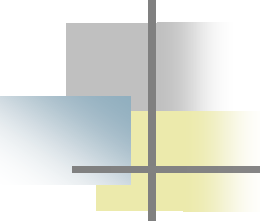


VIH et tabac

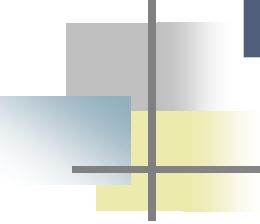
Le point de vue du cardiologue

O. Leroy
Service de Réanimation et Maladies
Infectieuses
CH Tourcoing. 59200



Sommaire

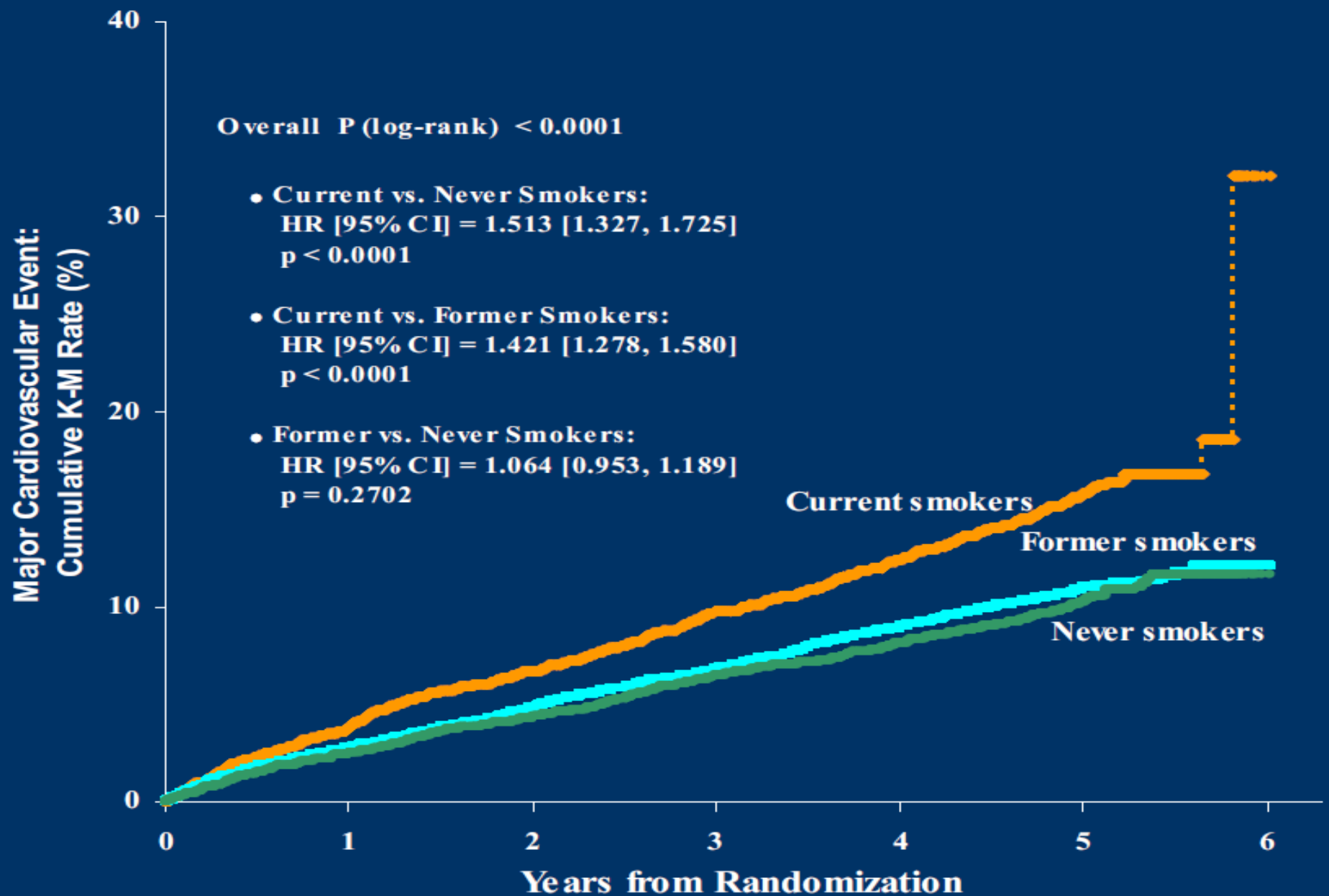
- **Effets CV du tabac**
- **Incidence du tabagisme chez le VIH**
- **Conséquences du tabagisme chez le VIH**
 - **Evaluation du risque CV**
- **Efficacité de l'arrêt du tabagisme chez le VIH**



Effets cardio-vasculaires du tabac

Impact of Smoking on Cardiovascular Events in Patients With Coronary Disease Receiving Contemporary Medical Therapy (from the Treating to New Targets [TNT] and the Incremental Decrease in End Points Through Aggressive Lipid Lowering [IDEAL] Trials)

Paul Frey, MD^a, David D. Waters, MD^{a,*}, David A. DeMicco, PharmD^c, Andrei Breazna, PhD^c,
Larry Samuels, PhD^c, Andrew Pipe, CM, MD^d, Chuan-Chuan Wun, PhD^c, and
Neal L. Benowitz, MD^b



Kaplan-Meier curves for major cardiovascular events for current, former, and never smokers in the 18,885 TNT and IDEAL patients.



Effets cardio-vasculaires du tabac

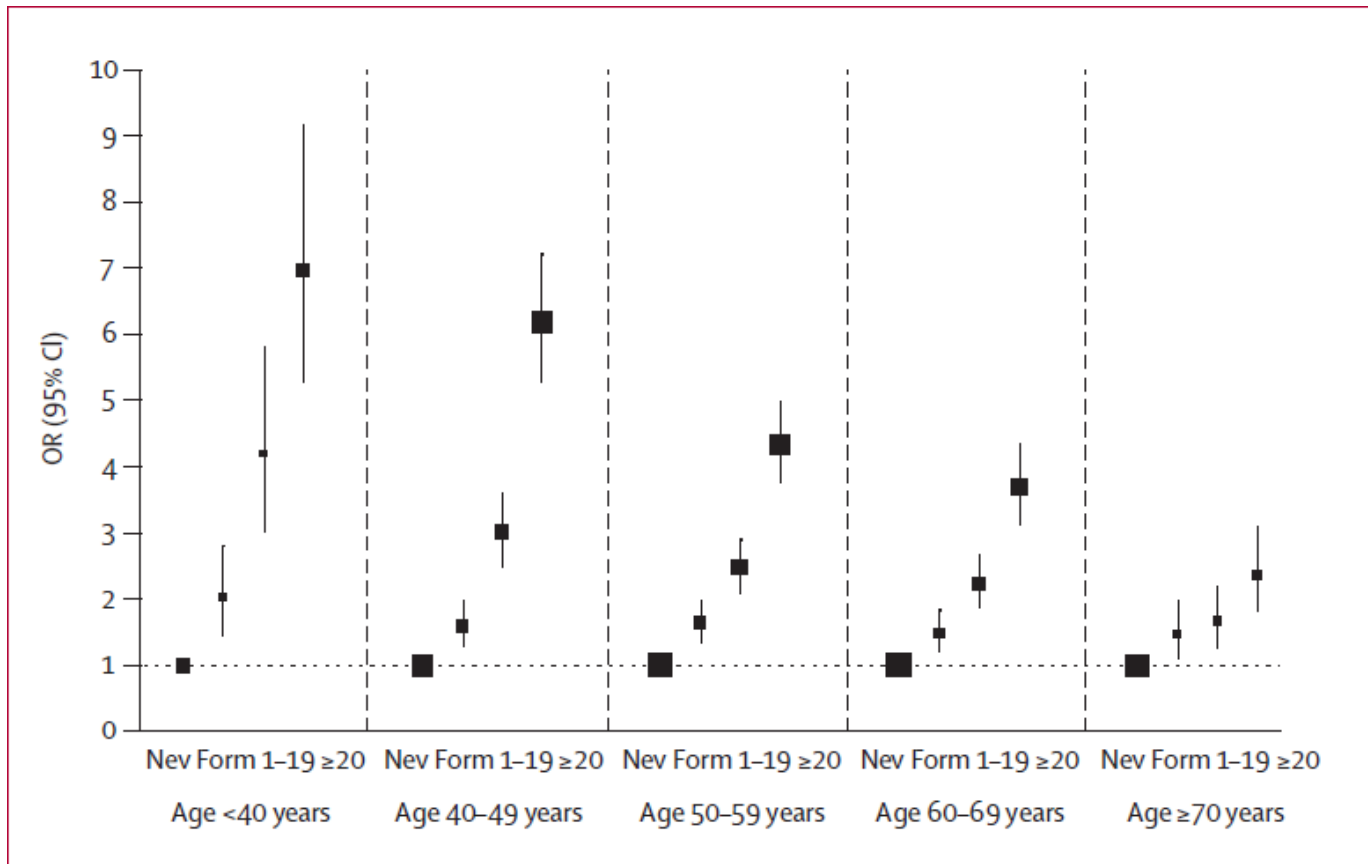
Tobacco use and risk of myocardial infarction in 52 countries in the INTERHEART study: a case-control study

