Editorial

Great progress recorded in the ISMO project. We are delighted to share with you some of the KEY deliverables achieved in the Improving Severe Malaria Outcomes (ISMO) project:

**Advocacy and training:** As of July 2015, 1,650 healthcare facilities have received training and more than 18,000 healthcare workers trained. Supportive supervision and mentorship are being organized in all countries to identify knowledge gaps and put in place remedial actions at health care facility level.

**Procurement:** 4.5 million vials of Inj AS have been procured through the ISMO project since 2014. To avoid over supply or stock outs all partners have been working in close collaboration with funders (The Global Fund and PMI) whom have procured a total of 7.7 million vials between 2013 and 2015.

**Sustainability:** Quantification committees at country level are working to accurately determine the demand for Inj AS. MMV is working with manufacturers to encourage and support the WHO prequalification submission process for the production of quality assured Inj AS. To date, more than 20 countries have already revised their guidelines to include Inj AS as the preferred treatment for severe malaria, and thus more manufacturers are needed to make the market more dynamic.

**Mid-term evaluation:** Evaluating effectiveness, efficiency, impact and lessons learned is an essential part of measurement and improvement. It is for this purpose that throughout the implementation of the ISMO project we have had numerous evaluations and audits, starting in 2015 in Ethiopia, Malawi and Nigeria. The audits are carried out by KPMG, in coordination with the MOH and implementing partners. The next country to be audited by KPMG is Cameroon in November 2015.

**Case studies:** In this issue of the newsletter, there are two interesting articles illustrating how Inj AS is saving lives on the ground in Nigeria. We are also happy to share with you, an article about a randomized trial in Cameroon, confirming the superiority of Inj AS over quinine.

Pierre Hugo
Director, Access and Delivery Africa
MMV
Uganda: UNITAID Inj AS arrives in time during malaria epidemic  
July 2015

A malaria epidemic began in April across 10 districts in northern Uganda. During the epidemic, the number of malaria cases nearly tripled, with an average of over 65% test positive rates. By June, approximately 390,644 cases and 140 deaths were attributed to the epidemic according to DHIS-2 data. As part of the MoH response plan, CHAI supported the NMCP in quantifying emergency supply needs, including Inj AS, for the 10 districts.

In July, Uganda received its first consignment of 565,000 Inj AS vials. This consignment arrived in time to alleviate the risk of stock-out due to the epidemic. UNITAID Inj AS vials have been distributed to public healthcare facilities to help treat this upsurge in cases.

Cameroon: Training and supervision  
August 2015

Supervision activities of the ISMO project in Cameroon started in May 2015 and are on-going. In the South region, three health facilities and the regional special fund for health (regional warehouse) were visited. This training showed that healthcare providers were comfortable with the use of Inj AS. A working session was organized in one of the health facilities to emphasize the need to adopt Inj AS as the preferred treatment for severe malaria in order to accelerate uptake.

After administrative delays, the Center region started training on the use of Inj AS for healthcare providers at the district level in August 2015. Training in this region targeted 1,332 health care providers in 967 health facilities. CHAI supported this training by facilitating some training sessions and by providing Inj AS job aids.

Ethiopia: Supportive supervision and stakeholders meeting  
June/July 2015

Malaria Consortium, in collaboration with the Regional Health Bureaus of Oromia and SNNPR (Southern Nations, Nationalities, and People’s Region), conducted joint supportive supervision visits in selected health facilities in June 2015 in an effort to increase the uptake and use of Inj AS. Most of the health facilities included in these supervision visits were observed to have adequate
Following the completion of health worker trainings on Inj AS, CHAI Malawi supported the NMCP and partners to develop tools – including a Terms of Reference, checklist, and database – for malaria case management supportive supervision visits in August. The objective of these visits is to assess any gaps in health worker case management capacity, including the care and treatment of severe malaria using Inj AS.

An annual review meeting was held in July 2015 in Hawassa, SNNPR. The workshop brought together key project stakeholders, including representatives from health facilities, zonal, district and regional health offices and regional PFSA (Pharmaceutical Fund and Supply Agency) hubs to review project progress, identify implementation challenges, share best practices and streamline the supply chain management of Inj AS from regional warehouses to health facilities.

Malawi: Supportive supervision  September 2015

Following the completion of health worker trainings on Inj AS, CHAI Malawi supported the NMCP and partners to develop tools – including a Terms of Reference, checklist, and database – for malaria case management supportive supervision visits in August. The objective of these visits is to assess any gaps in health worker case management capacity, including the care and treatment of severe malaria using Inj AS.

Forty-two Ministry of Health supervisors were trained on these tools, and they piloted the checklist at selected facilities around Lilongwe in late September to improve the reporting and follow-up site visits. Since mid-October, CHAI is supporting the deployment of these trained supervisors to all the central and district hospitals in Malawi, as well as approximately 90 other selected rural hospitals and health centers within the country’s 28 districts.
Gwarinpa Hospital in the Federal Capital Territory (FCT) is central to most rural communities within the Abuja Municipal Area Council, and sees approximately three or four severe malaria cases each week. The hospital is one of over 250 general hospitals supported by the Clinton Health Access Initiative (CHAI), and UNITAID. During mentorship and supervisory visits conducted at the hospital in August, the team came across five children under the age of 14 years being treated for severe malaria with Inj AS.

The supervisory team took notice of the case of a one-year-old with an interesting treatment history. Her medical report showed that she had received treatment, in the course of the preceding week at a primary facility in her community. After several attempts at treatment, first with an ACT and subsequently IM artemether, she showed no signs of improvement and was referred to a secondary facility, Gwarinpa General Hospital, for further treatment.

Upon arrival at the hospital, Rahama presented with a “high grade fever”, within the range of 39 - 40.7 degrees Celsius (axillary temperature) which as reflected in her report, had persisted for three days. Her fever was managed with tepid sponging and she was given an IV infusion with normal saline to manage dehydration. After laboratory investigations, doctors confirmed severe malaria and placed her on injectable artesunate; 3mg/kg given intravenously at 0, 12 and 24 hrs on the first day, according to national treatment guidelines. The doctor’s assessment showed that her body temperature fell within normal range after the second dose, and that she could sit upright and feed after her fifth dose. At the time of the visit, she had received her fifth dose of IV artesunate and was recommended for follow up treatment with ACTs after showing a remarkable response to treatment. The paediatrician on duty stated that Rahama’s case undoubtedly serves as good evidence to clinicians who previously doubted the efficacy of injectable artesunate.

Rahama is one of the hundreds of children in Nigeria who are benefitting from the use of Injectable artesunate provided by UNITAID for treatment of severe malaria.

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Nigeria: Treating severe malaria in pregnancy

A 32-year pregnant woman in her 3rd trimester presented to CHC Obudu, Cross River State Nigeria with a 3-day history of fever, repeated vomiting, physical weakness, observable dehydration and axillary temperature 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%, and increased bilirubinogen. Subsequent 12-hourly doses were then administered with regular monitoring of vital signs for 24 hours until she was able to take oral artemisinin-based combination therapy (ACT). She was cured and discharged within 2 days of admission. At 30-week gestational age, gravida 2 para 1, the patient was at risk of abortion, premature or low-birth-weight or death if urgent and appropriate treatment was not provided to her.

This 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 (WHO). CHC Obudu is one of the health facilities benefiting from the ISMO project, which is currently being implemented State-wide by MMV and Malaria Consortium in collaboration with the Cross River State Government.

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