

Web Tables for: Risk factors for community-acquired bacterial infection among South Asian young infants: a primary analysis of the ANISA longitudinal cohort study with nested case–control analysis

Web Table 1 - Neonatal health status risk factors – univariate analysis

| | Bacterial Infection | | |
|--|----------------------------|---------------------|----------------------|
| | Relative Risk | p-value | 95% Cred. Int |
| Moderate or late preterm (32- <37 weeks) | 1.34 | 0.013* | 1.06,1.68 |
| Very and extremely preterm (<32 weeks) | 1.72 | 0.026* | 1.07,2.77 |
| Multiple births (pluripara) | 1.82 | 0.018* | 1.12,2.98 |
| Low birth weight <2500g | 1.66 | 0.000*** | 1.37,2.00 |
| Very low birth weight <1500g | 5.83 | 0.000*** | 3.86,8.82 |
| Male sex | 1.26 | 0.010* | 1.06,1.50 |
| Congenital anomaly detected at birth | 2.41 | 0.076 | 0.91,6.39 |
| Breathing problems reported at birth | 2.18 | 0.000*** | 1.75,2.70 |
| Jaundice (mild and moderate)* | 0.87 | 0.490 | 0.59,1.29 |
| Severe jaundice* | 2.17 | 0.116 | 0.83,5.69 |
| Skin pustules detected | 0.60 | 0.537 | 0.12,3.05 |
| <i>Sample size variation</i> | | n = 57,353 - 58,907 | |

*Physician reported

Web Table 2 - Maternal risk factors – univariate analysis

| | Bacterial Infection | | |
|--|----------------------------|----------------|----------------------|
| | Relative Risk | p-value | 95% Cred. Int |
| Birth spacing 18-59 months from last birth | 0.79 | 0.007** | 0.67,0.94 |
| Birth spacing < 18 months from last birth | 0.71 | 0.079 | 0.48,1.04 |
| Prior births | | | |
| 1 Prior birth | 0.74 | 0.010 | 0.59,0.93 |
| 2 Prior births | 0.62 | 0.002** | 0.46,0.83 |
| 3+ Prior births | 0.84 | 0.078 | 0.69,1.02 |
| Maternal fever reported - prior 7 days | 1.19 | 0.293 | 0.86,1.63 |
| Fever during pregnancy | 1.20 | 0.167 | 0.93,1.56 |
| Foul discharge reported - pregnancy | 1.27 | 0.322 | 0.79,2.06 |
| Foul discharge reported - birth | 1.21 | 0.129 | 0.95,1.53 |
| Bleeding reported during pregnancy | 1.35 | 0.400 | 0.67,2.72 |
| Convulsions reported during pregnancy | 1.43 | 0.516 | 0.49,4.18 |
| Swelling reported during pregnancy | 0.93 | 0.576 | 0.73,1.19 |
| Moderate nutritional risk (MUAC) (<23cm) | 1.02 | 0.872 | 0.82,1.27 |
| High nutritional risk (MUAC) (<20.7cm) | 0.98 | 0.923 | 0.63,1.52 |
| Unknown nutritional status | 1.16 | 0.282 | 0.88,1.52 |
| Physical work reported during pregnancy | 1.18 | 0.074 | 0.98,1.42 |
| Respiratory illness reported | 1.11 | 0.404 | 0.87,1.41 |
| Antenatal care (ANC) visits (none baseline) | | | |
| 1 ANC visit | 1.04 | 0.814 | 0.75,1.44 |
| 2 ANC visits | 1.06 | 0.698 | 0.79,1.44 |
| 3 ANC visits | 1.16 | 0.315 | 0.87,1.54 |
| 4+ ANC visits | 0.95 | 0.638 | 0.75,1.19 |
| One TT** dose during this pregnancy | 0.94 | 0.692 | 0.70,1.27 |

| | | | |
|---|------|---------------------|-----------|
| Two TT** doses during this pregnancy | 1.22 | 0.035* | 1.01,1.46 |
| 1 TT dose over lifetime | 0.90 | 0.639 | 0.58,1.39 |
| 2+ TT doses over lifetime | 0.98 | 0.832 | 0.79,1.21 |
| Iron folate supplementation (0-2 months baseline) | | | |
| 2-5 months | 1.00 | 0.974 | 0.79,1.28 |
| 6+ months | 0.67 | 0.025* | 0.47,0.95 |
| Do not know | 1.00 | 0.983 | 0.76,1.33 |
| Maternal tobacco use | 1.15 | 0.711 | 0.56,2.34 |
| Cooking smoke during pregnancy | 0.98 | 0.948 | 0.61,1.60 |
| Mother uses paan / betal leaf | 1.00 | 0.985 | 0.81,1.24 |
| <i>Sample size variation</i> | | n = 44,738 - 58,907 | |

