Christine Tibamanya, a widowed mother of five walked into the Hoima regional referral hospital out patients department carrying her three year old third born child Turinawe. He was febrile and lethargic. A lower health unit near her home 15KM away had referred her to Hoima hospital for an emergency blood transfusion since Turinawe was severely anemic. That was 15 hrs ago.

Her previous experiences with Hoima regional referral hospital was a crowded Out Patients Department that was characterized by delays, jostling for positions in the line to be attended to by a doctor. It was a first come first serve basis with no priority made for the severely sick, particularly children.

This time, however, to her surprise, an attentive nursing aide immediately pulled her aside from the waiting line, briefly examined Turinawe before weighing him and registering his vital signs into a register. She then escorted them personally into the physician’s room; in all it took less than 15 minutes.

So how did this transformation come about? Clover - Malaria Consortium together with doctors from the national referral hospital – Mulago, and the Ministry of Health technical working group on malaria case management undertook a cross sectional survey of 11 Clover supported districts to identify severe malaria clinical practices. The survey covered 105 health facilities; in total 181 health workers and 879 patients and/or caretakers were interviewed. The survey observed that only 44% of those health facilities surveyed had established and functional triage systems in place and only 11.4% of health facilities had separate queues in the outpatient departments for adults and children, and only 54.5% had intravenous quinine in stock at the time of the survey.

Severe malaria case management was characterized by limited or incomplete patient history, poor differential diagnosis of other causes of fever, long waiting hours for critically ill patients, lack of adequate space for close monitoring of severely ill patients, and inappropriate administration of Intravenous fluids by health workers.

It’s against this background that the Clover project together with the aforementioned partners designed and developed a strategy aimed at improving the quality of care for severe malaria case management in selected Clover supported district health facilities. This intervention is the clinical audit approach.

Clinical audit a tool for improving standards of medical care. Health care professionals measure clinical performance and effectiveness to ensure that the best available treatment is given to patients at all times. Clinical audit is a quality improvement process that seeks to improve patient care and outcomes through systematic review of care against explicit criteria and the implementation of change. Aspects of the structure, processes, and outcomes of care are selected and systematically evaluated against explicit criteria. Where indicated, changes are implemented at, individual, team, or service level and further monitoring is used to confirm improvement in healthcare delivery.

A clinical audit operational framework and guidelines manual was developed through an exhaustive consensus building approach from partners from clinical, administrative and managerial positions involved in the whole continuum of the health service. It took into account the Ugandan context benchmarked against national and international severe malaria case management standards.

The clinical audit approach also recognized that existing quality improvement strategies such as continued professional development oriented workshops for health workers in the health service delivery setting were largely ineffective and limited in their capacity to holistically identify, analyze and address factors that undermine quality health care delivery.

A total of seventeen health facilities were selected based on their capacity to admit patients – district hospitals, regional referral hospitals and health centre IVs. Each facility then identified health workers from the different departments to constitute a health facility clinical audit committee thereby ensuring representation of managerial and administrative positions.

Over 415 health workers were provided hands-on training with bedside teaching, complemented by four rounds of on site clinical audit/severe malaria support supervision from central supervisors in each of the health facilities.
Health facility clinical audit committees sat on a quarterly basis over an eight month period. In total thirty interactive meetings were held by health facility clinical audit committees. These exercises involved in-house monthly reviews of severe malaria practices through root cause analysis designed to identify gaps, weaknesses and through consensus, develop practical, specific and time bound action points to address the challenges therein. Performances were benchmarked against standards highlighted in the previous meetings.

Within eight months of implementation of clinical audits, significant changes had been observed in the quality of severe malaria case management, specifically with the intravenous administration of quinine which was previously given in multiple doses over shorter periods of time.

Waiting times for severely sick patients especially children significantly reduced since there was a concerted effort by health workers to triage them immediately. Inpatient wards were re-organized to ensure that special rooms/beds/space was available for severely ill patients for close monitoring. Laboratories were tasked to prioritize blood transfusion requests and malaria slides that are colored RED by the prescribing physician.

Based on experiences and lessons learned from the National Malaria Control Programme prioritized clinical audits in its Global Fund Round 10 proposal. It is also working closely with Stop Malaria – a USAID funded project implementing the approach in 12 districts and with the intention to scale it up to 14 more districts during 2011.

Soon after admission, Turinamwe was given a blood transfusion and his blood smear was quickly processed. It was found to contain malaria parasites and he was administered intravenous quinine appropriately. Christine and Turinamwe will soon be able to go home and spend time with the rest of their family.

Illustration of multiple dosing of intravenous quinine in 500ml 5% dextrose solution. Note attendant in the background responsible for supervising the flow rates.