Predictions of mortality from pleural mesothelioma in Italy: a model based on asbestos consumption figures supports results from age-period-cohort models.

Marinaccio A, Montanaro F, Mastrantonio M, Uccelli R, Altavista P, Nesti M, Costantini AS, Gorini G.

Italy was the second main asbestos producer in Europe, after the Soviet Union, until the end of the 1980s, and raw asbestos was imported on a large scale until 1992. The Italian pattern of asbestos consumption lags on average about 10 years behind the United States, Australia, the United Kingdom and the Nordic countries. Measures to reduce exposure were introduced in the mid-1970s in some workplaces. In 1986, limitations were imposed on the use of crocidolite and in 1992 asbestos was definitively banned. We have used primary pleural cancer mortality figures (1970-1999) to predict mortality from mesothelioma among Italian men in the next 30 years by age-cohort-period models and by a model based on asbestos consumption figures. The pleural cancer/mesothelioma ratio and mesothelioma misdiagnosis in the past were taken into account in the analysis. Estimated risks of birth cohorts born after 1945 decrease less quickly in Italy than in other Western countries. The findings predict a peak with about 800 mesothelioma annual deaths in the period 2012-2024. Results estimated using age-period-cohort models were similar to those obtained from the asbestos consumption model. (c) 2004 Wiley-Liss, Inc.