* Mid-Upper Arm Circumference (MUAC)

**Tetanus Toxoid (TT) Vaccine injection

Web Table 3 Birth procedure-related risk factors – Unadjusted values

| | Relative Risk | Bacterial Infection | |
|---|---------------|---------------------|----------------------------|
| | | p-value | 95% Cred. Int |
| Non-skilled birth attendant | 0.86 | 0.088 | 0.72,1.02 |
| Sterile instrument* used to cut umbilical cord | 1 | . | .. |
| Non-sterile instrument used to cut umbilical cord | 1.21 | 0.039* | 1.01,1.44 |
| Unknown implement used to cut umbilical cord | 0.99 | 0.973 | 0.61,1.62 |
| No clean delivery kit used | 0.78 | 0.014* | 0.634,0.95 |
| Hand washing | 1 | . | .. |
| Birth attendant did not wash hands at delivery | 0.80 | 0.406 | 0.47,1.36 |
| Other caregiver(s) did not wash hands | 1.16 | 0.401 | 0.82,1.66 |
| Vaginal examinations (none performed baseline) | | | |
| 1 Exam | 0.88 | 0.421 | 0.64,1.21 |
| 2 Exams | 1.09 | 0.424 | 0.88,1.36 |
| 3 or more exams | 1.02 | 0.866 | 0.78,1.34 |
| Unknown | 1.17 | 0.581 | 0.67,2.04 |
| Non-clear amniotic fluid | 1.13 | 0.382 | 0.86,1.47 |
| Duration of labor (baseline 0-6 hours) | | | |
| 6-11 hours | 1.11 | 0.358 | 0.89,1.38 |
| 12-23 hours | 1.41 | 0.005** | 1.11,1.80 |
| 24-47 hours | 1.11 | 0.602 | 0.75,1.64 |
| 48-71 hours | 1.22 | 0.728 | 0.39,3.78 |
| 72+ hours | 0.18 | 0.995 | 0.00,1.38 ^{e+216} |
| Duration of water break to birth (0-6 hours baseline) | | | |
| 6-11 hours | 1.39 | 0.042* | 1.013,1.91 |
| 12-23 hours | 1.77 | 0.000*** | 1.29,2.42 |
| 24-47 hours | 2.04 | 0.000*** | 1.40,2.97 |
| 48-71 hours | 1.70 | 0.214 | 0.74,3.87 |
| 72+ hours | 0.56 | 0.994 | 0.00,2.16 ^{e+67} |
| Duration of Stay in Facility (No stay nominal value) | | | |
| <24 hours in health facility | 9.40 | 0.000*** | 7.66,11.54 |
| 24 hours - <48 hours in health facility | 9.73 | 0.000*** | 6.75,14.04 |
| 48 hours - < 72 hours in health facility | 6.50 | 0.000*** | 4.12,10.24 |
| >72 hours in health facility | 0.25 | 0.000*** | 0.19,0.34 |
| PROM (water broke before labor pain) | 1.37 | 0.003** | 1.11,1.68 |

| | | | |
|--|------|-------------------|-----------|
| Birth position (lying on covered floor baseline) | | | |
| Lying on bare (uncovered) floor | 1.38 | 0.309 | 0.74,2.58 |
| Lying on bed | 1.26 | 0.015* | 1.05,1.52 |
| Squatting | 1.28 | 0.439 | 0.68,2.39 |
| Delivery attendant | | | |
| Health worker | 0.96 | 0.654 | 0.79,1.16 |
| Unknown | 1.33 | 0.643 | 0.39,4.52 |
| Vernix left on after birth | | | |
| Vernix cleaned after birth | 1 | . | .. |
| Unknown | 1.08 | 0.429 | 0.90,1.29 |
| Unknown | 1.38 | 0.280 | 0.77,2.47 |
| Wrapped < 10 minutes | | | |
| Wrapped 10-30 minutes | 1 | . | .. |
| Wrapped 31-60 minutes | 0.98 | 0.867 | 0.77,1.24 |
| Wrapped > 60 minutes | 1.71 | 0.164 | 0.80,3.65 |
| Not wrapped/unknown | 1.76 | 0.054 | 0.99,3.12 |
| Not wrapped/unknown | 0.63 | 0.161 | 0.33,1.21 |
| Unclean umbilical binding | 1.37 | 0.001*** | 1.14,1.64 |
| Sterile substance** applied | | | |
| No substance applied | 1 | . | .. |
| Non-sterile substance applied | 0.99 | 0.957 | 0.71,1.38 |
| Unknown | 0.81 | 0.291 | 0.55,1.20 |
| Unknown | 1.46 | 0.180 | 0.84,2.53 |
| Colostrum given | | | |
| Colostrum discarded | 1 | . | .. |
| Unknown | 0.83 | 0.101 | 0.67,1.04 |
| Unknown | 2.10 | 0.000*** | 1.64,2.69 |
| Exclusive breastfeeding | | | |
| Non-exclusive breastfeeding | 1 | . | .. |
| Non-exclusive breastfeeding | 0.96 | 0.661 | 0.78,1.17 |
| Non-facility delivery | 0.83 | 0.033* | 0.69,0.98 |
| No reported stay in hospital | | | |
| Stay in hospital 1 day or less | 1 | . | .. |
| Stay in hospital over 1 day | 5.38 | 0.000*** | 3.80,7.60 |
| Stay in hospital over 1 day | 1.81 | 0.220 | 0.70,4.64 |
| <i>Sample size variation</i> | | n = 55,168-58,907 | |

