

Experiences From an Implementation Model of ARI Diagnostic Device in Pneumonia Case Management Among Under-5 Children in Peripheral Healthcare Centers in India

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Objectives: To address pneumonia, a major killer of under-5 children in India, a multimodal pulse oximeter was implemented in Health and Wellness Centers. Given the evidence of pulse oximetry in effective pneumonia management and taking into account the inadequate skills of front-line healthcare workers in case management, the device was introduced to help them readily diagnose and treat a child and to examine usability of the device.

Design: The implementation was integrated with the routine OPD of primary health centers for 15 months after healthcare workers were provided with an abridged IMNCI training. Monthly facility data was collected to examine case management with the diagnostic device. Feedback on usefulness of the device was obtained.

Setting: Health and Wellness Centers (19) of 7 states were selected in consultation with state National Health Mission based on patient footfall.

Participants: Under-5 children presenting with ARI symptoms at the OPD.

Results: Of 4846 children, 0.1% were diagnosed with severe pneumonia and 23% were diagnosed with pneumonia. As per device readings, correct referrals were made of 77.6% of cases of severe pneumonia, and 81% of pneumonia cases were correctly given antibiotics. The Pulse oximeter was highly acceptable among health workers as it helped in timely classification and treatment of pneumonia. It had no maintenance issue and battery was long-lasting.

Conclusion: Pulse oximeter implementation was doable and acceptable among health workers. Together with IMNCI training, PO in primary care settings is a feasible approach to provide equitable care to under-5 children.