

Factores de riesgo, cribado y factores pronósticos

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Education Session: The place of E-Cigarettes in smoking cessation treatment and policy

Objetivo 2030
 → fumadores < 5%

1. More funding for mass media campaigns & stop smoking services
2. New 'Swap to Stop' e-cigarette scheme
3. Likely new laws to come in to reduce youth uptake of smoking & vaping

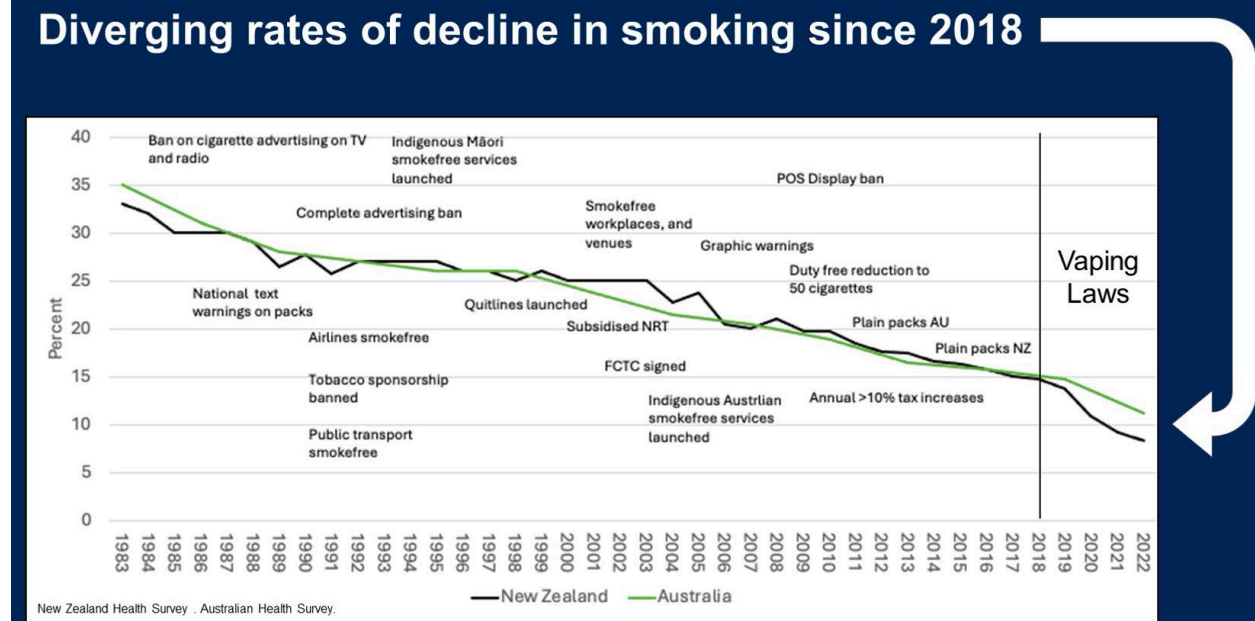
House of Commons Library
 Research Briefing
 By Bukky Balogun
 16 October 2023

The smokefree 2030 ambition for England



Summary

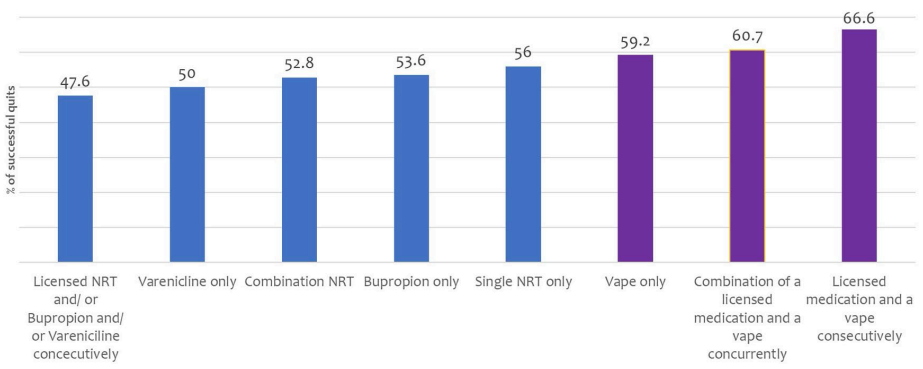
- 1 Statistics on smoking and vaping in England
- 2 The smokefree 2030 ambition for England
- 3 The Khan Review
- 4 Creating a 'smokefree generation': government proposals and consultations on smoking and youth vaping
- 5 Background to the government's smokefree 2030 policies



Stop smoking services, England 2022/23 (NHS Digital, 2024)

176,566 people set a quit date, 54% successfully quit at 4 week follow up

Quit attempt excluded vape
 Quit attempt included vape



“Vaping has the potential to help people quit smoking and contribute to New Zealand’s Smokefree 2025 goal”

New Zealand Ministry of Health
www.vapingfacts.health.nz, May 2024

“It [vaping] poses a major threat to population health and Australia's success in tobacco control.”

