

Chapter

1. Asbestos Exposure Assessment, Risk Identification, and Substitutes

Section

C. Epidemiology of ARDs

No./Title

3. The European mesothelioma epidemic

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Bibliographic ID

Br J Cancer 1999 Feb;79(3-4):666-72

Introduction

Asian context

An epidemic of malignant mesothelioma has been well documented in a number of European countries. This situation is in clear contrast with Asian countries as only a few of them have reported such epidemic. This could be due to the fact that Asian countries have not yet reached the latency time or lack the technologies to identify mesothelioma or a combination of the above. Many Asian countries are increasing asbestos use and need to prepare for a potential epidemic.

Critical appraisal

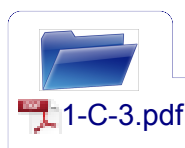
Authored by Julian Peto et al. This paper is one of the first of its kind and referenced widely in the context of predicting the future burden of malignant mesothelioma.

Unique keywords

Epidemic, mesothelioma, disease burden

Abstract

Summary: Projections for the period 1995-2029 suggested that the number of men dying from mesothelioma in Western Europe each year will almost double over the next 20 years, from 5,000 in 1998 to about 9,000 around 2018, and then decline, with a total of about a quarter of a million deaths over the next 35 years. The highest risk will be suffered by men born around 1945-1950, of which about 1 in 150 will die of mesothelioma. Asbestos use in Western Europe remained high until 1980, and substantial quantities are still used in several European countries. These projections are based on the fit of a simple age and birth cohort model to male pleural cancer mortality from 1970 to 1989 for six countries (Britain, France, Germany, Italy, The Netherlands and Switzerland) which together account for three-quarters of the population of the Western Europe. The model was tested by comparing observed and predicted numbers of deaths for the period 1990-94. The ratio of mesothelioma to recorded pleural cancer mortality has been 1.6:1 in Britain but was assumed to be 1:1 in other countries.



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Annotation

Fact 1

- In six Western European countries (Britain, France, Germany, Italy, Netherlands, Switzerland), the total number of deaths due to malignant mesothelioma among males from 1995-2029 is predicted to be 190,200.

Fact 2

- In the six Western European countries, the total number of deaths due to malignant mesothelioma among males is predicted to peak in 2015-2019.

Fact 3

- The extraordinarily high mesothelioma incidence throughout Western Europe in men born around 1945-1950 reflects the extent of asbestos use in the 1960s and 1970s at the beginning of their working lives.

Fact 4

- The number of male mesothelioma deaths in the whole of Western Europe is likely to be about 250,000 over the next 30-35 years.

Fact 5

- Based on the authors' analysis of mesothelioma data, the authors discussed that the number of lung cancers caused by asbestos is unlikely to exceed the number of mesothelioma and may be substantially less.

References