

Dragon, Karen E.

From: elisabete weiderpass [weiderpass@yahoo.com]
Sent: Sunday, April 17, 2005 11:49 PM
To: john_tomenson@causation.co.uk
Subject: Fwd: RE: Cox regression coefficients for European TiO2 study
Attachments: RE: Cox regression coefficients for European TiO2 study

Dear John,
please see attached.
kind regards, lisa

Note: forwarded message attached.

Important! Please answer this message using the following e-mail address:

ewv@krefregisteret.no

Mobile phone: +358 40 845 3406

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Dragon, Karen E.

From: Fredrik Granath [fredrik.granath@medks.ki.se]
Sent: Thursday, April 14, 2005 8:36 AM
To: Elisabete Weiderpass Vainio; Paolo Boffetta
Subject: RE: Cox regression coefficients for European TiO2 study
Attachments: tiocoeff.doc

Dear Lisa and Paolo,

I have prepared the results requested by CEPHIC. I did all analyses for lags 0,5,10,15 and 20 years. It seems as they request only 0 and 15, but it was not quite clear to me. In the case of the analyses adjusted for other agents I applied the same lag as for TiO when adjusting for the cumulative dose of the other agents. My macros are constructed in this way and I hope this is OK.

Best regards Fredrik

-----Original Message-----

From: Elisabete Weiderpass Vainio [mailto:ewv@kreftregisteret.no]
Sent: den 29 mars 2005 14:59
To: Fredrik.Granath@medks.ki.se
Subject: Cox regression coefficients for European TiO2 study

Dear Fredrik,

long time no seeing!

I hope you are doing fine over there at KS! Myself I got sick and tired of Finland (no surprise, most Swedes would say, I guess), and decided to take a job in Norway (80%) and keep 20% activity at MEB. Just started this - we will see how it goes.... I leave in Hel(sinki) but commute from Mondays to Fridays to Sweden/Norway.

How about you? How is life?

Business: please see below. Would it be possible for you to get what John Tomerson (Cefic) is asking us? Please let me know. Kind regards and I look forward to hear from you,

Kind regards Lisa

Dr. Elisabete Weiderpass Vainio
The Cancer Registry of Norway
Montebello, N-0310 Oslo, Norway
tel: + 47 23 33 39 82(direct)
+ 47 22 45 13 00 (Switchboard)
+ 358 40 845 3406 (Mobile)
fax: + 47 22 45 13 70
e-mail:ewv@kreftregisteret.no
www.kreftregisteret.no

-----Original Message-----

From: Valerie Gaborieau [mailto:gaborieau@iarc.fr]
Sent: 29. mars 2005 14:14
To: Elisabete Weiderpass Vainio

Cc: Fredrik.Granath@medks.ki.se; Paolo Boffetta
Subject: Re: FW: Cox regression coefficients for European TiO2 study

Dear Lisa,

I would be very happy to help in this matter but I think it would be much more easy for Fredrik to do this as he is the one who performed the cox regression for the TIO2 study.

Regards,

Elisabete Weiderpass Vainio wrote:

Dear Valerie,

Paolo asked me to ask you if you can please do this. Would it be possible? When? You may also talk to Paolo if you so wish.
Thanks,

Lisa

-----Original Message-----

From: John Tomenson [mailto:john_tomenson@causation.co.uk]
Sent: 23. mars 2005 11:52
To: 'Paolo Boffetta'; 'lisa'
Cc: Thompson, Peter
Subject: RE: Cox regression coefficients for European TiO2 study

Paolo,Lisa

I am just catching up on the work that has accumulated while I have been away. I think that my original note may have confused you as it is not NIOSH that is asking for the information (although I would have expected them to request it). It is the US counterparts of the TDMA (the ACC TiO2 panel) who are requesting the information so that Kenny Crump can use it to model human risk. However, the ACC TiO2 panel is very happy to supply the regression coefficients to NIOSH.