Exponentiated coefficients: * p < 0.05, ** p < 0.01, *** p < 0.001

*Sterile instrument: sterile delivery kit, unused blade.

**Sterile Substance applied: antiseptic or antibiotic substance.

Web Table 4 - Environmental risk factors – Unadjusted values

| | Relative Risk | Bacterial Infection | |
|--|---------------|---------------------|---------------|
| | | p-value | 95% Cred. Int |
| Respiratory symptoms reported in household | 0.99 | 0.916 | 0.69,1.40 |
| One or more under-five children | 0.78 | 0.006** | 0.65,0.93 |
| Water from a unclean source | 0.82 | 0.142 | 0.63,1.07 |
| Toilet facilities (flush baseline) | | | |
| Latrine/VIP latrine | 1.11 | 0.328 | 0.90,1.37 |
| Unsanitary or no formal toilet | 1.51 | 0.000*** | 1.22,1.86 |
| No handwashing station present in home | 1.24 | 0.091 | 0.97,1.59 |
| Goats, cows, buffaloes live in the house or compound | 0.98 | 0.832 | 0.83,1.17 |
| Hen, chicken, ducks, geese live in the house or compound | 1.14 | 0.164 | 0.95,1.37 |
| Other birds live in the house or compound | 1.27 | 0.359 | 0.76,2.10 |
| Dogs live in the house or compound | 1.08 | 0.535 | 0.85,1.36 |
| Cats live in the house or compound | 1.06 | 0.599 | 0.85,1.33 |
| Other animals live in the house or compound | 1.25 | 0.718 | 0.37,4.27 |
| Any animals in the compound | 0.98 | 0.864 | 0.81,1.19 |
| <i>Sample size variation</i> | | n = 58,370-59,687 | |

Exponentiated coefficients: * p < 0.05, ** p < 0.01, *** p < 0.001

Web Table 5 - Demographic risk factors – Unadjusted values

| | Relative Risk | Bacterial Infection | |
|---|---------------|---------------------|---------------|
| | | p-value | 95% Cred. Int |
| Socio-economic status* (Highest SES quintile baseline) | | | |
| Fourth SES quintile | 1.32 | 0.070 | 0.98,1.79 |
| Third SES quintile | 1.62 | 0.001** | 1.21,2.17 |
| Second SES quintile | 1.66 | 0.001*** | 1.25,2.20 |
| First (lowest) SES quintile | 1.81 | 0.000*** | 1.36,2.39 |
| Maternal Education (No education baseline) | | | |
| Primary incomplete | 1.05 | 0.808 | 0.73,1.49 |
| Primary complete | 1.05 | 0.741 | 0.80,1.37 |
| Secondary incomplete | 0.82 | 0.116 | 0.64,1.05 |
| Above secondary | 0.96 | 0.746 | 0.75,1.23 |
| Paternal Education (No education baseline) | | | |
| Primary incomplete | 1.14 | 0.453 | 0.81,1.61 |
| Primary complete | 1.00 | 0.975 | 0.76,1.33 |
| Secondary incomplete | 1.06 | 0.670 | 0.82,1.36 |
| Above secondary | 0.93 | 0.531 | 0.75,1.16 |
| Maternal Work (No work baseline) | | | |
| Works in home | 1.11 | 0.406 | 0.87,1.43 |
| Works outside home | 1.08 | 0.691 | 0.73,1.61 |
| Maternal Decision Making | | | |
| Mother not involved in major purchasing decisions | 0.91 | 0.349 | 0.75,1.11 |
| Mother not involved in household purchase decisions | 0.94 | 0.527 | 0.78,1.14 |
| Mother not involved in visitation decisions | 0.88 | 0.158 | 0.73,1.05 |
| Mother not involved in health decisions | 0.85 | 0.074 | 0.71,1.02 |
| <i>Sample size variation</i> | | n = 58,368-58,907 | |

Exponentiated coefficients: * p < 0.05, ** p < 0.01, *** p < 0.001

* SES based on site-specific wealth quintile