

## Maternal antibodi campak bayi baru lahir dan faktor yang memengaruhi = Maternal measles antibody in newborn and the influencing factors

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### Abstrak

[Latar belakang. Penelitian sebelumnya menjumpai kasus campak sebelum usia imunisasi yang semestinya masih terlindungi karena memiliki maternal antibodi campak yang diperoleh selama dalam kandungan. Besarnya titer yang diterima bayi dipengaruhi faktor ibu dan janin yang nantinya memengaruhi lamanya perlindungan.

Tujuan. Mengetahui kadar maternal antibodi campak bayi baru lahir dan menganalisis faktor yang memengaruhinya.

Metode. Penelitian potong lintang dilakukan sejak Maret – April 2015 pada bayi baru lahir di RSUD Dr. Zainoel Abidin Banda Aceh. Bayi yang memenuhi kriteria inklusi dan eksklusi dipilih secara consecutive nonprobability sampling. Dilakukan wawancara terhadap orangtua, pemeriksaan New Ballard Score, dan pengambilan darah tali pusat bayi baru lahir. Uji t digunakan untuk mengetahui rerata titer berdasarkan jenis kelamin, berat badan lahir, usia gestasi, usia ibu, paritas, dan penyakit ibu. Analisis regresi logistik dipakai untuk mencari faktor yang memengaruhi kadar titer antibodi campak.

Hasil. Dari 68 bayi dijumpai 64 diantaranya memiliki maternal antibodi campak positif. Rerata titer total adalah  $(2277,7 \pm 1830,7)$  IU/l, bayi kurang bulan  $(2061,94 \pm 1554,44)$  IU/l dan  $(3006,83 \pm 1613,79)$  IU/l untuk bayi cukup bulan. Bayi laki-laki, lahir kurang bulan, berat badan lahir tidak sesuai masa kehamilan, dan ibu dengan penyakit penyerta mempunyai titer lebih rendah namun tidak bermakna secara statistik.

Simpulan. Mayoritas bayi memiliki maternal antibodi campak positif dengan rerata titer keseluruhan adalah  $(2277,7 \pm 1830,7)$  IU/l. Tidak dijumpai variabel yang bermakna memengaruhi titer maternal antibodi campak pada bayi baru lahir.;Background. Prior field studies showed cases of measles before the age of immunization when newborn should still be protected by their maternal measles antibody acquired during pregnancy. The amount of titre received by newborn is influenced by maternal and fetal factors which will affect the length of protection.

Objective. To know the level of maternal measles antibody in newborn and to analyze the influencing factors.

Method. A cross sectional study was conducted from March to April 2015 at RSUD Dr. Zainoel Abidin Banda Aceh. Newborns who met the inclusion and exclusion criteria were selected through consecutive nonprobability sampling. The parents were interviewed, the New Ballard Score were examined, and the umbilical cord blood was retrieved. T-test was performed to determine the mean titre by sex, birth weight for gestational age, gestational age, maternal age, parity, and mother with comorbidity. Logistic regression analysis was used to find the factors influenced measles antibody titer.

Results. Sixty four of 68 newborns were found to have positive maternal measles antibodies. The mean total titre was  $2277.7 \pm 1830.7$  IU/l,  $2061.94 \pm 1554.44$  IU/l for preterm and  $3006.83 \pm 1613.79$  IU/l for term babies. Baby boys, preterm, birth weight inappropriate for gestational age, babies whose mother had comorbidity had lower titre, however these findings were not statistically significant.

**Conclusion.** The majority of newborns had positive maternal measles antibodies with the mean total titre of  $2277,7 \pm 1830,7$  IU/l. There were no significant variables that influenced maternal measles antibody titre in newborns., **Background.** Prior field studies showed cases of measles before the age of immunization when newborn should still be protected by their maternal measles antibody acquired during pregnancy. The amount of titre received by newborn is influenced by maternal and fetal factors which will affect the length of protection.

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