Australian Health Minister Butler. Hansard. 21 March 2024

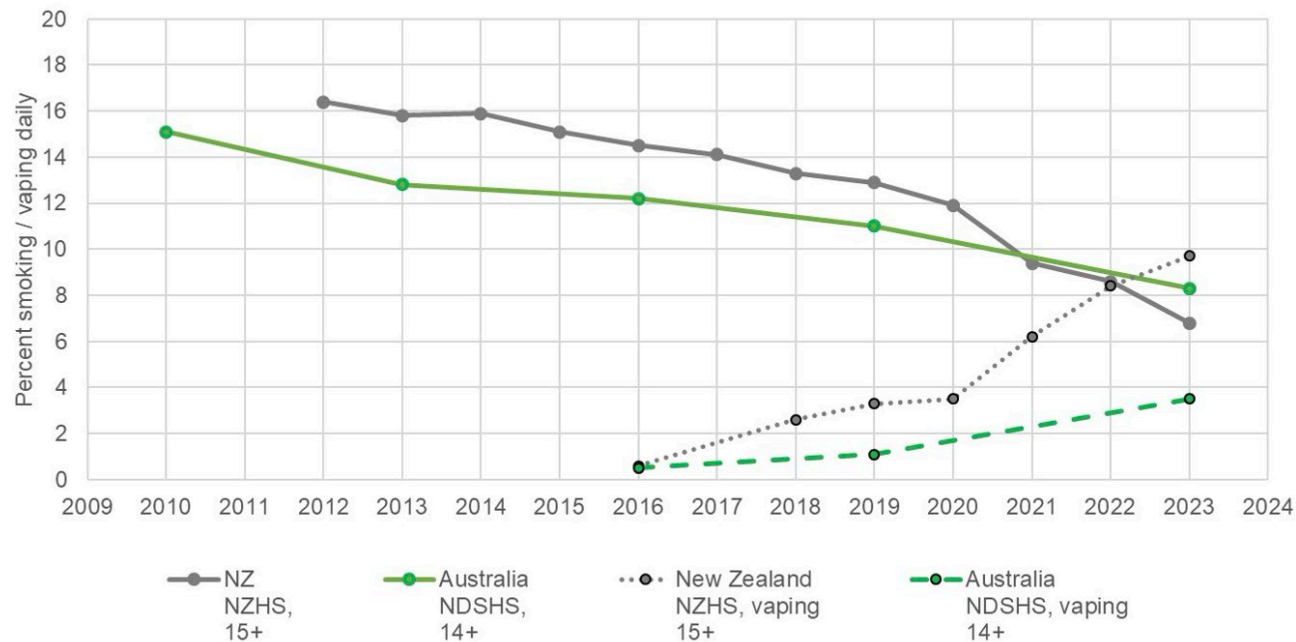
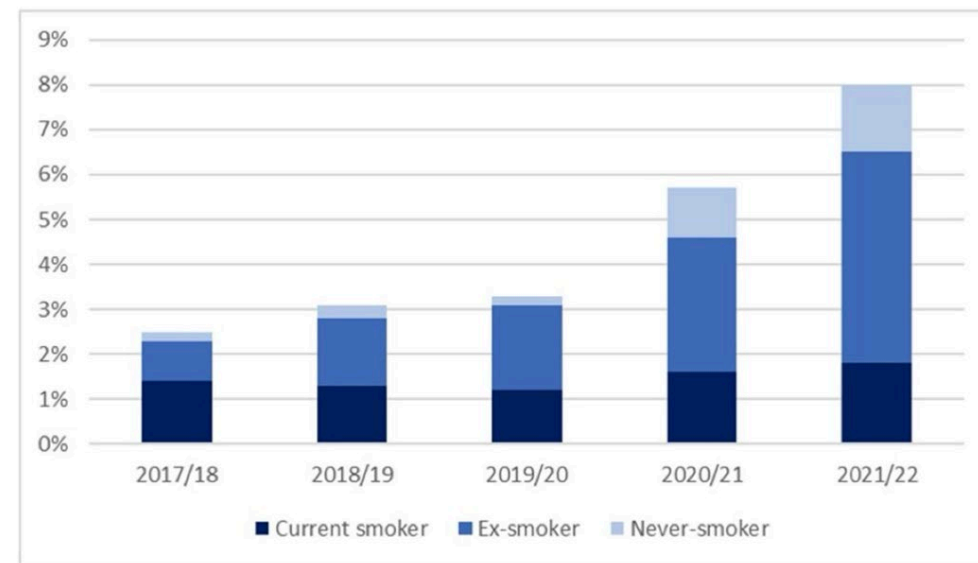
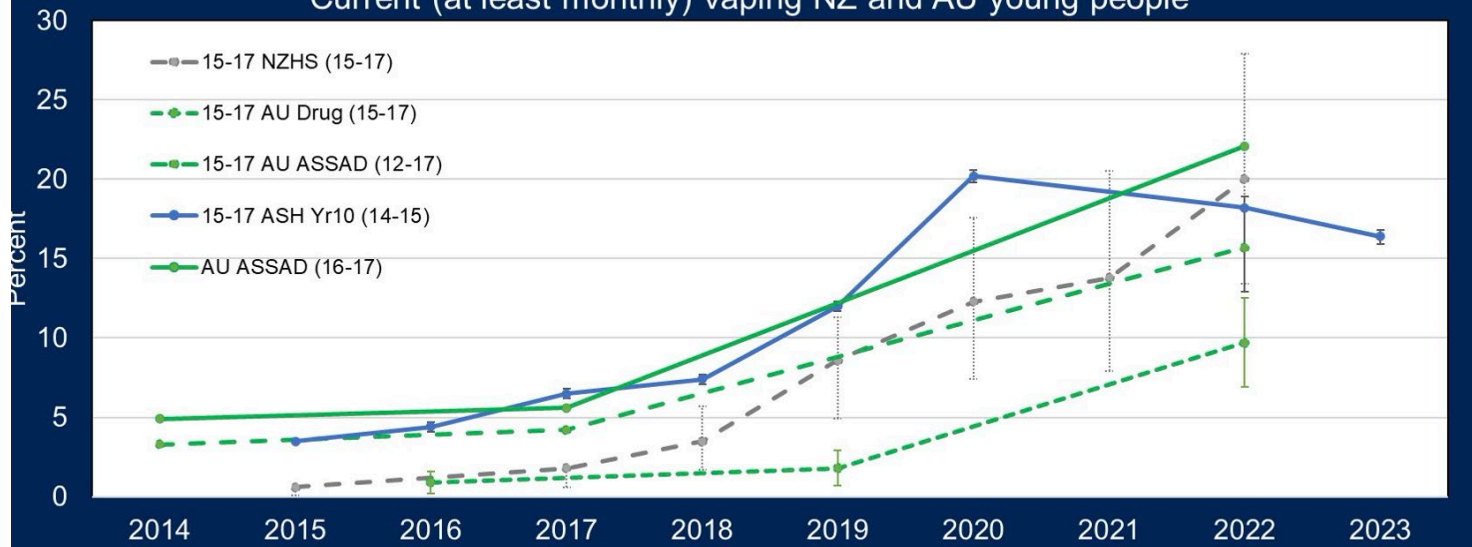


Figure 5: Daily vaping in people aged 15 and older, by smoking status, 2017/18 to 2021/22



