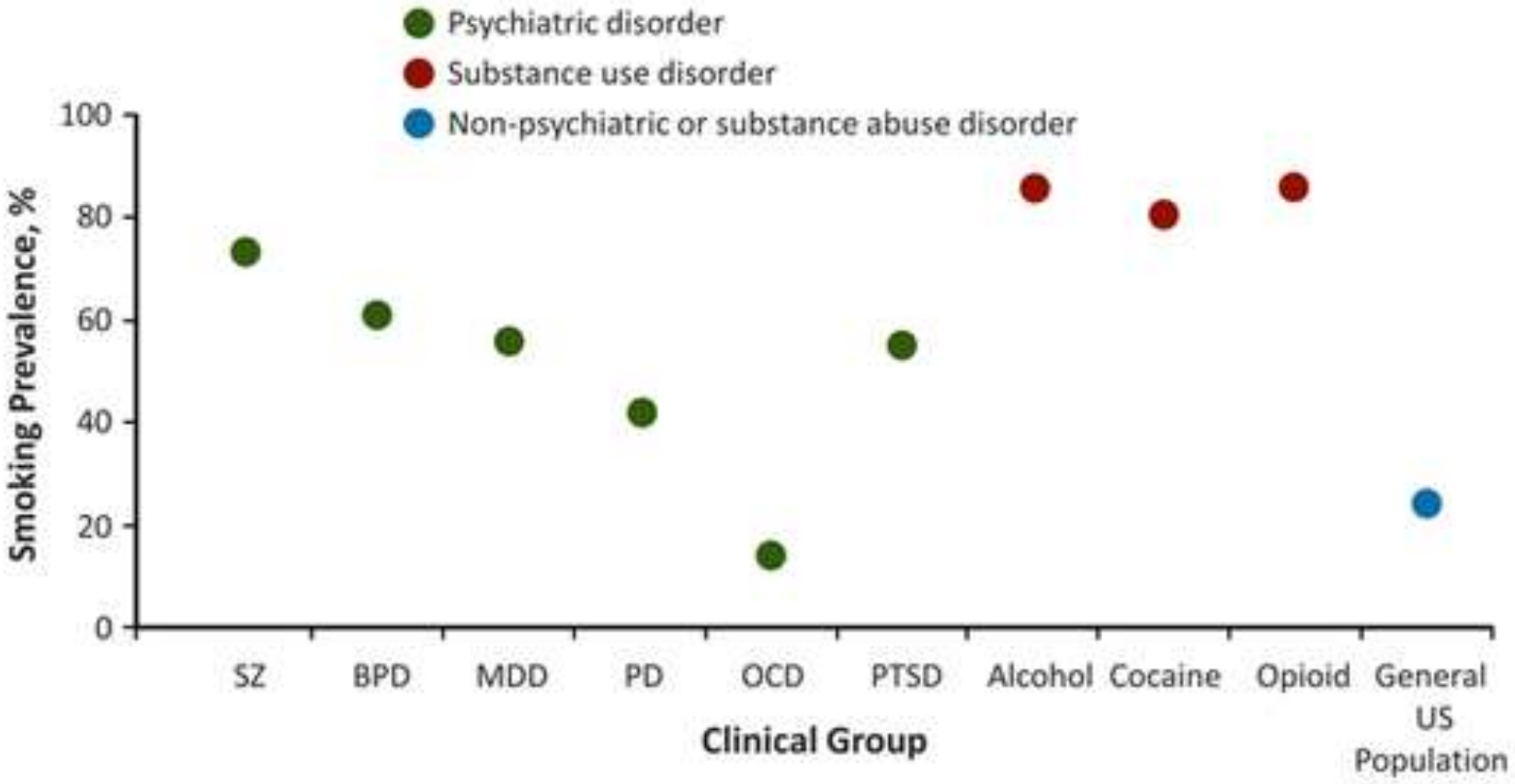
Judith J. Prochaska, Ph.D., M.P.H.

"My doctor told me I'm too stressed out to quit smoking," remarked a woman hospitalized with severe depression. "Well, 43 years later, I'm still stressed and I'm still smoking."

Now with also
bladder cancer and
Shortness of breath and coughing

N ENGL J MED 365;3 NEJM.ORG JULY 21, 2011

Smoking Rates Among Adults With Mental Illness vs Adults Without Mental Illness



Kalman D, et al. *Am J Addict*. 2005;14:106-123.

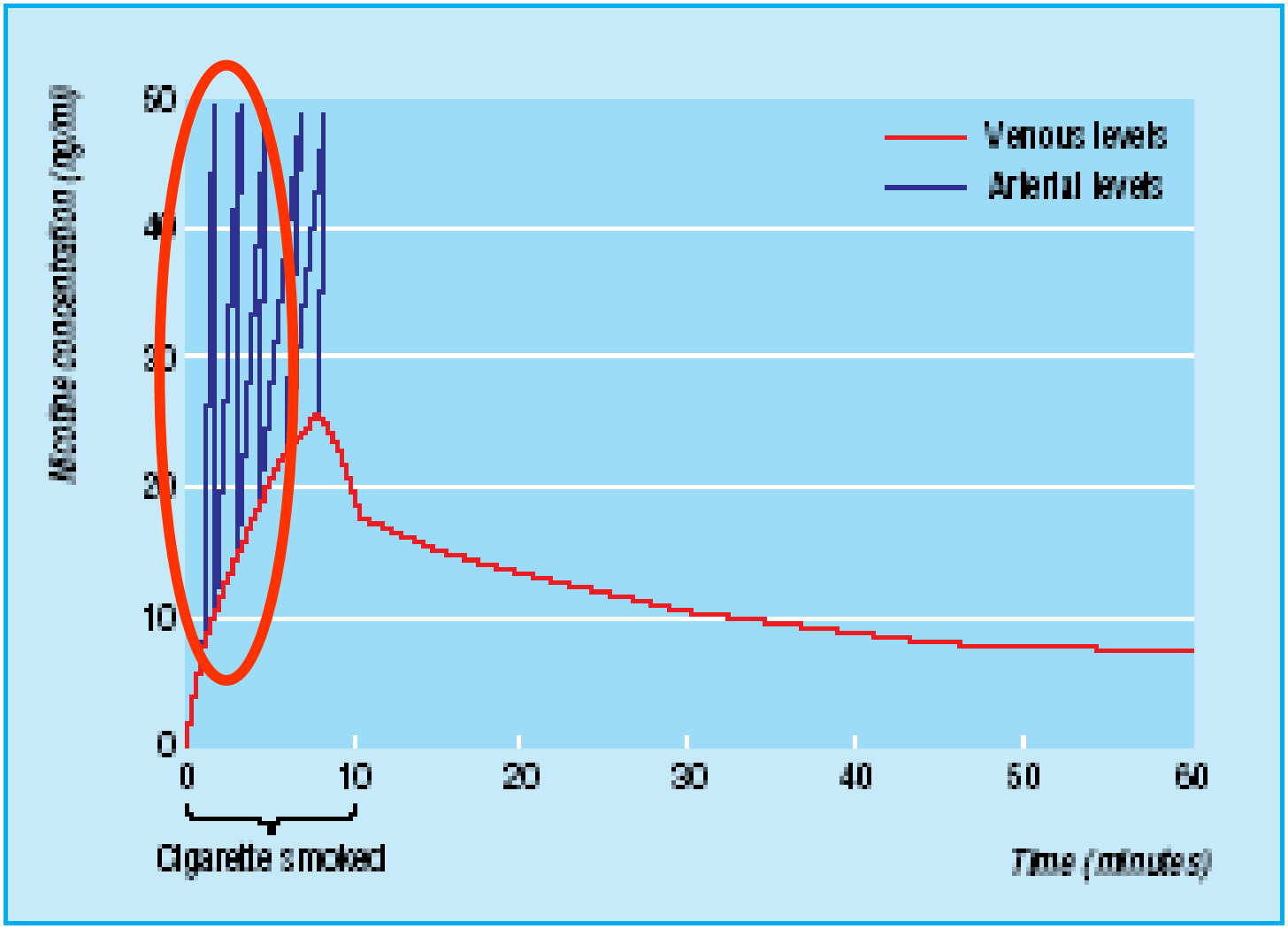
Years 2010-2016

		Total admissions	% Tobacco users
Gender	Female	185716	24.3
	Male	170949	31.9
Race	Caucasian	231601	24.5
	African American	106,780	36.5
	Other	8438	17.2
	Unknown	9846	25.2
Age (years)	18–34	56059	35.7
	35–49	66320	37.7
	50–64	119281	32.7
	65–79	85982	16.1
	≥80	29023	6.2
Admitting service	Internal medicine	175456	28.6
	Cardiothoracic surgery	10625	26.3
	General surgery	62598	29.8
	Gynecology	12237	19.7
	Neurology	15534	29.6
	Neurosurgery	11282	24.1
	Obstetrics	10785	20.9
	Ophthalmology	1900	20.5
	Orthopedic surgery	25193	17.1
	Otolaryngology	6587	28.6
	Plastic surgery	3204	22.0
	Psychiatry	11577	55.3
	Urology	9687	24.2
Admission route	Not through ED	213924	22.2
	Through ED	142741	36.6
Length of stay	<3 days	167279	28.3
	≥3 days	189386	27.6

Srivastava A.B: Nicotine & Tobacco Research, 2018

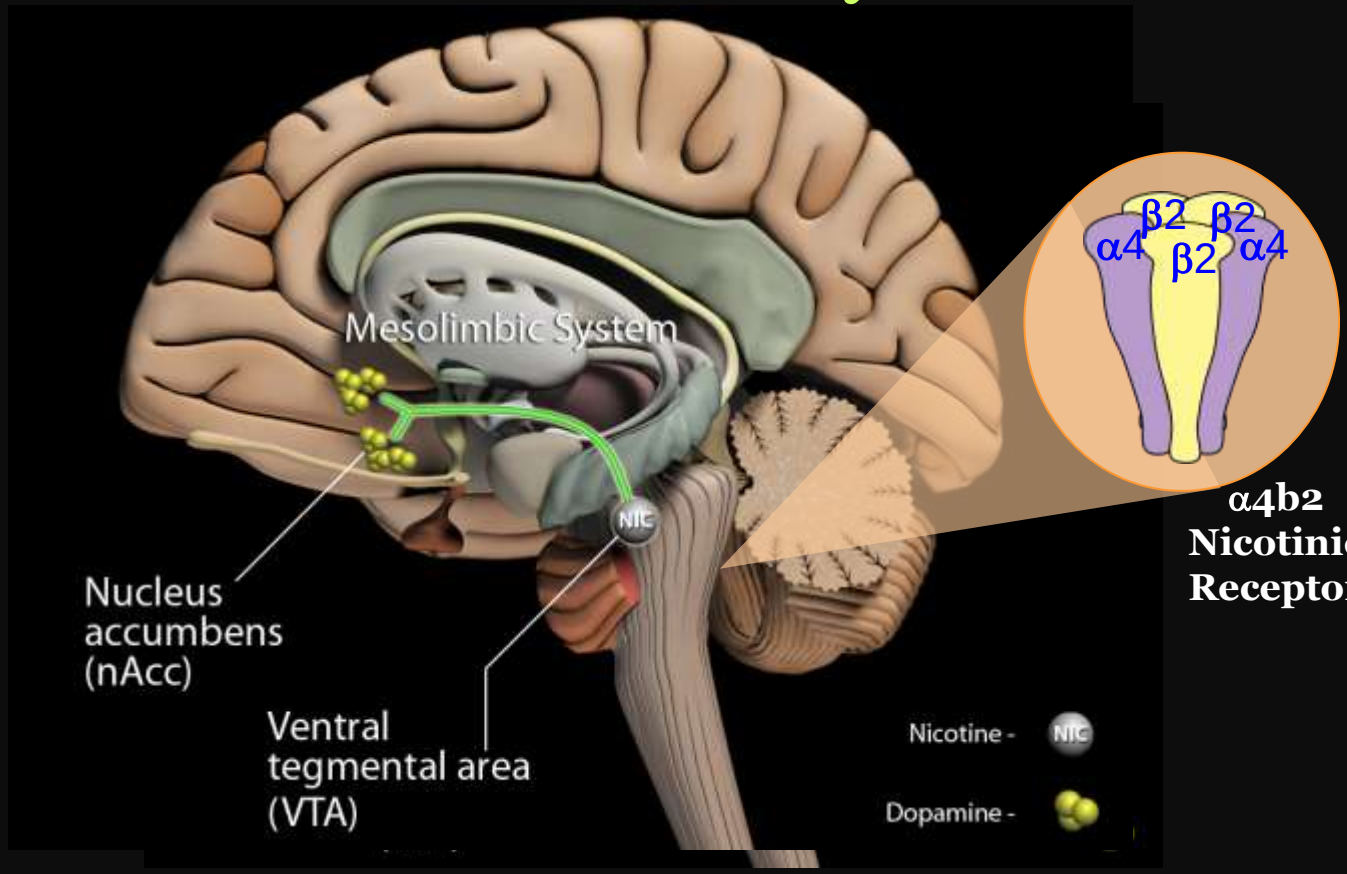
Tobacco Use Prevalence and Smoking Cessation Pharmacotherapy Prescription Patterns Among Hospitalized Patients by Medical Specialty

