

# 폐암검진과 금연치료

가톨릭의대 부천성모병원

호흡기내과

강혜선

올해 7월부터 폐암도 국가암검진 대상!

# 폐암 국가암검진 7월 시행



🕒 폐암검진 비용은  
**1인당 11만원**으로  
이중 **90%**은 건강보험이 적용되며,  
**10%만 본인이 부담** 하게 됩니다.

건강보험료 기준 하위 50% 가구나  
의료급여수급권자는 본인부담이 없습니다.



# 검진 대상자



1 만 54세 - 74세

2 폐암 발생 고위험군

3 본인부담금 10%

4 사후 결과 상담

• 검진 주기: 2년

## 폐암발생 고위험군



1갑 20개비

하루 한갑 30년 (1갑씩 X 30년간)



2갑 40개비



하루 두갑 15년 (2갑씩 X 15년간)

30갑년 이상 흡연자!



## 방문결과상담제공!

결과 통보서만으로는 검진 결과에 대한 이해가 어려울 수 있습니다.

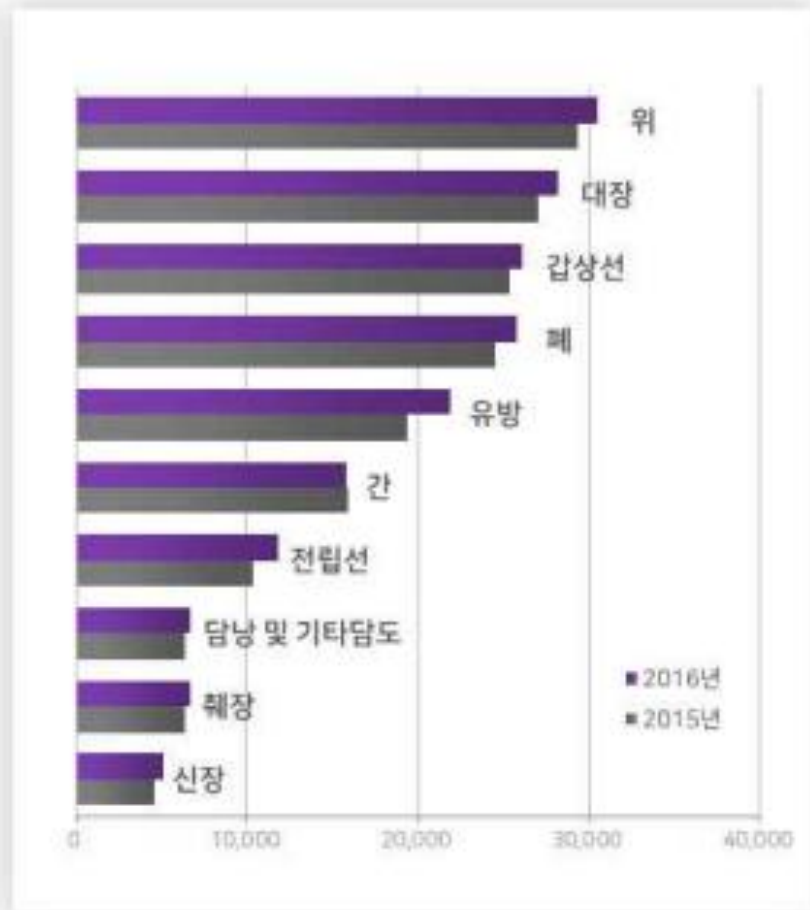
검진기관을 방문하시면 더욱 상세한  
결과상담과 **금연상담**까지 받을 수 있습니다.

# Contents

- 폐암 검진 시 금연 치료의 필요성
- 금연상담 및 약물치료
- 금연치료 건강보험 지원사업

# 폐암 발생율

암종	발생자수		차이	
	2016년 (A)	2015년 (B)	발생자수 (C=A-B)	백분율 (C/B*100)
위	30,504	29,337	1,167	4.0
대장	28,127	27,043	1,084	4.0
갑상선	26,051	25,297	754	3.0
폐	25,780	24,502	1,278	5.2
유방	21,839	19,301	2,538	13.1
간	15,771	15,874	-103	-0.6
전립선	11,800	10,304	1,496	14.5
담낭 및 기타담도	6,685	6,290	395	6.3
췌장	6,655	6,372	283	4.4
신장	5,043	4,590	453	9.9
모든암	229,180	216,542	12,638	5.8





< 2016년 주요 암종 발생자수 및 발생분율, 남자 >

(단위: 명, %, 명/10만 명)

순위	2016년					2015년		순위 변동
	암종	발생자수	분율	조발생률	연령표준화 발생률	발생자수	분율	
	모든 암	120,068	100.0	470.3	307.6	114,276	100.0	
	갑상선 제외	114,530	-	448.6	288.6	108,847	-	
1	위	20,509	17.1	80.3	50.9	19,649	17.2	
2	폐	17,790	14.8	69.7	42.9	17,163	15.0	
3	대장	16,672	13.9	65.3	41.6	16,060	14.1	
4	전립선	11,800	9.8	46.2	28.2	10,304	9.0	↑(+1)
5	간	11,774	9.8	46.1	29.2	11,815	10.3	↓(-1)
6	갑상선	5,538	4.6	21.7	19.0	5,429	4.8	
7	담낭 및 기타담도	3,490	2.9	13.7	8.4	3,241	2.8	↑(+2)
8	방광	3,488	2.9	13.7	8.5	3,285	2.9	
9	신장	3,410	2.8	13.4	9.3	3,156	2.8	↑(+1)
10	췌장	3,384	2.8	13.3	8.3	3,371	2.9	↓(-3)

# 주요 암종 발생 비교

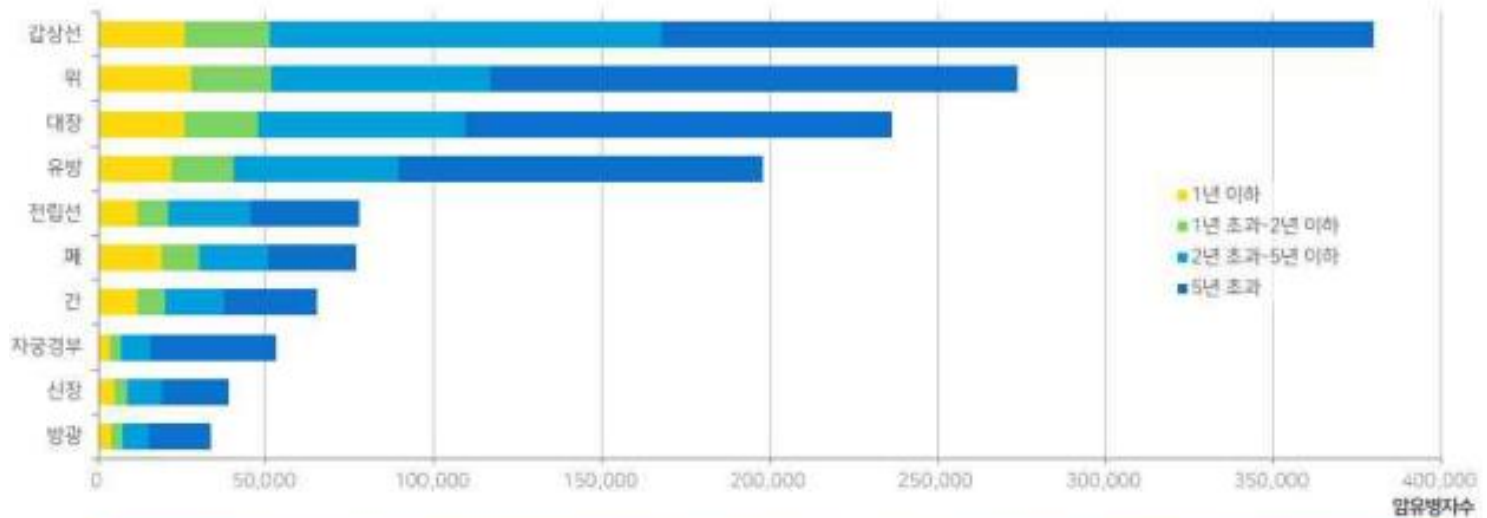
< 2016년 주요 암종 발생자수 및 발생분율, 여자 >

(단위: 명, %, 명/10만 명)

순위	2016년					2015년		순위 변동
	암종	발생자수	분율	조발생률	연령표준화 발생률	발생자수	분율	
	모든 암	109,112	100.0	426.5	281.2	102,266	100.0	
	갑상선 제외	88,599	-	346.3	211.4	82,398	-	
1	유방	21,747	19.9	85.0	62.5	19,224	18.8	↑(+1)
2	갑상선	20,513	18.8	80.2	69.8	19,868	19.4	↓(-1)
3	대장	11,455	10.5	44.8	23.3	10,983	10.7	
4	위	9,995	9.2	39.1	22.0	9,688	9.5	
5	폐	7,990	7.3	31.2	15.8	7,339	7.2	
6	간	3,997	3.7	15.6	7.9	4,059	4.0	
7	자궁경부	3,566	3.3	13.9	10.8	3,616	3.5	
8	췌장	3,271	3.0	12.8	6.1	3,001	2.9	↑(+1)
9	담낭 및 기타담도	3,195	2.9	12.5	5.6	3,049	3.0	↓(-1)
10	자궁체부	2,771	2.5	10.8	7.5	2,422	2.4	↑(+1)