Koon K Teo, Stephanie Ounpuu, Steven Hawken, MR Pandey, Vicent Valentin, David Hunt, Rafael Diaz, Wafa Rashed, Rosario Freeman, Lixin Jiang, Xiaofei Zhang, Salim Yusuf, on behalf of the INTERHEART Study Investigators

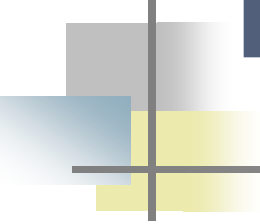
Lancet 2006; 368: 647-58

Effets cardio-vasculaires du tabac

Risk of AMI associated with numbers smoked, by age group



Nev=never smokers. Form=former smokers. 1-19=currently smoking 1-19 cigarettes per day. ≥20=currently smoking 20 or more cigarettes per day.



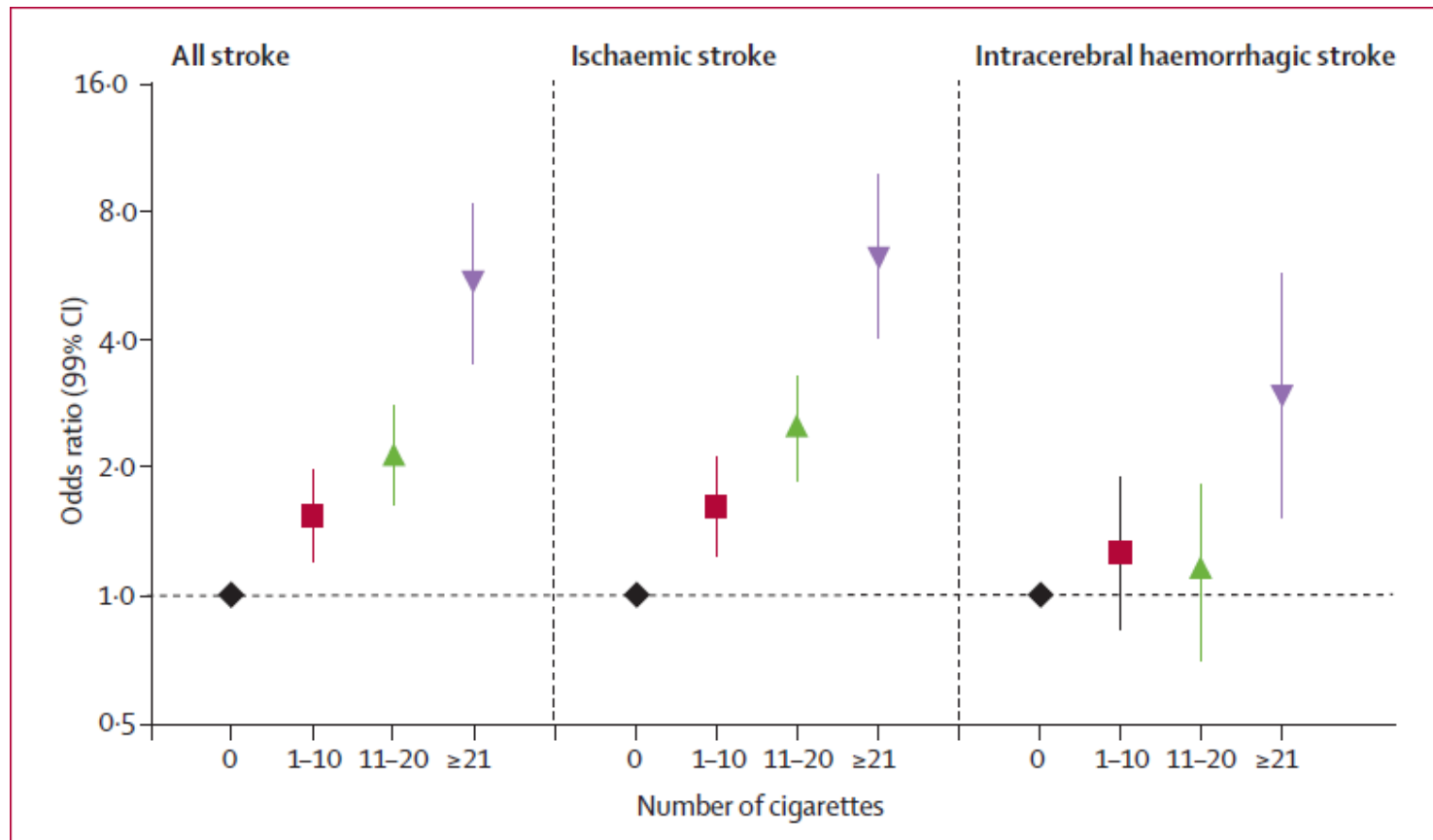
Effets cardio-vasculaires du tabac

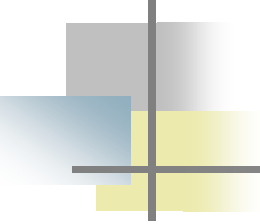
Risk factors for ischaemic and intracerebral haemorrhagic stroke in 22 countries (the INTERSTROKE study): a case-control study

*Martin J O'Donnell, Denis Xavier, Lisheng Liu, Hongye Zhang, Siu Lim Chin, Purnima Rao-Melacini, Sumathy Rangarajan, Shofiqul Islam, Prem Pais, Matthew J McQueen, Charles Mondo, Albertino Damasceno, Patricio Lopez-Jaramillo, Graeme J Hankey, Antonio L Dans, Khalid Yusoff, Thomas Truelsen, Hans-Christoph Diener, Ralph L Sacco, Danuta Ryglewicz, Anna Czlonskowska, Christian Weimar, Xingyu Wang, Salim Yusuf, on behalf of the INTERSTROKE investigators**