Συγκέντρωση νικοτίνης στο αίμα



Arterial and venous levels of nicotine during cigarette smoking

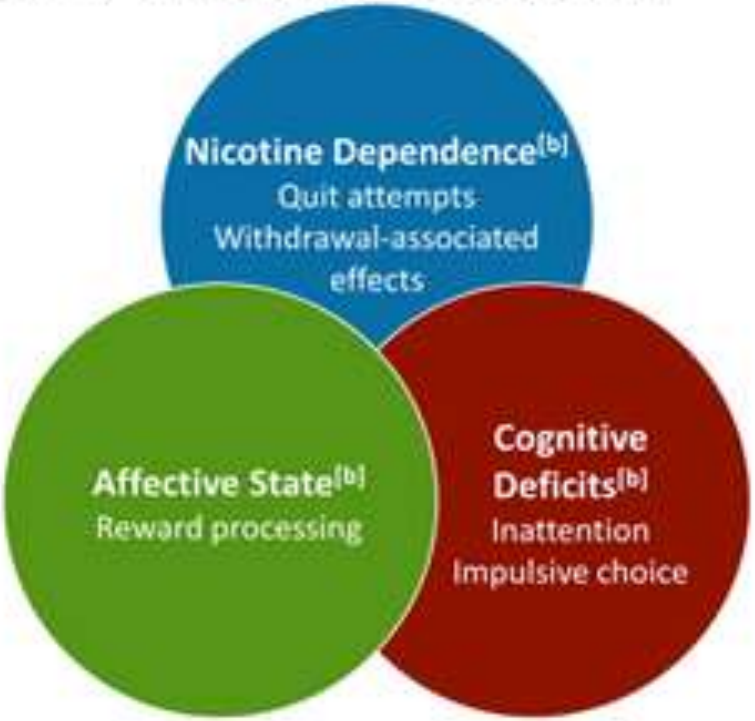
Mechanism of Action of Nicotine in the Central Nervous System



- **Nicotine binds preferentially to nicotinic acetylcholinergic (nACh) receptors in the central nervous system; the primary is the α4β2 nicotinic receptor in the Ventral Tegmental Area (VTA)**
- **After nicotine binds to the α4β2 nicotinic receptor in the VTA, it results in a release of dopamine in the Nucleus Accumbens (nAcc) which is believed to be linked to reward**

Nicotine Withdrawal

- Avoidance of the negative state produced by nicotine withdrawal represents a motivational component that promotes continued tobacco use and relapse after smoking cessation[a,b]



a. Jackson KJ, et al. *Neuropharmacology*. 2015 Sep;96(Pt B):223-234.
b. Hall FS, et al. *Neurosci Biobehav Rev*. 2015;58:168-185.

Nicotine Withdrawal Symptoms

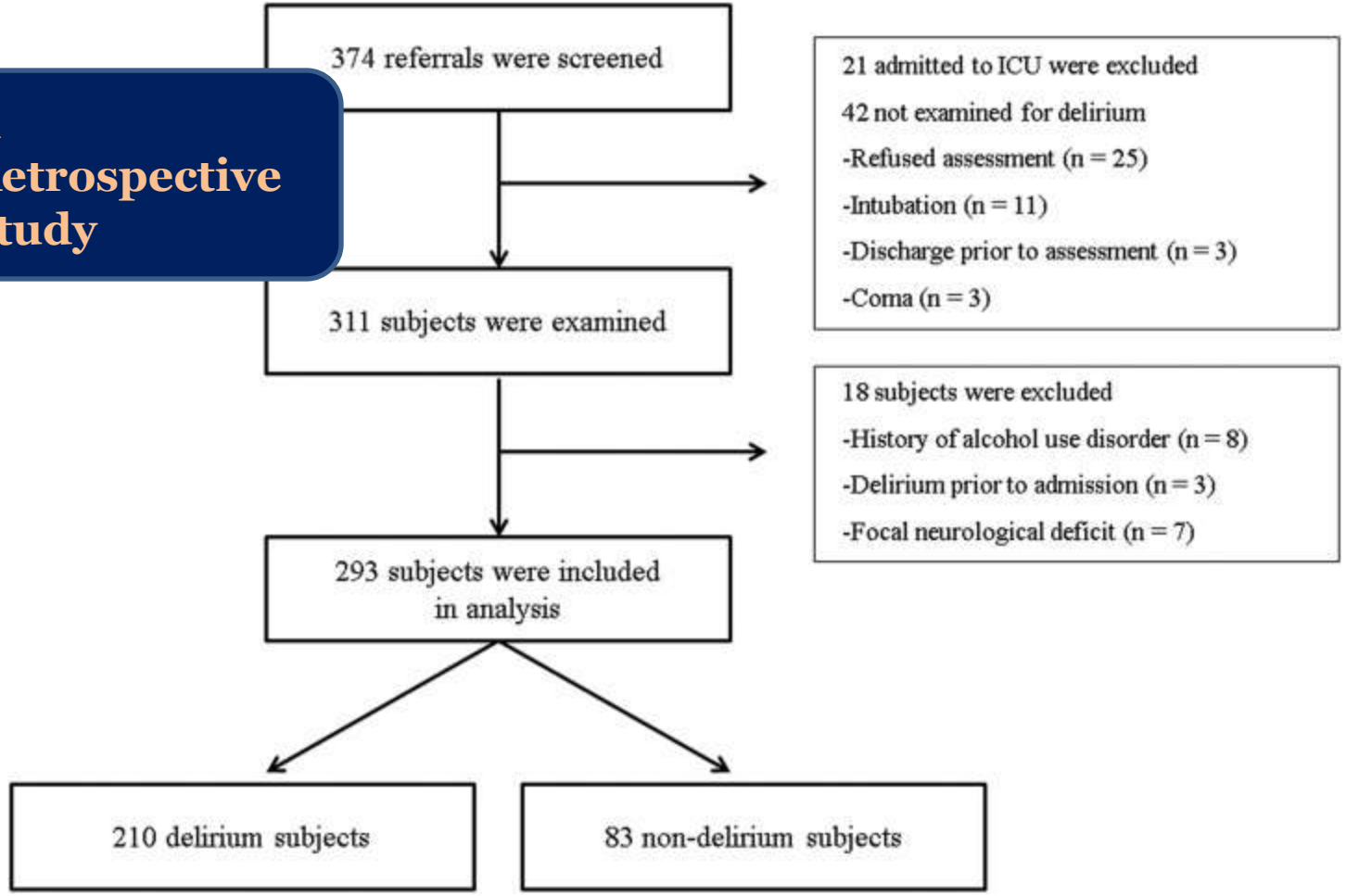
Usually worse in the first 24-48 hours, then decline in intensity gradually over time

Symptom	Duration
Craving for tobacco	3-8 weeks
Dizziness	Few days
Insomnia	1-2 weeks
Headaches	1-2 weeks
Chest discomfort and constipation	1-2 weeks
Irritability and fatigue	2-4 weeks
Couch or nasal drip	Few weeks
Lack of concentration	Few weeks
Hunger	Up to several weeks

Patel AB, et al. *J Nat Accred Board Hosp Healthcare Providers*. 2016;3:1-8.

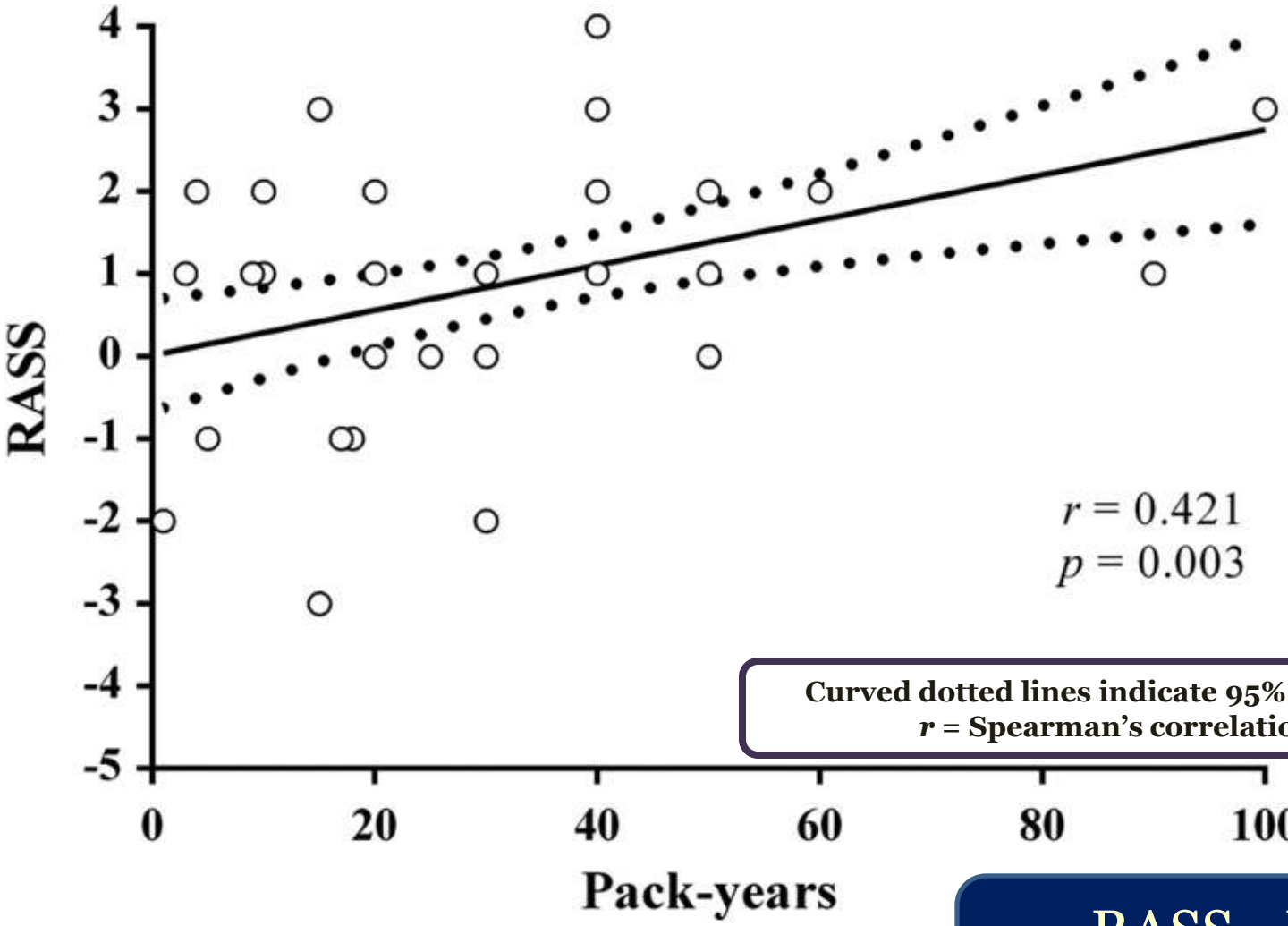
Smoking Cessation and the Risk of Hyperactive Delirium in Hospitalized Patients:

A Retrospective Study



Hye Youn Park: Can J Phychiatry 2016 (61)

Correlation of scores on the Richmond Agitation Sedation Scale with the amount of smoking in the smoker group



Curved dotted lines indicate 95% confidence intervals
***r* = Spearman's correlation coefficient**

RASS= Richmond Agitation Sedation Scale

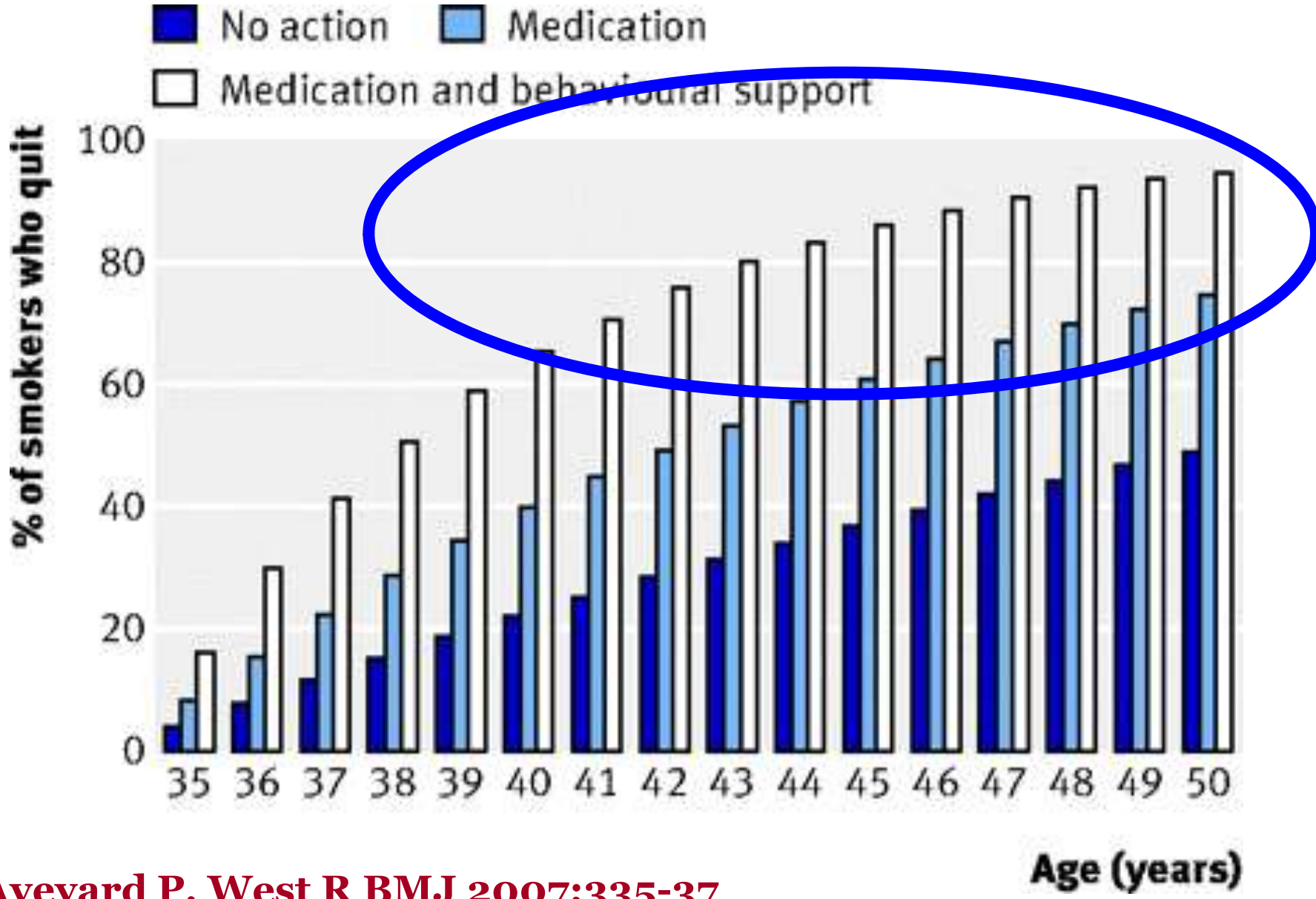
Hye Youn Park: Can J Phychiatry 2016 (61)