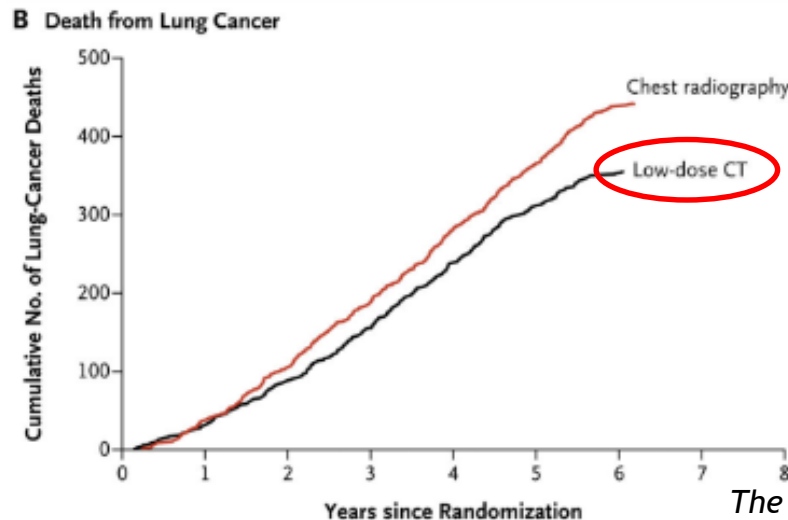
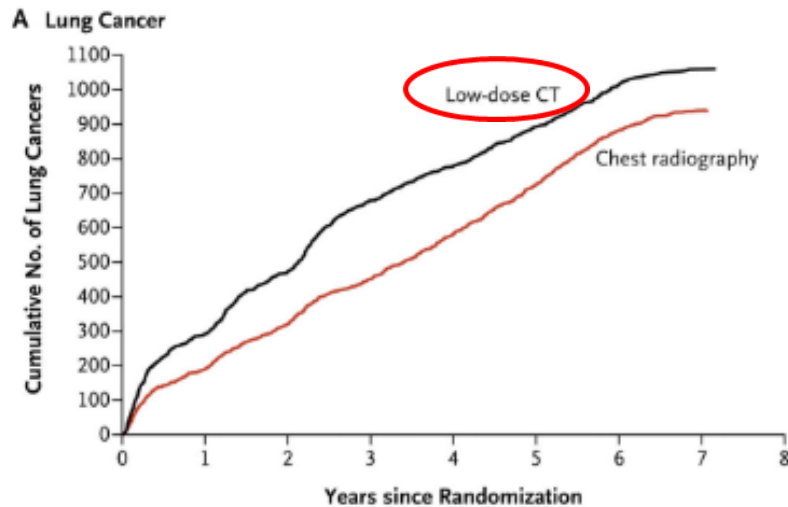
# 진단 후 경과

< 2016년 주요 암종의 진단 후 경과 기간별 암유병자수 >

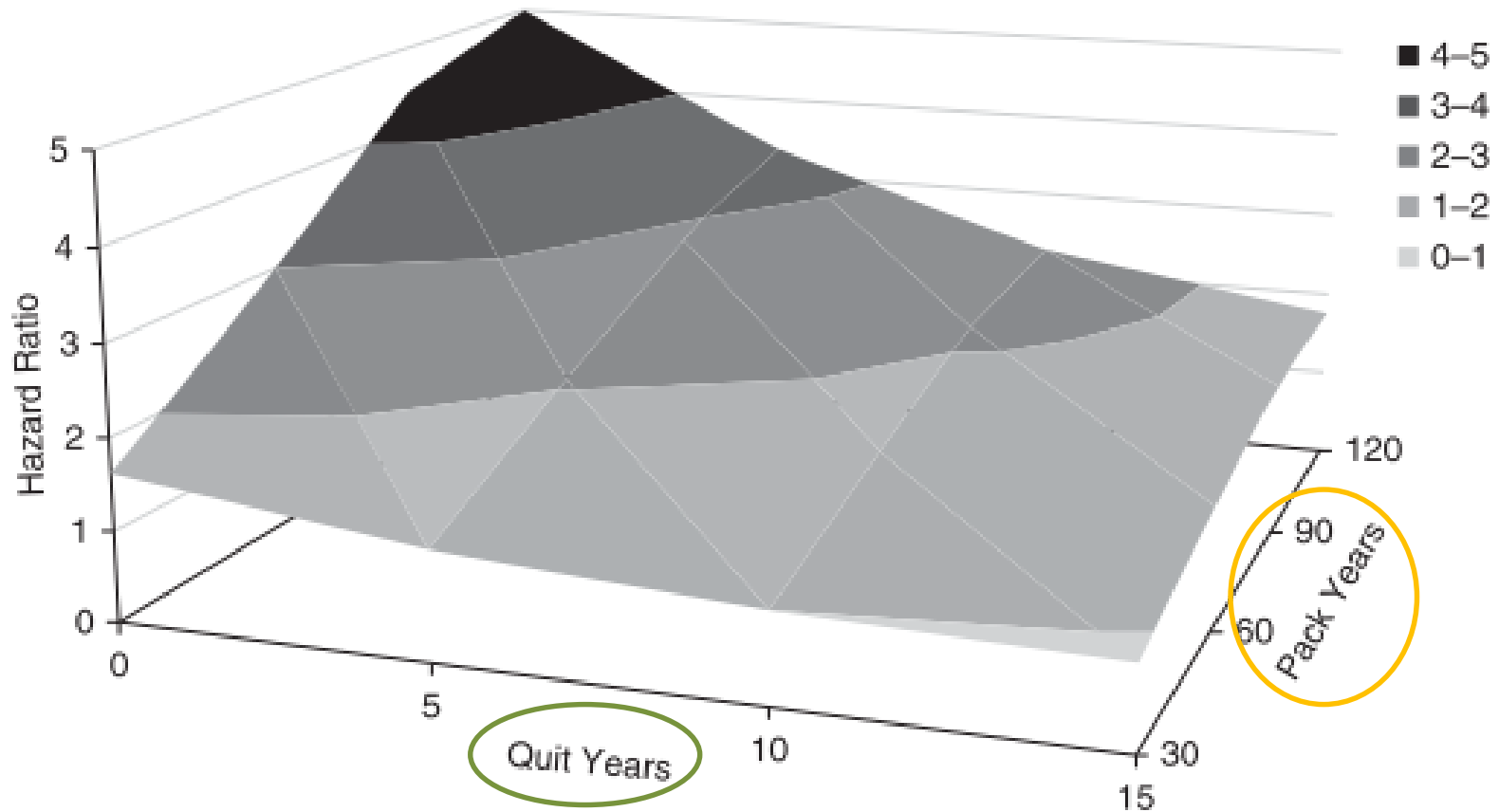


진단 후 경과 기간	갑상선	위	대장	유방	전립선	폐	간	자궁경부	신장	방광	모든 암
1년 이하	25,905	27,707	25,666	21,581	11,480	18,681	11,515	3,405	4,700	4,001	201,371
1년 초과-2년 이하	25,026	23,615	22,136	18,723	9,517	11,333	8,204	3,203	3,977	3,310	162,999
2년 초과-5년 이하	116,871	65,548	61,408	48,969	24,218	20,728	17,636	8,634	10,377	7,917	458,701
5년 초과	212,144	156,831	127,221	108,733	32,420	25,802	27,509	37,516	19,782	18,315	916,880
합계	379,946	273,701	236,431	198,006	77,635	76,544	64,864	52,758	38,836	33,543	1,739,951

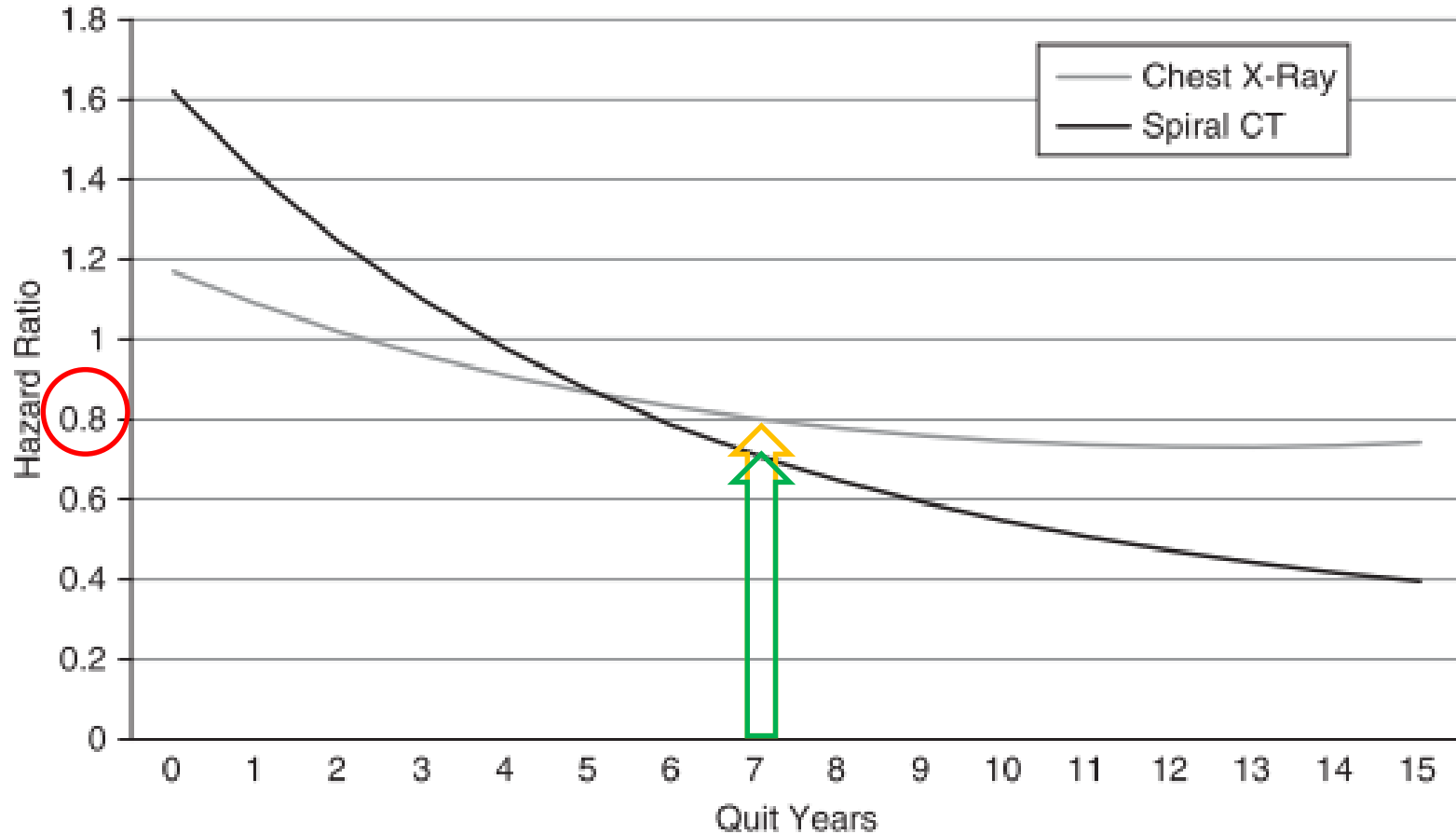
# Cumulative numbers of lung cancers and deaths from lung cancer