Effets cardio-vasculaires du tabac

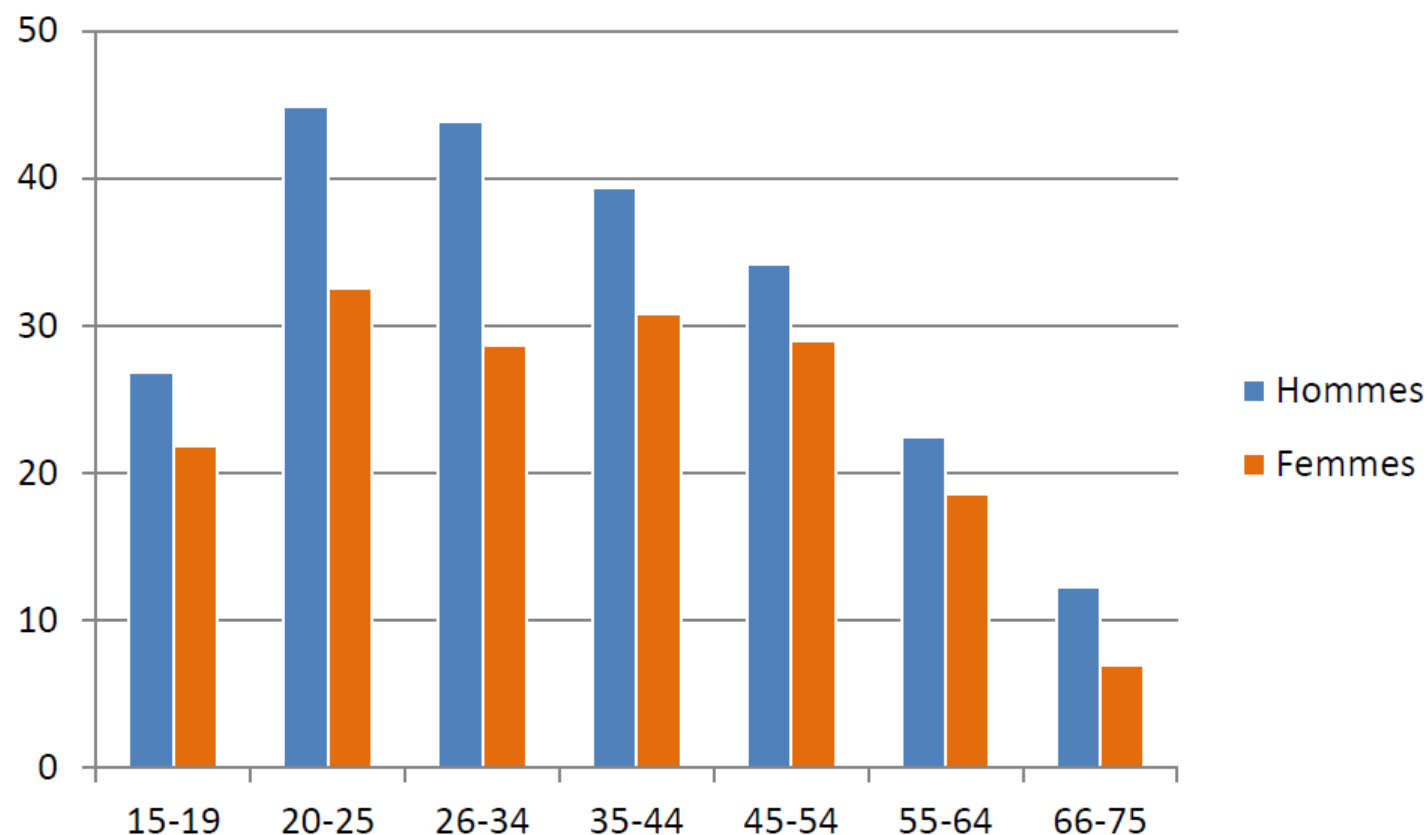
: Risk of stroke associated with number of cigarettes smoked for all stroke, ischaemic stroke, and intracerebral haemorrhagic stroke



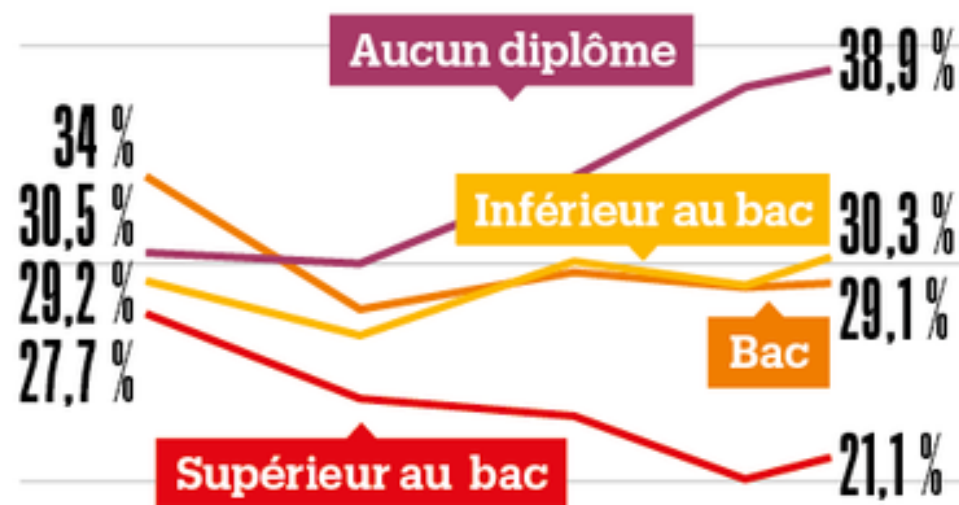


Incidence du tabagisme

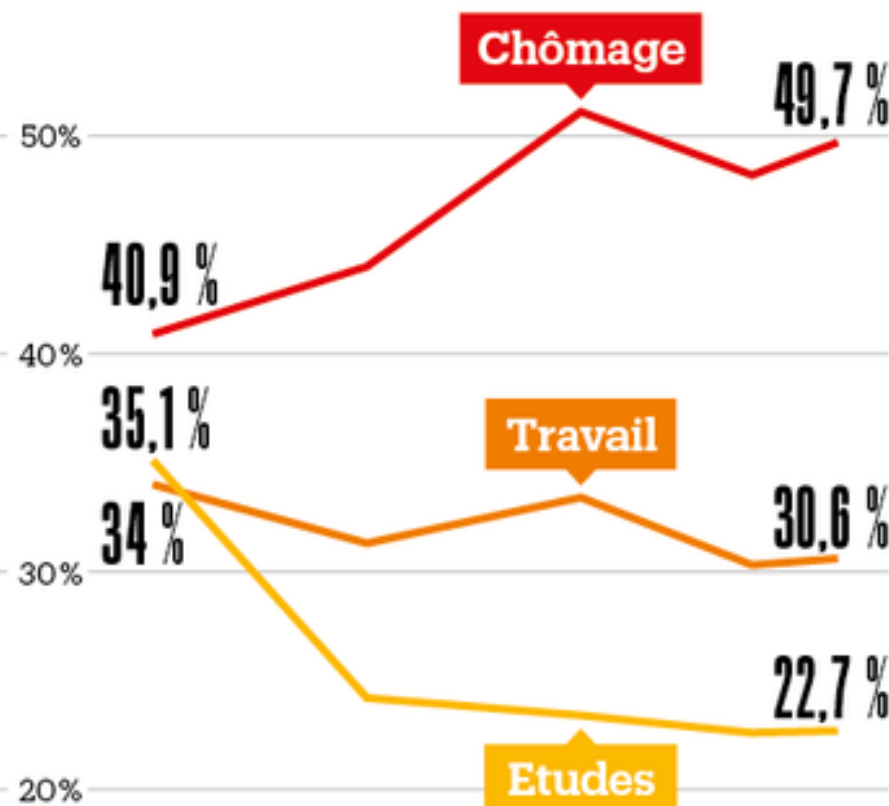
Proportions de fumeurs quotidiens de tabac en 2014, suivant l'âge et le sexe, d'après l'Inpes⁶



