INTISARI

Susiani. NIM 3212096. *Hubungan Kadar Timbal Dalam Darah Dengan Kadar Hemoglobin Pada Operator SPBU Gombel Semarang*

Timbal merupakan logam berat yang ditambahkan pada pembuatan bensin. Timbal berfungsi sebagai anti letupan untuk meningkatkan efisiensi mesin. Timbal dapat menyebabkan pencemaran udara. Sumber utama pencemaran timbal berasal dari asap kendaraan bermotor dan uap bensin. Operator SPBU merupakan kelompok masyarakat risiko tinggi terpapar oleh timbal. Akumulasi timbal yang berlangsung terus menerus mengakibatkan gangguan pembentukan hemoglobin. Penelitian ini untuk mengetahui hubungan kadar timbal dalam darah dengan kadar hemoglobin pada operator SPBU Gombel Semarang. Jenis penelitian observasional deskriptif analitik dengan desain *cross sectional*. Sampel penelitian 18 responden merupakan seluruh populasi operator SPBU Gombel Semarang. Kadar Timbal dalam darah merupakan variabel independen. Kadar hemoglobin merupakan variabel dependen. Kadar timbal diukur dengan metode ICP-MS dan alat Agilent 7700 X. Kadar hemoglobin diukur dengan metode SLS-Hemoglobin Method dan alat Sysmex XN 1000. Hasil penelitian kadar timbal dalam darah 1,6-5,7 µg/dL, kadar hemoglobin 12,4-18,1 g/dL. Hasil uji korelasi Spearman diperoleh p=0,581 ; r=-0,139. Disimpulkan tidak ada hubungan bermakna antara kadar timbal dalam darah dengan kadar hemoglobin pada operator SPBU Gombel Semarang.

Kata kunci: timbal, hemoglobin, hubungan, operator SPBU Gombel Semarang

ABSTRACT

Susiani. NIM 3212096. *The Correlation Of Lead Level In The Blood With Hemoglobin Level On The Operator Of Public Refueling Station In Gombel Semarang*

Lead is a heavy metal that is added in the manufacture of gasoline. Lead acts as an anti-knock to increase engine efficiency. Lead can cause air pollution. The main sources of lead pollution are motor vehicle fumes and gasoline fumes. Operator of Public Refueling Station are workers at high risk of being exposed to lead. The continuous accumulation of lead can inhibit the formation of hemoglobin. Research is needed to know the relationship between lead level in blood and hemoglobin level on the Operator of Public Refueling Station in Gombel Semarang. The research type is observational descriptive analytic with a cross sectional design. The research sample of 18 respondents is the entire population of Operator of Public Refueling Station in Gombel Semarang. Lead level in blood is an independent variable. Hemoglobin level is the dependent variable. Lead levels were measured by the ICP-MS method and using the Agilent 7700 X. Hemoglobin levels were measured by the SLS-Hemoglobin Method and using the Sysmex XN 1000. The research result was lead level in blood 1,6-5,7 µg/dL, hemoglobin level 12,4-18,1 g/dL. Test result of Spearman correlation obtained p= 0,581 ; r=-0,139. It was concluded that there was no significant correlation between the level of blood lead and level of hemoglobin on Operator of Public Refueling Station in Gombel Semarang.

Keywords*: lead, hemoglobin, correlation, operator of Public Refueling Station in Gombel Semarang*