

INTISARI

Wahyu Indah Perdana Putri. Nim 3212100. *Hubungan Kadar Timbal Dalam Darah Terhadap Kadar Kreatinin Darah Pada Operator SPBU Gombel Kota Semarang.*

Pb ditemukan sebagai salah satu bahan yang digunakan untuk campuran BBM. Pb adalah logam yang memiliki sifat toksik terhadap tubuh manusia dapat menyebabkan gangguan fungsi sistem saraf pusat, hematopeietik, hati dan ginjal. Pb yang mengendap di ginjal dapat menyebabkan gangguan pada ginjal. Kreatinin dalam darah akan meningkat dan dapat meracuni sel-sel dalam tubuh. Tujuan penelitian ini untuk mengetahui hubungan kadar timbal dalam darah terhadap kadar kreatinin darah pada operator SPBU Gombel kota Semarang. Jenis penelitian ini adalah analitik observasional dengan pendekatan *cross sectional*. Teknik sampling penelitian menggunakan *sampling jenuh*. Subjek penelitian ini sebanyak 18 orang pada operator SPBU Gombel kota Semarang. Pemeriksaan kadar Pb dalam darah dilakukan dengan menggunakan metode *ICP-MS (Inductively Coupled Plasma-Mass Spectrometer)*, sampel berupa *wholeblood* sebanyak 6 ml diambil dengan menggunakan tabung *trace element* yang mengandung *Na-Heparin*. Pemeriksaan kadar kreatinin darah dengan menggunakan metode *Enzimatic Colorimetri*. Sampel berupa serum sebanyak 3 ml diambil dengan menggunakan tabung *Clot Activator/SST*. Uji hipotesis dilakukan dengan uji korelasi *Spearman*. Hasil penelitian menunjukkan bahwa seluruh responden mempunyai kadar Pb dalam batas normal $<9\mu\text{g/dL}$. Kadar Kreatinin normal sebanyak 16 responden. diatas normal sebanyak 2 responden. Data setelah dilakukan uji statistik korelasi *Spearman* dengan $p>0,05$ didapatkan hasil $p= 0,700$, maka H_0 diterima sehingga tidak terdapat hubungan yang signifikan antara kadar timbal dalam darah terhadap kadar kreatinin darah pada operator SPBU.

Kata Kunci: Darah, ICP-MS, Kreatinin, Operator, Pb

ABSTRACT

Wahyu Indah Perdana Putri. Nim 3212100. *Corelation of Lead Levels in Blood to Blood Creatinine at the Operator Gas Station Gombel Semarang City*

Pb was found to be one of the ingredients used for fuel mixtures. Pb is a metal that has toxic properties to the human body can cause impaired functioning of the central nervous system, hematopetic. liver and kidneys. Pb that settles in the kidneys can cause disorders in the kidneys. Creatinine in the blood will increase and can poison cells in the body. The purpose of this study was to determine the relationship between lead levels in the blood and blood creatinine levels at the Gombel gas station operator in Semarang city. This type of research is observational analytic with a cross-sectional approach. The research sampling technique uses saturated sampling. The subjects of this study were 18 people at the Gombel gas station operator in Semarang city. Examination of Pb levels in the blood is carried out using the ICP-MS (Inductively Coupled Plasma-Mass Spectrometer) method, a wholeblood sample of 6 ml was taken using a trace element tube containing Na-Heparin. Examination of blood creatinine levels using the Enzymeatic Colorimetric method. Samples in the form of serum as much as 3 ml were taken using a Clot Activator / SST tube. The hypothesis test was performed with the Spearman correlation test. The results showed that all respondents had Pb levels within the normal limit of $<9\mu\text{g} / \text{dL}$. Normal creatinine levels of 16 respondents. above normal as many as 2 respondents. The data after the Spearman correlation statistical test with $p > 0.05$ showed $p = 0.700$, then H_0 was accepted so that there was no significant relationship between blood lead levels and blood creatinine levels in gas station operators.

Keywords: Creatinine, ICP-MS, Gas Station, Operator, Pb