

ABSTRACT**Effect of CO Ambient Air Against on Carboxyhemoglobin (HbCO) and Oxygen Saturation (SaO₂) at Trader in Terminal Arjosari Malang**

Carbon monoxide gas is colorless, odorless, tasteless, gas is lighter than air. Carbon monoxide if inhaled will be absorbed through the lungs following the circulation of the blood will bind to hemoglobin to form carboxyhemoglobin in the network, and prevent the entry of oxygen needed by the body.

This study aimed to determine the effect of exposure to ambient air HbCO and SaO₂. Design research was a comparative observational analytic. The data measured was the effect of air on HbCO levels of CO and SaO₂ on traders who were inside and outside the terminal. Then characteristics include age, years of service, smoking habits, and duration of exposure.

Subjects were 40 traders who trade in 2 different places, inside the terminal and outside terminal. The normality test data with the Kolmogorov Smirnov test. Data were analyzed using Pearson bivariate with $\alpha=0.05$ and to determine the relationship between levels of HbCO and SaO₂ with the characteristics, the data were analyzed using multiple linear regression.

CO measurement results of the air inside the terminal (5 ppm) is higher than outside the terminal (2 ppm). Whereas COHb relationship with the traders at the terminal SaO₂ ($r=-0.59$) indicating a strong relationship than traders outside the terminal ($r=0.2$). Moreover, the direction of the negative relationship, meaning the lower the levels of HbCO, the higher the value of SaO₂.

Keywords: CO, HbCO, SaO₂, Traders