Smoking Cessation and the Risk of Hyperactive Delirium in Hospitalized Patients

- The present findings demonstrated that nicotine withdrawal was associated:
  - with hyp
  - wh

Delirium due to drug withdrawal is more likely to be of the hyperactive subtype

whereas metabolic encephalopathy is more likely to be related with the hypoactive subtype



Aveyard P. West R BMJ 2007;335-37

Efficacious approaches for smoking cessation

- Two types of approaches have demonstrated their efficacy for smoking cessation:
  - Counseling
  - Pharmacotherapy

- The best results are obtained by combining the two approaches

Fiore MC. Treating tobacco use and dependence. Resp Care 2000;45:1200

West R. Smoking cessation guidelines for health professionals: an update. Thorax 2000;55:987

Simon JA. Smoking cessation counseling (intensive vs minimal). Am J Med 2003;114(7):555

Εγκεκριμένη Φαρμακοθεραπεία

στη διακοπή του καπνίσματος

- **Φάρμακα που μιμούνται τη δράση της νικοτίνης**
  - ***Υποκατάστατα νικοτίνης***

- **Φάρμακα που δρουν στο ΚΝΣ**
  - ***Καθυστερώντας την αποδόμηση των νευρομεταβιβαστών***
    - ***HCL Bupropion***
  - ***Ενεργώντας απευθείας στους υποδοχείς α4β2***
    - ***Varenicline***

JAMA 2009

Albert L Siu Ann Internal Med 2015;163:622

Φαρμακοθεραπεία για την Διακοπή του Καπνίσματος

- **Nicotine replacement therapy**
  - Recommended first line therapy
    - Long acting
      - Patch
    - Short acting
      - Gum
      - Inhaler
      - Nasal spray
      - Sublingual tablets/lozenges
- **Bupropion**
- **Varenicline**
  - Recommended first-line therapy (WHO, US, Europe, UK)

- Nortriptyline
  - Recommended second-line therapy (WHO, US)
- Clonidine
  - Recommended second-line therapy in some countries

↑ ↑ side effects: dizziness sedation, ↓ BP

2008/2015 Smoking cessation guidelines

Smoking and Tobacco Related Issues Networking Group (String)

Lung Health Study Results

- 11 year abstinence
  - 22% intervention vs. 6% control [1]
- 11 year FEV1 decline per year

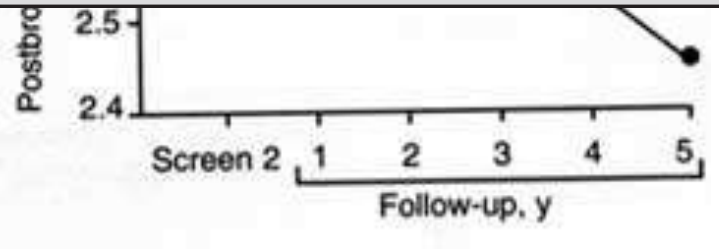
CLINICAL YEAR IN REVIEW

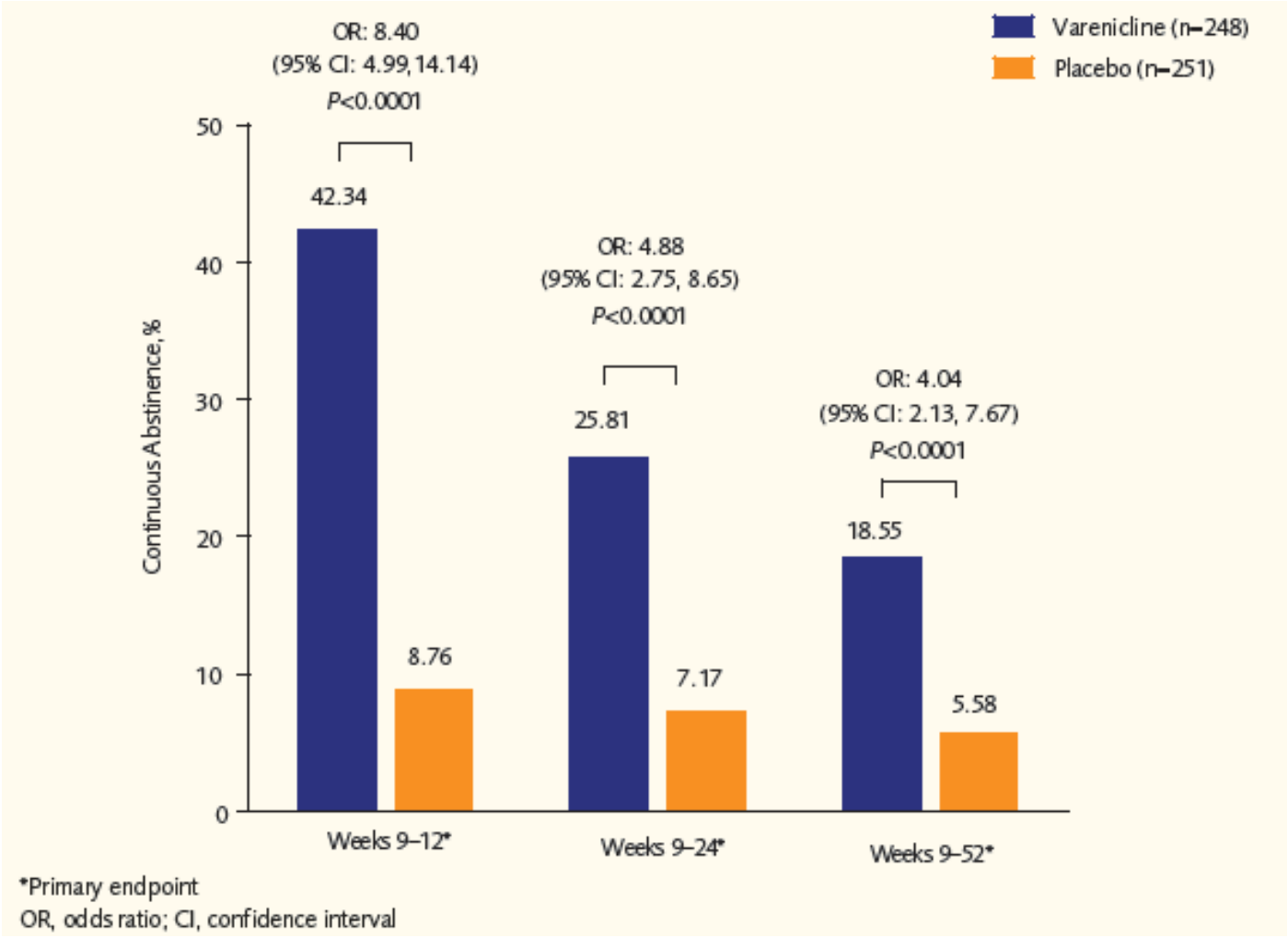
Smoking cessation and COPD

Philip Tønnesen

Sustained Quitters

Medication	Subjects n	FEV1 % pred	12-month sustained quit rates	
			Active	Placebo
Varenicline	505	70	18.6	5.6
Bupropion SR	404	72	10	8
NRT	370	56	14	5





Tashkin DP (27 centers) Chest 2009

A summary of the efficacy of different non-pharmacologic and pharmacologic interventions in patients by COPD status.

Intervention	Reference	Follow-up	Cessation rate (%)	Control (%)	COPD Status	Counseling
Minimal advice from GP	44	None	3.0[a]	1.0[a]	General smoking population	None
Being informed of COPD status	26	1 year	16.3	12.0	General smoking population	Brief counseling
Being informed of COPD status	27	3 years	25.0	7.0	General smoking population	Brief counseling/yearly reinforcement by GP
Being informed of "lung age"	28	1 year	13.6	6.4	General smoking	Brief counseling/referral to smoking cessation services
NRT	18,31					up intervention
	48					rvention
						pport
Bupropion						
Varenicline						
	70					ef counseling
Nortriptyline	64	6 months	21.2	8.3	Mild-moderate	Brief counseling
		6 months	32.1	22.0	At risk of COPD	Brief counseling

Αναπνευστικοί ασθενείς

Όλα τα φάρμακα ασφαλή και αποτελεσματικά

SOS Key studies that examined personal smoking and adverse asthma outcomes

References	N	Participants	Findings
Thomson et al[29]	760	BTS Severe Asthma Registry with severe refractory asthma: 69 (9%) current smokers 210 (28%) ex-smokers 461 (62%) never smokers	Compared with never smokers, current smokers had poorer asthma control (ACQ 4.1 vs 2.9, $P<0.001$), more unscheduled health care visits (6 vs 4, $P=0.008$), more rescue oral steroids (6 vs 4 courses, $P=0.04$), higher anxiety (13 vs 8, $P<0.001$), and depression (10 vs 6, $P<0.001$), but no differences in spirometry
To et al[28]			month ess (OR, ptoms (OR, e health care ased chest ack within
Cerveri et al			ntinued to ough and 52% vs 42% redicted or ma
Boulet et al[27]			me asthma -smokers), and eism ($P<0.01$)
Zheng et al[32]	4070	Meta-analysis of ten controlled studies in smokers vs nonsmokers with asthma using inhaled corticosteroids	Compared with nonsmokers with asthma, smoking was associated with an attenuated inhaled corticosteroid response, reduced mean change in FEV_1, reduced posttreatment FEV_1, and increased use of concomitant medication

Review

Smoking cessation strategies for patients with asthma: improving outcome

Perret et al: Journal of Asthma and Allergy 2016;9

Pharmacotherapies for acute admissions and stable outpatients with cardiovascular disease

Nicotine patch

Ad libitum nicotin
inhalator, spray,
microtab)

Bupropion

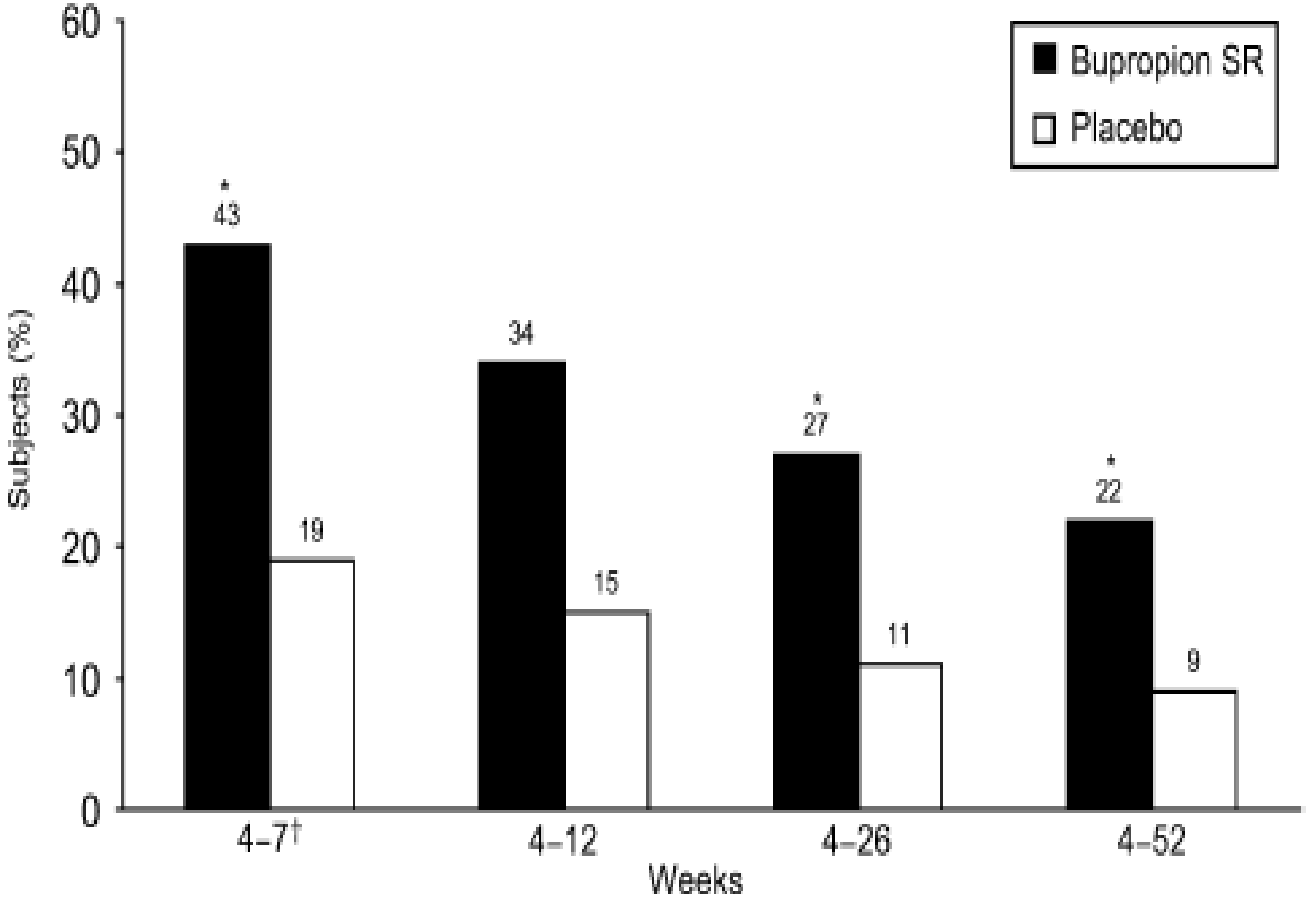
Varenicline

Καρδιοπαθείς:

