

# Abstract from Current Literatures

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## Diagnostic Accuracy of Cartridge Based Nucleic Acid Amplification Test (CBNAAT) in Stool Samples in Pediatric Tuberculosis

singhal, R., Dayal, R., Bhatnagar, S. et al. Indian J Pediatr 91, 1021–1026 (2024).

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**Objectives:** To find out the diagnostic accuracy of stool Cartridge-based nucleic acid amplification test (CBNAAT) as an alternate method as compared to CBNAAT in gastric aspirate (GA) samples in pediatric tuberculosis (TB).

**Methods** This cross-sectional study was performed at Department of Pediatrics of a tertiary care hospital. Children aged 0–18 y diagnosed as presumptive tuberculosis were consecutively enrolled. Gastric aspirate and corresponding stool sample was subjected to Cartridge-based nucleic acid amplification test (CBNAAT) and its performance was compared in both samples using appropriate statistical tests.

**Results** Total 100 patients were enrolled in the study. Diagnostic accuracy of CBNAAT was 81% and 80% in gastric aspirate and stool sample respectively. On comparing gastric aspirate with corresponding stool sample there was 97% agreement, with Cohen's kappa value of 0.94. There was a statistically significant association observed between gastric aspirate Cartridge-based nucleic acid amplification test (CBNAAT) and stool CBNAAT  $p < 0.001$  using chi square test. Sensitivity of gastric aspirate CBNAAT and stool CBNAAT was 75% and 73% respectively and specificity was 100% for both the samples compared against Composite Reference Standard (CRS).

**Conclusions** The diagnostic accuracy of stool CBNAAT is comparable to GA CBNAAT in children and can be used as a good alternative to gastric aspirate for diagnosis of pulmonary and disseminated tuberculosis in children.

## Does neonatal resuscitation associated with neonatal death in low-resource settings? A follow-up study

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**Background:** The newborn period is the most vulnerable phase for a child's survival, with around half of all under-five deaths worldwide occurring during this time. Despite existing policies and measures, Ethiopia ranks among the top 10 African countries in terms of newborn mortality. In spite of many studies being carried out in the country, the incidence and predictors of neonatal mortality in the Pastoralist and agro-pastoralist parts of the country's southern still remain unidentified. Therefore, this study aimed to identify the predictors of neonatal mortality in selected public Hospitals in southern Ethiopia.

**Materials and methods** An institution-based retrospective cohort study was conducted among 568 neonates admitted to the neonatal intensive care unit at Bule Hora University teaching Hospital and Yabelo General Hospital, Southern Ethiopia from 1 January 2020–31 December 2021. A simple random sampling technique was used to select records of neonates. Data entry was performed using Epidata version 3.1 and the analysis was performed using STATA version 14.1 Kaplan Meir curve and Log-rank test were used to estimate the survival time and compare survival curves between variables. Hazard Ratios with 95% CI were computed and all the predictors associated with the outcome variable at  $p$ -value 0.05 in the multivariable cox proportional hazards analysis were declared as a significant predictor of neonatal death. **Results** Out of 565 neonates enrolled, 54 (9.56%) neonates died at the end of the follow-up period. The overall incidence rate of death was 17.29 (95% CI: 13.24, 22.57) per 1000 neonatal days with a restricted mean follow-up period of 20 days. Of all deaths, 64.15% of neonates died within the first week of life. In the multivariable cox-proportional hazard model, neonatal age  $< 7$  days (AHR: 9.17, 95% CI: (4.17, 20.13)), place of delivery (AHR: 2.48, 95% CI: (1.38, 4.47)), Initiation of breastfeeding after 1 h of birth (AHR: 6.46, 95% CI: (2.24, 18.59)), neonates' body temperature  $< 36.5^{\circ}\text{C}$

(AHR: 2.14, 95% CI: (1.19, 3.83), and resuscitated neonates (AHR: 2.15, 95% CI: (1.20, 3.82) were independent predictors of neonatal death.

**Conclusion** In the research setting, the incidence of neonatal death was high, especially during the first week of life. The study found that neonatal age < 7 days, place of delivery, Initiation of breastfeeding after 1 h of birth, neonates' body temperature <36.5 °C, and resuscitated neonates were predictors of neonatal death. To improve newborn survival, significant neonatal problems, improved resuscitation, and other relevant factors should be addressed.

### **Social Needs Screening Via Electronic Tablet in Pediatric Primary Care**

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**Objective** (1) Assess whether health-related social needs (HRSN)/caregiver mental health concerns (CMHC) disclosure rates differ when screening questions are administered on paper versus electronic tablet. (2) Evaluate whether changes in need identification alters referral rates to social work and our medical-legal partnership (MLP).

**Method:** We conducted a retrospective review of HRSN/CMHC screening in publicly insured patients 0-18 years presenting for well-child visits in three primary care practices. Our primary outcome was HRSN/CMHC disclosure rate, comparing the proportion of positive HRSN/CMHC screens during the 11 months before and after screening modality change. Generalized estimating equations and interrupted time series (ITS) were used to assess changes over time. Mediation analyses assessed the indirect effect of HRSN/CMHC disclosure during the electronic screening period on changes in referrals to social work/MLP.

**Results:** A total of 16,151 patients had paper-based HRSN/CMHC screens; 13,019 patients had electronic screens. Overall, 11% of paper-based screens identified  $\geq 1$  need, compared to 26% of electronic screens ( $p < 0.001$ ). All three practices saw an increase in disclosure rate after transition from paper to electronic screening (odds ratio [OR] range 1.54 to 4.24). Using ITS, two of three practices had significantly increased odds of need disclosure with electronic screens compared to paper (OR 3.0, 95% confidence interval [CI] 2.5, 3.6; and OR 1.7, 95%CI 1.2, 2.4). Increased HRSN/CMHC disclosure rates from transitioning to electronic screening mediated increased referrals to social work/MLP.

**Conclusion:** Electronic screening was associated with an increased HRSN/CMHC disclosure rate compared to paper, which led to increased referrals to social work/MLP.