Évolution de la part de fumeurs quotidiens en France



Selon le diplôme



Selon le statut d'activité

2000 2005 2010 2014 2016

Source : Baromètres santé, Santé publique France
2000 2005 2010 2014 2016



Incidence du tabagisme chez le VIH

- **30 Mai 2006. 82 unités spécialisées françaises**
 - 593 patients étudiés
 - 43% fumeurs actifs vs. 31% dans population française
 - Facteurs de risque indépendants du tabagisme actif
 - Sexe masculin OR=2,38
 - Toxicomanie OR=2,43
 - Alcoolisme OR=2,5
 - Annonce familiale du statut VIH OR=1,81
 - Réaction de rejet à l'annonce OR=1,9



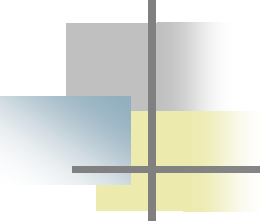
Incidence du tabagisme chez le VIH

- **Les patients VIH sont plus souvent fumeurs**
- **Et ce n'est pas tout...**

Cross-sectional Comparison of the Prevalence of Age-Associated Comorbidities and Their Risk Factors Between HIV-Infected and Uninfected Individuals: The AGE_hIV Cohort Study

Judith Schouten,^{1,2} Ferdinand W. Wit,^{1,3} Ineke G. Stolte,^{3,4} Neeltje A. Kootstra,⁵ Marc van der Valk,³ Suzanne E. Geerlings,³ Maria Prins,^{3,4} and Peter Reiss^{1,3,6}; for the AGE_hIV Cohort Study Group^a

Characteristic	HIV-Uninfected Participants (n = 524)	HIV-Infected Participants (n = 540)	<i>P</i> Value
Age, y	52.1 (47.9–58.3)	52.9 (48.3–59.6)	.200*
Male sex	85.1%	88.1%	.146**
Dutch origin	81.3%	72.2%	<.001**
African origin	1.3%	7.4%	<.001**
MSM ^a	69.7%	73.9%	.125**
Smoking status			
Never smoked	36.5%	33.0%	.028*
Ever smoked	38.9%	35.0%	
Currently smoking ^a	24.6%	32.0%	
Pack-years of smoking among ever-smokers	15.0 (4.5–28.8)	22.2 (7.8–36.8)	.001**
Waist-to-hip ratio higher than normal ^c	62.4%	84.0%	<.001***
Blood pressure, systolic, mm Hg	133 (125–143)	135 (126–147)	.006****
Blood pressure, diastolic, mm Hg	79 (72–85)	81 (75–89)	<.001****
Positive family history for myocardial infarction, hypertension, diabetes mellitus type 2, or hypercholesterolemia ^d	66.5%	70.8	.139***
Physical activity ^e	53.0%	44.3%	.005***

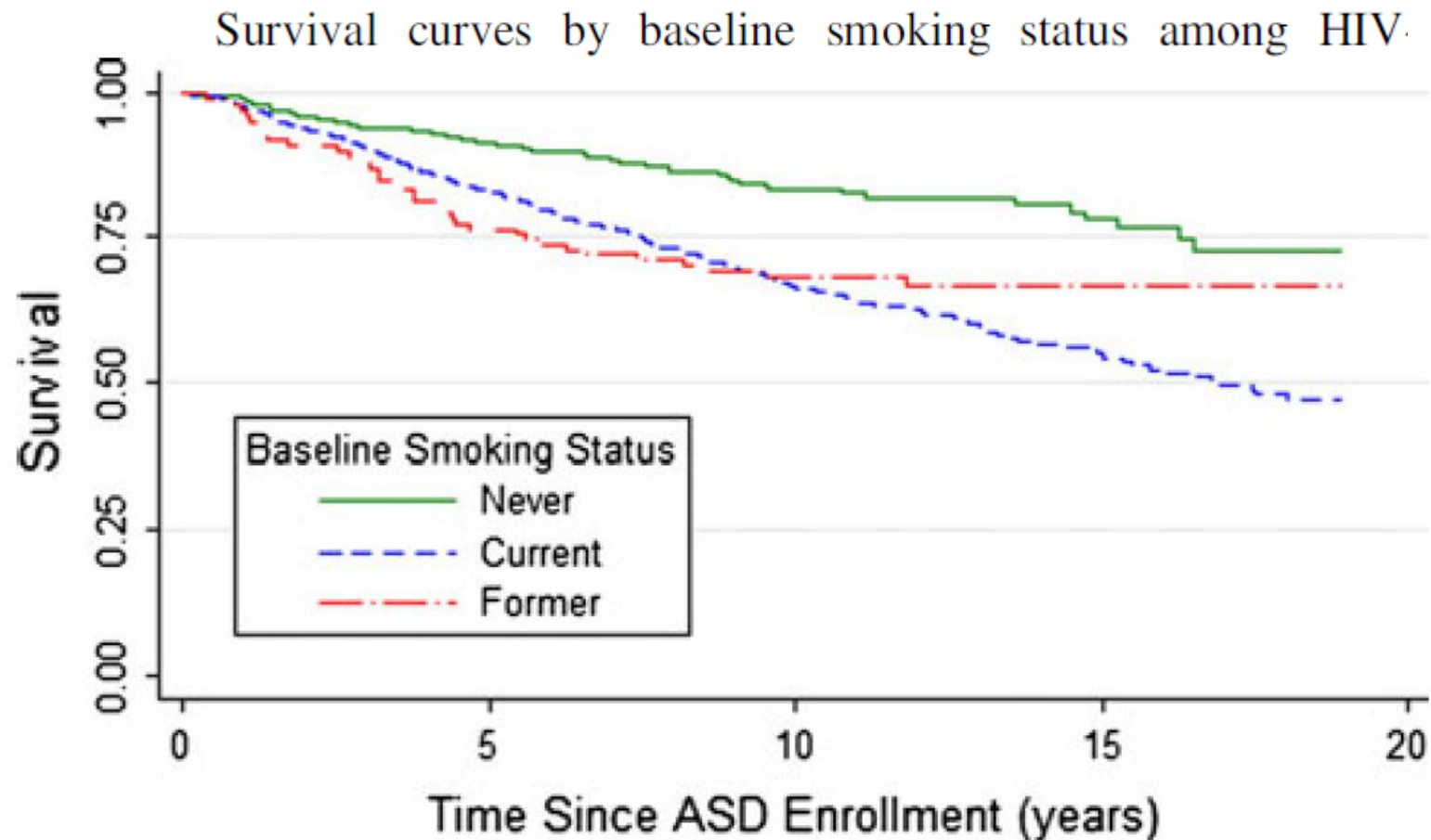


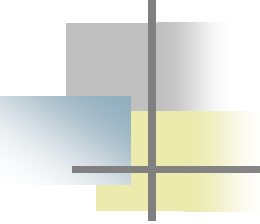
Conséquences du tabagisme chez le VIH

Cigarette Smoking and Mortality Among HIV-Infected Individuals in Seattle, Washington (1996–2008)