Όλα τα φάρμακα ασφαλή και αποτελεσματικά

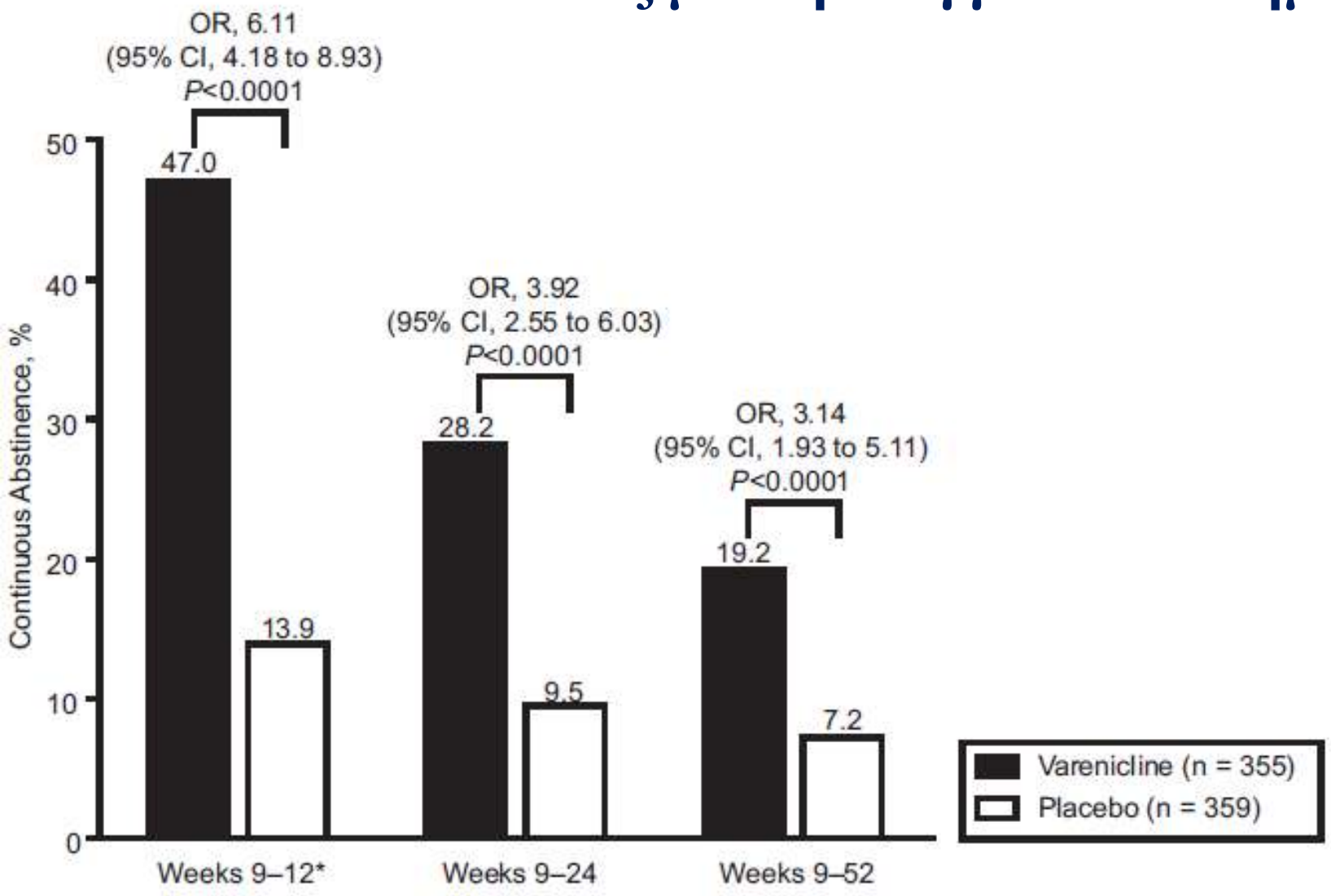
Tonstad S Heart 2009 95: 1635-40

Μελέτη χρήσης HCL Bupropion σε ασθενείς με καρδιαγγειακό νόσημα



Tonstad S et al EHJ 2003 (n=629)

Ασθενείς με καρδιαγγειακό νόσημα



Rigotti N Circulation 2010; 121:221-29

EAGLES Study Results: CARs in Patients With Anxiety Disorder

EAGLES Study: Summary

- Varenicline, bupropion, and NRT were more effective than placebo in helping smokers achieve abstinence
  - Varenicline was more effective than bupropion and NRT
- All 3 medications were effective in patients with or without a history of psychiatric illness
  - CARs were lower in patients with a history of psychiatric illness vs those without
- All 3 medications were effective in patients regardless of psychiatric history (ie, psychotic, mood, or anxiety disorder)

Anthenelli RM, et al. *Lancet*. 2016;387:2507-2520.

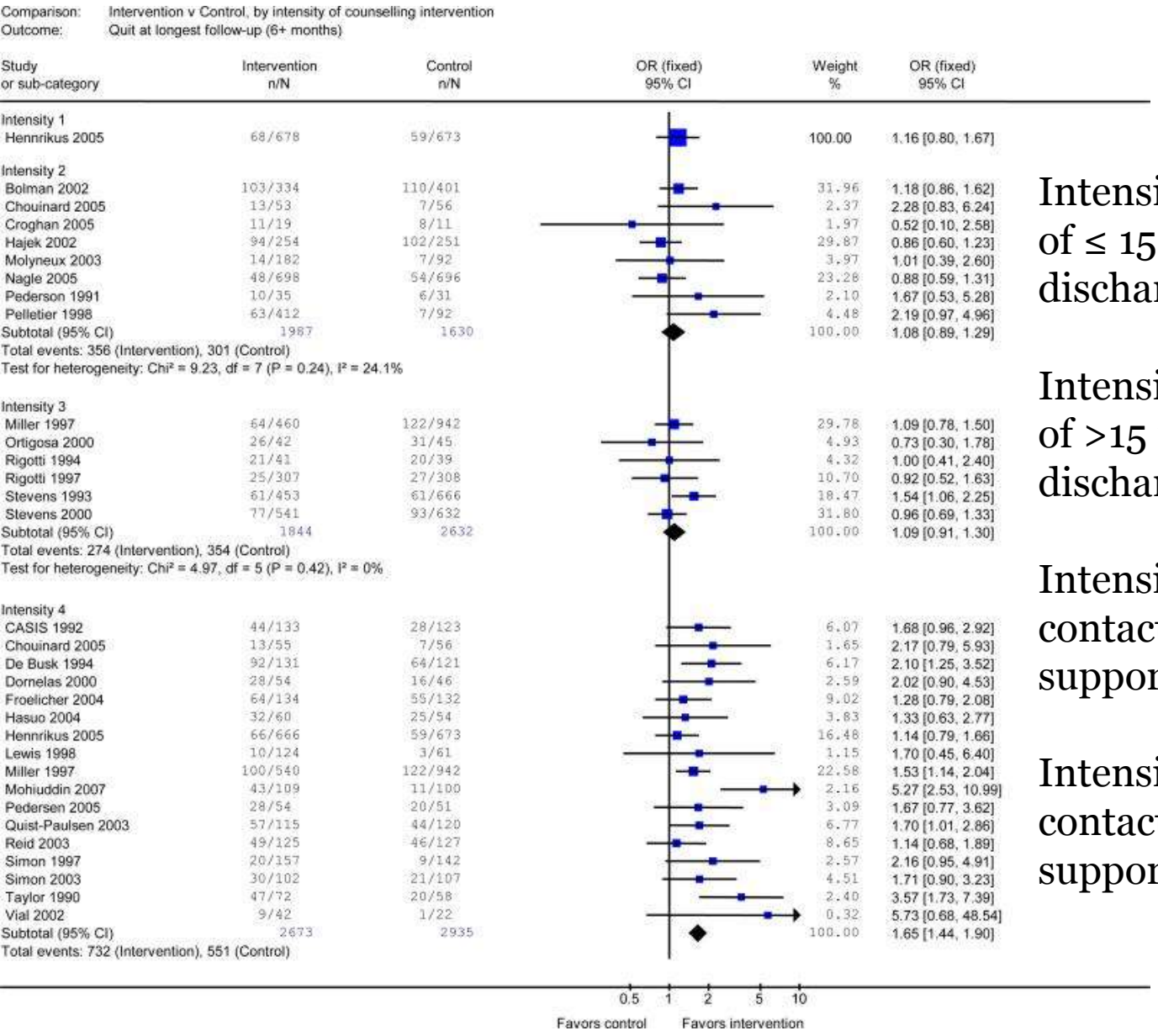
SMOKING CESSATION INTERVENTIONS FOR HOSPITALIZED SMOKERS: A SYSTEMATIC REVIEW 2015 **NHS**