Note: excludes the Other smoking group, so percentages do not sum to daily vaping estimates published in the Annual Data Explorer 2021/22 (Ministry of Health 2022a)

Current (at least monthly) Vaping NZ and AU young people



- Dos objetivos que pueden ser “antagónicos”: prevenir el “vapeo” en adolescentes como vía de adicción y utilizar vapeadores como herramienta de deshabituación tabáquica en adultos
 - Prohibición cigarrillos electrónicos con sabores
- Políticas multinivel con cobertura del marketing 4P : Producto, Precio, Lugar (Place), Promoción
 - Aumento impuestos cigarrillos convencionales
 - Aumento impuestos en menor proporción en cigarrillos electrónicos
- Políticas específicas para cada grupo:
 - Limitación venta a adolescentes tabaco, productos nicotina y cigarrillos electrónicos

PUBLIC HEALTH

By Kenneth E. Warner, Karalyn A. Kieślting, Clifford E. Douglas, and Alex C. Liber

POLICY INSIGHT

A Proposed Policy Agenda For Electronic Cigarettes In The US: Product, Price, Place, And Promotion

ABSTRACT Growth in the market for electronic cigarettes (e-cigarettes) raises complex questions about the devices' public health implications and, hence, challenging policy issues. We propose a policy agenda addressing concerns about preventing youth uptake of e-cigarettes and the desire to realize the potential of e-cigarettes to increase adult cigarette smoking cessation. We organize interventions according to the “four Ps” of marketing: product, price, place, and promotion. Policies include decreasing the addictiveness of combusted tobacco products while ensuring the availability of consumer-acceptable reduced-risk nicotine products, imposing large taxes on combustible products and smaller taxes on e-cigarettes, limiting the sale of all tobacco and (nonmedicinal) nicotine products to adult-only retailers, and developing communications that accurately portray e-cigarettes' risks to youth and benefits for inveterate adult smokers. All members of the public health community should unite to pursue a shared commitment to the principle that both youth and adults deserve a future free of tobacco-related disease.

Kenneth E. Warner (kwarner@umich.edu), University of Michigan, Ann Arbor, Michigan.

Karalyn A. Kieślting, University of Michigan.

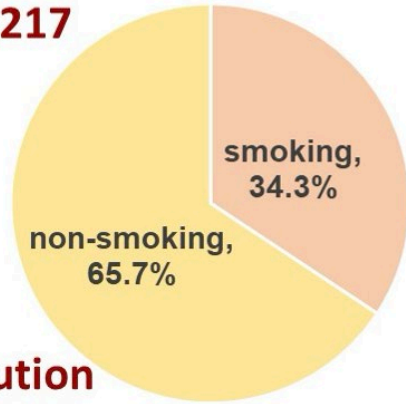
Clifford E. Douglas, University of Michigan.

Alex C. Liber, Georgetown University, Washington, D.C.

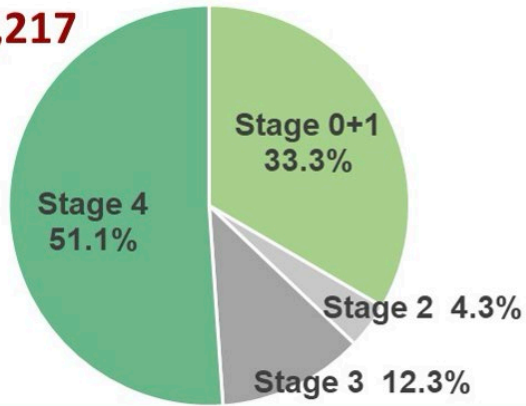
DOI: 10.1177/1698018722109187
HEALTH AFFAIRS 41
NO. 9 (2022) 1299-1306
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The People's Health
Foundation, Inc.



Smoking history
 2020, N=16,217



Stage distribution
 2020, N=16,217

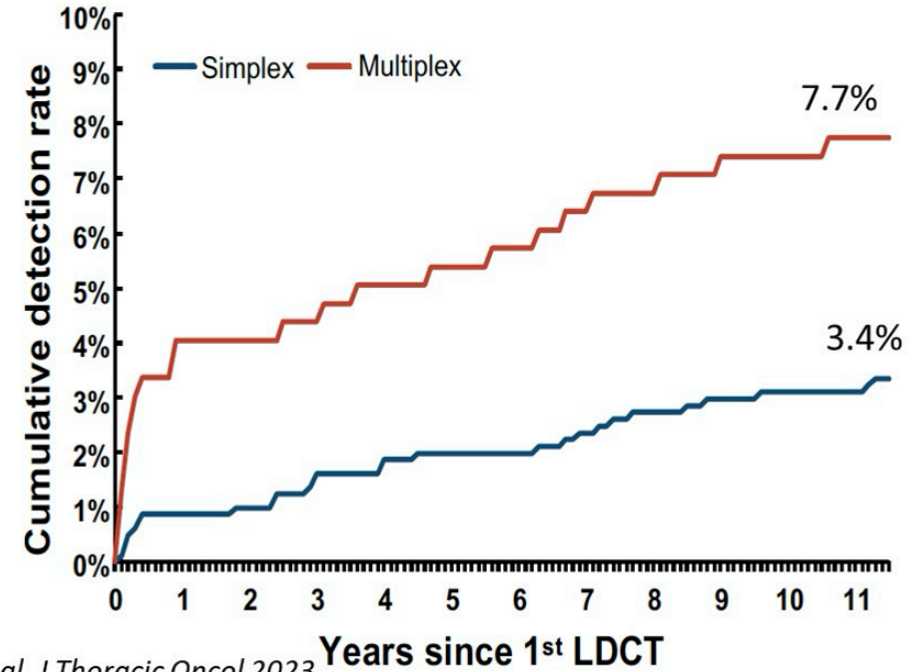


Caucasian

East Asian

KRAS (20-30%) EGFR (15-25%)	KRAS (8-10%) High EGFRm (55-60%)
Smokers (80%)	Never-Smokers (>60%; Female 93%)
AGE	Early-onset (< 5-10 yrs) Female: < 5-yrs than male

