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Measles Antibody Level in Children 1-4 Years Old after Measles Immunization Arie Dian Fatmawati, Mulya R. Karyanti, Hartono Gunardi, Arwin A.P. Akib, Darmawan B. Setyanto, Rismala Dewi

**Background.** This research was the first research in Indonesia which compare measles antibody level developed in children 1-4 years old, after once compared to twice measles immunization, in order to know measles antibody level after second dose measles immunization.

**Objectives.** To study whether measles antibody level after 2 doses compared to 1 dose of measles vaccine reached protective level.

**Methods.** Cross-sectional study performed in 6 posyandu in 5 region of Jakarta since June until August 2014. Children who met the inclusion criteria were measured for measles IgG and performed of correlation test to evaluate association between second dose of measles vaccine with measles antibody level.

**Results.** From 145 participants, 125 (86,2%) had protective measles antibody level ( $\geq$  120 mIU/ml). Children in 3-4 years old group had highest percentage of protective measles antibody level (91,8%; 56 subjects) compare to the other group.

**Conclusion.** Twice measles immunization will increase protective level of measles antibody 1,2 times compare to once measles immunization.

**Keywords:** measles immunization, measles antibody level, children 1-4 years old