

FEASIBILITY OF THE USE OF ADMINISTRATIVE DATA TO RECONSTRUCT A LARGE OCCUPATIONAL COHORT IN TARANTO, ITALY

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Background and Objective: Several studies of descriptive epidemiology have been highlighted mortality and incidence excesses for cancers likely associated to occupational risk factors, in the area of Taranto, where one of the largest European steel plant is located.

The present study aims at evaluating feasibility of using administrative data provided by National Institute of Social Security (INPS) to reconstruct the steel plant occupational cohort and to investigate potential increased mortality risk by pleural mesothelioma.

Methods: The database of all workers of the plant since most remote time available (1974) through December 2007, containing anagraphical and basic occupational data has been provided by INPS. Since matricular roll of years before 1995 is no longer available, to verify coherence of occupational data, we obtained by Mesothelioma Registry of Apulia Region (COR all data concerning mesothelioma cases in Taranto: this archive collects, besides health information, a detailed occupational history. After record-linkage procedures between INPS, COR and local Mortality Registry to catch up all mesothelioma cases occurred in the plant, Standard Mortality Rates (SMR) have been computed, using regional mortality reference rates by five-year classes of age and calendar.

Results: INPS dataset included 42.722 workers of the steel plant. COR collected in the period 1982-2003 82 mesothelioma cases in Taranto province (79 males). By the local Mortality Registry all mesothelioma deaths in the period 2003-2007 were retrieved. After the record-linkage, 32 mesothelioma deaths have been counted in a final cohort of 42.396 male subjects, with almost total overlap of occupational information between INPS and COR databases.

Mesothelioma SMR is 2.18 (IC 95% 1.5-3.1) with a higher risk in period 2000-2004, in the class of age 65-69 years and after 15-19 years since hiring.

Conclusion: Administrative data seemed to be reliable to reconstruct a large occupational cohort when plant data are not available.

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