- Rigoti Arch Intern Med. 2008 Oct 13; 168(18): 1950–1960

- Nancy A. Rigotti, MD, Marcus R. Munafo, PhD, and Lindsay F. Stead, MSc

Efficacy of smoking cessation counseling

by intensity of counseling intervention

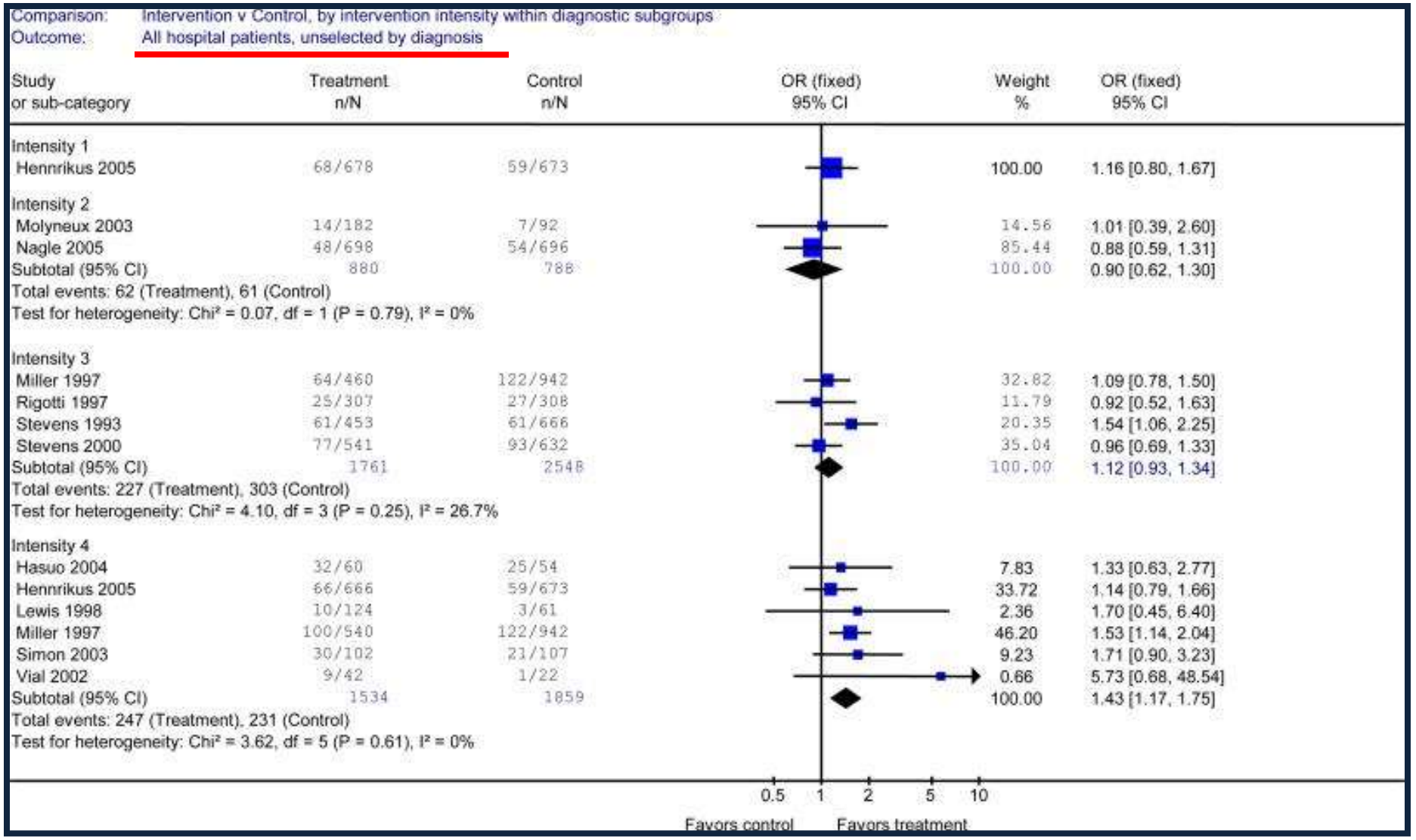


Intensity 1= contact in hospital of ≤ 15 minutes and no post-discharge support

Intensity 2= contact in hospital of >15 minutes and no post-discharge support

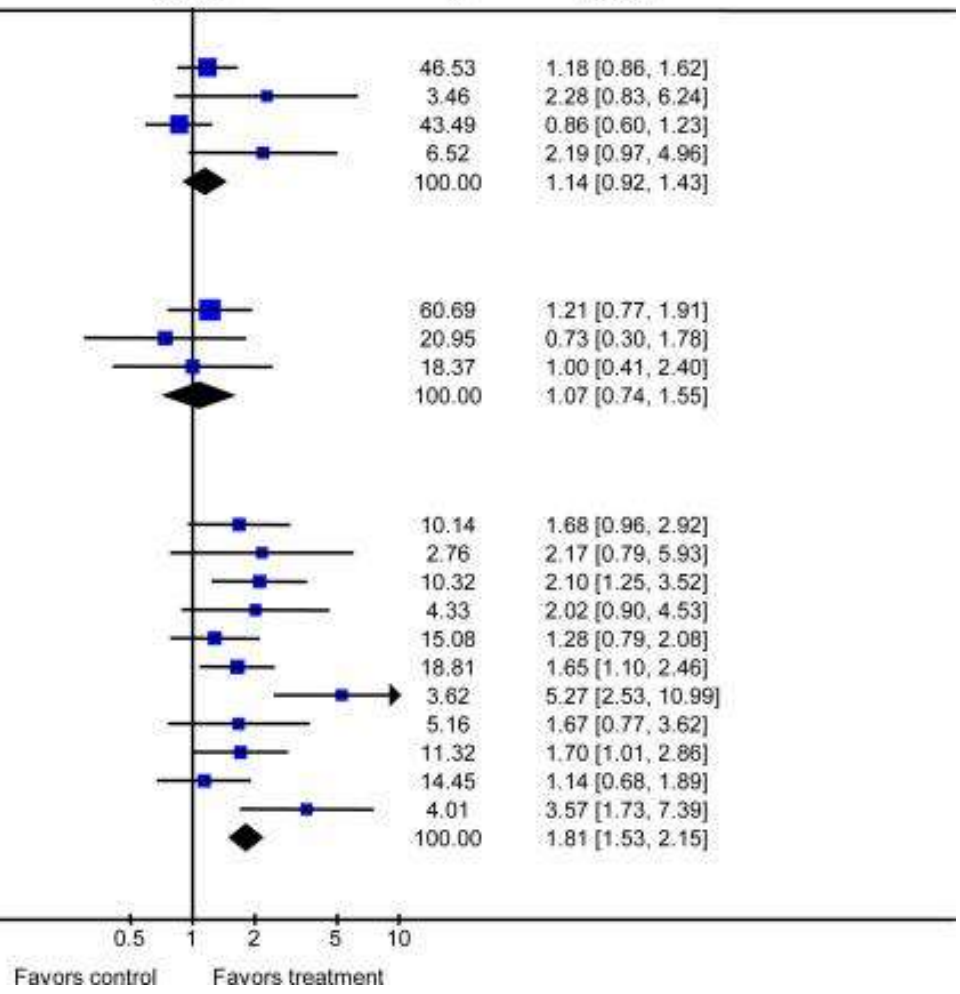
Intensity 3= any hospital contact plus post-discharge support lasting ≤1 month

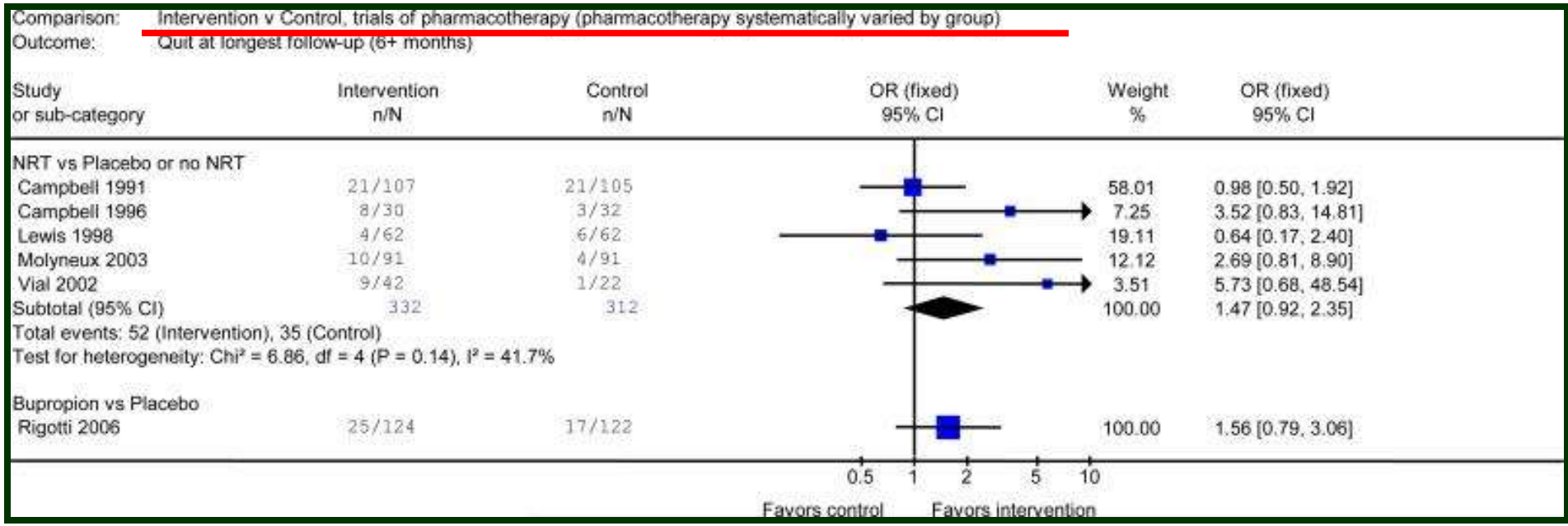
Intensity 4=any hospital contact plus post-discharge support lasting >1 month


Comparison: Intervention v Control, by intervention intensity within diagnostic subgroups
Outcome: All hospital patients, unselected by diagnosis
Study or sub-category
Treatment n/N
Control n/N
OR (fixed) 95% CI
Weight %
OR (fixed) 95% CI
Intensity 1
Hennrikus 2005 68/678 59/673 100.00 1.16 [0.80, 1.67]
Intensity 2
Molyneux 2003 14/182 7/92 14.56 1.01 [0.39, 2.60]
Nagle 2005 48/698 54/696 85.44 0.88 [0.59, 1.31]
Subtotal (95% CI) 880 788 100.00 0.90 [0.62, 1.30]
Total events: 62 (Treatment), 61 (Control)
Test for heterogeneity: Chi² = 0.07, df = 1 (P = 0.79), I² = 0%
Intensity 3
Miller 1997 64/460 122/942 32.82 1.09 [0.78, 1.50]
Rigotti 1997 25/307 27/308 11.79 0.92 [0.52, 1.63]
Stevens 1993 61/453 61/666 20.35 1.54 [1.06, 2.25]
Stevens 2000 77/541 93/632 35.04 0.96 [0.69, 1.33]
Subtotal (95% CI) 1761 2548 100.00 1.12 [0.93, 1.34]
Total events: 227 (Treatment), 303 (Control)
Test for heterogeneity: Chi² = 4.10, df = 3 (P = 0.25), I² = 26.7%
Intensity 4
Hasuo 2004 32/60 25/54 7.83 1.33 [0.63, 2.77]
Hennrikus 2005 66/666 59/673 33.72 1.14 [0.79, 1.66]
Lewis 1998 10/124 3/61 2.36 1.70 [0.45, 6.40]
Miller 1997 100/540 122/942 46.20 1.53 [1.14, 2.04]
Simon 2003 30/102 21/107 9.23 1.71 [0.90, 3.23]
Vial 2002 9/42 1/22 0.66 5.73 [0.68, 48.54]
Subtotal (95% CI) 1534 1859 100.00 1.43 [1.17, 1.75]
Total events: 247 (Treatment), 231 (Control)
Test for heterogeneity: Chi² = 3.62, df = 5 (P = 0.61), I² = 0%
0.5
1
2
5
10
Favors control
Favors treatment

Comparison: Intervention v Control, by intervention intensity within diagnostic subgroups
Outcome: Patients with cardiovascular disease

Study or sub-category	Treatment n/N	Control n/N	OR (fixed) 95% CI	Weight %	OR (fixed) 95% CI
Intensity 2					
Bolman 2002	103/334	110/401		46.53	1.18 [0.86, 1.62]
Chouinard 2005	13/53	7/56		3.46	2.28 [0.83, 6.24]
Hajek 2002	94/254	102/251		43.49	0.86 [0.60, 1.23]
Pelletier 1998	63/412	7/92		6.52	2.19 [0.97, 4.96]
Subtotal (95% CI)	1053	800		100.00	1.14 [0.92, 1.43]
Total events: 273 (Treatment), 226 (Control)					
Test for heterogeneity: Chi² = 6.73, df = 3 (P = 0.08), I² = 55.4%					
Intensity 3					
Miller 1997	38/138	74/310		60.69	1.21 [0.77, 1.91]
Ortigosa 2000	26/42	31/45		20.95	0.73 [0.30, 1.78]
Rigotti 1994	21/41	20/39		18.37	1.00 [0.41, 2.40]
Subtotal (95% CI)	221	394		100.00	1.07 [0.74, 1.55]
Total events: 85 (Treatment), 125 (Control)					
Test for heterogeneity: Chi² = 1.01, df = 2 (P = 0.60), I² = 0%					
Intensity 4					
CASIS 1992	44/133	28/123		10.14	1.68 [0.96, 2.92]
Chouinard 2005	13/55	7/56		2.76	2.17 [0.79, 5.93]
De Busk 1994	92/131	64/121		10.32	2.10 [1.25, 3.52]
Dornelas 2000	28/54	16/46		4.33	2.02 [0.90, 4.53]
Froelicher 2004	64/134	55/132		15.08	1.28 [0.79, 2.08]
Miller 1997	62/182	74/310		18.81	1.65 [1.10, 2.46]
Mohiuddin 2007	43/109	11/100		3.62	5.27 [2.53, 10.99]
Pedersen 2005	28/54	20/51		5.16	1.67 [0.77, 3.62]
Quist-Paulsen 2003	57/115	44/120		11.32	1.70 [1.01, 2.86]
Reid 2003	49/125	46/127		14.45	1.14 [0.68, 1.89]
Taylor 1990	47/72	20/58		4.01	3.57 [1.73, 7.39]
Subtotal (95% CI)	1164	1244		100.00	1.81 [1.53, 2.15]
Total events: 527 (Treatment), 385 (Control)					
Test for heterogeneity: Chi² = 17.57, df = 10 (P = 0.06), I² = 43.1%					





Rigoti Arch Intern Med. 2008 Oct 13; 168(18): 1950–1960

Sustained Care Intervention and Postdischarge Smoking Cessation Among Hospitalized Adults

A Randomized Clinical Trial

Nancy A. Rigotti, MD; Susan Regan, PhD; Douglas E. Levy, PhD; Sandra Japuntich, PhD; Yuchiao Chang, PhD; Elyse R. Park, PhD, MPH; Joseph C. Viana, BA; Jennifer H. K. Kelley, RN, MA; Michele Reyen, MPH; Daniel E. Singer, MD

