

**PERBEDAAN MORBIDITAS INFEKSI SALURAN  
PERNAFASAN ATAS (ISPA) DAN STATUS  
ANTROPOMETRI BAYI BERDASARKAN  
KONSUMSI KAPSUL VITAMIN A IBU NIFAS**  
**Studi di Kabupaten Toba Samosir**

*THE DIFFERENCE OF UPPER RESPIRATORY TRACT  
INFECTION (URTI) MORBIDITY AND ANTHROPOMETRIC  
STATUS OF INFANTS BASED ON POSTPARTUM MATERNAL  
VITAMIN A CAPSULES*  
*A Case Study at Toba Samosir District*



**Tesis**

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## ABSTRAK

### PERBEDAAN MORBIDITAS INFEKSI SALURAN PERNAFASAN ATAS (ISPA) DAN STATUS ANTROPOMETRI BAYI BERDASARKAN KONSUMSI KAPSUL VITAMIN A IBU NIFAS Studi di Kabupaten Toba Samosir

Tridarma Putra Simanjuntak, Hertanto W Subagio, Martha I Kartasurya

**Latar Belakang:** Penyakit infeksi saluran pernafasan menempati urutan teratas penyebab morbiditas pada balita di Kabupaten Toba Samosir. Studi pendahuluan menunjukkan rata-rata tingkat konsumsi vitamin A ibu menyusui di bawah angka kecukupan gizi, sedangkan vitamin A berperan dalam imunitas. Tujuan penelitian ini untuk membuktikan manfaat program pemberian dua kapsul vitamin A pada ibu nifas dalam menurunkan morbiditas ISPA dan dampaknya terhadap status antropometri bayi.

**Metode:** Penelitian kohort prospektif ini dilaksanakan selama dua bulan pada 148 bayi umur 0-4 bulan, yang terdiri atas 75 bayi dari ibu yang mengkonsumsi dua kapsul vitamin A dan 73 bayi dari ibu yang tidak mengkonsumsi kapsul vitamin A. Subjek dipilih secara *consecutive sampling*. Morbiditas ISPA diukur berdasarkan jumlah episode dan durasi ISPA, status antropometri berdasarkan indeks skor Z BB/U, PB/U dan BB/PB. Analisis data dengan *Independent T-tests*, *Mann-Whitney Tests*, *Analysis of Covariance* (ANCOVA) dan regresi logistik.

**Hasil:** Median episode ISPA bayi dari kelompok vitamin A ( $1 \pm 0,9$ ) lebih sedikit dibandingkan bayi ( $2 \pm 1,1$ ) dari kelompok tanpa vitamin A ( $p = 0,0001$ ). Rerata durasi ISPA bayi dari kelompok vitamin A ( $2,3 \pm 1,7$ ) lebih singkat dibandingkan bayi ( $3,3 \pm 1,5$ ) dari kelompok tanpa vitamin A ( $p=0,001$ ). Tidak ada perbedaan status antropometri bayi berdasarkan indeks skor Z BB/U ( $p=0,69$ ), PB/U ( $p=0,16$ ) dan BB/PB ( $p=0,19$ ) antara kedua kelompok. Kelompok vitamin A memiliki jumlah episode ISPA lebih sedikit dan durasi ISPA lebih singkat dibandingkan kelompok tanpa vitamin A setelah dikontrol umur dan besar keluarga.

**Simpulan:** Pemberian dua kapsul vitamin A pada ibu nifas menurunkan morbiditas ISPA pada bayi, tetapi tidak mempengaruhi status antropometri pada bayi umur 0-6 bulan.

**Kata kunci :** Vitamin A, ISPA, Status Antropometri, Kohort.

## ABSTRACT

### **THE DIFFERENCE OF UPPER RESPIRATORY TRACT INFECTION (URTI) MORBIDITY AND ANTHROPOMETRIC STATUS OF INFANTS BASED ON POSTPARTUM MATERNAL VITAMIN A CAPSULES A Case Study at Toba Samosir District**

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**Background:** Acute respiratory tract infection is the first cause of morbidity for under five childrens at Toba Samosir District. Preliminary study results showed that the average level of vitamin A consumption of nursing mother were below the recommended dietary allowances levels, whereas vitamin A plays role in immunity. The aim of this study was to investigate the benefit of vitamin A supplementation on decreasing URTI morbidity and increasing anthropometric status of 0-4 month infants were breastfed from vitamin A supplemented women at postpartum.

**Methods:** This cohort prospective study was conducted in two months on 148 infants aged 0-4 months, were consist of 75 infants of mothers who consumed two vitamin A and 73 infants of mothers who did not consumed vitamin A. Subjects were chosen through a consecutive sampling method. URTI morbidities were measured by the number of episodes and duration. The anthropometric status were measured by WAZ, WHZ and HAZ scores. Data analysis was conducted through Independent T-tests, Mann-Whitey tests, Analysis of Covariance (ANCOVA) and Logistic Regression.

**Results:** The median episode URTI of Infants from vitamin A group ( $1\pm 0,9$ ) is fewer than infants ( $2\pm 1,1$ ) from non vitamin A group ( $p=0,0001$ ). The average duration URTI of Infants from vitamin A group ( $2,3\pm 1,7$ ) is shorter than infants ( $3,3\pm 1,5$ ) from non vitamin A group ( $p=0,001$ ). There is no difference of anthropometric status of infants based on WAZ ( $p=0,689$ ), HAZ ( $p=0,156$ ) and WHZ ( $p=0,185$ ) scores. Infants from vitamin A group had episodes URTI is fewer and duration of URTI is shorter than non vitamin A group after controlled by age and size household.

**Conclusion:** Supplementation two capsules of vitamin A postpartum maternal reduced URTI morbidity on infants, but not effected for anthropometric status on infants.

**Keywords :** Vitamin A, URTI, Nutritional status, Cohort.