

## ABSTRACT

One industry pollution contributor of black ( Pb industry ) is recycling former battery .Of black ( lead ) is one of heavy metal commonly used in industry battery .A disorder in the system hematopoetik caused by lead in blood is a disorder in at the forming hemoglobin.

The purpose of this research is to analyze correlations Pb drinking water levels to Pb blood , Pb blood with levels of hemoglobin levels , and identification on the symptoms of anemia housewives in the Gunung Ganggsir Kecamatan Beji Kabupaten Pasuruan .

This the kind of research with the design of observational research cross sectional study .The experimental work on this is the variable levels of Pb drinking water , blood levels of Pb housewives , Hb ( hemoglobin levels ) and symptoms of anemia .The research sample as many as 17 respondents who was the mother of households .Data using analysis test of statistical correlation spearman by a computer program.

The results of the study to the examination of drinking water levels of Pb 100 % the sample is not meet the requirements of drinking water. Identification Pb levels in the blood ( 100 % ) a sample exceeds the value of the boundary pb levels in the blood .To the identification Hb declare ( 47.1 % ) the normal .The identification told the symptoms of anemia declare ( 52.9 % ) undergoing anemia .The spearman in the analysis correlation test relations Pb content of drinking water against Pb blood levels achieved a score of significant (  $p = 0,089$ ) and means that there was no connection between levels Pb on drinking water and none knows the hosts pb in the blood. Blood levels of Pb relationship analysis to Hb blood obtained significant value (  $p = 0,002$ ) and means that there was a correlation between levels Pb in the blood respondents to Hb in the blood respondents .With koeffisien 0,694 so it can be concluded that connection has a strong correlation that is being.

The conclusion of study is not found a significant relationship between levels of drinking water Pb on blood levels of Pb housewife in the Gunung gangsir Kecamatan Beji Kabupaten Pasuruan. While at the nexus Pb blood levels of hemoglobin levels housewife, on this research there is a significant relationship between levels of Pb in the blood to the hb in the blood, and has a strong relationship that is being.

Keywords: Pb levels of drinking water, Pb levels of blood , Levels of Hb, Symptoms of anemia

## ABSTRAK

Salah satu industri penyumbang pencemaran Timah Hitam (Pb) adalah industri daur ulang aki bekas. Timah Hitam (Timbal) merupakan salah satu logam berat yang banyak dimanfaatkan dalam industri aki. Gangguan pada sistem hematopoetik yang disebabkan oleh timbal dalam darah adalah gangguan pada saat pembentukan hemoglobin.

Tujuan dari penelitian ini adalah untuk menganalisis hubungan kadar pb air minum dengan kadar pb darah, kadar pb darah dengan kadar hemoglobin, dan identifikasi gejala klinis anemia (pada ibu rumah tangga di desa gunung ganggsir kecamatan beji kabupaten pasuruan).

Jenis penelitian ini observasional dengan desain penelitian *Cross Sectional Study*. Variabel pada penelitian ini yaitu kadar Pb air minum, kadar Pb darah ibu rumah tangga, kadar Hb (Hemoglobin) dan Gejala Anemia. Sampel penelitian sebanyak 17 responden yang merupakan ibu rumah tangga. Analisis data menggunakan uji statistik Korelasi *Spearman* dengan program komputer.

Hasil penelitian pada pemeriksaan kadar Pb air minum 100% sampel tidak memenuhi persyaratan air minum. Identifikasi kadar Pb dalam darah (100%) sampel melebihi nilai batas kadar Pb dalam darah. Hasil identifikasi pada kadar Hb menyatakan (47,1%) normal. Hasil identifikasi gejala klinis anemia menyatakan (52,9%) mengalami anemia. Uji korelasi *spearman* pada analisis hubungan kadar Pb air minum terhadap kadar Pb darah memperoleh nilai signifikan ( $p=0,089$ ) maka diartikan bahwa tidak ada hubungan antara kadar Pb pada air minum dengan kadar Pb dalam darah. Analisa hubungan kadar Pb darah dengan kadar Hb darah diperoleh nilai Signifikan ( $p=0,002$ ) maka diartikan bahwa ada hubungan antara kadar Pb dalam darah responden dengan kadar Hb dalam darah responden. Dengan koefisien 0,694 maka disimpulkan bahwa hubungan tersebut memiliki kuat hubungan yaitu sedang.

Kesimpulan pada penelitian ini tidak ditemukan hubungan yang signifikan antara kadar Pb Air Minum terhadap kadar Pb darah ibu rumah tangga di Desa Gunung Gangsir Kecamatan Beji Kabupaten Pasuruan. Sedangkan pada hubungan kadar Pb darah terhadap kadar hemoglobin ibu rumah tangga pada penelitian ini, ada hubungan yang signifikan antara kadar Pb dalam darah dengan kadar Hb dalam darah, dan memiliki kuat hubungan yaitu sedang.

Kata Kunci : Kadar Pb Air Minum, Kadar Pb Darah, Kadar Hb, Gejala Anemia