6237 Smokers counseled by the Massachusetts General Hospital Tobacco Treatment Service

JAMA. 2014;312(7):719-728

Baseline Characteristics of Study participants By Treatment Group

	Sustained Care (n = 198)[a]	Standard Care (n = 199)[a]
Quitting history and predictors		
Prior use		
Nicotine replacement therapy	118 (59.6)	131 (65.8)
Bupropion	25 (12.6)	38 (19.1)
Varenicline	51 (25.8)	54 (27.1)
Smoking counseling	3 (1.5)	12 (6.0)
Live with smoker	79 (39.9)	86 (43.2)
Importance to quit now, mean (SD)[f]	9.4 (1.3)	9.5 (1.1)
Confidence to resist urge in any situation, mean (SD)[f]	7.3 (2.2)	7.4 (2.2)
Tobacco use		
Cigarettes/d, mean (SD)	17.1 (10.0)	16.3 (10.4)
Past 30 d		
Non-cigarette tobacco product	7 (3.5)	5 (2.5)
Electronic cigarette	11 (5.6)	12 (6.0)
Marijuana	27 (13.6)	32 (16.1)
Fagerström Test for Nicotine Dependence, mean (SD)[c]	5.0 (2.2)	4.6 (2.2)
Comorbidities, mean (SD)		
Depression symptoms[d]	9.3 (5.7)	10.3 (5.8)
Alcohol use[e]	3.4 (2.5)	3.6 (2.6)
Used smoking cessation medication in hospital		
Nicotine replacement therapy	130 (65.7)	125 (62.8)
Bupropion	2 (1.0)	3 (1.5)
Varenicline	7 (3.5)	9 (4.5)
Postdischarge medication recommendation by hospital counselor		
Nicotine replacement therapy	191 (96.5)	191 (96.0)
Bupropion	14 (7.1)	12 (6.0)
Varenicline	13 (6.6)	13 (6.5)

Use of Smoking Cessation Treatment After Hospital Discharge by Treatment Group[a]

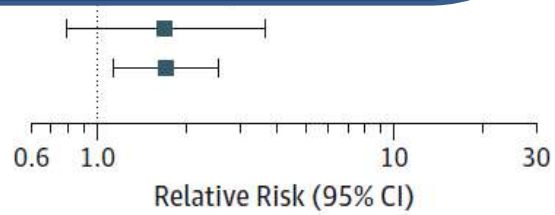
Outcome Measure	No. (%) of Patients	
	Sustained Care (n = 198)	Standard Care (n = 199)
Smoking cessation treatment use[b]		
1-mo follow-up	164 (82.8)	125 (62.8)
3-mo follow-up (cumulative)	172 (86.9)	152 (76.4)
6-mo follow-up (cumulative)	178 (89.9)	160 (80.4)
Smoking cessation counseling use[c]		
1-mo follow-up	73 (36.9)	45 (22.6)
3-mo follow-up (cumulative)	114 (57.6)	82 (41.2)
6-mo follow-up (cumulative)	136 (68.7)	102 (51.3)
Smoking cessation medication use[d]		
1-mo follow-up	156 (78.8)	117 (58.8)
3-mo follow-up (cumulative)	164 (82.8)	132 (66.3)
6-mo follow-up (cumulative)	170 (85.9)	140 (70.4)
Nicotine replacement therapy use[e]		
1-mo follow-up	147 (74.2)	110 (55.3)
3-mo follow-up (cumulative)	155 (78.3)	123 (61.8)
6-mo follow-up (cumulative)	161 (81.3)	130 (65.3)
Duration of medication use, wk		
≥2	146 (73.7)	103 (51.8)
≥4	137 (69.2)	90 (45.2)
≥8	120 (60.6)	73 (36.7)

Tobacco Abstinence Rates After Discharge by Treatment Group

Outcome Measure	No. (%) of Patients	
	Sustained Care (n = 198)	Standard Care (n = 199)
Biochemically confirmed		
Abstinent for past 7 d[b]		
6-mo follow-up	51 (25.8)	30 (15.1)
Self-report		
Abstinent for past 7 d[c]		
1-mo follow-up	103 (52.0)	78 (39.2)
3-mo follow-up	89 (44.9)	73 (36.7)
6-mo follow-up	81 (40.9)	56 (28.1)
Abstinent since hospital discharge[c]		
1-mo follow-up	91 (46.0)	66 (33.2)
3-mo follow-up	67 (33.8)	47 (23.6)
6-mo follow-up	54 (27.3)	32 (16.1)

Effect of the Intervention in Subgroups

	No. of Patients				Favors Standard Care	Favors Sustained Care
	Sustained Care		Standard Care			
	7-d Abstinence	Total	7-d Abstinence	Total		
Age, y						
No	14	68	9	74		
Overall	51	198	30	199		

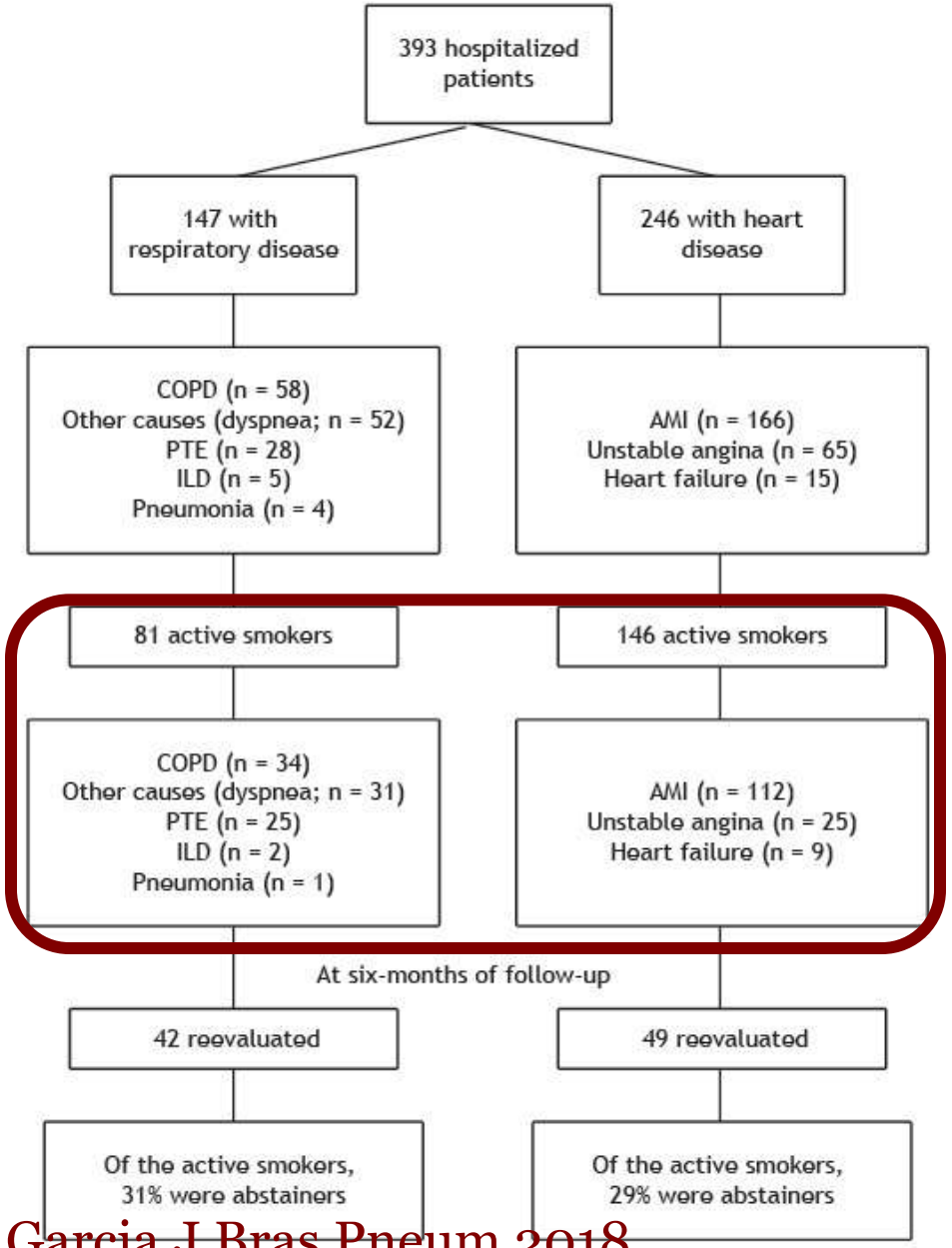


Among hospitalized adult smokers who wanted to quit smoking, a postdischarge intervention providing automated telephone calls and

Free medication resulted in higher rates of smoking cessation at 6 months compared with a standard recommendation to use counseling and medication after discharge.

These findings, if replicated, suggest an approach to help achieve sustained smoking cessation after a hospital stay.

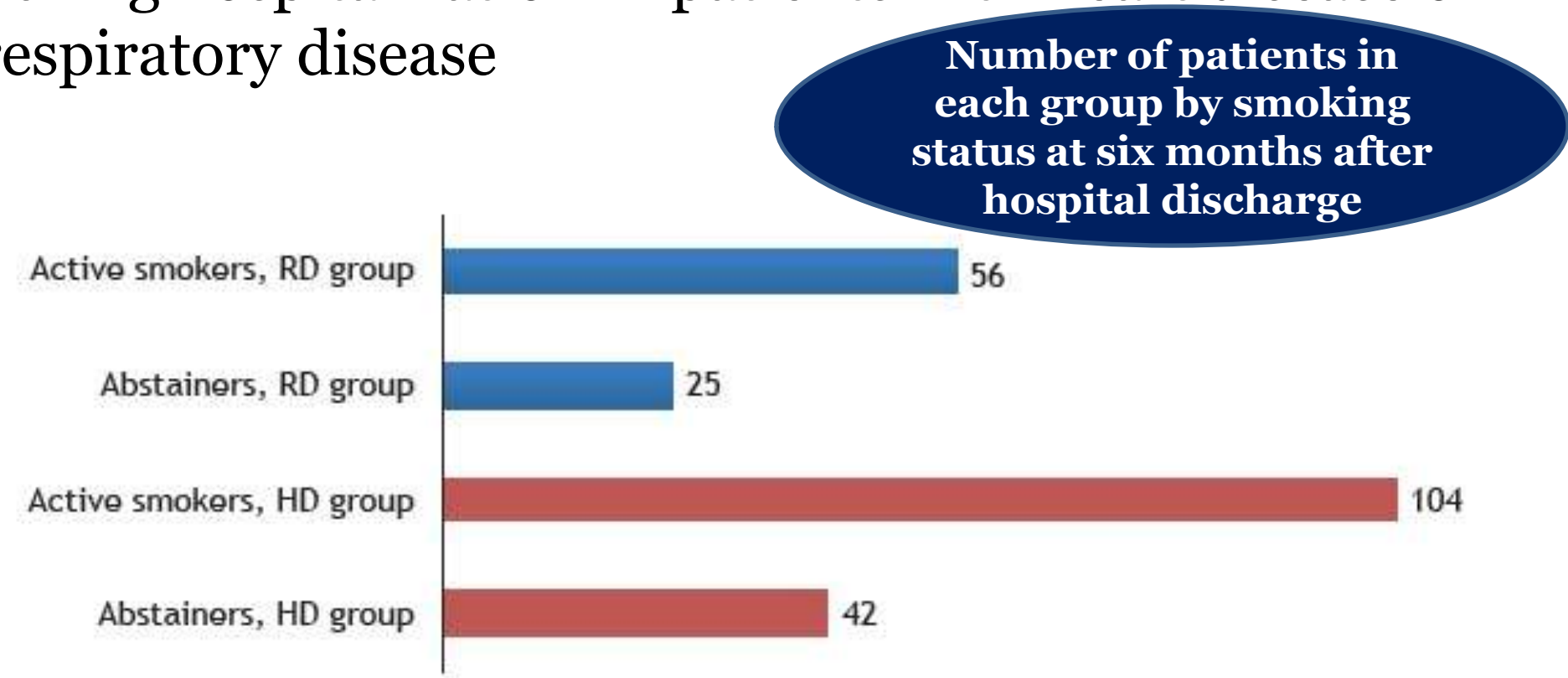
Evaluation of smoking cessation treatment initiated during hospitalization in patients with heart disease or respiratory disease



All participants received smoking cessation treatment during hospitalization
and
were followed in a cognitive-behavioral smoking cessation program for six months after hospital discharge.

Thais Garcia J Bras Pneum 2018

Evaluation of smoking cessation treatment initiated during hospitalization in patients with heart disease or respiratory disease



All patients underwent two 15-min sessions of individual counseling during hospitalization.