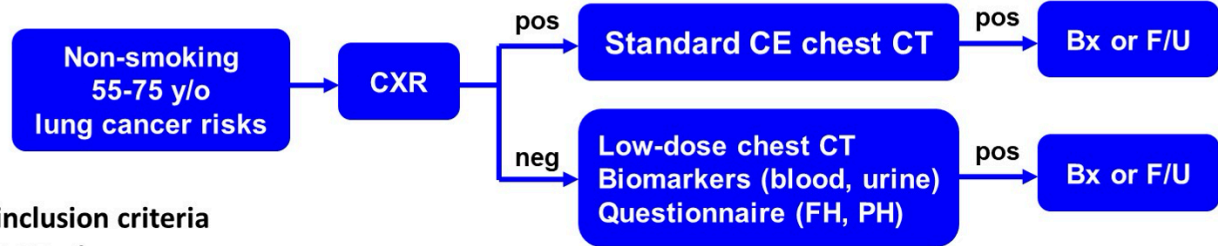
■ 1,102 participants, 805 and 297 from simplex (SF) and multiplex families (MF), followed up 10 yrs, the overall cumulated LC detection rate was **4.5%**.



Wang CL et al, J Thoracic Oncol 2023



From 2015 to 2019, 17 medical centres participated



■ Key inclusion criteria

- 55-75 y/o^a
- Never smoking or SI < 10 PY and had quit > 15 yrs
- Having one of the following risks
 - Lung cancer family history (LCFH, ≤ 3-degree)
 - Passive smoking history
 - Chronic lung disease (TB, COPD)
 - Cooking index^b ≥ 110
 - Cooking without using ventilation

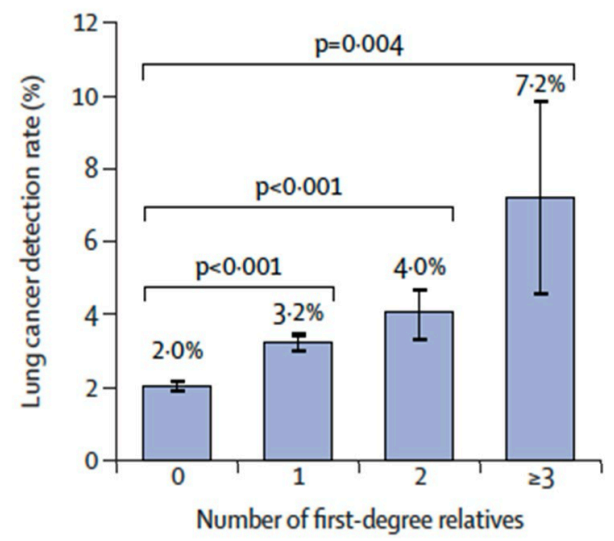
■ Data cutoff: September 30, 2020
 ■ 13,207 subjects screened, 12,011 enrolled
 ■ 6009 (50%) with family history

^a Subjects with lung cancer FH: >50 yrs or > the age at diagnosis of the youngest lung cancer case in the family
^b 2/7 x days with cooking by pan-frying, stir-frying, or deep-frying in 1 week (maximum=21) x Yrs with cooking

■ Negative CXR

TALENT Study Group, Lancet Resp Med 2024

- **Lung cancer detection rate: 318/12,011= 2.6%**
(NLST: 1.1%, NELSON: 0.9%)
- **Invasive lung cancer: 257/12,011= 2.1%**
- LDCT(+): 17.4%; lung biopsy/surgery: 404 (3.4%)
- A positive LDCT scan had 92.1% sensitivity, 84.6% specificity, a PPV of 14.0%, and NPV of 99.7%.
- **Lung cancer diagnosis confirmed: 96.5% stage 0-1 (Stage 0: 19.2%, Stage 1: 77.4%)**
- Prevalence of lung cancer family history (LCFH) with vs without: All 3.3% vs 2.0%, IVAD 2.0% vs 1.6%