Heather Pines • Laura Koutsky • Susan Buskin

Conséquences du tabagisme chez le VIH

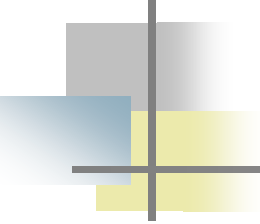




Conséquences du tabagisme chez le VIH

Smoking and life expectancy among HIV-infected individuals on antiretroviral therapy in Europe and North America

Marie Helleberg^{a,b}, Margaret T. May^c, Suzanne M. Ingle^c,
Francois Dabis^d, Peter Reiss^e, Gerd Fätkenheuer^f,
Dominique Costagliola^{g,h}, Antonella d'Arminioⁱ, Matthias Cavassini^j,
Colette Smith^k, Amy C. Justice^{l,m}, John Gillⁿ, Jonathan A.C. Sterne^c and
Niels Obel^{a,b}



Conséquences du tabagisme chez le VIH

- **45812 patients étudiés**
 - Tous traités > 1 an
 - 10767 fumeurs
 - 7228 non fumeurs
 - 3567 toxicomanie IV
 - 24250 avec statut tabagique inconnu

Conséquences du tabagisme chez le VIH

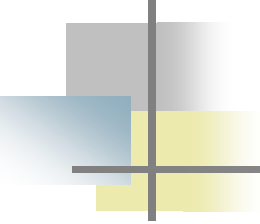
Cause-specific adjusted mortality rate ratios by smoking status.

Cohorts with information on current, previous and never-smokers (32 983 person-years follow-up)

	Deaths	MRR (95% CI) Current versus never smoker	MRR (95% CI) Previous versus never smoker
AIDS-related deaths	99	1.21 (0.73–2.01)	0.54 (0.28–1.03)
Non-AIDS related deaths	153	2.45 (1.49–4.03)	1.40 (0.81–2.42)
Non-AIDS malignancies	43	2.42 (1.03–5.68)	0.94 (0.34–2.64)
→ Cardiovascular disease	27	8.82 (1.15–67.8)	4.55 (0.55–37.6)
Non-AIDS infections	10	3.98 (0.47–15.8)	1.38 (0.12–15.8)
Liver disease	14	3.44 (0.42–28.4)	1.46 (0.15–14.4)
Other	29	1.08 (0.40–2.93)	0.66 (0.22–1.98)
Non-AIDS, not classified	30	1.90 (0.61–5.96)	2.34 (0.73–7.43)
Accident/violence/suicide/substance abuse	24	2.14 (0.60–7.60)	0.38 (0.06–2.36)
Unknown	25	0.93 (0.30–2.87)	1.27 (0.41–3.92)

MRR, mortality rate ratio.

AIDS 2015, **29**:221–229

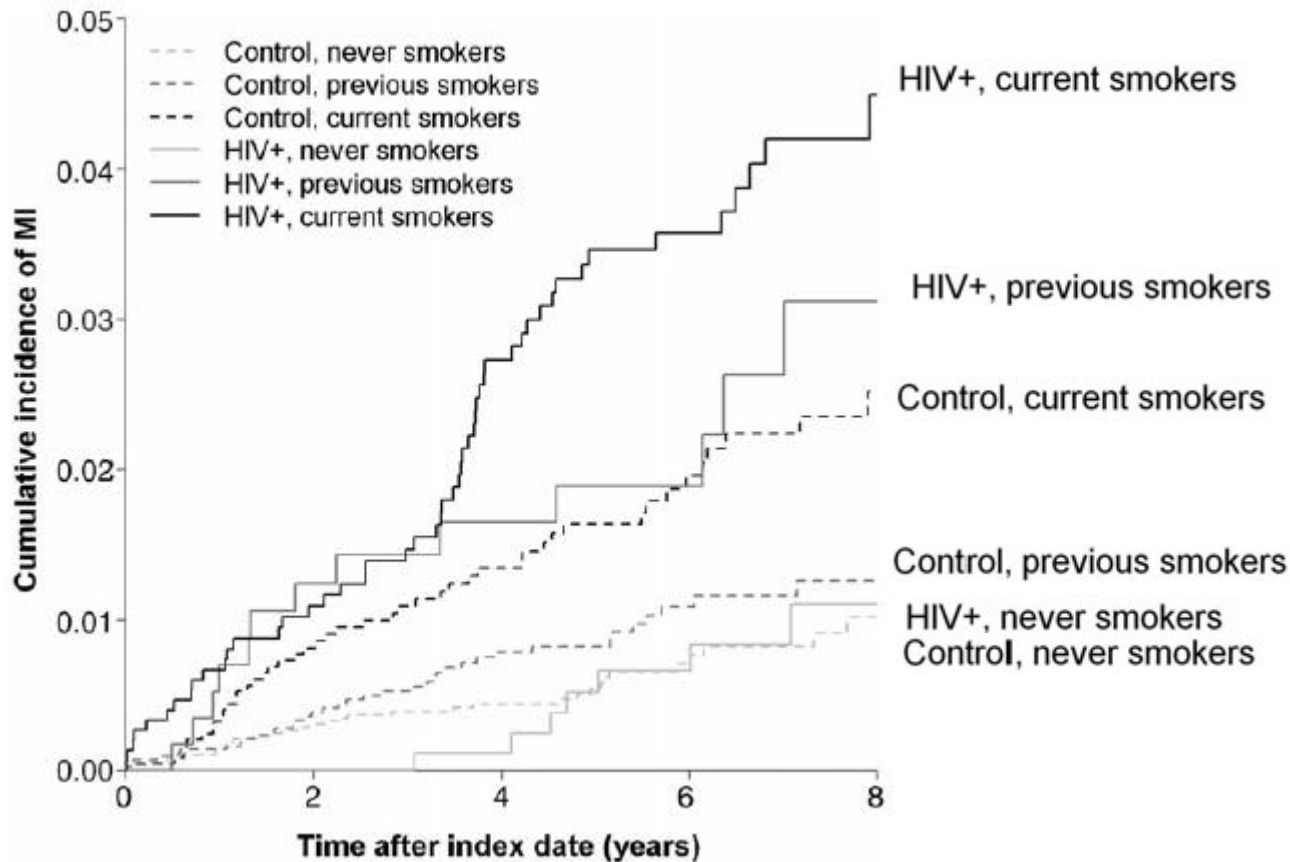


Conséquences du tabagisme chez le VIH

Myocardial Infarction Among Danish HIV-Infected Individuals: Population-Attributable Fractions Associated With Smoking

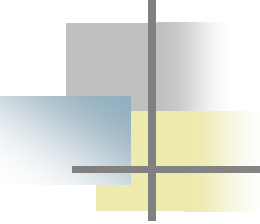
Line D. Rasmussen,¹ Marie Helleberg,² Margaret T. May,³ Shoaib Afzal,^{4,5} Gitte Kronborg,⁶ Carsten S. Larsen,⁷ Court Pedersen,¹ Jan Gerstoft,² Børge G. Nordestgaard,^{4,5} and Niels Obel²

Conséquences du tabagisme chez le VIH



3233 HIV-infected individuals and 12 932 matched population controls in the study.

Cumulative incidence of myocardial infarction (MI) among HIV-infected individuals compared with population controls, stratified by smoking status. Index date: 1 January 1999, HIV diagnosis, date of first available data on smoking status, age 40 years, or date of immigration, whichever was more recent.



