

# Broncopneumopatia cronica ostruttiva professionale nel DPR 336/1994 e nell'evidenza epidemiologica

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## KEY WORDS

COPD; occupational diseases; epidemiology; case-control studies

## SUMMARY

**«Occupational chronic obstructive pulmonary disease: Italian law (decree no. 336/1994) and epidemiological evidence».** **Background:** *In Italy, occupational diseases are required by law to be listed (however, any occupational diseases not included in the list may be compensated if workers demonstrate causation in court). The list is periodically updated in order to incorporate new findings from medical research. Decree no. 336/94 uses a less inclusive term (chronic obstructive bronchitis) than that used in the earlier decree, no. 482/75 (chronic obstructive pulmonary disease, COPD). Moreover, it includes fewer occupations that involve a risk of developing COPD.* **Objectives:** *In order to find an epidemiological basis that might justify the above changes to Italian law, risk of COPD was investigated in relation to occupation and time, using a case-referent design.* **Methods:** *The same definition for COPD (clinical history of >2 years with shortness of breath and/or winter phlegm and an FEV<sub>1</sub> less than 80% of the predicted value, only minimally reversible with bronchodilators and without marked change during the hospital observation period) was used in two case-referent studies. The first study was carried out from 1972 to 1980 (202 cases of COPD and 202 referents matched for age and sex) and the second from 1990 to 1997 (131 cases of COPD and 298 referents, every fourth eligible patient in each calendar year of observation). In both studies cases and referents were classified into 16 occupational categories, and office workers were the reference. All subjects were selected from male patients admitted to the Occupational Health Clinic in Padua. Smoking-adjusted (Mantel-Haenszel analysis, first study), or age-smoking-adjusted (logistic regression analysis, second study) Odds Ratio (OR) and 95% confidence interval (CI) for COPD were estimated in each occupational category and in two main groups: workers employed in occupations at either high or low risk for COPD. The latter OR and the fraction of exposed cases (p) were used to estimate the population attributable risk (PAR) through:  $p \cdot (OR - 1) / OR$ .* **Results:** *Significantly high risks for COPD in miners and chemical workers were observed in the first period, but not in the second time window. On the other hand, an increased time trend for OR estimates was found in welders, wood carpenters, construction and foundry workers. Among farmers, painters, cotton textile and refractory brick workers, the OR for COPD was significantly above unity in both time periods. PAR was 37% in the first and 52% in the second study.* **Conclusions:** *The restrictive definition of occupational COPD, which was introduced by Decree no. 336/94, contrasts with the epidemiological evidence showing that the risk of occupational COPD has increased over time: up to 50% of COPD cases referred to an occupational medicine physician might have an occupational origin.*

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