



PROJECT BRIEF

Community case management of chest indrawing pneumonia in children

This project will determine the safety of community health worker management of chest indrawing pneumonia in African children.

Country

Nigeria

Donors

World Health Organization

Length of project

July 2016-May 2017

Partner

Niger State Ministry of Health

Project outline

Pneumonia is a leading cause of death in children aged 2-59 months worldwide. In 2014 there was an estimated 935,000 pneumonia-related deaths in children under five years, 90 percent of them in sub-Saharan Africa and South Asia. Studies indicate that early care-seeking by caregivers and appropriate classification and treatment from community health workers can help reduce pneumonia-related mortality among children. However, many children with severe symptoms such as chest indrawing do not reach medical facilities when referred due to geographical, financial and socio-cultural barriers.

Community-level management of chest indrawing pneumonia among children is both safe and effective in Asia*. Community-level care minimised the need for referral or hospitalisation and also decreased costs of treatment administration, transport, and food, as well as lost income to the family. Reduced pressure on already

overburdened hospitals and risk of needle-associated complications during treatment were further advantages associated with community-based care of chest indrawing pneumonia.

In Africa, however, the safety of community health worker management of chest indrawing pneumonia using oral amoxicillin in children aged 2-59 months has not yet been demonstrated. This is the focus of this one-arm safety intervention study.

Malaria Consortium will conduct the study in Lapai and Paikoro local government areas (LGAs) in Niger state, Nigeria. Prior to data collection, community sensitisation and mobilisation will be conducted and community health workers, locally known as community-oriented resource persons (CORPs), will be trained in the study's procedures. CORPs will implement case identification through their existing role as healthcare providers for pneumonia, diarrhoea and malaria in their communities.

CORPs will assess the eligibility of all children presented to them for study enrolment. All children aged 2-59 months with chest indrawing pneumonia but no danger signs will be considered eligible for enrolment, and consent will be obtained from their primary caregiver. Caregivers of children enrolled in the study will receive a five-day course of oral amoxicillin from a CORP, based on World Health Organization guidelines. The CORP will counsel families of enrolled children about the need for a series of follow-up assessments over the next 15 days.

A clinical research assistant will verify CORPs' classifications and will visit the household of the child

within 12 hours of enrolment by a CORP. If the child is found to have danger signs or any illnesses that were not treated by the CORP, they will receive facilitated referral to the nearest health facility. During the study, any enrolled children with treatment failure will be followed up to determine the child's outcome.

Families of enrolled children will be encouraged to return to a CORP three days after enrolment for reassessment, and at any time if the child worsens. On Days 6 and 15 after enrolment follow-up assessments will be undertaken. The CORP and research assistant will visit the children together, and medically assess them. The research assistant will interview the caregivers on the child's current health status, adherence to treatment, care providers visited, alternative treatments given, and hospitalisation. Clinical relapse of pneumonia among children whose signs of pneumonia disappeared by day 6 will be assessed on day 15.

Following the household visits on Days 6 and 15, 25 CORPs and 25 caregivers will be selected and asked to take part in semi-structured interviews. This will document caregiver satisfaction with and acceptability of CORPs outpatient management of chest indrawing pneumonia.

Project objectives

- ▶ Establish whether CORPs in Nigeria can safely and appropriately manage chest indrawing pneumonia in 2-59 month old children.
- ▶ Determine CORPs' acceptability of and caregiver satisfaction with outpatient management of chest indrawing pneumonia.

*Further reading:

Bari A et al. 'Community case management of severe pneumonia with oral amoxicillin in children aged 2-59 months in Haripur district, Pakistan: a cluster randomised trial'. *Lancet*. 2011;378(9805):1796-803.

Soofi S et al. 'Effectiveness of community case management of severe pneumonia with oral amoxicillin in children aged 2-59 months in Matiari district, rural Pakistan: a cluster-randomised controlled trial'. *Lancet*. 2012;379(9817):729-37.

Photo caption: A child in a health facility in Nigeria, where health workers are trained to assess and treat childhood illnesses such as pneumonia.

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