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Information Quality Guidelines Staff
Mail Code 28220T, U.S EPA
1200 Pennsylvania Ave N.W
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USA

Dear Sir/Madam

Re:1986 EPA "Gold Book " Guidance for preventing asbestos related disease among auto mechanics. Request for correction http://www.epa.gov/oei/qualityguidelines/af_req_correction_sub.htm #12

I was Coordinator of the Australian Mesothelioma Register from 1988-2001 while working with the Australian Federal Government National Occupational Health and Safety Commission as Head ,Epidemiology Unit 1988-1998 and Head , Research Unit 1998-2001. I was responsible for the production of annual reports and many other publications from the Register during this period and to date, since retiring from the government to take up a university position. I am now Director, Centre for Occupational and Environmental Health , School of Public Health, University of Sydney.

In any revision of the "Gold Book" , the following information should be taken into account as in my view this evidence demonstrates that auto mechanics clearly have an increased mesothelioma risk due to asbestos exposure at work.

The Australian Mesothelioma Register collects data on all mesothelioma cases in Australia. The register has been in operation since 1/1/1980. Only histologically confirmed cases are accepted. Up to 31/12/1985 pathology panel diagnosis was used and a detailed occupational and environmental history obtained by interview of patient or close relative carried out by trained interviewer (often nurse). From 1986 onwards history is obtained by detailed history in 60% cases and remainder by mail questionnaire with up to four follow up letters.

Notifications prior to 1982 and post 2001 are less reliable due to newness of program (pre 1982) and new privacy legislation(post 2001).

In the cases 1986 –2001 , 78 cases (out of 3956 responding to occupational history questionnaire or providing history) gave a history of asbestos exposure in brake lining repair or manufacture. 73 were brake lining repair, 5 manufacture. In 43 of these, brake lining repair was the only source of asbestos exposure.

There were an additional 8 vehicle mechanics where this job was the only source of asbestos exposure in 718 cases with available history in the period 1/1/1980 – 31/12/1985.

There were 8 cases in the period 1/1/2002- 30/6/2003 (out of 488 notified) with asbestos exposure involving brake lining repair or manufacture. In 3 of these this was the only source of asbestos exposure.

This rate would be increased by allowing for non response rate for history of about 25% . The rate in brake mechanics only would be greater after allowing for vehicle mechanics not doing any brake lining work (a small fraction in Australia).

Alternatively, an approximate lifetime risk for vehicle mechanics exposed in the 1950-1960s can be estimated as follows.

Average population for vehicle mechanic = mean of 1933 and 1997-98 =(15326 + 82694)/2 = 49010.

Average annual incidence 1986-2001 = 43/(49010 x 16) = 54.8 per million person-yr.

Lifetime risk approximately = 70 x 54.8 per million = 0.38%.

This is approximately 55 times the background lifetime risk of 70 per million (0.007%).

It should be noted that this is a different analysis to the case referent studies included in the meta analysis of Wong (Reg Pharm Tox 2001;34:170-177). The comparison in these studies estimates odds ratio (relative risk approximation) for ever employed as auto mechanic compared to never employed as auto mechanic and effectively compares risk as auto mechanic to risk averaged over all other occupations which is not the same as risk compared to background environmental exposure.

For comparison with such studies, the cohort equivalent would be approximately 73/(49010 x16) x 70 / average lifetime risk for Australia (all occupations)
= 0. 65% / 0.22% = 2.96 which is still clearly greater than unity.
If restricted to auto mechanic work where this was the only asbestos exposure the corresponding figure would be 43/(49010x16) x 70 x100 % / 0.22% = 0.38%/ 0.22% = 1.7 which is also greater than unity.

Unfortunately, none of the vehicle mechanics has had lung fibre content analysed.

To my knowledge, no crocidolite or amosite was used in automotive friction products used in Australia. It is possible that some tremolite contamination was present in products containing Canadian or Australian chrysotile.

REFERENCES

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Yours faithfully

Dr James Leigh