Evaluation du risque CV

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DOI: 10.1111/hiv.12300
HIV Medicine (2016), 17, 289–297

ORIGINAL RESEARCH

Cardiovascular risk prediction in HIV-infected patients: comparing the Framingham, atherosclerotic cardiovascular disease risk score (ASCVD), Systematic Coronary Risk Evaluation for the Netherlands (SCORE-NL) and Data Collection on Adverse Events of Anti-HIV Drugs (D:A:D) risk prediction models

M Krikke,¹ RC Hoogeveen,¹ AIM Hoepelman,¹ FLJ Visseren² and JE Arends¹

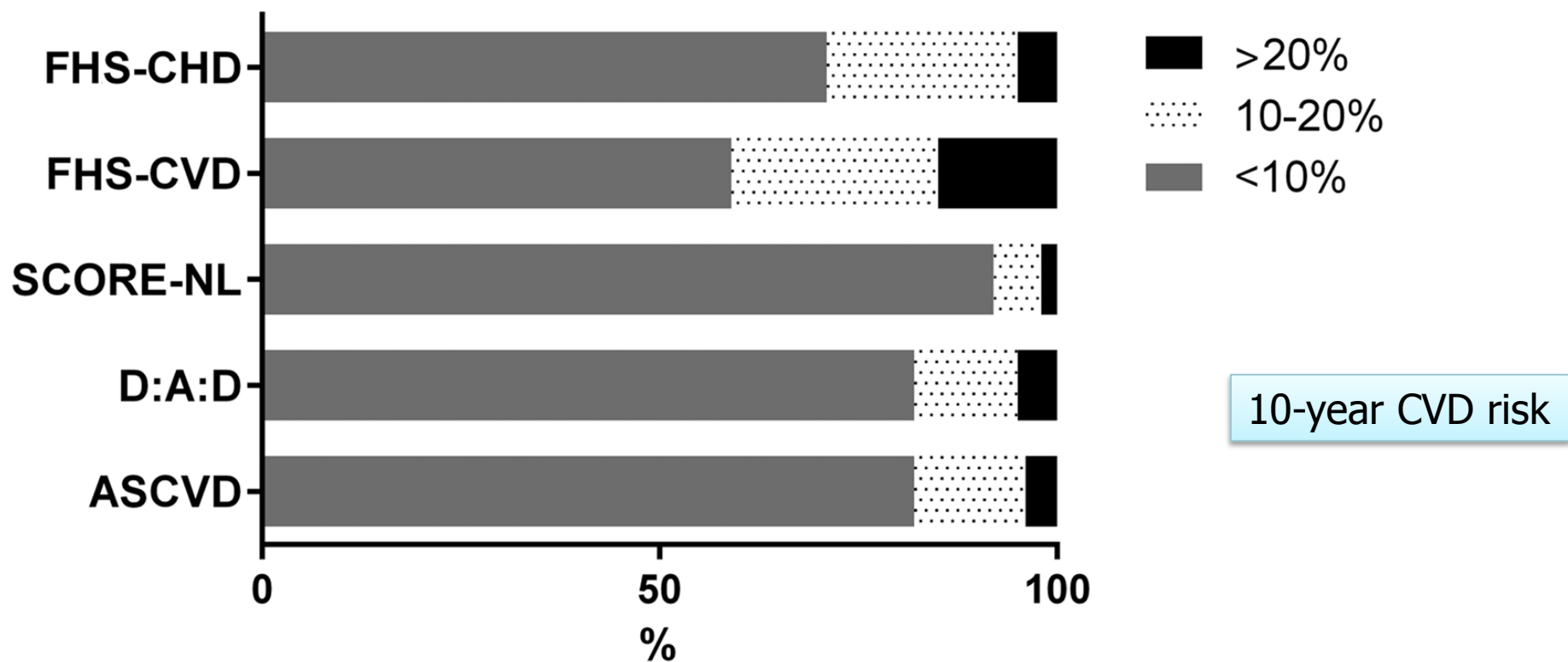
¹*Department of Internal Medicine and Infectious Diseases, University Medical Centre Utrecht (UMCU), Utrecht, The Netherlands and* ²*Department of Vascular Medicine, University Medical Centre Utrecht (UMCU), Utrecht, The Netherlands*

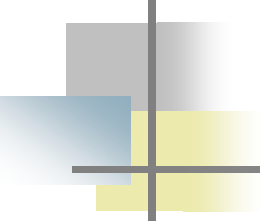
Evaluation du risque CV

(a): Model	Cohort	Variables (used in the model)								
		Age	G	BP	BP med	Chol	DM	Smoking	HIV	cART
D:A:D, 2010	D:A:D study	x	x	Sys	–	Tot/HDL	x	x	x	x
FHS-CVD, 2008	Framingham Heart Study	x	x	Sys	x	Tot/HDL	x	x		
FHS-CHD, 1998	Framingham Heart Study	x	x	Sys/Dia	–	Tot/HDL or LDL/HDL	x	x	–	–
ASCVD, 2013	New pooled cohort	x	x	Sys	–	Tot/HDL	x	x	–	–
SCORE-NL, 2010	MORGEN project	x	x	Sys	–	Tot/HDL	–	x	–	–

Evaluation du risque CV

997 HIV-infected patients were included in the study





■ ANRS 144 INTER-ACTIV

■ **Varenicline vs Placebo for Smoking Cessation: ANRS 144 Inter-ACTIV Randomized Trial**

■ Author(s):

■ Patrick Mercie³, Caroline Roussillon¹, Christine Katlama⁴, Aurélie Beuscart¹, Samuel Ferret², Nathalie Wirth⁵, David Zucman⁶, Xavier Duval⁷, Genevieve Chene¹

■ ¹ Inserm U897, Bordeaux, France. ² Hosp. Saint-Louis, Paris, France. ³ Hosp. Saint-André, Bordeaux, France. ⁴ Hosp. La Pitié-Salpêtrière, Paris, France. ⁵ Hosp. De Brabois, Vandoeuvre les Nancy, France. ⁶ Hosp. Foch, Suresnes, France. ⁷ CIC 1425, Paris, France.

■ Abstract Body:

■ Background: About half of HIV-infected patients are regular tobacco smokers in Europe, a higher prevalence than the general population. Tobacco is an important determinant of non AIDS morbidity and mortality (including vascular diseases and malignancies), a major reason to promote tobacco cessation. It is unclear whether varenicline is safe and efficacious for smoking cessation in HIV-infected patients. We evaluated varenicline at 48 weeks in regular smokers motivated to quit smoking.

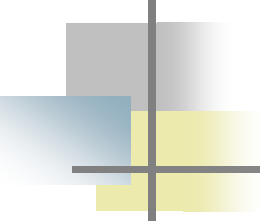
■ Methods: Randomized (1:1), placebo-controlled clinical trial with a 12-week treatment period (from 0.5 mg once daily to 1 mg twice daily at the end of the first week) and a further 36-week follow-up, including smoking cessation counseling in both arms, conducted in 30 ANRS centers from Oct. 2009 to Jan. 2014. Self-reported tobacco abstinence was confirmed by exhaled carbon monoxide measurements at 9 weeks and at intervals up to 48 weeks. The primary endpoint was continuous abstinence rate from week 9 to 48. Secondary endpoints included continuous abstinence rate from week 9 to 12 and adverse events.