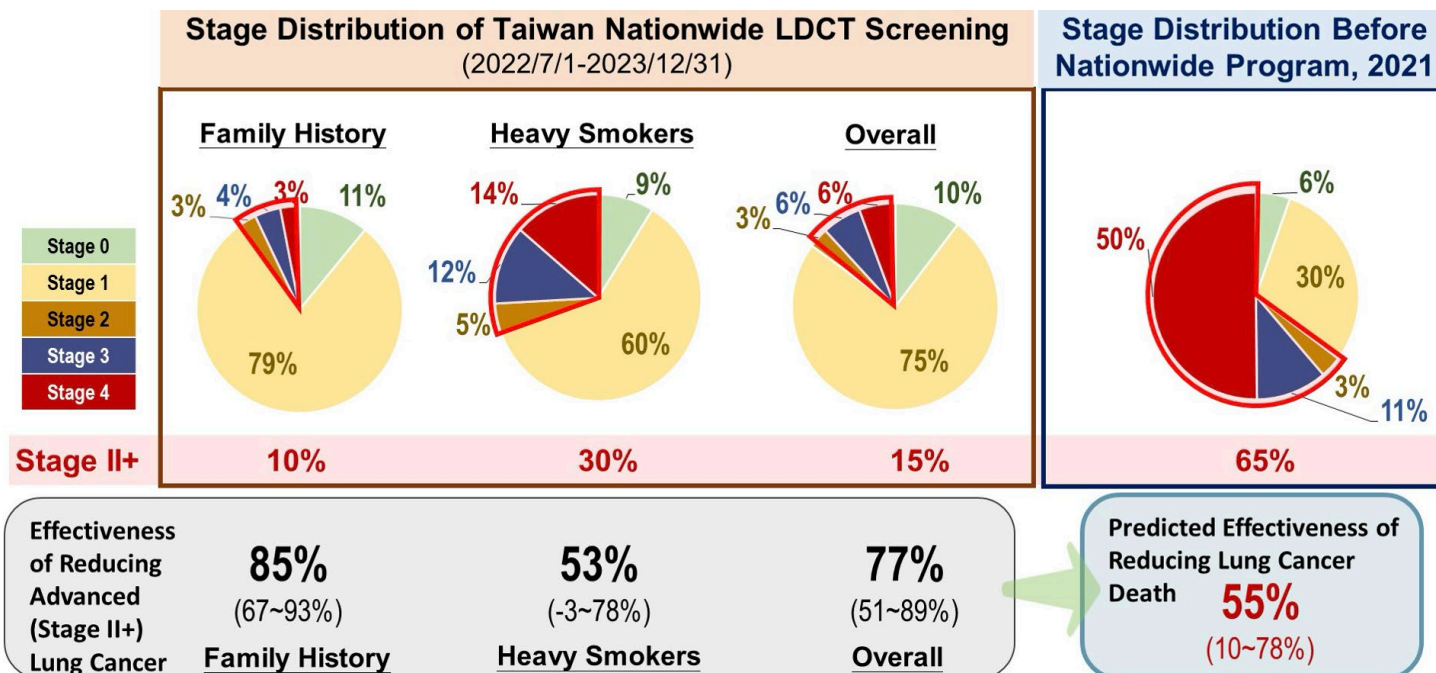


■ Biennial LDCT lung cancer screening for high risk subjects

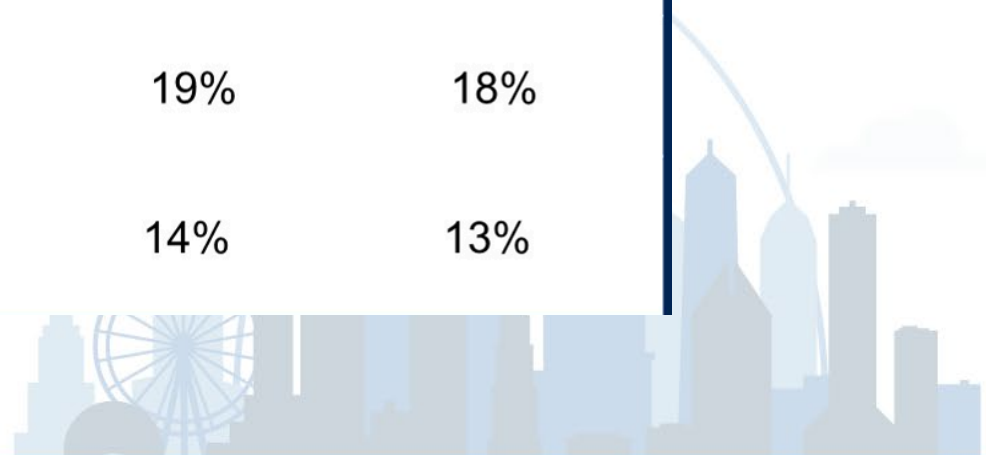
- Smokers, 30 pack/yr, 50-74 yrs, agree to quit smoking or have quit within 15 years.
- Lung cancer family history (LCFH) in nonsmokers or light smokers, F:45-74 yrs, M:50-74 yrs

	LCFH			Heavy Smokers	Both	Total
	Non smokers	Light smokers	Overall			
Screened	39,284	4,569	43,853	31,111	3,036	78,000
Diagnostic procedure	858	65	923	433	51	1,407
Lung cancer	653	41	694	228	34	956
Detection rate (%)	1.7	0.9	1.6	0.7	1.1	1.2
Stage 0-1 (%)	90.5	82.9	90.1	68.9	82.4	84.7

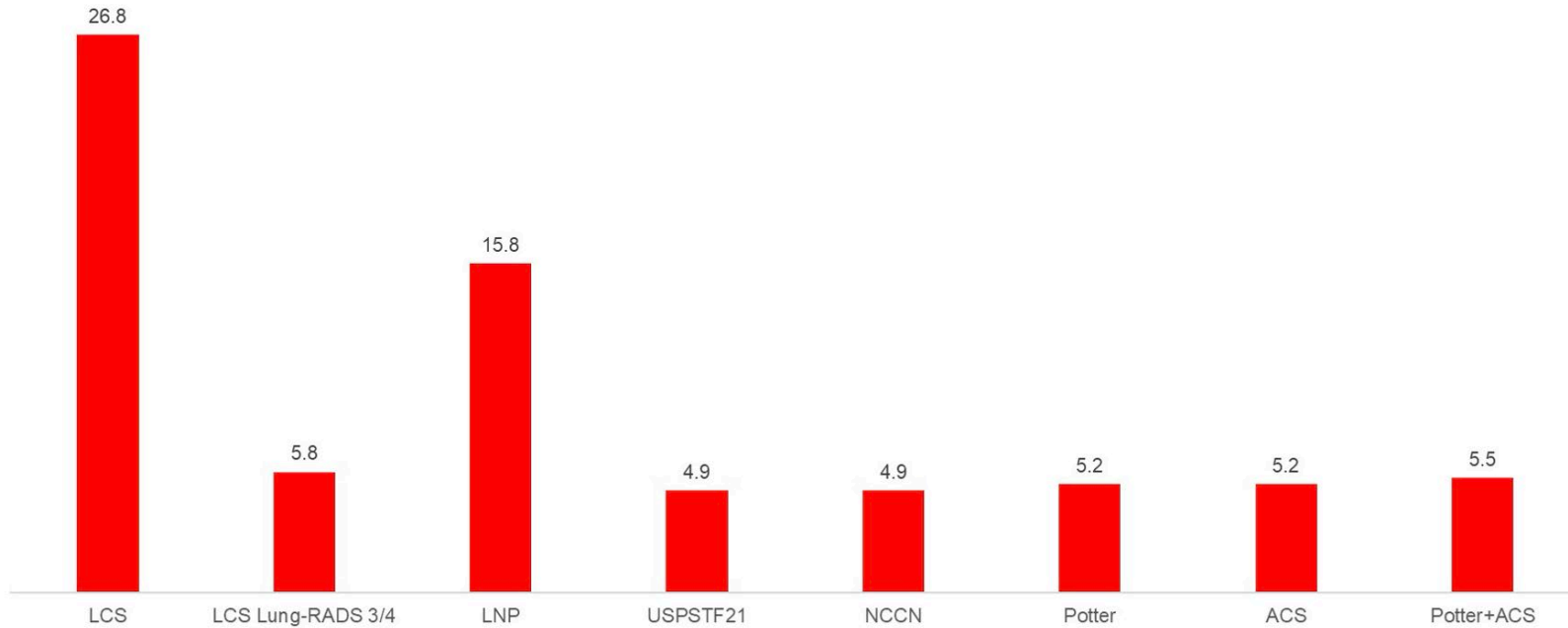
Health Promotion Administration. Ministry of Health and Welfare, Taiwan <https://www.hpa.gov.tw/EngPages/Index.aspx>



