

THE RISK OF BURN INJURY DURING LONG TERM OXYGEN THERAPY: A 17-YEAR LONGITUDINAL NATIONAL STUDY IN SWEDEN (178)

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Background: Long-term oxygen therapy (LTOT) improves the survival time in chronic obstructive pulmonary disease (COPD) complicated by severe hypoxemia. Despite warnings about potential dangers, a considerable number of patients continue to smoke whilst on LTOT. The incidence of burn injuries related to LTOT is not known. The aim of this study was to estimate the rate of burn injury that required contact with health care during LTOT.

Methods: a prospective, population-based, consecutive cohort study of people starting LTOT from any cause between 1 January 1992 and 31 December 2009 in the Swedish national Register of Respiratory Failure (Swedevox).

Results: Between 1992 and 2009, 12,497 patients (53% women) started LTOT and were included in the study. The mean (SD) age was 72 ± 9 years. The main reasons for starting LTOT were COPD (75%) and pulmonary fibrosis (15%). Only 269 (2%) were active smokers at starting LTOT. The median follow-up time to event was 1.5 (P₂₅ to P₇₅, 0.55 to 3.1) years. In total, 17 patients had a diagnosed burn injury during LTOT in 27890 person-years of follow-up. The rate of burn injury during LTOT was 61(95% CI, 36-98) per 100.000 person-years. Of the 17 burn injuries, five were inhalation injuries and 12 skin injuries (3 third degree burns and one second degree; six (50%) were facial burns). Two deaths were related to burn injury during LTOT. There was no significant difference in the rate of burn injury between ever-smokers and never-smokers neither between men and women.

Conclusion: the rate of burn injuries in patients with LTOT seems to be low in Sweden. This could be attributable to Swedish strict requirements on smoking cessation before LTOT initiation and clinical follow-up by physicians and specialized oxygen nurses.