# Adjusted HRs for lung cancer mortality



# Adjusted HRs for lung cancer mortality



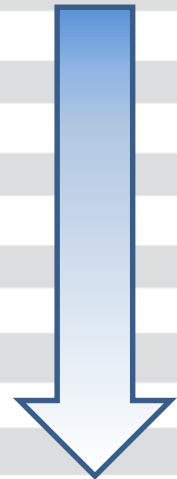
# Years since quitting smoking and lung cancer mortality

Variable	All Former Smokers			LDCT Scan			Chest Radiograph		
	Hazard Ratio	95% Wald CI	P Value	Hazard Ratio	95% Wald CI	P Value	Hazard Ratio	95% Wald CI	P Value
Centered age (by 5 yr)	1.67	(1.52–1.83)	<0.0001	1.67	(1.45–1.92)	<0.0001	1.67	(1.50–1.87)	<0.0001
Years since quitting (by 1 yr)	0.94	(0.92–0.96)	<0.0001	0.91	(0.87–0.95)	<0.0001	0.97	(0.95–1.00)	0.0782
Years since quitting (by 5 yr)	0.75	(0.67–0.83)	<0.0001	0.62	(0.51–0.76)	<0.0001	0.88	(0.76–1.02)	0.0782
Race									
White (reference)	—	—	—	—	—	—	—	—	—
Black	0.53	(0.28–1.00)	0.0513	0.50	(0.16–1.60)	0.2454	0.53	(0.19–1.48)	0.2266
Screening group									
Chest radiograph (reference)	—	—	—	—	—	—	—	—	—
LDCT scan	0.92	(0.76–1.13)	0.4417	—	—	—	—	—	—
Education status									
<High school	1.17	(0.78–1.78)	0.4486	1.34	(0.73–2.46)	0.3531	1.04	(0.65–1.68)	0.8596
High school (reference)	—	—	—	—	—	—	—	—	—
College	0.55	(0.37–0.81)	0.0030	0.50	(0.33–0.76)	0.0011	0.60	(0.35–1.03)	0.0647
Graduate school	0.53	(0.34–0.83)	0.0054	0.47	(0.25–0.87)	0.0168	0.59	(0.32–1.08)	0.0872
Other	0.53	(0.23–1.23)	0.1405	0.56	(0.14–2.26)	0.4125	0.52	(0.17–1.61)	0.2559
Region									
South (reference)	—	—	—	—	—	—	—	—	—
Midwest	1.06	(0.81–1.37)	0.6860	0.92	(0.61–1.39)	0.6973	1.18	(0.89–1.57)	0.2387
Northeast	1.08	(0.73–1.61)	0.6894	0.81	(0.52–1.26)	0.3523	1.35	(0.84–2.19)	0.2160
West	0.84	(0.63–1.10)	0.2058	1.05	(0.64–1.73)	0.8345	0.61	(0.44–0.84)	0.0026
Sum of comorbidities	1.21	(1.12–1.31)	<0.0001	1.33	(1.23–1.45)	<0.0001	1.09	(0.98–1.22)	0.1276
Sex									
Male (reference)	—	—	—	—	—	—	—	—	—
Female	0.65	(0.52–0.81)	0.0001	0.65	(0.51–0.83)	0.0005	0.66	(0.46–0.95)	0.0238
Marital status									
Married (reference)	—	—	—	—	—	—	—	—	—
Not married	1.17	(0.89–1.54)	0.2523	1.05	(0.68–1.61)	0.8252	1.29	(0.99–1.68)	0.0638

Definition of abbreviations: CI = confidence interval; LDCT = low-dose computed tomography.

# Cost-utility analysis of LCS and incorporating smoking cessation

	NY-ELCAP stage shift	NLST stage shift
<b>Screening</b>		
Lung cancer screening and treatment costs	\$27,824,282,242	\$34,054,299,361
QALYs saved by screening and treatment	985,284	722,795
Cost per QALY saved	\$28,240	\$47,115
<b>Screening + light smoking cessation intervention</b>		
Additional costs for cessation	\$1,361,556,665	\$1,361,556,665
Additional QALYs saved by cessation	273,566	273,566
Cost per QALY saved	\$23,185	\$35,545
<b>Screening + intensive smoking cessation intervention</b>		
<i>A. NRT generic plus behavioral</i>		
Additional costs for cessation	\$3,212,191,737	\$3,212,191,737
Additional QALYs saved by cessation	930,754	930,754
Cost per QALY saved	\$16,198	\$22,537
<i>B. Bupropion generic plus behavioral</i>		
Additional costs for cessation	\$4,088,822,965	\$4,088,822,965
Additional QALYs saved by cessation	930,754	930,754
Cost per QALY saved	\$16,656	\$23,067
<i>C. Chantix plus behavioral</i>		
Additional costs for cessation	\$5,342,861,783	\$5,342,861,783
Additional QALYs saved by cessation	930,754	930,754
Cost per QALY saved	\$17,310	\$23,826



# Essential component in LCS

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## Decision Memo for Screening for Lung Cancer with Low Dose Computed Tomography (LDCT) (CAG-00439N)

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### Decision Summary

The Centers for Medicare & Medicaid Services (CMS) has determined that the evidence is sufficient to add a lung cancer screening counseling and shared decision making visit, and for appropriate beneficiaries, annual screening for lung cancer with low dose computed tomography (LDCT), as an additional preventive service benefit under the Medicare program only if all of the following criteria are met:

Beneficiary eligibility criteria:

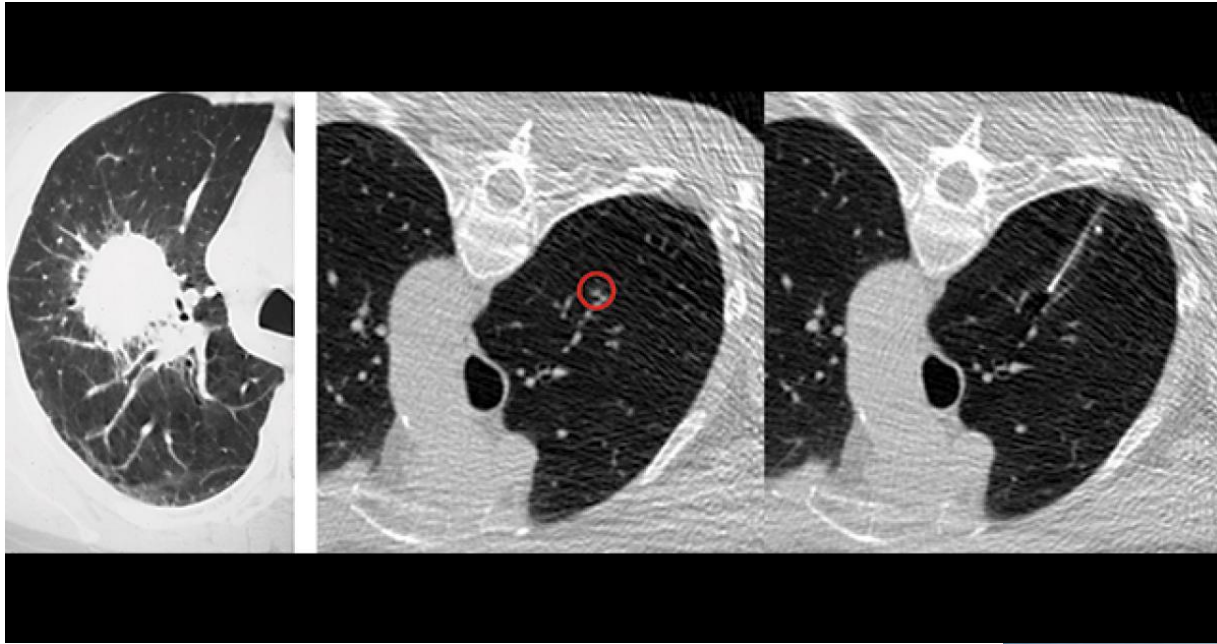
- Age 55 – 77 years;
- Asymptomatic (no signs or symptoms of lung cancer);
- Tobacco smoking history of at least 30 pack-years (one pack-year = smoking one pack per day for one year; 1 pack = 20 cigarettes);
- Current smoker or one who has quit smoking within the last 15 years; and
- Receives a written order for LDCT lung cancer screening that meets the following criteria:
  - *For the initial LDCT lung cancer screening service:* a beneficiary must receive a written order for LDCT lung cancer screening during a lung cancer screening counseling and shared decision making visit, furnished by a physician (as defined in Section 1861(r)(1) of the Social Security Act) or qualified non-physician practitioner (meaning a physician assistant, nurse practitioner, or clinical nurse specialist as defined in §1861(aa)(5)

- Counseling on the importance of maintaining cigarette smoking abstinence if former smoker; or the importance of smoking cessation if current smoker and, if appropriate, furnishing of information about tobacco cessation interventions; and

undergo diagnosis and treatment;

- Counseling on the importance of maintaining cigarette smoking abstinence if former smoker; or the importance of smoking cessation if current smoker and, if appropriate, furnishing of information about tobacco cessation interventions; and
- If appropriate, the furnishing of a written order for lung cancer screening with LDCT.