As far as the technical details are concerned, we are hoping that you will be able to re run the analyses in Tables 4.2 and 4.3 of your full report with cumulative exposure as a continuous variable rather than as a set of dummy variables. Kenny Crump requires the slope estimate and its standard error for his work. It would be good to have that for all the analyses in Tables 4.2 and 4.3, but the 3 analyses in Table 4.2 and the 15 year lag analysis in Table 4.3 should be sufficient.

I would be very grateful if you could let me know how long it is likely to take to run the analyses.

Thanks
John

Table 4.2. Relative risk of lung cancer for estimated cumulative exposure to respirable TiO_2 . Results of Cox regression analysis.

Cumulative exposure ($\text{mg}\cdot\text{m}^{-3}\cdot\text{yr}$)	Number of deaths	Relative risk	95% confidence interval
0-0.73	53	1.00	Reference category
0.73-3.43	53	1.18	0.80-1.77
3.44-13.19	52	1.03	0.69-1.55
13.20+	53	0.89	0.62-1.35
linear trend, p-value		0.5	
Adjusted for exposure to other occupational agents			
0-0.73	53	1.00	Reference category
0.73-3.43	53	1.12	0.75-1.70
3.44-13.19	52	1.08	0.72-1.62
13.20+	53	0.99	0.65-1.53
linear trend, p-value		1.0	
Inception cohort*			
0-0.73	40	1.00	Reference category
0.73-3.43	48	1.29	0.84-1.99
3.44-13.19	44	1.10	0.70-1.73
13.20+	43	0.88	0.63-1.35
linear trend, p-value		0.4	

RR, relative risk

CI, confidence interval

* Analysis restricted to cohort members employed after beginning of mortality follow-up.

Table 4.3. Relative risk of lung cancer for lagged estimated cumulative exposure to respirable TiO_2 . Inception cohort*. Results of Cox regression analysis.

Cumulative exposure ($\text{mg}\cdot\text{m}^{-3}\cdot\text{yr}$)	5 year lag		10 year lag		15 year lag		20 year lag	
	RR	95% CI	RR	95% CI	RR	95% CI	RR	95% CI
0-0.73	1.00	Ref	1.00	Ref	1.00	Ref	1.00	Ref
0.73-3.43	1.33	0.86-2.15	1.20	0.75-1.97	1.13	0.71-1.80	1.17	0.72-1.90
3.44-13.19	1.22	0.77-1.93	1.01	0.64-1.61	1.26	0.79-2.03	0.87	0.55-1.38
13.20+	1.01	0.62-1.65	0.98	0.59-1.63	0.96	0.59-1.55	1.06	0.57-1.93
linear trend	0.3		0.5		0.3		1.2	

RR, relative risk

CI, confidence interval

Ref, reference category

* Analysis restricted to cohort members employed after beginning of mortality follow-up.

Table 1. Analysis of the full cohort with different lag times using cumulative dose as a continuous variable

Lag (years)	Regression coefficient ($\text{mg}/\text{m}^3)^{-1}$	Standard error
0	-0.00328	0.00538
5	-0.00173	0.00556
10	-0.00102	0.00602
15	0.0001532	0.00688
20	0.00211	0.00856

Table 2. Full cohort adjusted for cumulative dose of other occupational agents. The same lagging is applied to all exposures.

Lag (years)	Regression coefficient ($\text{mg}/\text{m}^3)^{-1}$	Standard error
0	-0.00350	0.00556
5	-0.00201	0.00574
10	-0.00136	0.00624
15	0.0001863	0.00729
20	0.00472	0.00930

Table 3. Analysis of the inception cohort with different lag times using cumulative dose as a continuous variable

Lag (years)	Regression coefficient ($\text{mg}/\text{m}^3)^{-1}$	Standard error
0	-0.00454	0.00609
5	-0.00284	0.00628
10	-0.00257	0.00686
15	-0.00226	0.00796
20	-0.00214	0.01020