

Terms of reference (TOR) for the recruitment of five pre-intern medical graduates on temporary basis for the study on “Universal Newborn Screening Package” in selected hospitals, conducted by the Intranatal and Newborn Care Unit, Family Health Bureau

Background and Justification

Newborn screening is a critical aspect of maternal and child care in a country. It is defined as point-of-care examinations and laboratory evaluations performed on newborn infants to identify clinically occult but potentially serious disorders that require expedient intervention (1). It has immensely helped to reduce the neonatal, infant and under-5 mortality rates in countries worldwide. Neonatal screening methodologies adopted by countries could range from newborn examination by trained doctors, pulse oximetry screening for critical congenital heart diseases, dried blood spot (Guthrie) screening for congenital hypothyroidism, congenital adrenal hyperplasia and other metabolic disorders, haemoglobinopathy screening; screening for congenital deafness; and screening for weight loss and hyperbilirubinemia at discharge.

The World Health Organization has recently introduced a universal newborn screening package for hearing impairment, eye abnormalities and newborn hyperbilirubinemia at discharge for the Southeast Asia Region. This includes hearing assessment by bedside oto-acoustics emission test, eye examination with fundoscopy for red reflex and assessment of hyperbilirubinemia at discharge by transcutaneous bilirubinometer. The Ministry of Health of Sri Lanka has already taken a policy decision to implement these screenings firstly as a pilot project in a few selected hospitals (Castle Street Hospital for Women, De Soysa Hospital for Women, Sri Lanka German Friendship Teaching Hospital, Kurunegala Teaching Hospital, and Jaffna Teaching Hospital).

Although Newborn screening has been practiced in Sri Lanka for several years, its outcome on identifying critical conditions has not been properly evaluated. Studies on the exact number of neonates who benefited from these screening methods and their outcomes are limited to a few single-centre studies done in selected areas of the country. Thus, it is important to formally evaluate the performance and outcome of the existing newborn screening procedure and the proposed new screening programmes.

Activity

The implementation of newborn screening programme will be conducted as a descriptive study followed by a qualitative study as mentioned below:

The study will be conducted in the hospitals piloting the newly introduced newborn screening programme in Sri Lanka. The hospitals are Castle Street Hospital for Women, De Soysa Hospital

for Women, Sri Lanka German Friendship Maternity Hospital, Kurunegala Teaching Hospital, and Teaching Hospital Jaffna. It will be implemented for a period of three months from 1st December 2024 to 28th February 2025. All newborns born alive in study settings during the study period will be recruited into the study on day one of life. Therefore, nearly 8000 sample size is expected.

Data will be collected prospectively throughout the hospital stay by trained data collectors by interviewing mothers and perusing medical records and the Child health development record. Information on sex, parity, anomaly scan results, period of gestation, birth weight and antenatal and birth complications will be gathered at the recruitment. All babies will be followed up until discharge. Data on timing, procedure, results and outcome of eye examination, hearing assessment, pulse-oximetry screening, hyperbilirubinemia screening, and blood sampling for congenital hypothyroidism screening will be gathered. Mothers of all recruited neonates will be contacted over the phone between 4-6 weeks to gather information on the TSH results, details on hospital admissions (if there are any) after discharge, neonatal complications and overall health of the newborn.

In-depth interviews and focus group discussions will be held at the end of the pilot study in all five hospitals to explore the experiences of healthcare staff and gather detailed insights into the impact of the newborn screening package.

Data analysis will be conducted using descriptive statistics to summarize participant responses. Qualitative data from interviews and focus group discussions will be analyzed thematically to identify common themes and patterns.

For these activities, additional human resources are required for data collection, facilitating in-depth interviews, conducting focus group discussions, and performing data entry and analysis. A pre-intern medical graduate is needed at each hospital to handle the following duties and responsibilities for a period of three months.