# Teachable moment



- **Positive** and **negative** screening results
  - Teachable moment for smoking cessation
  - Unintentionally reassure to continue smoking

# LDCT findings and smoking behaviors

Study Cohort Selection	Population, Including Smoking Status at Baseline	Positive LDCT Cessation	Negative LDCT Cessation	Positive LDCT Relapse	Negative LDCT Relapse	Statistics
DLCST (23) entire baseline cohort	2,052 current & former smokers Age (mean): 58 yr Men: 56% Pack-years (mean): 36	18% (23/129)*	Cessation: 11% (NR)	5% (2/44)*	11% (NR)	Cessation: $P = 0.04$ , unadjusted Relapse: $P < 0.01$ , unadjusted
NELSON (25) random sample from CT screening arm	938 Current smokers Age (mean): 58 yr Men: 100% Pack years: 31% with $\leq 30$	Cessation: 12% (48/419)	Cessation: 9% (46/519)	NA	NA	OR for cessation after abnormal result: 1.26 (95% CI, 0.48 to 3.30) NS Univariate analysis
ELCAP (26)	134 Current smokers Age (mean): 67 yr Men: 40% Pack-years (mean): 53	62% (21/34) <sup>†</sup>	45% (45/100) <sup>†</sup>	NA	NA	OR for cessation after abnormal result: 1.97 (95% CI, 0.89 to 4.38) NS Univariate analysis
ELCAP (27)	2,078 Current & former smokers Age (mean): 63 yr for long-term former smokers <sup>‡</sup> Men: 52% of long-term former smokers <sup>‡</sup> Packs per day: 51% with $> 1$ among long-term former smokers <sup>‡</sup>	NR	NR	NR	NR	HR for cessation after $\geq 1$ abnormal result: 1.34 (95% CI, 0.90 to 1.99) NS Univariate analysis HR for relapse of long-term former smokers after $\geq 1$ abnormal result: 0.51 (95% CI, 0.20 to 1.29) NS Univariate analysis Cessation: $P = 0.653$ Relapse: $P = 0.163$
Mayo (28) <sup>§</sup>	1,475 current & former smokers Current smokers <sup>  </sup> Age (mean): 59 yr Men: 50% Years smoked: 37% with $< 36$ yr	15% (77/515)*	13% (50/386)*	10% (31/324)*	11% (223/250)*	
Mayo (29) <sup>§</sup>	1,375 Current & former smokers Current smokers <sup>  </sup> Men: 50% Age (mean): 59 yr Years smoked (mean): 39 yr	After: 1 abnormal LDCT: 24% 2 abnormal LDCTs: 28% 3 abnormal LDCTs: 42%	After: 0 abnormal LDCTs: 20%	NR	NR	OR for cessation after abnormal CT: 1.37 ( $P = 0.002$ ) Multivariable adjusted



# The impact of a lung cancer computed tomography screening result on smoking abstinence

C.M. van der Aalst<sup>\*,#</sup>, R.J. van Klaveren<sup>#</sup>, K.A.M. van den Bergh<sup>\*</sup>,  
M.C. Willemsen<sup>1,+</sup> and H.J. de Koning<sup>\*</sup>

**ABSTRACT:** Receiving a lung cancer computed tomography screening result might be a teachable moment for smoking cessation, but it might also unintentionally reassure smokers to continue smoking. The objective of the present study was to investigate whether test results were associated with smoking abstinence in the Dutch–Belgian Randomised Controlled Lung Cancer Screening Trial (NELSON trial).

Two random samples of male smokers who had received either **only negative test** results (n=550) or **one or more indeterminate test** result (n=440) were sent a questionnaire 2 yrs after randomisation.

Smokers with an indeterminate result reported **more quit attempts** (p=0.02), but the prolonged **abstinence rate** in smokers receiving a negative test (46 (8.9%) out of 519 subjects) was comparable with the abstinence rate in smokers with one or more indeterminate results (48 (11.5%) out of 419 subjects) (p=0.19). A statistically insignificant increase was found after one or more indeterminate test result (10.9 and 15.0%, respectively) compared with receiving only negative test results (8.9%) (p=0.26).

In conclusion, the outcome of the screening test had no impact on future smoking abstinence in male smokers, although all results suggest more favourable implications after one or more follow-up recommendations. Screening test outcomes could be used as a teachable moment for smoking cessation.

## AFFILIATIONS

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<sup>#</sup>Dept of Pulmonology, Erasmus MC, University Medical Centre Rotterdam, Rotterdam,  
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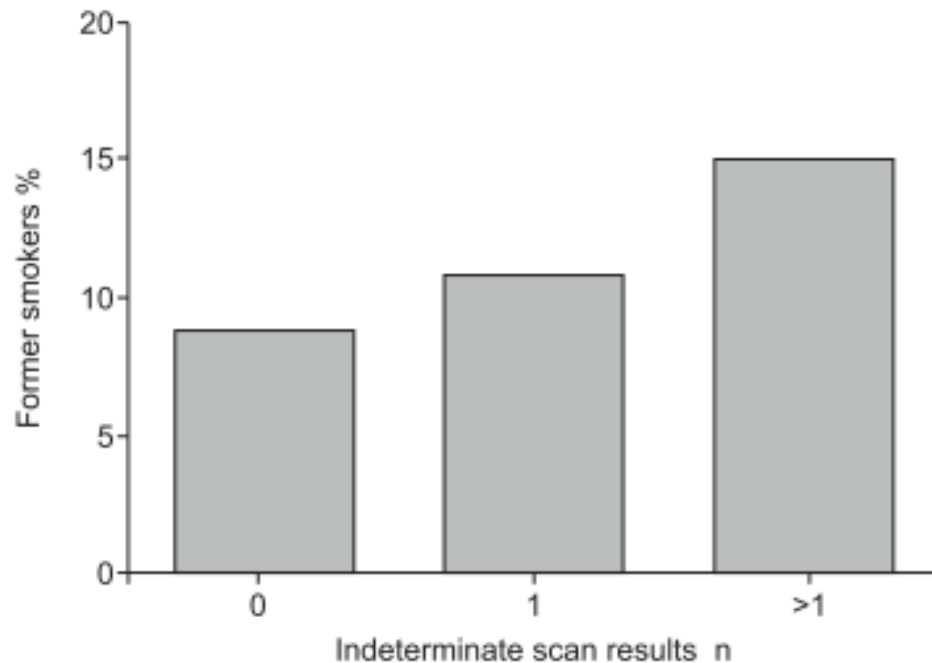
## CORRESPONDENCE

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# Letters with information of smoking cessation to participants

‘We have observed a very small abnormality in your lung (5-10 mm long). Such a small abnormality is often detected in many persons and it usually represents a **small scar** or a **minor inflammation**. Therefore, at this moment there is **no need for any further investigations**. However, in order to see whether there has been any change in this abnormality, a new CT scan of the lungs will be made after 3 to 4 months.’

# Quit rates of male smokers in relation to screening results



**FIGURE 2.** Quit rates of male smokers in relation to the number of indeterminate screening result(s) after 2 yrs of follow-up (Chi-squared 2.704, degrees of freedom 2; n=934; p=0.26).

- 1) a solid nodule with a volume of 50-500 mm<sup>3</sup>;
- 2) a solid, pleural-based nodule with a diameter of 5-10 mm;
- 3) A partially solid nodule with either a nonsolid component of >8 mm mean dimension or a solid component of 50-500 mm<sup>3</sup>;
- 4) a nonsolid nodule with a diameter of >8 mm.

# Predictors of prolonged smoking abstinence

**TABLE 3** The univariate and multivariate predictors of prolonged smoking abstinence

	Univariate analysis		Multivariate analysis	
	OR (95% CI)	p-value	OR (95% CI)	p-value
<b>Test result</b>				
Only negative	1.00			
≥1 indeterminate	1.33 (0.87–2.04)	0.19		
<b>Test result in the previous 12 months</b>				
Negative	1.00			
Indeterminate	1.26 (0.48–3.30)	0.64		
<b>Age</b>	1.02 (0.98–1.07)	0.31		
<b>Level of education</b>				
Low	1.00	0.09		
Medium	1.14 (0.65–1.98)	0.65		
High	1.73 (1.06–2.84)	<b>0.029</b>		
<b>Cigarettes per day</b>	0.99 (0.96–1.02)	0.40		
<b>Smoking duration yrs</b>	1.01 (0.97–1.05)	0.58		
<b>Starting age yrs</b>				
<15	1.00	0.09		
15–20	1.70 (0.88–3.29)	0.12		
>20	0.95 (0.40–2.27)	0.91		
<b>Time to first cigarette min</b>				
<5	1.00	<b>0.005</b>	1.00	<b>0.006</b>
5–30	1.99 (0.96–4.09)	0.06	1.94 (0.94–4.00)	0.08
30–60	1.26 (0.56–2.85)	0.58	1.28 (0.56–2.89)	0.56
>60	3.42 (1.56–7.51)	<b>0.002</b>	3.39 (1.55–7.45)	<b>0.002</b>
<b>Motivation to quit smoking</b>				
Immotive	1.00	0.55		
Pre-contemplator	0.80 (0.38–1.66)	0.55		
Contemplator	1.25 (0.75–2.07)	0.39		
Preparator	1.32 (0.69–2.51)	0.40		

# Baseline Characteristics of Participants in the Randomized National Lung Screening Trial

The National Lung Screening Trial Research Team

Writing committee: Denise R. Aberle, Amanda M. Adams, Christine D. Berg, Jonathan D. Clapp, Kathy L. Clingan, Ilana F. Gareen, David A. Lynch, Pamela M. Marcus, Paul F. Pinsky

Manuscript received May 4, 2010; revised June 10, 2010; accepted October 1, 2010.