	LNP	USPSTF21	NCCN	Potter	ACS	Potter+ACS
Age (Years)		50-80	>50	50-80	50-80	50-80
Smoking Exposure		20 PY	20 PY	20 Y	20 PY	20 Y or 20 PY
Quit Duration		< 15 Y	---	< 15 Y	---	---
Other		---	other risk factor	---	---	---
Total Eligible	26,854	3942	5016	5003	5392	6416
Additional Eligible		Reference	1312	707	1011	1843
Total Eligible with LC	6%	21%	20%	19%	19%	18%
Additional Eligible with LC	---	Reference	17%	11%	14%	13%



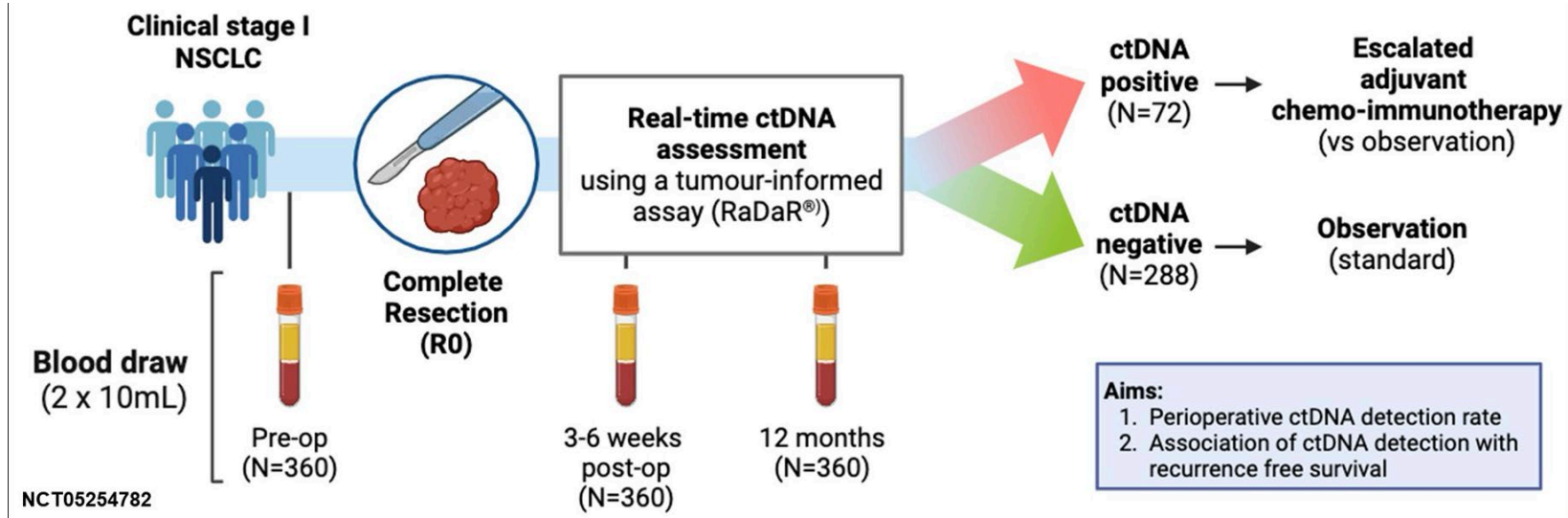
Number Needed to Screen



- Criterios Potter incrementan 17% la población del cribado y aumentan un 9.5% los diagnósticos en relación a USPSTF21
- Criterios Potter+ACS incrementan 46% la población del cribado y aumentan un 28% los diagnósticos en relación a USPSTF21



Abstract #8018 S. Khan et al. ct-DNA-Lung-DETECT



231 total patients screened

→ **77 patients excluded**
48 insufficient tissue

154 total patients remaining

→ **3 pending results**

151 total patients eligible

20.7% had insufficient tissue for tumour informed panel

Characteristic		Total population (n=151)
Female n (%)		91 (60.3%)
Age median (range years)		71.0 (32.0 – 87.0)
Smoking status n (%)	Never	53 (35.8%)
	Smoker	95 (64.2%)
Pathology – adenocarcinoma n (%)		127 (84.1%)
PD-L1 <1% n (%)		70 (50.0%)
AJCC 8 th edition stage n (%)*	I	114 (75.5%)
	II	24 (15.9%)
	III/IV	12 (7.9%)

*1 patient had stage 0 (adenocarcinoma in situ)

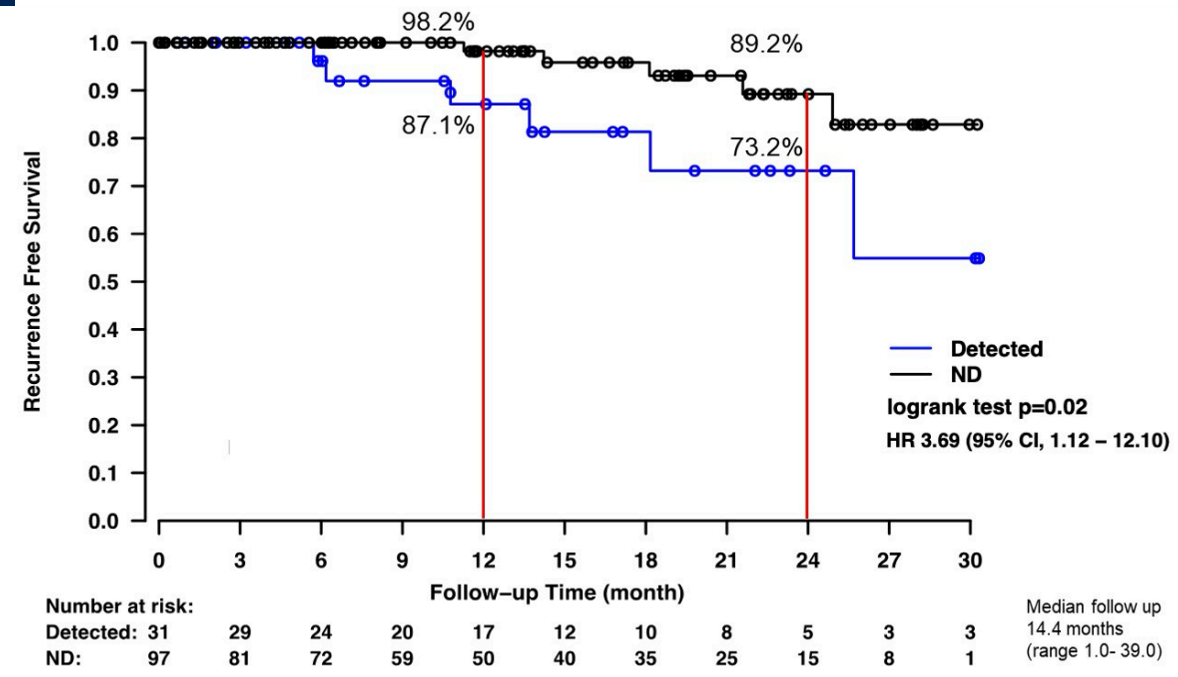
24% of eligible patients upstaged at resection



