ABSTRACT

Lead (Pb) exposure in a small amount continuously can causing serious health problem. Lead in urban community commonly came from vehicles exhaust which using leaded gasoline as it’s fuel. Beside that lead in environment can also originate from fuel vapor which injected inside vehicle tank. Seen from the sources of lead before, operator which injecting fuel in gas station is a risky population that has potential being poisoned by lead because they are working in open space located at the side of highways and continuously stay close to vehicle fuel tank. This research aimed to analyze what was personal factor that had correlation with lead levels in blood of gasoline injection operator in gas station (SPBU) X Surabaya.

This was observational analytic research with cross sectional approach. Research subject were every gasoline injection operator in gas station (SPBU) X Surabaya which fulfill inclusive criteria as many as 9 person. Data collection was done through interview with questionnaire, secondary data and taking blood sample then tested in ‘Balai Besar Laboratorium Kesehatan Surabaya’. To know how strong or weak the correlation Spearman Test, Pearson Test and cross tab were being used.

The research showed that majority of respondent had lead blood level below safety limit. Variables that had strong relation with blood lead levels were daily work duration, (r=0,546), shift type (r=0,546), smoking habit (r=0,634) and hygiene personal (r=0,553). Meanwhile variables that had weak relation with blood lead levels are age (r=101) and working duration (r=0,145).

It can be concluded that daily work duration, shift type, smoking habit and hygiene personal had strong relation with the increasing of blood lead levels. Meanwhile individual characteristic such as age and working duration had weak relation with the increasing of blood lead levels. Suggestions for the company are doing periodic blood lead level test for worker and giving socialization about the danger of exposed with lead in working environment. Suggestion for the worker are increasing personal awareness of the importance of hygiene personal, increasing the consumption of vitamin B, C or E and stop smoking.

Key Words: Lead blood, individual characteristic, gas station (SPBU)