

Lead in The Blood and Hypertension in Indonesia: A Systematic Review

Authors : Ainia Nurul Aqida

Abstract : Lead is one of the sources of air pollution. The use of lead on motor vehicle fuels resulted in the increasing contamination of lead in the air. The polluted air that has been inhaled by many people, especially guards and sellers of retail gasoline filling stations. The impact is increased levels of lead in blood. One result is an increase in blood pressure that causes hypertension. This research would like to know the relationship between blood lead levels in the incidence of hypertension in Indonesia. The method used in this study is a systematic review of the three journals have been published in the year 2007 to the year 2010 with the total sample is 312 samples. Odd ratio values obtained in the first article was $OR = 6.50$ $pvalue = 0.000$, $CI = 95\%$ (2.89 to 14.60), and the second article was obtained $OR 2.619$ (95% $CI: 0.944$ to 7.625) $pvalue = 0.028$, and the third article was obtained 0.002 $r = 0.324$ $R^2 = 10.5\%$. Over all, there is a relationship between blood lead levels with the incidence of hypertension in Indonesia.

Keywords : lead, blood, air pollution, hypertension

Conference Title : ICEPPH 2015 : International Conference on Environmental Pollution and Public Health

Conference Location : Bali, Indonesia

Conference Dates : October 11-12, 2015