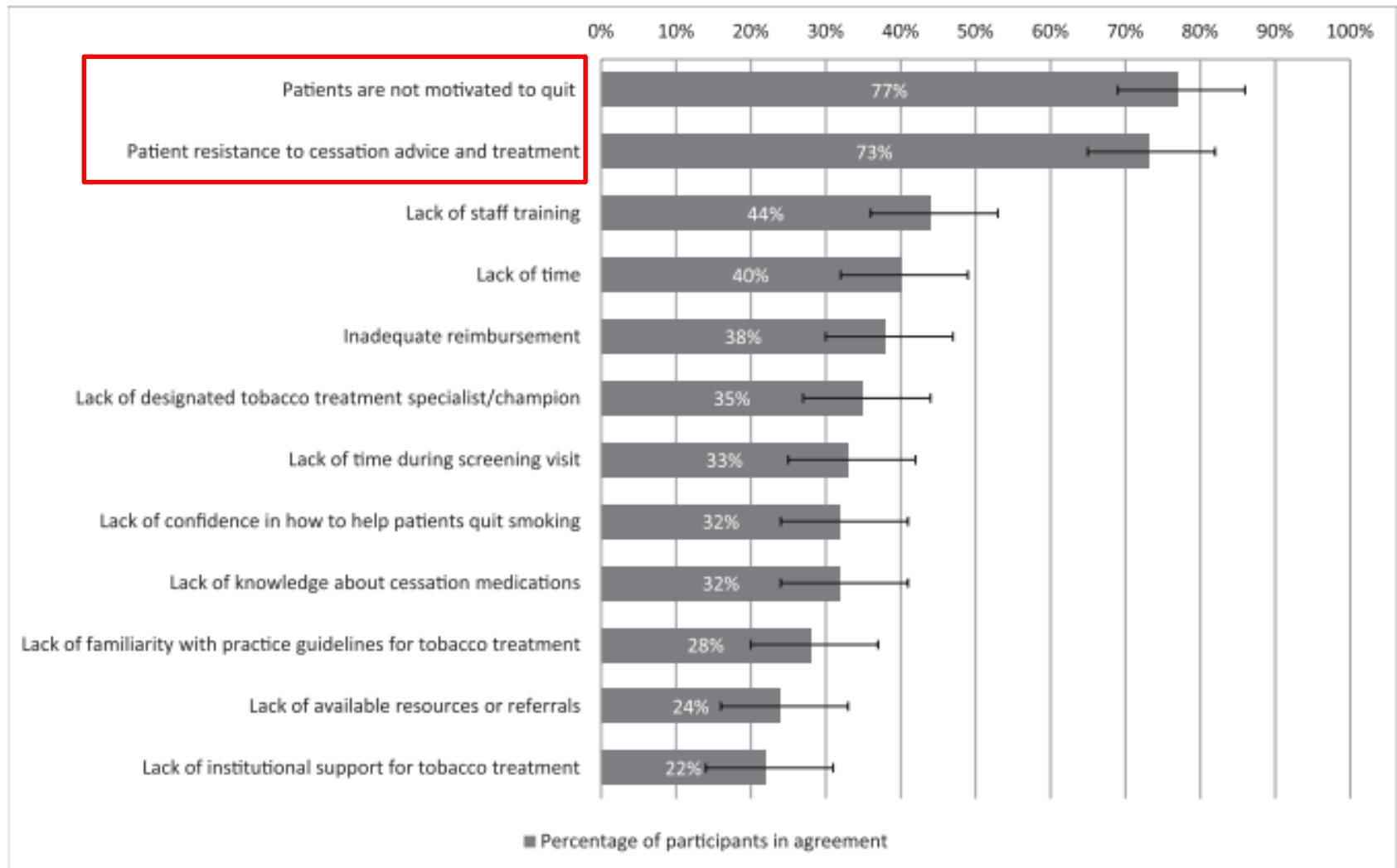
**Correspondence to:** David A. Lynch, MB, Division of Radiology, National Jewish Health, 1400 Jackson St, Denver, CO 80206 (e-mail: lynchd@njhealth.org)

**Results** The NLST enrolled 53456 persons, with 26733 randomly assigned to chest radiograph screening and 26723 to computerized tomography screening. Characteristics of the participants were as follows: 31533 (59%) were men, 39234 (73%) were younger than 65 years, **25779 (48%) were current smokers**, and 16839 (32%) had a college or higher degree. **Median cigarette exposure was 48 pack-years**. Among Tobacco Use Supplement respondents who met NLST age and smoking history criteria, 59% were men, 65% were younger than 65 years, and 57% were current smokers. Median cigarette exposure among this group was 47 pack-years, and 14% had a college degree or higher.

# Treatment of tobacco dependence

- Smokers who undergo LCS
  - Vary widely
  - Readiness to quit
  - Interest in smoking cessation treatment
  - Prior experience with pharmacological and behavioral therapies

# Barriers to providing smoking cessation interventions

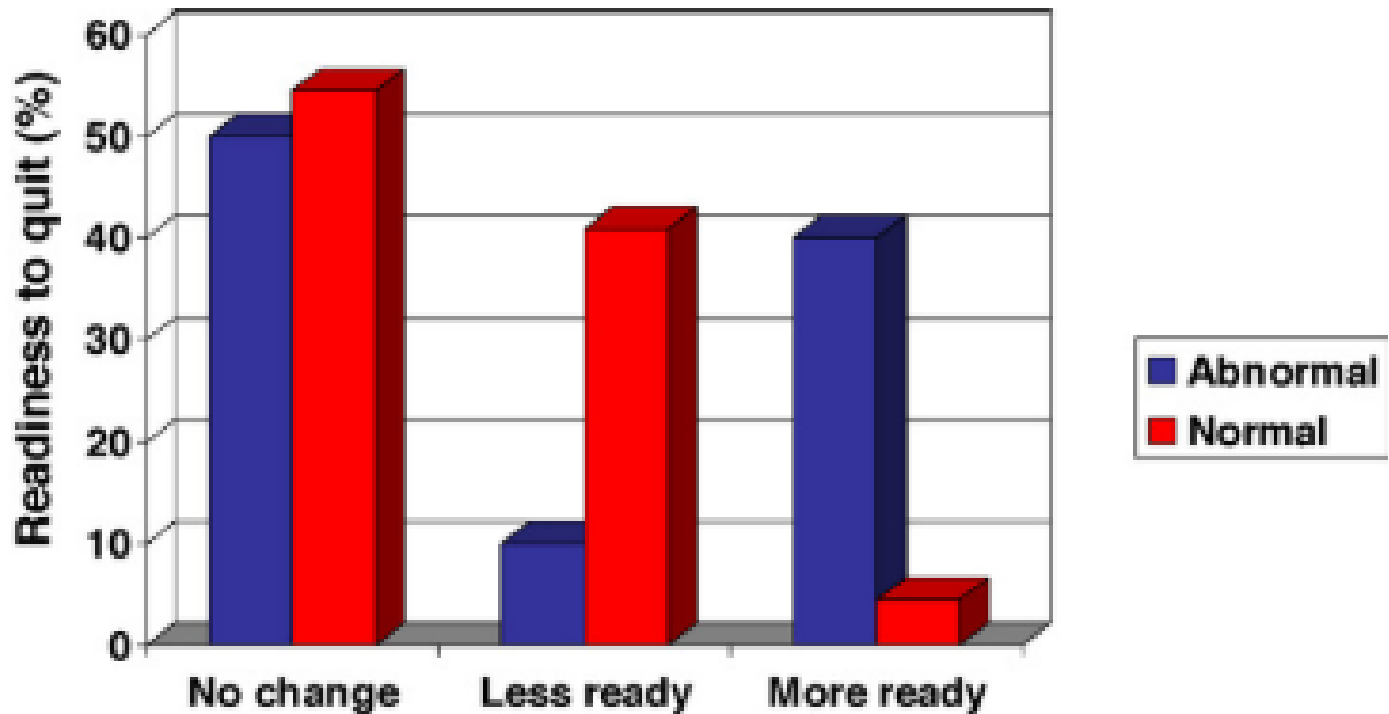


# Readiness to stop smoking

**Table 3** Current smokers' tobacco use characteristics, readiness to stop smoking, motivators to stop smoking, and interest in using smoking cessation treatments at baseline

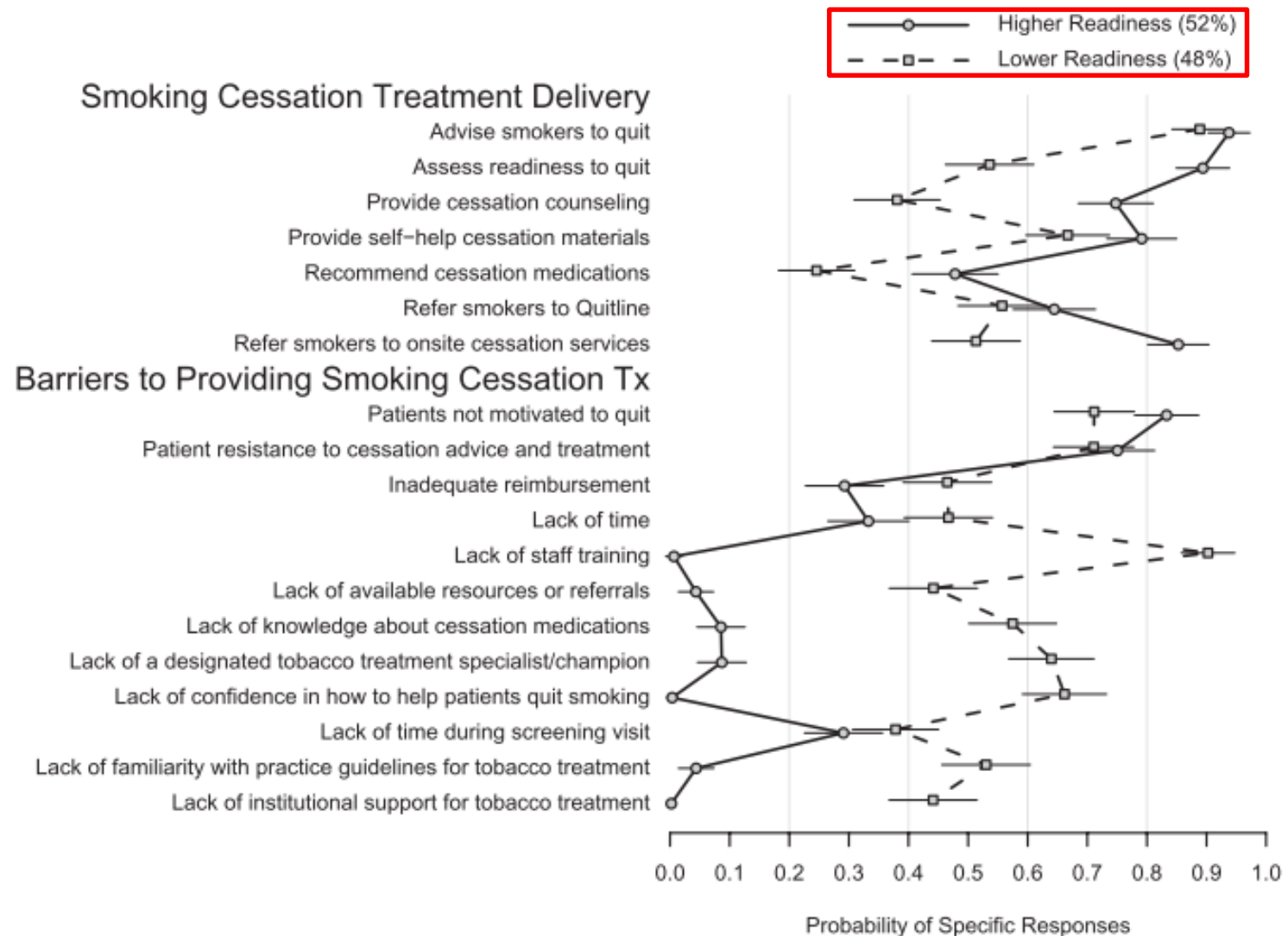
	LSS (N = 83)	NLST (N = 79)
<b>Tobacco use characteristics</b>		
Cigarettes per day (mean, S.D.) <sup>*</sup>	22.8 (14.1)	18.8 (10.3)
Years smoked (mean, S.D.) <sup>*</sup>	46.9 (7.1)	42.8 (6.5)
Age started smoking (mean, S.D.) <sup>#</sup>	17.0 (3.2)	18.1 (4.2)
24 h quit attempts during past year (mean, S.D.)	7.3 (28.3)	5.5 (21.2)
% daily smoker	88.0%	93.7%
% light cigarettes	72.3%	67.1%
<b>Fagerstrom test for nicotine dependence</b>		
% $\geq 6$ <sup>#</sup>	32.9%	20.3%
Mean (S.D.) <sup>*</sup>	4.43 (2.13)	3.71 (2.19)
<b>Readiness to stop smoking<sup>a</sup></b>		
Within next 30 days	20.5%	24.1%
With next 6 months	44.6%	43.0%
<b>Not thinking of stopping smoking</b>	<b>34.9%</b>	<b>32.9%</b>
<b>Interest in smoking cessation treatments<sup>a</sup> (% definitely/probably interested)</b>		
Self-help	27.7%	16.5%
Doctor	34.9%	30.4%
Nurse	37.3%	26.6%
Group therapy	38.6%	31.6%
Telephone counseling	39.8%	30.4%
Bupropion	47.0%	51.9%
<b>Free cessation counseling in a research study</b>	<b>67.5%</b>	<b>58.2%</b>
<b>Nicotine replacement therapy</b>	<b>69.9%</b>	<b>64.6%</b>
<b>Motivators to stop smoking among those who plan to stop<sup>a</sup></b>		
(% very/extremely important)	LSS (N = 54)	NLST (N = 53)
<b>Fear of lung health problems</b>	<b>74.1%</b>	<b>81.1%</b>
Physical symptoms	59.3%	56.6%
Pressure from others	37.1%	35.9%
Physician advice	29.7%	41.6%

