

Improving Severe Malaria Outcomes

Success stories

Malaria Consortium in collaboration with Medicine for Malaria Ventures (MMV) and Governments of Cross River, Enugu and Oyo states implemented the project on Improving Severe Malaria Outcomes (ISMO), funded by UNITAID between July 2013 and June 2016.

Over 450 health workers were trained on the use of injectable artesunate (Inj AS) for management of severe malaria in 115 health facilities across the three states, and 138,000 vials of Inj AS were supplied.

The project attained over 80 percent adoption of Inj AS for severe malaria treatment across the States with about 15,000 patients treated and cured. Here, we highlight some of the success stories from the project.

Creating an enabling policy environment for the introduction of injectable artesunate for severe malaria management

Malaria Consortium introduced the Improving Severe Malaria Outcomes (ISMO) project at a meeting state in Oyo state in Nigeria, on 5th February 2014. The meeting was attended by the Commissioner for Health, the Permanent Secretary and Directors in the Ministry and Malaria Consortium ISMO team members.

The Commissioner for Health of Oyo State, Dr Muyiwa Gbadegesin, remarked that the project's approach fits well into the state government's Public Private Partnership strategy to develop health and other sectors:

"The state government runs the affairs of the state through a popular concept of partnership called 'Ajumose' in Yoruba language meaning 'let's do it together' and this project perfectly fits into this concept".

The Permanent Secretary of Oyo State Ministry of Health said that to improve malaria case management the Ministry needed support to build capacity at lower-level facilities, improve the referral system, facilitate the use of new drugs to treat malaria and improve data capture at all levels.

Other beneficiary states have also expressed their readiness to ensure successful implementation of the ISMO project. This initial buy-in by state governments will ensure continued use of injectable artesunate (Inj AS) after the ISMO project comes to an end in 2016.

Building capacity of health workers for severe malaria management

The National Malaria Strategic Plan (2014-2020) for Nigeria aims to bring malaria-related mortality to zero through making effective antimalarial medicines available at health facilities, building capacity of health workers, and providing essential laboratory and clinical equipment for management, monitoring and intensive care of people with severe malaria.

To achieve this, the National Malaria Elimination Programme (NMEP), in collaboration with Medicines for Malaria Venture (MMV) and Malaria Consortium, has extended the implementation of a comprehensive capacity building programme on the use of Inj AS for the management of severe malaria to three states in Nigeria, Oyo, Enugu and Cross River state. Between April and December 2014, 24 physicians were trained as trainers and 440 health workers from 115 facilities were trained across the three states.



Practical session during an Inj AS training

Pre-training assessments in all the trainings showed a significant leap in knowledge and skills on the use of Inj AS across the different cadres of participants. As follow-up, supportive supervision and clinical mentoring were provided for the participants to enable them to retain and translate knowledge into practice. Due to the training activities, uptake of Inj AS increased considerably at these health facilities.

It was a cause for celebration when MMV, in partnership with Malaria Consortium, delivered a total of 52,346 vials of 60mg Inj AS to three focal states in Nigeria – Oyo, Enugu and Cross River states. This was the first delivery of Inj AS for treatment of severe malaria under the three year ISMO project funded by UNITAID. This first stock, equal to the quarterly need of all the public hospitals in the ten states, was delivered in October 2014, greatly supported by the National and States' Malaria Elimination Programmes. Although a few public facilities in Oyo and Cross River states have previously received donations of Inj AS, this was the first large-scale donation of the drug to cover all public facilities in the two states and the first ever donation of the drug to public facilities in Enugu state.

Receiving the consignment for Oyo State, pharmacist Ewetola, representing the Director Pharmaceutical Services, thanked Malaria Consortium and partners for the good gesture and urged pharmacists in the hospitals to ensure rational and judicious use of the drugs.

Malaria Consortium, the implementing partner in Oyo, Enugu and Cross River states, conducted a three-day training for health workers in selected facilities in the three states to ensure appropriate use of the drug. In-state distribution to the public facilities in the three states commenced following the training and supply of the Inj AS.

To date, all facilities with trained health workers have received supplies of the drug. Support supervision and monitoring and evaluation activities are on-going at these facilities to ensure support for their appropriate use.

Saving lives

“On Sunday 3rd of May, 2015, he started stooling, then vomiting with high body temperature, and within a short time he was very weak so I had to rush him to the hospital, where he was admitted.”

This was the account of a mother of an 11-month old child Precious, admitted at General Hospital Okeho, Oyo State, on confirmation of severe malaria.

The first dose of intravenous injection artesunate (Artesun® 60 mg) was administered to Precious immediately, and other doses followed at 12-hour intervals. Within 24 hours of treatment, he had recovered sufficiently to continue with oral artemisinin-based combination therapy (ACT). Other complications were managed appropriately. The third day after admission, he was discharged.

According to the doctor that attended to Precious:

“Severe malaria is the progression of poorly treated or untreated uncomplicated malaria. The progression can be very rapid and lead to vital organ dysfunction and death, particularly among children below the age of five years, if no adequate and appropriate care is given”.

However, he was delighted by Precious’ quick recovery, noting that:

“The treatment was very encouraging and amazing. So fast. The patient responded quickly. With the first dose of the injection there was significant improvement, and by the time the second and third doses were taken, the patient started eating well, taking oral medications and good to go”.

He attributed the positive outcome to the recent ISMO intervention supported by MMV and Malaria Consortium in collaboration with the Oyo State Government. He urged the state government to sustain the supply of the drug.

“Before the intervention, treating severe malaria was really challenging and difficult because we were using IV quinine. There was an increase in mortality rate due to malaria. The challenges with IV quinine then had to do with the dosing, frequency of the administration of the drug and even the side effect... Now, with Inj AS, management of severe malaria is easy, productive and fruitful.”



Treatment of U-5 child severe malaria case with Inj AS

At Obudu Community Health Centre, Cross River state, a facility benefiting from the ISMO project, a 32-year old pregnant woman in her third trimester presented with a three-day history of fever, repeated vomiting, weakness, observable dehydration and an axillary temperature of 38.8°C. These symptoms led clinicians to suspect severe malaria.

She was promptly placed on a first dose of intravenous injectable artesunate. Further investigation confirmed malaria parasites, with PCV of 27 percent, and increased bilirubinogen. She was subsequently administered with 12-hourly doses with regular monitoring of vital signs for 24 hours until she was able to take an oral ACT. She was cured and discharged within the days of admission.

At 30 weeks gestational age, the patient was at risk of miscarriage, premature birth, low birthweight or death of her baby if urgent and appropriate treatment was not provided to her. Her successful treatment is a practical demonstration of the effectiveness, tolerability and safety of Inj AS for the treatment of severe malaria during pregnancy, as recommended by the World Health Organization.



Treatment of a pregnant woman with severe malaria using Inj AS

UNITAID/Malaria Consortium Improving Severe Malaria Outcomes project.

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