Call for Letters of Interest

Research on the etiological causes of serious infections in young African infants

Deadline for submission: 25 August 2014

This offer is provided by TDR, the Special Programme for Research and Training in Tropical Diseases, a co-sponsored programme of UNICEF/UNDP/World Bank/WHO, based at WHO in Geneva, Switzerland.

As part of TDR’s focus on improving maternal and childhood health, research teams from African research institutions are invited to submit Letters of Interest (LoI) to undertake a prospective study to investigate the aetiologies of serious infection in young infants in rural areas of Africa.

Under this call, two different research teams are expected to be selected for funding for a maximum amount of US$ 140 000 each.

I. Background and rationale

Characterisation of the pathogens causing young infant infections, including prevalence and antimicrobial susceptibility will aid evidence-based decisions for prevention and treatment of these infections. The aetiology of young infant infections has been described in only few studies where only 5-10% of cases of suspected serious infections were positive for any bacterial aetiology by culture (Williams et al 2009, Darmstadt et all 2009). Thus the aetiology of more than 90% of serious suspected infections remains unknown. It is possible that many of these cases are caused by bacteria or viruses that are currently unrecognized as a cause of infection. Additionally, most of these studies did not capture cases in the first 3 days of life, the period of highest mortality, and most studies were carried out in hospital settings, which are unlikely to be representative of infections in the community because of low care-seeking for newborns.

Thus despite an enormous burden of neonatal deaths in the community attributable to infectious there are only scanty data on the aetiology of community-acquired young infant infections (Newton et al 2007, Darmstadt et al 2009) or geographic variation in aetiology (Vergnano et al 2005, Zaidi et al 2009).

African research teams are invited to participate in the generation of data and evidence that will help understanding the epidemiology of the non-malarial acute fevers.
II. Objectives and expected outcomes

The overall objective of the call is to support two research teams from African institutions to undertake community-based surveillance in young infants (0-59 days) to identify cases with suspected serious infections, collect specimens for etiologic evaluation and identify clinical features that are predictive/associated with invasive bacterial infection (positive blood culture and/or molecular test) among ill-appearing infants in rural African community settings.

The expected outcome is data that would aid evidence-based decisions for prevention and treatment of these infections.

III. Thematic focus and methodologies

The research proposal should focus on investigating aetiologies of serious infections and associated pathogens in children 0-2 months in rural area in Africa (at the community level linked with a referral hospital or health centre).

Testing for aetiological diagnosis should take place locally. Beyond clinical evaluation and physical examination, it is expected that the research team will have laboratory capacity to diagnose bacteria, virus and parasites (see VI Eligibility criteria below). The site should therefore have good quality lab facilities, ideally with quality control and quality assurance scheme in close proximity. The site should also have the capacity to perform chest x-rays and cerebrospinal punctures as needed for diagnosis.

It is expected that the site has good referral system already in place that would allow reference of severe cases that may need admission and hospital management.

Since this is a multi-centre study, a workshop will be organized to harmonise the protocol between sites. Final protocol will need to be approved by the WHO Ethics Review Committee and relevant local research ethics committees before implementation.

IV. Funding scope

Only two proposals will be selected for funding. Funds may be requested to support direct costs attributable to the study including research staff time (excluding the principal investigator), laboratory tests and reagents, other consumables and equipment.

The funding is available for research only. TDR will not fund treatment and routine delivery of health services needed for case management. Applicants should identify at the application stage the health facilities and referral structure which will provide any routine health service delivery relevant to the project, including medical managements of febrile cases.

V. Selection process

The candidates will be selected following an open competitive call for applications from African research institutions. The selection of projects for funding will be conducted independently by an external scientific working group established by TDR. This scientific working group will review and evaluate the applications submitted based on scientific merit, relevance to the call and feasibility.
Proposals will initially be selected from Letters of Interest and TDR will work with investigators to develop a protocol for implementation.

VI. Eligibility criteria

- Identification of a rural African community-based site where surveillance can take place linked with referral facilities;
- Technical capacity for laboratory analysis (haematology, biochemistry, bacteriology including culture, serology, PCR and RT-PCR) and x-ray;
- Referral system in place for hospitalisation of severe cases.

VII. Evaluation criteria

Applications will be reviewed and evaluated by an external scientific working group in consideration of the following criteria:

Scientific merit

- Investigator and team knowledge, expertise and experience
- Ability of the principal investigator to manage the project based on track record
- Qualification of the laboratory facility

Feasibility

- Quality/suitability of the institution(s)/team (composition, expertise) for the proposed tasks
- Suitability of the laboratory facilities and ability to perform the analysis required
- Feasible implementation timeline
- Budget and funding

VIII. Application

A 4-5 page letter of interest should provide a brief outline of the technical and operational feasibility for the proposed project (see below). A one-page summary CV of the principal investigator and a supporting letter from the institution’s director should also be attached.

The following content should be included in the letter of interest to provide evidence on the feasibility of the project at your site:

- Brief description of institution’s mandate, structure, staff, current activities, research experience.
- Brief description of the catchment area – location, links with admission facilities, ability to follow cases, absence of ongoing research interventions.
- Information on admissions and deaths among infants within the relevant age groups.
- Number of consultations and hospitalisation at the proposed site per day and/or months per age group (please provide data also for the group age 0-2 months).
- Possible seasonal variation.
- Location of reference hospital and referral system already in place.
Structures available at the site in terms of diagnosis (such as x-ray, laboratory ..).
For laboratory analysis, please specify the tests done routinely and tests that are not routinely done but could be done (e.g. haematology, biochemistry, bacteriology, polymerase chain reaction and reverse transcription polymerase chain reaction, antigen detection, serology, culture). Please describe the quality control and quality assurance systems in place.

- Staffing proposed for the study.
- Proposed budget breakdown.

All applications must be completed and submitted online using the WHO DataCol portal form found on this link: [https://extranet.who.int/datacol/survey.asp?survey_id=2975](https://extranet.who.int/datacol/survey.asp?survey_id=2975)

The log-in credentials are: **User name: call14a** - **Password: iir-tdr**

Only applications submitted through this online portal will be considered.

**Deadline for submission of letters of interest: 25th August 2014.**

**Additional application information:**

- An active email address is required to use this portal. A confirmation email will be sent to this address to acknowledge successful submission. Only one application may be submitted by each team or individual. Multiple submissions will not be processed. Information and documents to be uploaded are stated in the online application form. Applicants are advised to prepare the supporting documentation prior to starting the submission process.
- Applicants are encouraged to familiarize themselves with the DataCol application form, in particular the requested information and documents, paying particular attention to the mandatory fields marked with an asterisk (*).
- Applicants are advised to avoid last minute submissions as this could overload the system or fail due to internet connectivity problems. Applications received after the deadline will not be considered.
- Please contact TDR (iir-tdr@who.int) if you encounter difficulties during the completion and submission of the application form. All other queries regarding this call should also be submitted to this email address.