

# Asosiasi antara Kadar Merkuri dalam Rambut dan Gejala Gangguan Fungsi Ginjal pada Masyarakat yang Tinggal di Sekitar TPA Cipayung Depok Jawa Barat 2019 = Association between Hair Mercury Level and Impaired Renal Function Symptoms in Communities Who Living Around Cipayung Landfill, Depok, West Java 2019.

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## Abstrak

### <b>ABSTRAK</b><br>

Merkuri adalah zat kontaminan beracun, namun keberadaannya sampai saat ini masih terus dibuang ke perairan, tanah, dan atmosfer. Salah satu organ tubuh yang sensitif dengan jenis logam berat adalah ginjal. Salah satu tanda gejala gangguan fungsi ginjal adalah adanya proteinuria. Penelitian ini bertujuan untuk mengetahui asosiasi antara kadar merkuri dalam rambut dan kejadian gejala gangguan fungsi ginjal pada masyarakat di sekitar TPA Cipayung. Penelitian ini menggunakan desain cross sectional. Sampel penelitian adalah 98 masyarakat yang tinggal di sekitar TPA Cipayung. Data pengkajian dan merkuri dalam rambut diperoleh dari BBTKLPP Jakarta. Kadar merkuri dalam rambut diukur dengan metode EPA 2007 Methode 7473 (SW-846). Kadar proteinuria diukur dengan uji diagnostik sederhana rapid test dipstick urine. Seluruh variabel penelitian diuji dengan menggunakan chi-square. Hasil penelitian ini ditemukan asosiasi lama tinggal dengan kadar merkuri dalam rambut (OR=5,5; CI 95%: 1,1-27,4). Terdapat asosiasi antara kadar merkuri dengan gejala gangguan fungsi ginjal (OR=10,7; CI 95%: 2,1-23,8). Terdapat asosiasi antara tekanan darah dengan gejala gangguan fungsi ginjal (OR=2,9; CI 95%: 1,2-7,0). Analisis multivariat, ditemukan asosiasi antara kadar merkuri dalam rambut dengan gejala fungsi ginjal setelah dikontrol variabel tekanan darah (OR=9,403; CI 95%: 1,8-48,9). Terkait dengan adanya pencemaran merkuri di area TPA, diharapkan pemerintah dapat membangun barrier antara area TPA dan permukiman masyarakat, serta dapat memberikan edukasi tentang pola hidup sehat.

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### <b>ABSTRACT</b><br>

Mercury is a toxic contaminant, but its existence continues to be discarded into the waters, soil, and atmosphere. One of the organs sensitive to the type of heavy metals is kidneys. One sign of symptoms of impaired renal function is the presence of proteinuria. This research aims to do the association between mercury levels in hair and the incidence of impaired renal function symptoms in communities around Cipayung landfill. This research uses cross sectional design. The research samples were 98 people living around Cipayung landfill. Data assessment and mercury in hair is obtained from BBTKLPP Jakarta. Mercury levels in the hair were measured by method EPA 2007 Methode 7473 (SW-846). Proteinuria levels were measured with a simple diagnostic test of rapid test dipstick urine. All of the variables use chi square test. The results of this study were found long-lived associations with mercury levels in the hair (OR = 5.5; CI 95%: 1.1-27,4). There are associations between mercury levels and symptoms of impaired renal function (OR = 10.7; CI 95%: 2.1-23,8). There is an association between blood pressure and symptoms of impaired renal function (OR = 2.9; CI 95%: 1, 2-7.0). Multivariate analysis, found an association between mercury levels in the hair with symptoms of impaired renal function after a variable-controlled blood pressure (OR =

9,403; CI 95%: 1.8-48,9). Due to mercury pollution in the landfill area, the government is expected to build a barrier between landfill area and community settlements, and can provide education on healthy lifestyles.