

Zero excess risk from exposure to genotoxic carcinogens: how long does it take after exposure cessation

We received a letter from Professor Benedetto Terracini commenting on the paper “Mortality from bladder cancer in dyestuff workers exposed to aromatic amines: a 73-year follow-up” by Ciocan and co-workers [1]. The letter and the Authors’ reply have been accepted for publication in the following pages.

Our journal is neither in favor nor against mentioning the workplaces where a particular study has been conducted. Omitting the location would be an absence of information for a newspaper: a correct chronicle requires that five “W”, including “where”, be specified. A scientific journal is however interested in the core message and its external validity, rather than its historical contextualization. The scientific literature, including *La Medicina del Lavoro*, would not consider the omission of the name of the industry a cause of concern requiring a correction. But it wouldn’t even delete it, if mentioned: the names are specified when the authors wish to do so.

We accepted for publication the paper by Ciocan et al. [1], because of the interest of its message, since it quantified the very long persistence of the increased risk of bladder cancer related to aromatic amine exposure – a well-known risk factor for bladder cancer. Like other cancers sharing similar underlying genotoxic mechanisms, the excess risk was still elevated after more than 40 years after the last occupational exposure. Likewise, the risk of lung cancer among smokers tends to level off towards that of nonsmokers several decades after cessation [2]. After the publication of the paper “Linear Non-Threshold (LNT) historical discovery milestones” by E. Calabrese [3], the article by Ciocan et al. seems to be “food for thought” on critical mechanistic aspects of occupational cancer.

Also, mainly thanks to the workers’ fight for their health and a new legal framework in Europe, the working settings and conditions are today much different from those experienced at the IPCA many decades ago. Is it realistic to believe that today’s owners and managers would deliberately violate norms and good practices (*a sine qua non* to consider them guilty in a trial for crimes), knowing that workers’ health could be endangered up to the extreme consequences? Failure to implement prevention measures should be regarded as a failure of our discipline and requires continuous action and monitoring by governments and social parties.

REFERENCES

1. Ciocan C, Godono A, Franco N, et al. Mortality from bladder cancer in dyestuff workers exposed to aromatic amines: A 73-year follow-up. *Med Lav*. 2022 Apr 26;113(2):e2022017. Doi: 10.23749/mdl.v113i2.12893. PMID: 35481579; PMCID: PMC9073764
2. Peto R, Darby S, Deo H, Silcocks P, Whitley E, Doll R. Smoking, smoking cessation, and lung cancer in the UK since 1950: combination of national statistics with two case-control studies. *BMJ* Vol. 321.
3. Calabrese E. Linear Non-Threshold (LNT) historical discovery milestones. *Med Lav*. 2022; 113(4): e2022033.