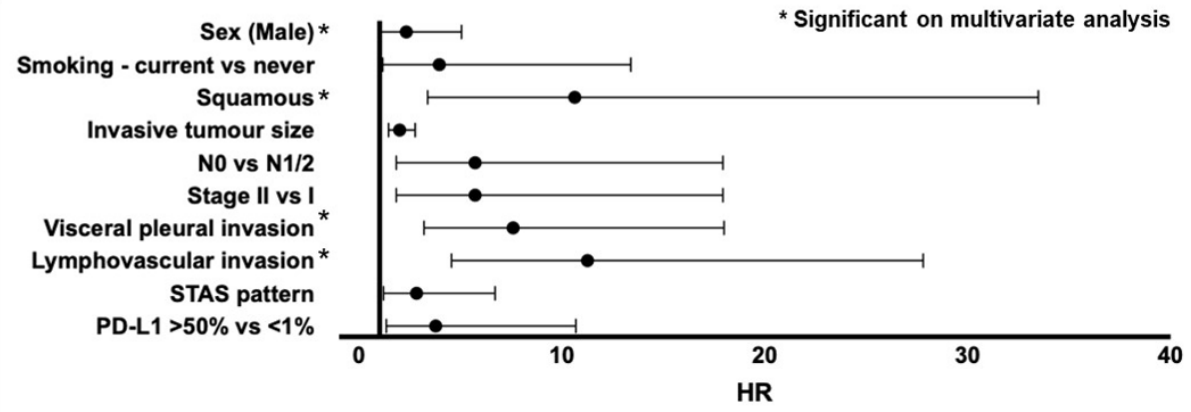
Pre-operative ctDNA results n=151	34 Positive		116 Negative		1 Missed		
Post-operative ctDNA results (MRD) n=151	2 Positive Occult N2		32 Negative		1 Positive Occult N2	116 Negative	
1-year Post-operative ctDNA results n=79*	1 Positive	0 Negative	3 Positive	15 Negative	1 Negative	2 Positive	57 Negative

*1 year results pending for 69; 3 withdrew; MRD: minimal residual disease

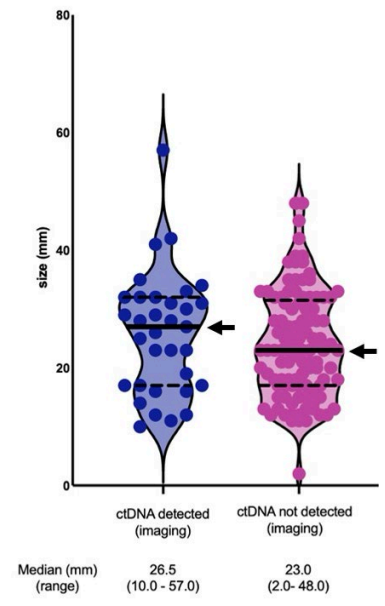
<u>Clinical stage I:</u>	pre-op ctDNA detected	22.7%	(34/150)	95% CI [16.2, 30.2] [0.4, 5.7]
	post-op ctDNA detected	2.0%	(3/151)	
<u>Pathologic stage I:</u>	pre-op ctDNA detected	14.0%	(16/114)	[8.2, 21.8]
	post-op ctDNA detected	0%	(0/114)	[NA]



Factores asociados a la detección ct-DNA preoperatorio

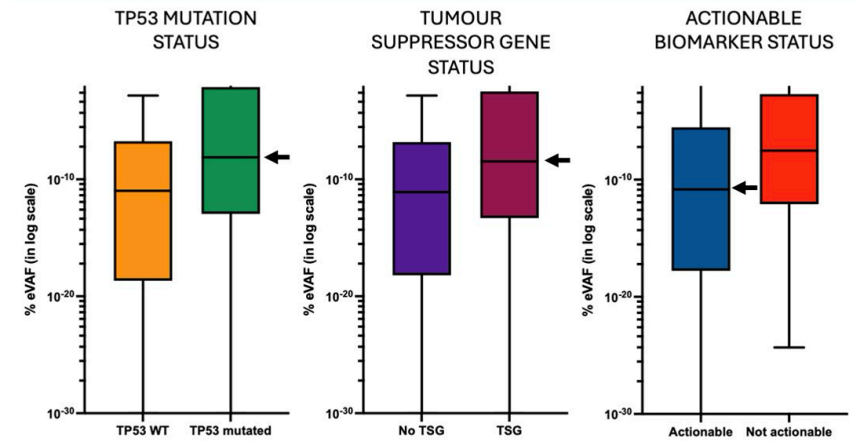
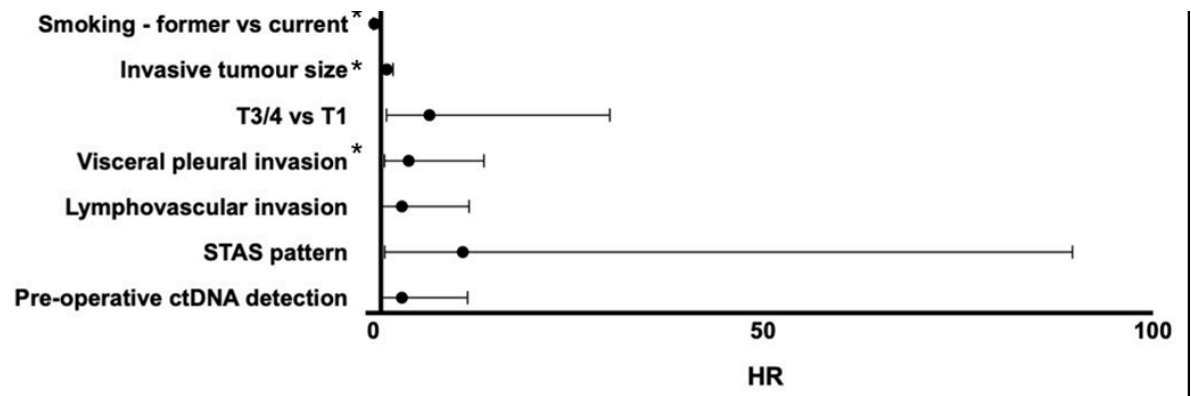


