ABSTRACT

Infant Mortality Rate (IMR) is one indicator in determining the health level, therefore reducing IMR become MDG's program in the 4th. Malang IMR 2012 was 30.46 per 1,000 live births. It is still far from the target of the MDG's 2015 amounted to 23 per 1,000 live births. One of the causes of infant death directly is asphyxia neonatorum. This study was conducted to identify the incidence of neonatal asphyxia and analyze risk factors, namely prolonged labor, postmature pregnancy, preterm childbirth and low birth weight baby (LBW). The study was conducted in Kanjuruhan hospitals in Malang because it is a referral hospital in Malang area that handle emergency obstetric.

This research is non-reactive with analyzing secondary data. Sampling technique using Systematic Random Sampling with a sample of 84 mothers giving birth.

Prevalence of neonatal asphyxia in this study was 45.2%. Bivariate analysis with a 2x2 table shows that prolonged labor, postmature pregnancy, preterm childbirth and low birth weight have a significant association with neonatal asphyxia ($p < 0.05$). Multivariate analysis using logistic regression showed the results: prolonged labor ($p = 0.002$; OR = 8.938), gestational maturity ($p = 0.001$; OR = 13.072), preterm childbirth ($p = 0.059$; OR = 4.267) and low birth weight ($p = 0.000$; OR = 17.058).

The conclusion of this study is the prolonged labor bivariate analysis, postmature pregnancy, preterm childbirth and low birth weight have a significant association with neonatal asphyxia, whereas on multivariate analysis with a mother who gave birth prolonged labor, postmature pregnancy and low birth weight have a higher risk for infants experiencing neonatal asphyxia and preterm childbirth was not statistically influence.

**Keywords:** asphyxia, low birth weight, preterm birth, prolonged labor, postmature pregnancy