Table AX6-5.3. Effects of Lead on Cardiovascular Mortality

Reference, Study Location, and Period	Study Description	Lead Measurement	Findings, Interpretation
United States			
Schober et al. (2006) U.S.-NHANES III 1988-1994, follow up to 2000	9757 persons, age $40 years, 2515 of whom died during follow-up (median length of follow-up 8.55 years), had baseline blood lead measurements during the NHANES III period. Analyses were performed using proportional hazard models for all cause deaths, major cardiovascular disease-related deaths (I00-I78), and malignant neoplasms (C00-C97). Multivariate models were adjusted for sex, race/ethnicity, education, and smoking status and stratified by age.. Blood lead was entered as an ordinal three-category variable.	Blood lead <10 µg/dL, n = 818 Blood lead 10-19 µg/dL, n = 2735 Blood lead 20-29 µg/dL, n = 637 Blood lead $30 µg/dL, n = 102, excluded from analysis	Multivariate-adjusted cardiovascular disease mortality was significantly increased in the $10 µg/dL group compared to the <5 µg/dL reference group. All cause and cancer mortalities were significantly increased in the 5-9 µg/dL and $10 µg/dL groups. Relative risk for cardiovascular disease mortality, compared to <5 µg/dL: 5-9 µg/dL: 1.20 (95% CI: 0.93, 1.55) $10 µg/dL: 1.55 (95% CI: 1.16, 2.07) Relative risk for all cause mortality, compared to <5 µg/dL: 5-9 µg/dL: 1.24 (95% CI: 1.05, 1.48) $10 µg/dL: 1.59 (95% CI: 1.28, 1.98) Relative risk for cancer mortality, compared to <5 µg/dL: 5-9 µg/dL: 1.44 (95% CI: 1.12, 1.86) $10 µg/dL: 1.69 (95% CI: 1.14, 2.52) Tests for trends were statistically significant for all three mortality groups.