Duties and responsibilities

- Facilitating training workshops at the participating hospitals to train the healthcare workers on universal newborn screening package
- Data collection – Collect data on all live births occurring during the study period in the selected hospitals, as per the data extraction form and questionnaire through Interviewing mothers in the postnatal ward
- Follow up (by phone) of newborns to gather data on newborn screening results (when relevant)
- Facilitating focus group discussions
- Support with data entering, analysis and report writing

Desired qualifications and experience for the post

- Pre-intern medical graduate with M.B.B.S. qualification

- Hard-working and motivated individuals
- Ability to work with Microsoft Office applications (Word, Excel, etc.)
- Previous experience in scientific research, data collection, data entry and analysis will be preferred.
- Good command of English and Sinhala and/or Tamil languages.
- Excellent communication skills
- Ability to work independently and within a team

Duration

- For a period of ~~five~~^{three} (3) months (~~December 2024 – February 2025~~) (January 2025 – March 2025)

Nature of work:

- **Full time/ part time** : Full time
- **Place of work** : Assigned to a hospital, either Castle Street Hospital for Women, De Soysa Hospital for Women, German Sri Lanka friendship maternity hospital, Teaching Hospital Kurunegala, and Teaching Hospital Jaffna.
- **Working hours per day:** Eight (8) hours - 8.00 am to 4.00 pm

Monthly remuneration: LKR. 66,750.00

(Basic salary – LKR 48,950.00 + Cost of living allowance -17,800.00)

NB :

- The selection of pre-intern medical graduates will be conducted via interviews, with final decisions made by the Family Health Bureau, Ministry of Health.
- The pre-intern medical graduate is eligible only for the benefits specified by the Ministry of Health or the funding agency, with no additional privileges or claims.
- The Director (Maternal and Child Health) reserves the right to adjust or amend the scope of work as needed.

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 Director Maternal and Child Health
 Family Health Bureau

Date: 19/11/2024

Dr. Chandima Siritunga
 MBBS, MSC, MD Community Medicine
 Director Maternal and Child Health
 Family Health Bureau

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 Dr. Nethmini Thenuwara
 Coordinating Consultant

Date : 19.11.2024

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Recruitment for the post of Research Assistant on temporary basis for the study on “Piloting Universal Newborn Screening Package” in selected hospitals conducted by the Intranatal and Newborn Care Unit, Family Health Bureau

Duties and responsibilities

- Facilitating training workshops at the participating hospitals to train the healthcare workers on universal newborn screening package
- Data collection – Collect data on all live births **occurring** during the study period in the selected hospitals, as per the data extraction form and questionnaire through Interviewing mothers in the postnatal ward
- Follow up (by phone) of newborns to gather data on newborn screening results (when relevant)
- Facilitating focus group discussions
- Support with data entering, analysis and report writing

Desired qualifications and experience for the post

- Pre-intern medical graduate with M.B.B.S. qualification
- Hard-working and motivated individuals
- Ability to work with Microsoft Office applications (Word, Excel, etc.)
- Previous experience in scientific research, data collection, data entry and analysis will be preferred.
- Good command of English and Sinhala and/or Tamil languages.
- Excellent communication skills
- Ability to work independently and within a team

Duration

- For a period of three (3) months (January 2025 – March 2025)

Nature of work:

- **Full time/ part time:** Full time
- **Place of work** : Assigned to a hospital, either at Castle Street Hospital for Women, De Soysa Hospital for Women, German Sri Lanka Friendship Maternity Hospital Galle, Teaching Hospital Kurunegala, and Teaching Hospital Jaffna.
- **Working hours per day:** Eight (8) hours - 8.00 am to 4.00 pm

Monthly remuneration: LKR. 66,750.00

(Basic salary – LKR 48,950.00 + Cost of living allowance -17,800.00)

Candidates are requested to email an updated CV including copies of relevant documents, and contact details to newbornunit.fhb@gmail.com before **12.12.2024**.