■ Results: 248 smokers were randomized; 213 included in the modified intention-to-treat analysis (102 varenicline, 111 placebo), others did not start trial treatment. Median age was 45 years, 83% male, median nadir CD4+ 213/mm³, baseline CD4+ 617/mm³ and undetectable HIV RNA 73%. Varenicline was associated with a higher continuous abstinence rate at 48 weeks than placebo: 17.6% vs 7.2% ($p=0.02$) and 34.3% vs 12.6% at 12 weeks ($p=0.0002$). At 48 weeks, median CD4+ was 615/mm³ and 80% had undetectable HIV RNA, without difference between arms. Grade 3/4 drug-related effects were reported in 7 patients in each arm, including 9 psychiatric side effects (5 in the varenicline arm vs 4 in the placebo arm) and 3 gastrointestinal side effects (1 and 2, respectively). At least one depressive episode related to trial treatment was reported in 1 and 7 patients, respectively. Among 7 grade 3/4 cardiovascular events, 4 occurred in the varenicline arm (not treatment related) and 3 in the placebo arm. No neurovascular event was reported.

■ Conclusions: Varenicline is safe and effective in HIV infected patients with a 34% rate of tobacco abstinence at 12 weeks (end of treatment) and 18% at 48 weeks. These results are in the range of those reported in the HIV uninfected population. Varenicline should be considered as part of the standard of care in HIV-infected patients motivated to quit smoking.

■ CROI: February 23-26, 2015 | Seattle,

■ Abstract Number: 139



Effacité de l'arrêt du tabagisme chez le VIH

DOI: 10.1111/j.1468-1293.2009.00735.x

HIV Medicine (2009), 10, 614–619

© 2009 British HIV Association

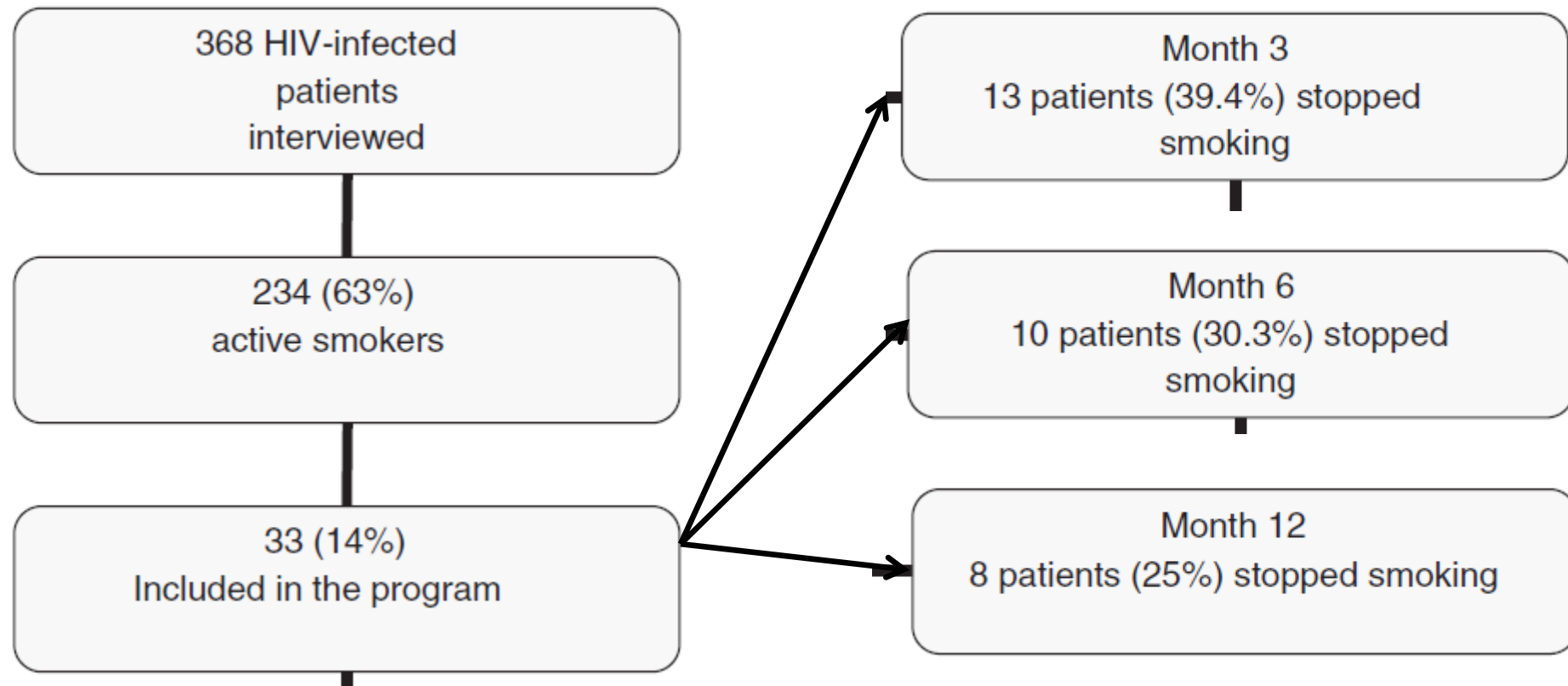
ORIGINAL RESEARCH

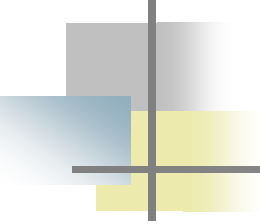
Smoking cessation in HIV patients: rate of success and associated factors

M Fuster,¹ V Estrada,¹ MC Fernandez-Pinilla,² ME Fuentes-Ferrer,³ MJ Tellez,¹ J Vergas,¹ S Serrano-Villar¹ and A Fernandez-Cruz¹

¹*Internal Medicine/HIV Unit, Hospital Clínico San Carlos, Madrid, Spain,* ²*Smoking Cessation Unit, Hospital Clínico San Carlos, Madrid, Spain and* ³*Statistical Unit, Preventive Medicine, Hospital Clínico San Carlos, Madrid, Spain*

Efficacité de l'arrêt du tabagisme chez le VIH





Effacité de l'arrêt du tabagisme chez le VIH

DOI: 10.1111/j.1468-1293.2010.00901.x
HIV Medicine (2011), 12, 412–421

© 2011 British HIV Association

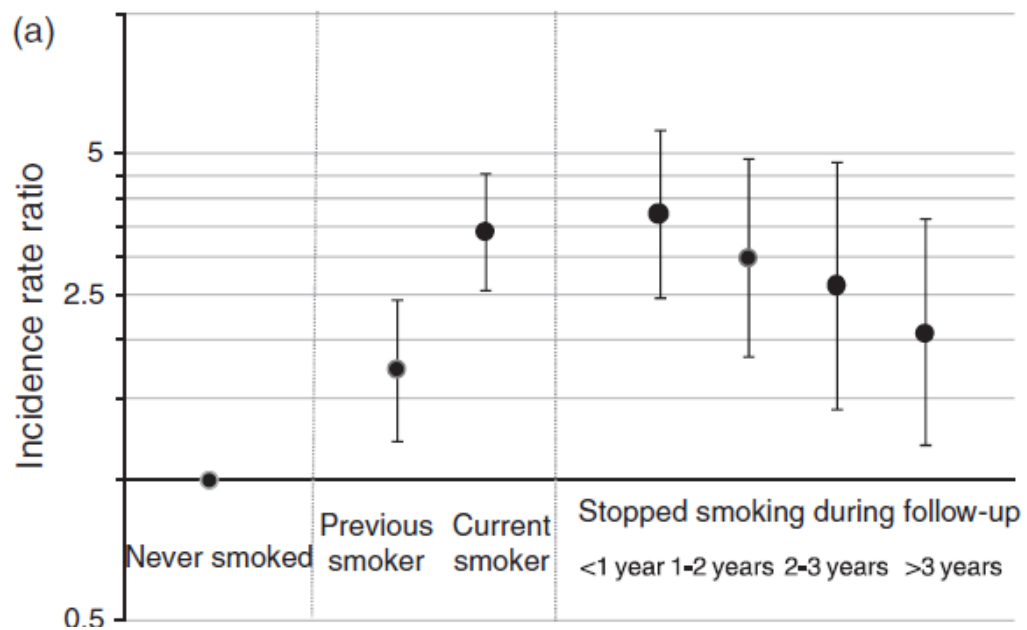
ORIGINAL RESEARCH

Rates of cardiovascular disease following smoking cessation in patients with HIV infection: results from the D:A:D study*