# Change in readiness to quit among younger (<64)

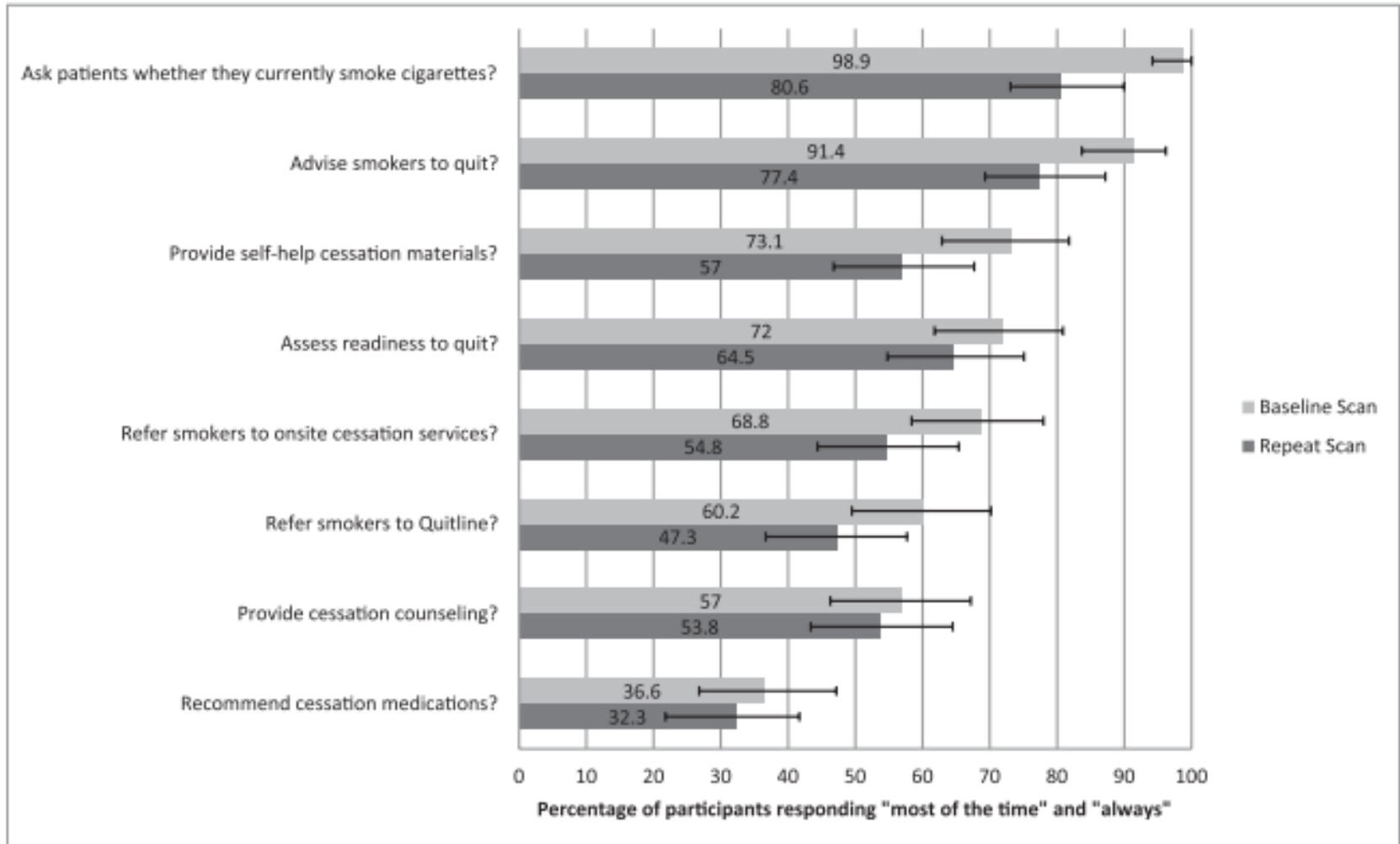


$\chi^2 (2, N = 32) = 7.7, p < .05$

# Treatment delivery and barriers



# Treatment practices at baseline and repeat scans



- Variable smoking cessation rates
  - Early and young screening adopters
    - more likely to quit smoking
  - Most smoking cessation interventions in LCS
    - Low intensity treatment strategies
    - Provision of self-help materials
    - Referral to a quitline

# Cessation resources

- Variable
- Not standardized
- Lack of personnel with time
  - Structured assessment
  - Expertise to provide counseling or pharmacotherapy

# 폐암 검진 이후 금연 치료 사업 연계

- 검진 후 결과 상담 시

- 금연 상담을 제공하는 것은 필수

- 금연 치료 사업 연계는 필요한 경우 실시하면  
됨 (권장 수준)