Clinical tumour size by imaging

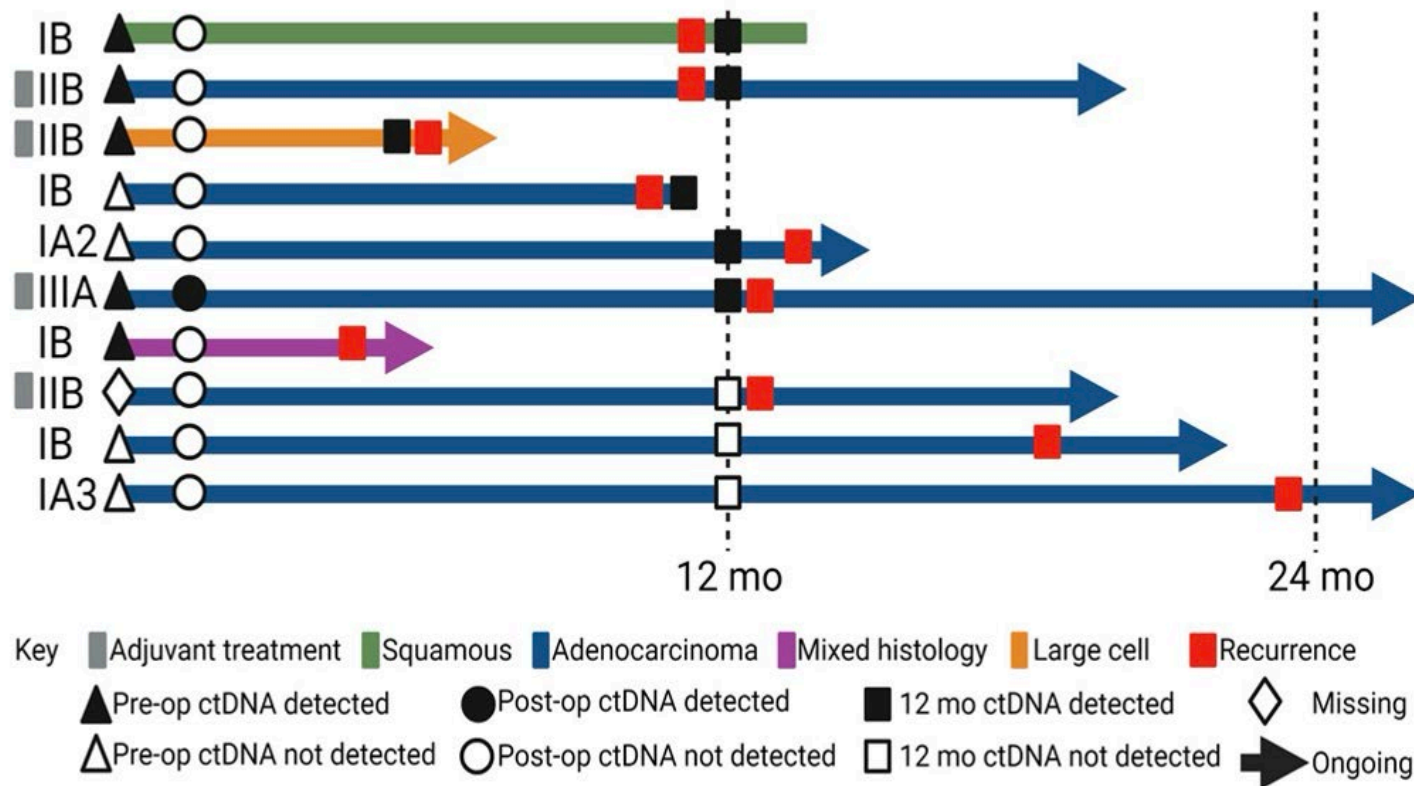


ct-DNA y pT:
 - ct-DNA detectable 30 mm
 - ct-DNA indetectable 19 mm

Factores asociados a supervivencia libre de recaída



*Actionable biomarker – EGFR, ALK, KRAS G12C, ROS1, RET, MET exon 14 skipping, BRAF V600E, ERBB2
 *Tumour suppressor gene (TSG) – TP53, STK11, SMARCA4, RB1, PALB2, BRIP1



10 recaídas

Mediana a recaída: 13.9 meses (5.3-24.9)

5/31 pacientes con preop ct-DNA+

4/97 pacientes con preop ct-DNA-

5 con 2ª neoplasia broncopulmonar

3 con 2ª neoplasia no broncopulmonar

Preoperatorio ctDNA+ → HR 3.69 recaída



Resumen

- La exposición tabáquica (directa o indirecta) continua siendo el factor fundamental de riesgo para el Cáncer de Pulmón
- Las nuevas formas de consumo de tabaco (cigarrillos electrónicos, vapeadores) aunque pueden ser útiles para el abandono del hábito tabáquico, suponen también una vía de inicio al consumo en la población adolescente
- La agrupación familiar de casos de cáncer de pulmón supone un claro factor de riesgo
- En población asiática se han iniciado programas de cribado en no fumadores
- El ct-DNA es un factor pronóstico en estadios iniciales y están en curso EE CC para definir su papel en las decisiones terapéuticas