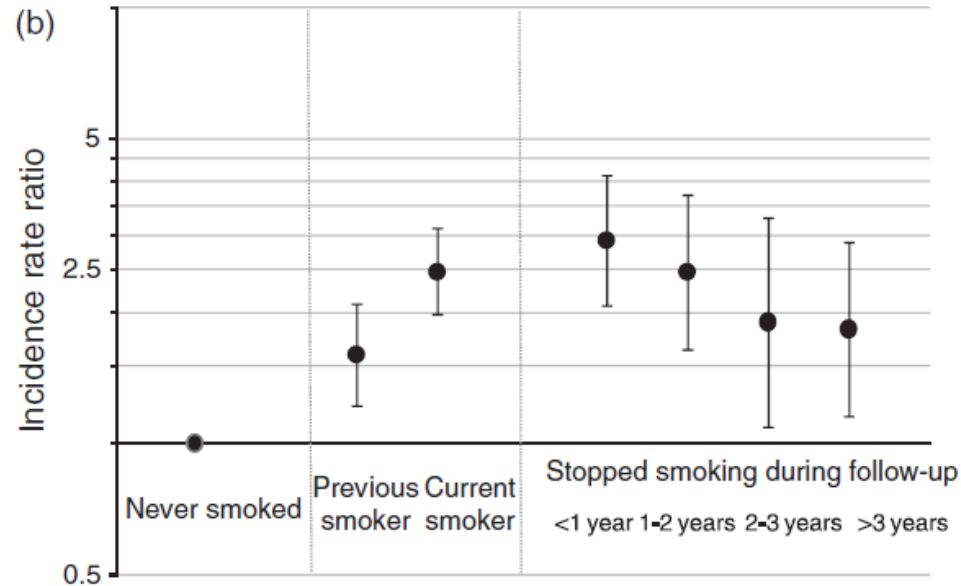
K Petoumenos,¹ S Worm,² P Reiss,³ S de Wit,⁴ A d'Arminio Monforte,⁵ C Sabin,⁶ N Friis-Møller,² R Weber,⁷ P Mercie,⁸ C Pradier,⁹ W El-Sadr,¹⁰ O Kirk,² J Lundgren² and MG Law¹ for the D:A:D Study Group[†]

27 136 patients had smoking status reported.

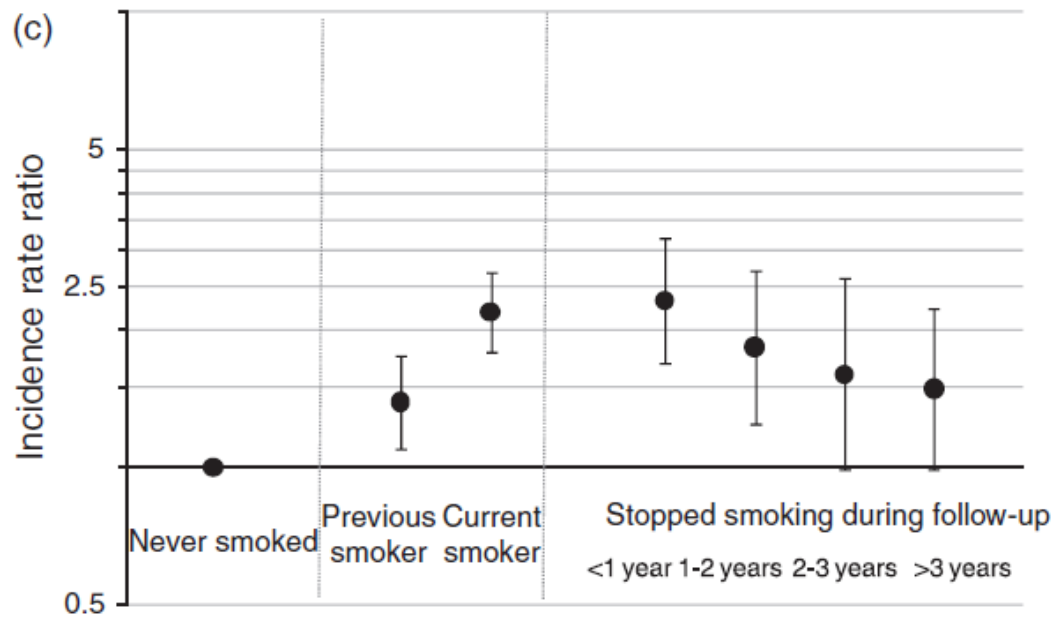
(a) myocardial infarction



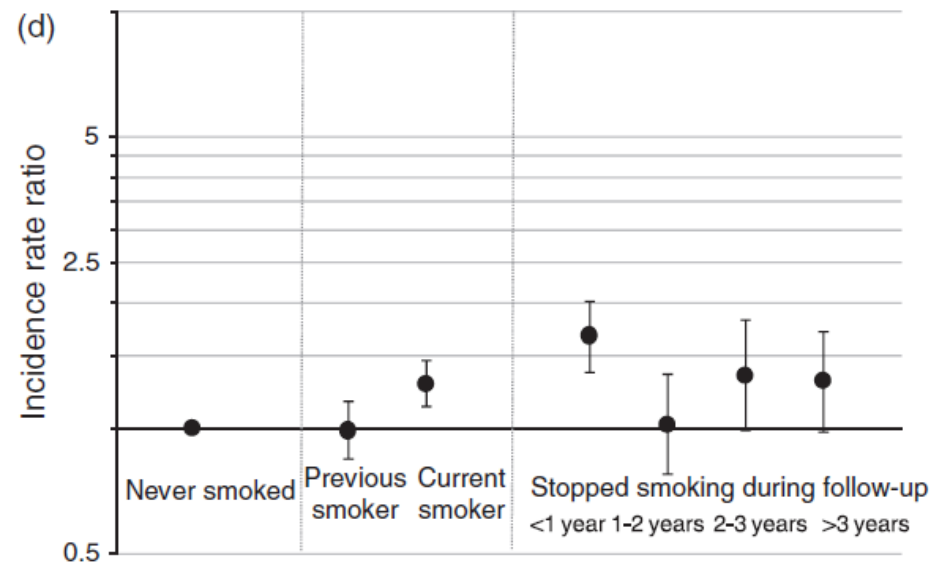
(b) cardiovascular disease

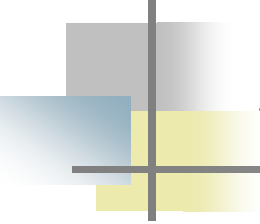


(c) coronary heart disease



(d) mortality.





Au total

- Les patients VIH+ sont plus nombreux à fumer et fument plus
 - Ce ne sont pas leurs seuls facteurs de risque CV
- A tabagisme égal, les pathologies CV sont plus fréquentes chez le VIH+
- Raison de plus pour les inciter à arrêter de fumer