# 금연 치료

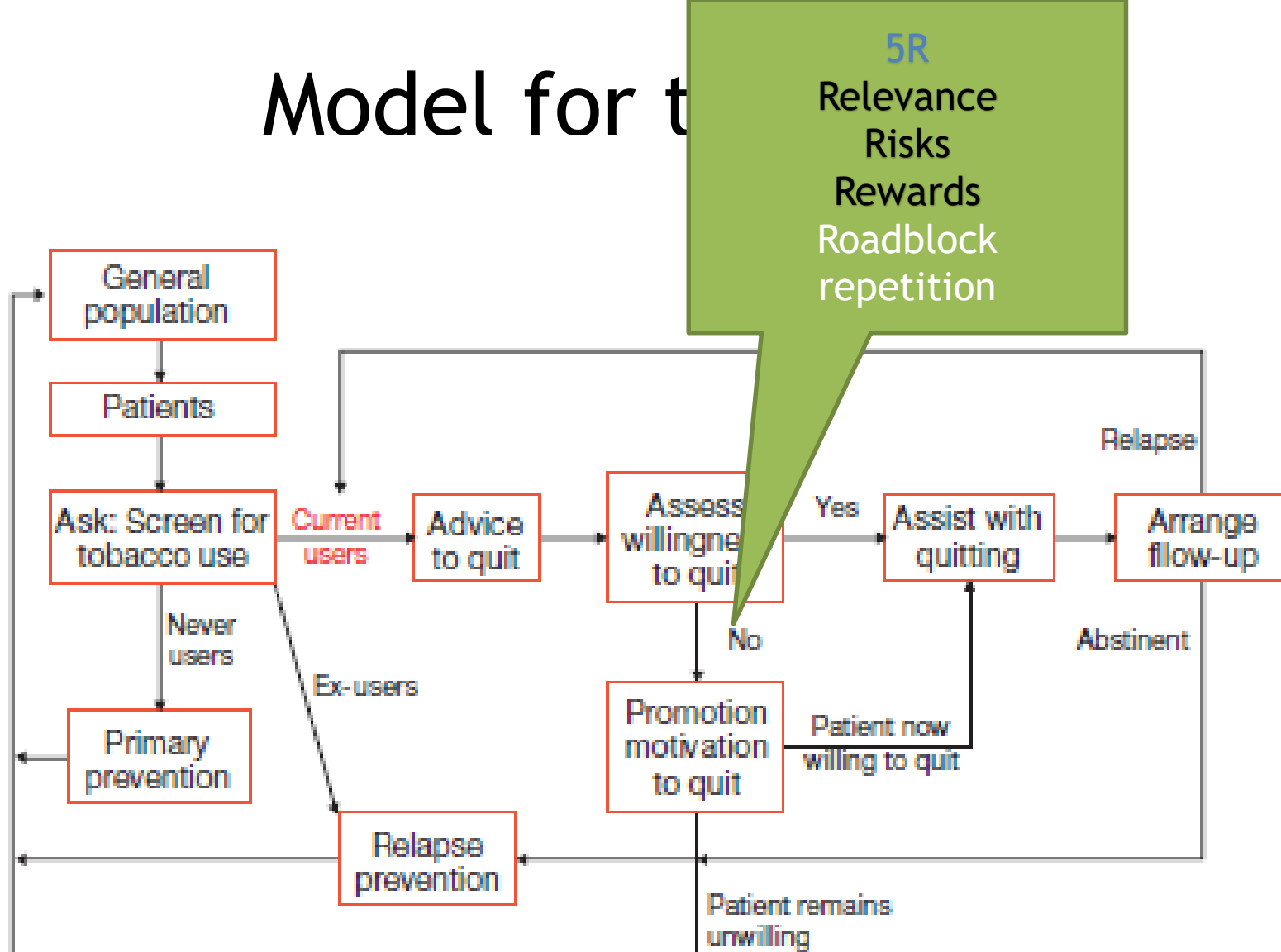
- 금연상담
- 약물치료

# 금연 상담

Structure	Classification	Estimated odds ratio (95% CI)	Estimated abstinence rate (95% CI)
Level of contact (min)	No contact	1.0	10.9
	Minimal counseling (<3)	1.3 (1.01-1.6)	13.4 (10.9-16.1)
	Low-intensity counseling (3-10)	1.6 (1.2-2.0)	16.0 (12.8-19.2)
	Higher intensity counseling (>10)	2.3 (2.0-2.7)	22.1 (19.4-24.7)
Total amount of contact time (min)	None	1.0	11.0
	1-3	1.4 (1.1-1.8)	14.4 (11.3-17.5)
	4-30	1.9 (1.5-2.3)	18.8 (15.6-22.0)
	31-90	3.0 (2.3-3.8)	26.5 (21.5-31.4)
	91-300	3.2 (2.3-4.6)	28.4 (21.3-35.5)
	>300	2.8 (2.0-3.9)	25.5 (19.2-31.7)
	No. of sessions	0-1	1.0
2-3		1.4 (1.1-1.7)	16.3 (13.7-19.0)
4-8		1.9 (1.6-2.2)	20.9 (18.1-23.6)
>8		2.3 (2.1-3.0)	24.7 (21.0-28.4)
Type of clinician		No clinician	1.0
	Self-help	1.1 (0.9-1.3)	10.9 (9.1-12.7)
	Non physician clinician	1.7 (1.3-2.1)	15.8 (12.8-18.8)
	Physician clinician	2.2 (1.5-3.2)	19.9 (13.7-26.2)
Format no.	No format	1.0	10.8
	Self-help	1.2 (1.02-1.3)	12.3 (10.9-13.6)
	Proactive telephone counseling	1.2 (1.1-1.4)	13.1 (11.4-14.8)
	Group counseling	1.3 (1.1-1.6)	13.9 (11.6-16.1)
	Individual counseling	1.7 (1.4-2.0)	16.8 (14.7-19.1)
	No. of formats <sup>a</sup>	None	1.0
One		1.5 (1.2-1.8)	15.1 (12.8-17.4)
Two		1.9 (1.6-2.2)	18.5 (15.8-21.1)
Three or four		2.5 (2.1-3.0)	23.2 (19.9-26.6)
Intervention		Minimal or no counseling or self-help	1.0
	Quitline counseling	1.6 (1.4-1.8)	12.7 (11.3-14.2)
Intervention	Medicational one	1.0	23.2
	Medication and quitline counseling	1.3 (1.1-1.6)	28.1 (24.5-32.0)

From Fiore MC, et al. Treating tobacco use and dependence: 2008 update. Clinical practice guideline [Internet]. Rockville (MD): U.S. Department of Health and Human Services; 2008 [10]. CI, confidence interval.

# Model for t



**Figure 1.** Model for treatment of tobacco use and dependence (From Fiore MC, et al. Treating tobacco use and dependence: 2008 update. Clinical practice guideline [Internet]. Rockville (MD): U.S. Department of Health and Human Services; 2008) [10].

# Counseling

- Quit-line number

## 금연상담전화 소개

### 직접 전화하실 경우



**1544-9030**

월-금 : 09:00~22:00

주말/공휴일 : 09:00~18:00

- 흡연 및 금연에 대한 정보 제공
- 금연을 원하는 사람들에게 30일 금연 및 금연유지 프로그램 제공

### 온라인 예약을 하실 경우



**금연길라잡이 홈페이지**

[www.nosmokeguide.go.kr](http://www.nosmokeguide.go.kr)

[상담예약 바로가기 >](#)

- 1일~3일 이내 (평일09:00~22:00 주말/공휴일 09:00~18:00)
- 전문 금연상담사가 직접 전화 연락

# 금연 상담의 예

- Individual counseling : positive message

- 담배를 끊게 되면 숨 쉬기가 편해지고, 손주들과 더 즐겁게 운동할 수 있게 될 것이다

Vs. 담배를 끊지 않으면, 결국에는 .



다

# Impact of a Lung Cancer Screening Counseling and Shared Decision-Making Visit



*Peter J. Mazzone, MD, MPH, FCCP; Amanda Tenenbaum, CNP; Meredith Seeley, BSS; Hilary Petersen, PA; Christina Lyon; Xiaozhen Han, MS; and Xiao-Feng Wang, PhD*

# <https://shouldiscreen.com>

## Lung Cancer Screening

Should I get screened?

[Click to learn more](#)

We can help you.

Deciding whether or not to go through lung cancer CT screening is not easy. Here, there is up to date information provided by doctors to help you make an informed choice.



Benefits and Harms of  
Screening



Lung Cancer Risk Calculator

# If you smoke, the best way to lower your risk of lung cancer is to quit.

Fill in the information below to find out whether you are in the group where screening is recommended by the [US Preventive Services Task Force](#). The calculator will also indicate how much you stand to benefit from getting screened. This will help you better determine whether your potential benefit from screening outweighs the harms.

## \* INDICATES REQUIRED FIELDS

1. How old are you?\*

2. What is your current smoking status?\*

Smoker  Former Smoker  Never Smoker

2.1. At what age did you quit smoking for the last time?\*

3. For how many years total have you smoked cigarettes?\*

4. On average, how many cigarettes do/did you smoke per day?\* There are 20 cigarettes in a pack.

5. What is your gender?

6. What is the highest grade or year of school you completed?

7. How would you describe your race/ ethnicity?

8. How tall are you? [Help me convert centimeters to feet and inches..](#)

Knowledge Category	Prior to Visit to Immediately After Visit	1 Mo Prior to Visit	1 Mo After Visit
Age	< .0001	.01	< .0001
Smoking	< .0001	< .0001	.006
Benefits	.03	.09	.45
Harms	< .0001	< .0001	.008

# 약물 치료

- 니코틴 대체제
- 바레니클린
- 부프로피온

# 니코틴 대체제

- 장기간 금연 보조제로 효과적
- 여러 제형을 병용해 사용하는 것이 효과적
  - 껌, 패치, 로렌즈, 구강 스프레이
- 12개월 이상 사용하는 것은 권장되지 않음