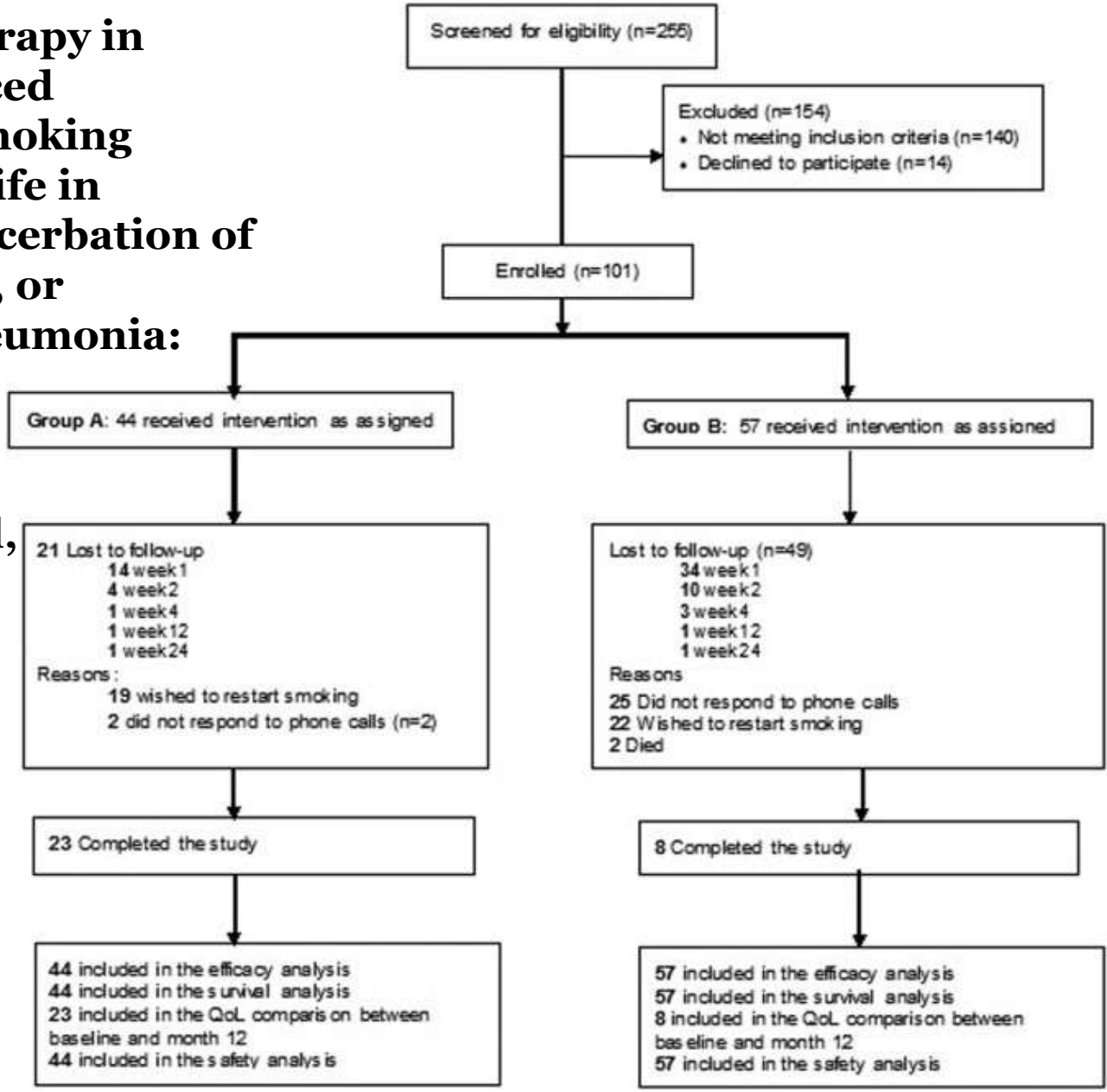
Smoking cessation medications were used at the physician's discretion, in accordance with smoking cessation guidelines

that is, all patients with a dependence score ≥ 5 or who experienced withdrawal symptoms during hospitalization were prescribed smoking cessation medications

(nicotine replacement therapy, bupropion, or varenicline)

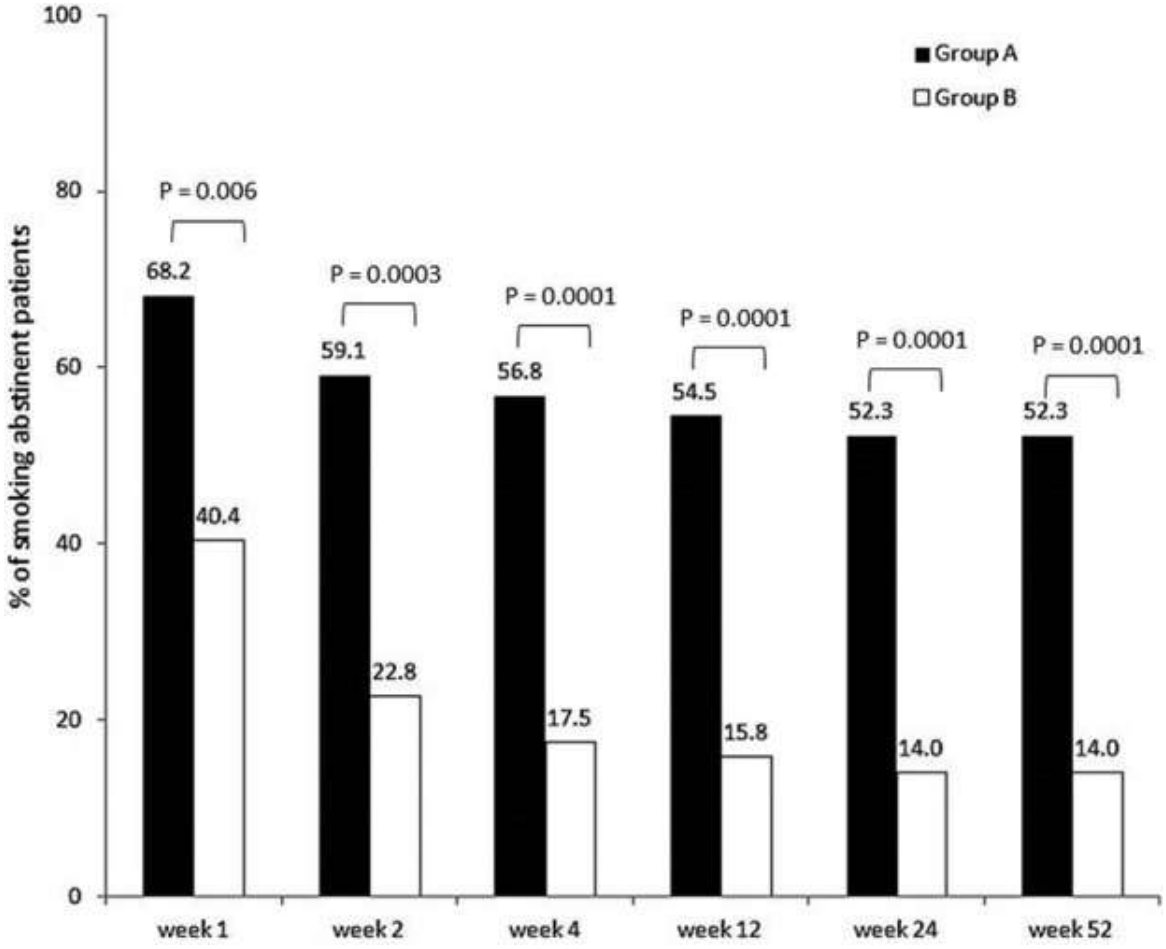
Effects of varenicline therapy in combination with advanced behavioral support on smoking cessation and quality of life in inpatients with acute exacerbation of COPD, bronchial asthma, or community-acquired pneumonia:

A prospective, open-label, preference-based, 52-week, follow-up trial.



Politis A: Gourgoulianis K Hatzoglou C Chron Respir Dis. 2018

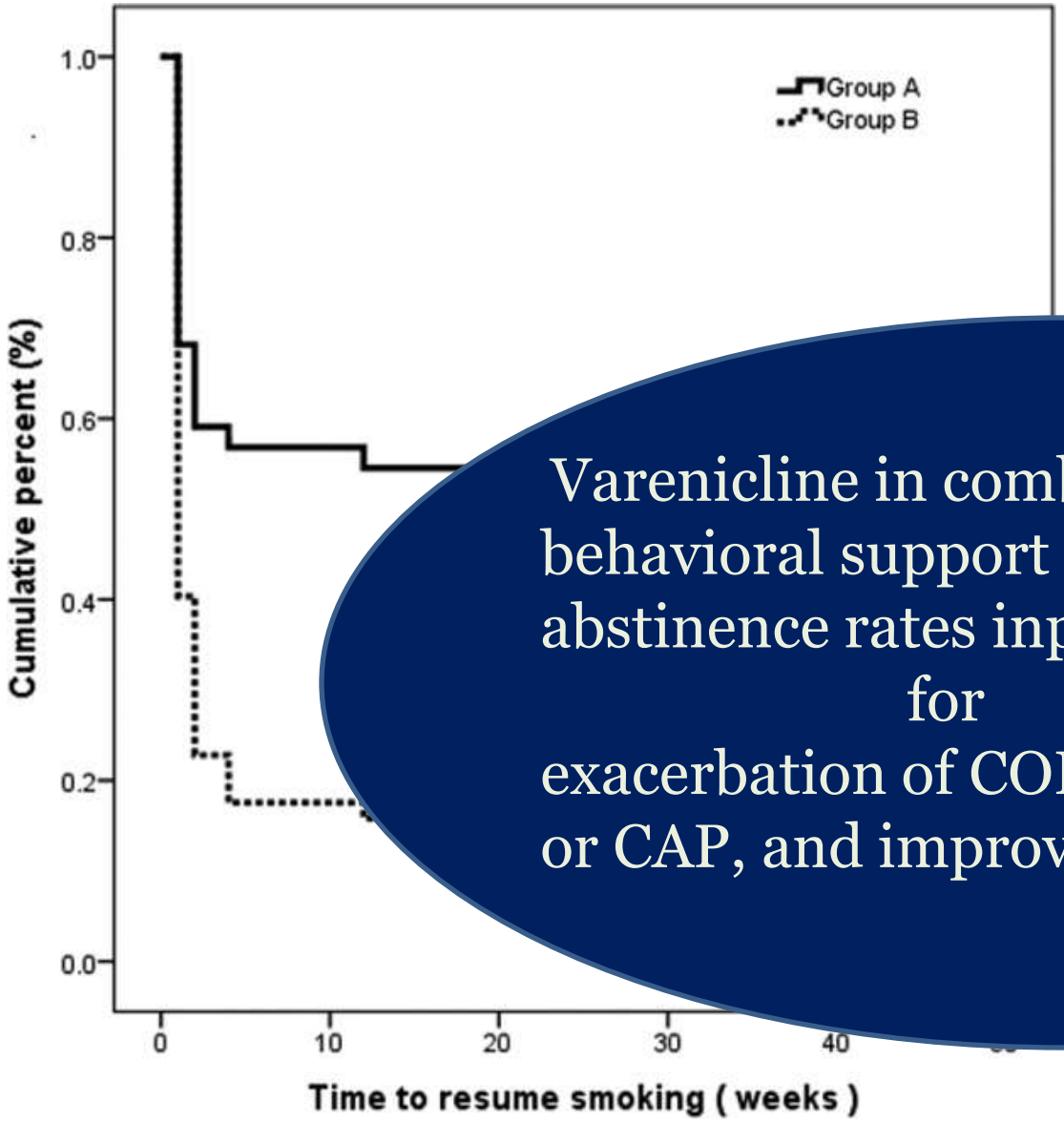
Percentage of smoking abstinent patients *by group*



group A
a standard regimen of varenicline combined with post-discharge advanced behavioral support

group B
one private consultation session during hospitalization

Politis A: Chron Respir Dis. 2018



Varenicline in combination with behavioral support resulted in high abstinence rates inpatients hospitalized for exacerbation of COPD, asthma attack, or CAP, and improved QoL.

Kaplan–Meier curves of time to resume smoking for both groups.

Politis A, Gourgouliannis K, Hatzoglou C: Chron Respir Dis. 2018

Smoking Cessation in Patients with Acute Coronary Syndrome

Franck C: The American Journal of Cardiology

In press

Characteristics of RCT of pharmacotherapy in pts *with acute coronary syndrome*

Study	Year	Population	Intervention	No. pts randomized	Most rigorous outcome	Co-intervention
Pharmacological						
Planer et al.[26]	2011	Inpatient ACS	Bupropion	151	12 months CA	Individual counseling (21 sessions)
Rigotti et al.[25]	2006	Inpatient ACS	Bupropion	248	12 months CA-BV	Individual counseling (6 session)
Eisenberg et al.[5] (ZESCA Trial)	2013	Inpatient acute MI	Bupropion	392	12 months CA-BV	Individual counseling (7 sessions)
Eisenberg et al.[6] (EVITA Trial)	2016	Inpatient ACS	Varenicline	302	12 months CA-BV	Individual counseling (8 sessions)
Behavioral						
Taylor et al.[37]	1990	Inpatient acute MI	Telephone counseling with CBT (210 min, 8 sessions)	173	12 months PP-BV	Free for IG only
Feeney et al.[38]	2001	Inpatient acute MI	Telephone counseling with motivational support (9 sessions)	198	12 months CA-BV	Not provided
Smith et al.[39]	2009	Inpatient acute MI	Telephone counseling with motivational support (105 min, 8 sessions)	276	12 months PP	Free on-demand for all patients

Abbreviations: ACS = acute coronary syndrome, BV = biochemically validated, CA = continuous abstinence, IG = intervention group, MI = myocardial infarction

Efficacy of pharmacological and behavioral treatment in pts *with acute coronary syndrome*

Study (Year)	Therapy	n	Duration of Treatment	PPA 6 mo	PPA 12 mo	RD (%) 95% CI*	CA 6 mo	CA 12 mo
Pharmacological								
Planer et al. (2011)[26]	Bupropion + MS	75	Bupropion SR 150 mg QD x 3 days,	-	-	-	45.0%	31.0%
								.0%
Rigotti et al. (2006)[25]								%
								%
Eisenberg et al. (2013)[5]								%
								%
Eisenberg et al. (2016)[6]								%
								%
Behavioral								
Taylor et al. (1990)[37]								
Feeney et al. (2001)[38]	SF program	96	Self-help manual x2 wks, telephone counseling x4 wk, & at 2, 3, 6, and 12 mo	-	-	-	-	33.7%
	Minimal care	102		-	-		-	1.0%
Smith et al.[§] (2009)[39]	Intensive intervention	137	Bedside counseling, self-help, 7 tel. counseling sessions at 2, 7, 14, 21, 30, 45, & 60 days	66.7%	62.2%	15.9% (4.2%, 27.5%)	-	54.0%
	Minimal intervention	139		48.9%	46.0%		-	35.0%