Nicotine Gum



Nicotine Patches



Microtabs



Lozenges



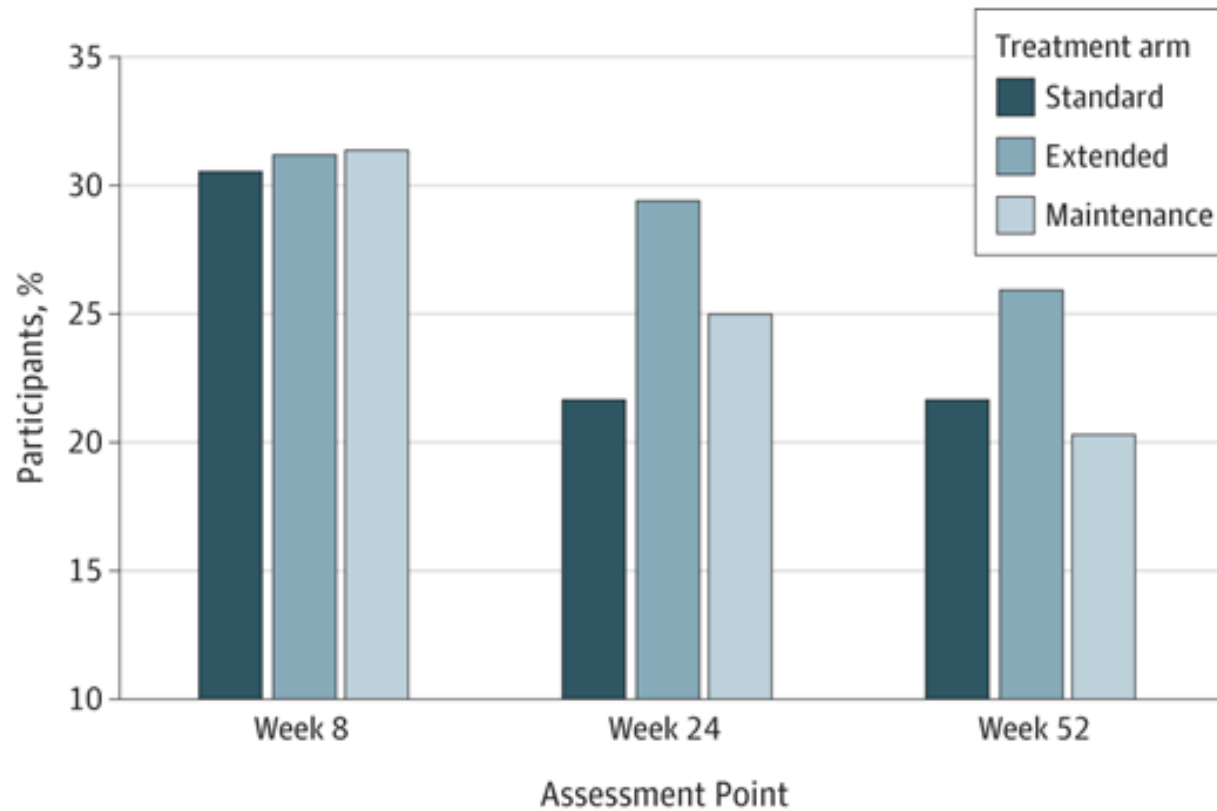
Inhalators



Nasal Sprays



# Similar abstinence rates



# 바레니클린

- 1차 권고 약제
- 금연일을 정한 후 1주일 전부터 복용 시작
- 장기적인 효과를 위하여 6개월까지 복용할 수 있음

# 작용 기전

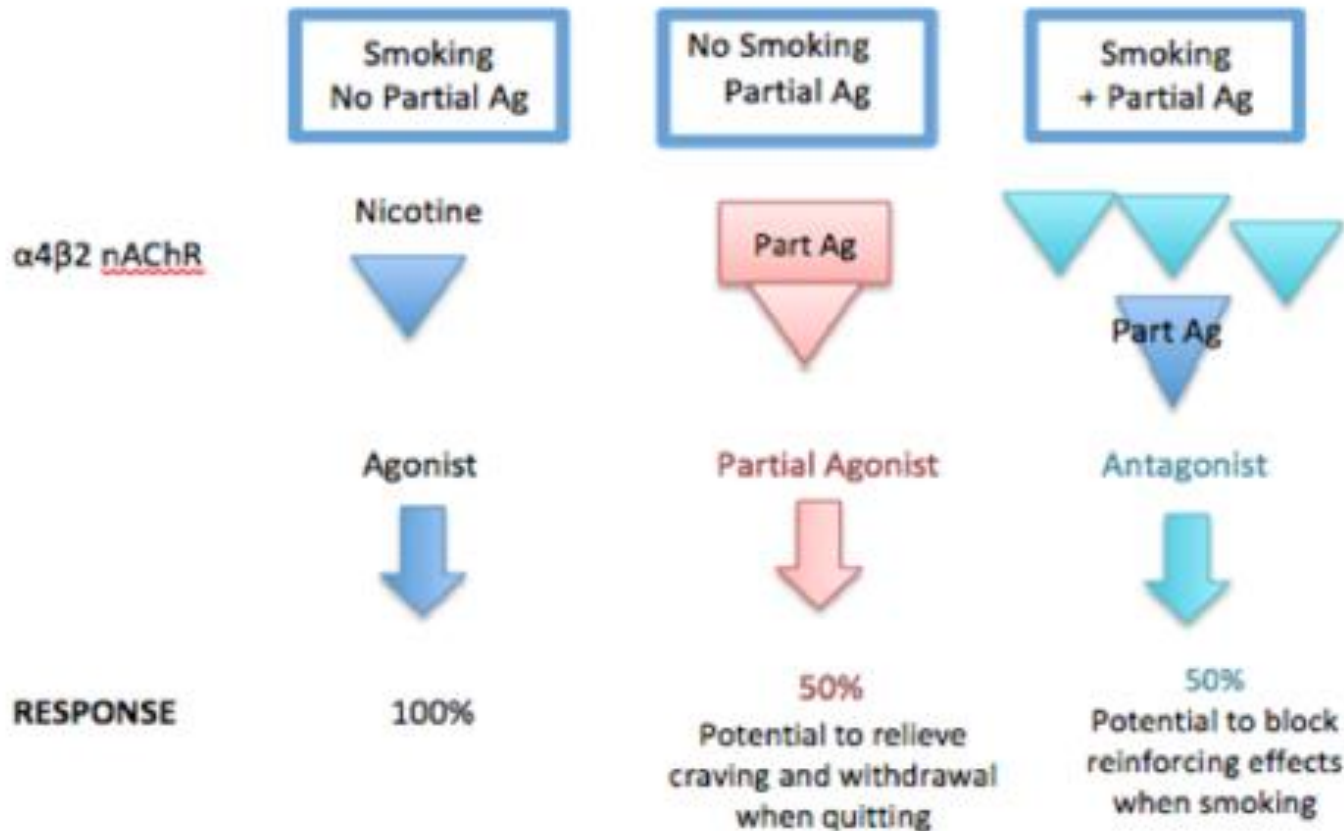


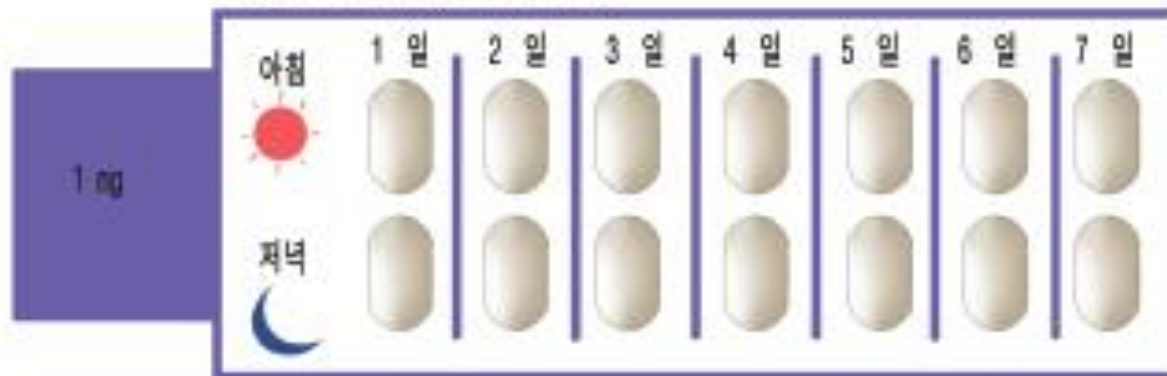
그림 3-3. 바레니클린의  $\alpha 4 \beta 2$  니코틴 아세틸콜린 수용체에 대한 부분적인 효현제로서의 작용 기전 (출처 : Adapted from Rollema H et al.)<sup>7</sup>

# 투여 방법

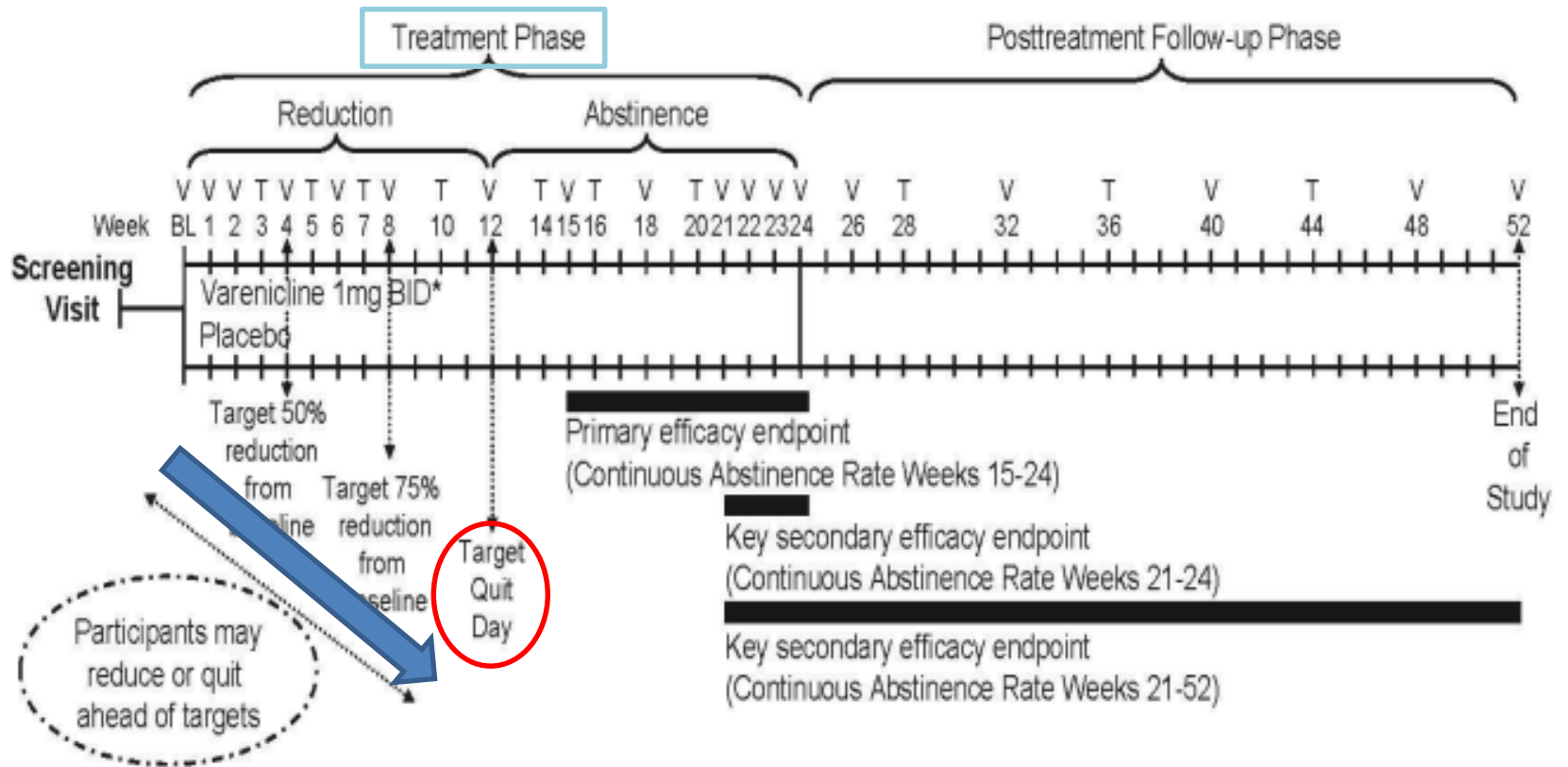
☉ 첫 주 : 0.5mg을 1-3일 (1일 1회), 4-7일(1일 2회) 복용



☉ 2주-12주: 1mg을 1일 2회 복용





# 점진적 금연법



# 국가금연지원사업

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		자격확인	산정특례	치과치료	<b>금연치료</b>	임신출산	의료급여	재난의료
기본정보	연간지급	잠복결핵	치매치료	희귀(국고)	표준모자	호스피스	채권현황	일차만성질

## 금연치료

### • 병의원

- 금연참여자관리
- 금연치료상담내역
- 금연성공판정대상조회및결과등록
- (입원환자)약제등록
- (입원환자)약제비내역
- 비용지급내역
- 금연치료참여신청관리

### • 약국

- 의약품및보조제등록
- 금연치료약제비내역
- 비용지급내역

### • 공통

- 의료인교육신청및이수조회
- 금연연간지급내역
- 금연치료상담결과등록
- 금연치료상담결과요양기관별조회



금연약속,  
올해는 꼭 지키세요!

## 8~12주 기간



금연 진료상담 + 금연치료 의약품  
또는 금연보조제 처방 및 조제



금연참여자등록  
년 3회 허용

진료상담 6회 이내  
1~2회: 본인부담 20%  
3~6회: 본인부담 없음

1회 최대 4주 이내 처방  
1~2회: 본인부담 20%  
3~6회: 본인부담 없음

8주 이상 이수시  
인센티브 지급

경제 > 금융 > 보험

## 복지부, '병·의원서 금연 치료받으면 건보 적용' 검토

이한나 기자 입력 2019.05.23.12:03 수정 2019.05.23.12:03



# Sales volume trend : cigarette vs. e-cigarette



# Summary

- LDCT screening + smoking cessation
  - Cost effective
  - Reduced lung cancer mortality
- Smoking cessation resources
  - Counseling + pharmacotherapy
  - Need uniform and structured program

Thank you

Presenter 