Among pharmacological trials only varenicline increases point prevelance abstinence at 12 months

Behavioral interventions produced significantly improved abstinence at 6 and 12 months

Specific populations

Before surgery

- Smoking is a risk factor for both surgery and port-surgery complications
- The use of NRT as partial substitution therapy to reduce tobacco use should be proposed to patients unwilling to stop Grade B
- Smoking cessation should be proposed at least 6 weeks before surgery

Co

During the inpatient admission

Hospitals are smoke-free environments

Obvious link between the admission and the underlying smoking behavior

- ***Pressing opportunity to prescribe NRT to lessen the withdrawal symptoms***
- ***To be followed by motivational interviewing and prescription of other pharmacotherapy***
- ***The positive experience of nicotine withdrawal during the admission might facilitate the maintenance of abstinence***

These individuals have short- as well as longer-term supportive contacts from health professionals

- ***Minimize the likelihood of relapse***

Perret et al: Journal of Asthma and Allergy 2016;9

Characteristics Associated With Smoking Cessation Pharmacotherapy Prescriptions for Hospitalized Patients Who Use Tobacco

Tobacco Use Prevalence and **Smoking Cessation Pharmacotherapy** Prescription Patterns Among Hospitalized Patients **by Medical Specialty**

Srivastava A.B: Nicotine & Tobacco Research, 2018

Pharmacotherapy prescriptions for hospitalized smokers

		n	Percent
Gender	Female	45 037	21.1
	Male	54 549	21.8
Race	Caucasian	56 641	22.6
	African American	39 009	20.1
	Other	1454	20.6
	Unknown	2482	17.4
Age (years)	18–34	19 996	23.9
	35–49	24 968	25.8
	50–64	39 022	20.8
	65–79	13 808	13.9
Admission year	2010	5168	18.3
	2011	16 449	19.0
	2012	16 304	19.5
	2013	16 010	21.4
	2014	15 243	22.4
	2015	16 128	23.7
	2016	14 284	24.4
	Orthopedic surgery	4315	5.4
	Otolaryngology	1884	10.8
	Plastic surgery	706	4.7
	Psychiatry	6402	71.8
	Urology	2341	10.9
Admission route	Not through ED	47 381	17.2
	Through ED	52 205	25.3
Length of stay	<3 days	47 369	15.9
	≥3 days	52 217	26.6

Tobacco Use Prevalence and Smoking Cessation Pharmacotherapy Prescription Patterns Among Hospitalized Patients by Medical Specialty

Ideally,
all hospitalized patients who use tobacco should receive cessation pharmacotherapy to reduce withdrawal symptoms and encourage smoking cessation.

Several hospital-based strategies may increase the delivery of evidence-based smoking treatment during hospitalization.

Hospitals may benefit from implementing policies and practices that standardize and automate the offer of smoking cessation pharmacotherapy for all hospitalized patients who smoke.

Additionally, training nurses in bedside delivery of pharmacotherapy may improve utilization.

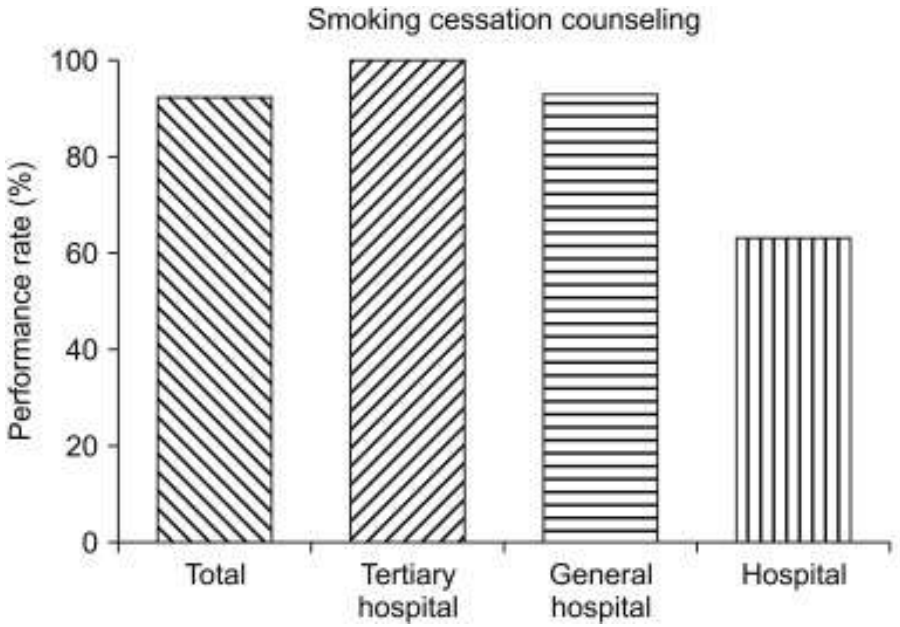
Srivastava A.B: Nicotine & Tobacco Research, 2018

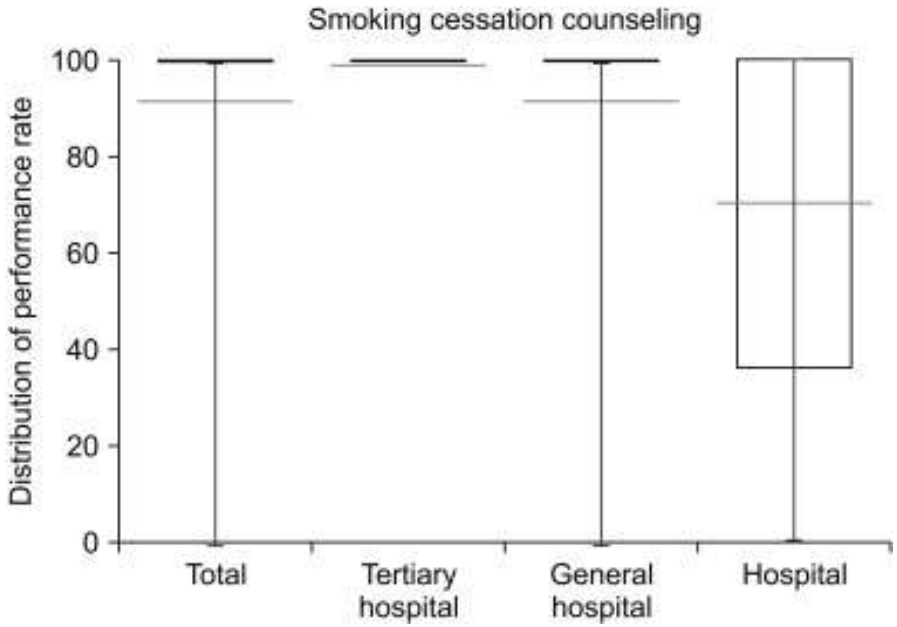
Evaluation of the Quality of Care among Hospitalized Adult Patients with Community-Acquired Pneumonia in Korea

- **Performance rates of oxygenation assessment according to institution**
- **Performance rates of pneumonia severity assessment according to institution**
- **Performance rates of sputum smears within 24 hours of hospital arrival according to institution**
- **The performance rates of sputum cultures performed within 24 hours of hospital arrival according to institution**
- **Performance rates of blood cultures taken prior to the initial administration of antibiotics according to institution**
- **Performance rates of the administration of the first dose of antibiotics within 8 hours of the time of hospital arrival according to institution**
- **Performance rates of smoking cessation counseling according to institution.**
- **Performance rates of screening for pneumococcal vaccination according to institution.**

Ji Young Hong JI Tuberc Dis Jul 2018

Evaluation of the Quality of Care among Hospitalized Adult Patients with Community-Acquired Pneumonia in Korea





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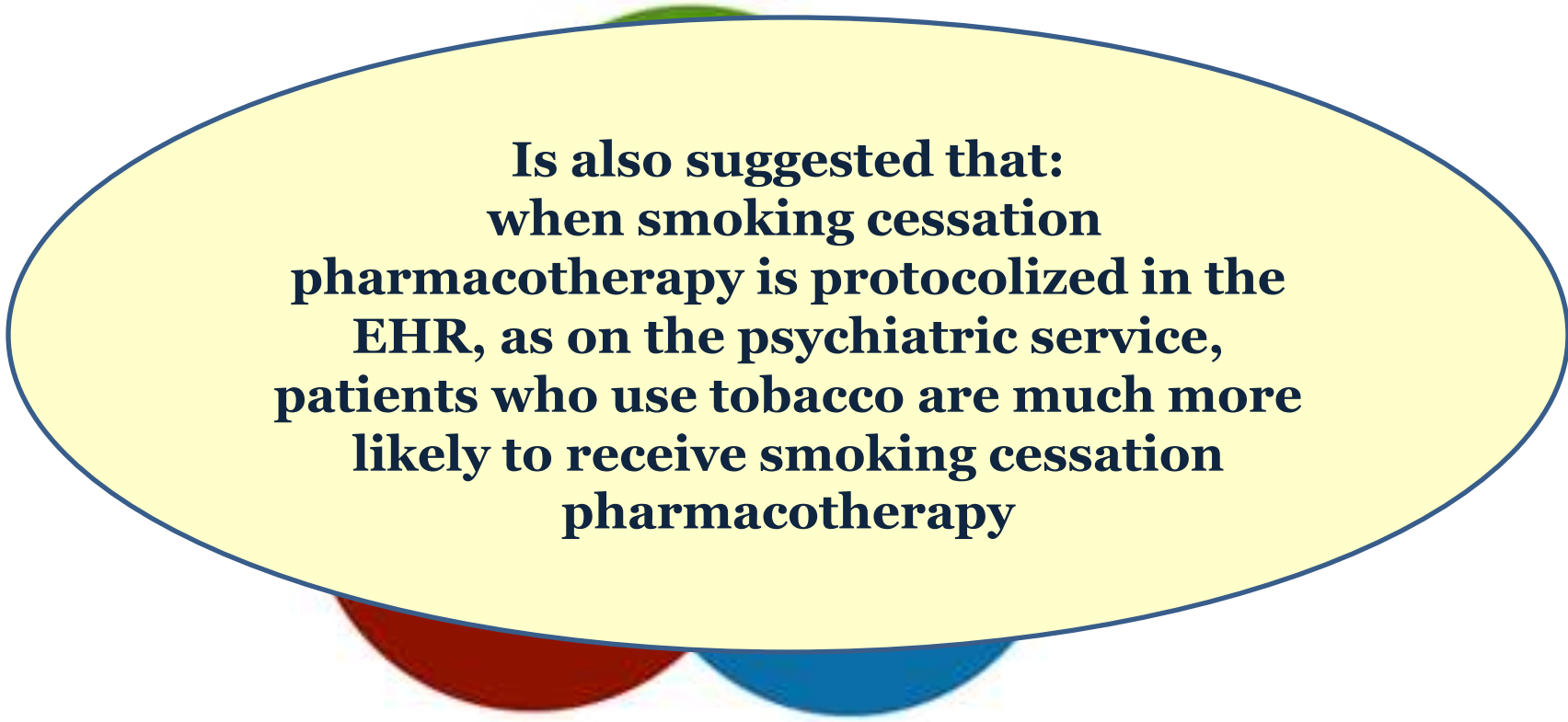
Changing Behavior: 3 Main Levers for Helping Patients Quit Smoking



Recommended Treatments for Tobacco Dependence and the Evidence Base for Use in Smokers with Mental Illness.*

Treatment Strategy	Findings in Smokers with Mental Illness
Clinician advice to quit and referral	In one trial in clinically depressed smokers, yielded abstinence rate of 19% at 18 months of follow-up.[1]
Individual cessation counseling	At 18 months of follow-up, individual counseling with access to cessation pharmacotherapy achieved abstinence in 18% of smokers with PTSD[3] and 25% of those with depression.[1]
Group cessation counseling	Group counseling plus nicotine replacement achieved 19 to 21% abstinence at 12 months of follow-up in outpatients with serious mental illness; tailoring content for smokers with schizophrenia was equally effective.
Quit-lines	The nearly 25% of callers to the California quit-line who had major depression were significantly less likely than nondepressed callers to have quit smoking at 2 months of follow-up.
Nicotine replacement: patch, gum, lozenge, inhaler, nasal spray	One trial found nicotine gum particularly helpful among depressed (as compared with nondepressed) smokers (36% abstinence at 3 months). In acute care settings, nicotine replacement reduced agitation in smokers with schizophrenia and was associated with lower rates of leaving inpatient psychiatric settings against medical advice. Extended use of a nicotine patch reduced relapse risk among smokers with schizophrenia. A case series documented that nicotine nasal spray was used appropriately by smokers with schizophrenia and supported cessation.
Bupropion	An effective cessation aid in smokers with or without current or past depression. A meta-analysis of 7 trials in 260 smokers with schizophrenia showed significant effects at 6 months of follow-up.[4] According to a case study, two smokers with bipolar disorder quit smoking with no adverse effects on mood.
Varenicline	Three case series involving medically stable outpatients with schizophrenia reported significant smoking reduction, 8-to-75% quit rates, improvements on some cognitive tests, and no serious adverse effects; individual case reports reveal mixed effects in smokers with schizophrenia or bipolar disorder. Three randomized, controlled trials in smokers with schizophrenia or depression are in process.
Nortriptyline	Demonstrated efficacy in the general population and among smokers with a history of depression; no data on smokers with current mental illness.
Clonidine	Demonstrated efficacy in the general population; no data on smokers with mental illness.