

Improvements in quality of malaria case management through county referral hospital medicine and therapeutics committees in western Kenya—the Migori County experience

Elizabeth Marube¹, Tony Chahale¹, Beatrice Onyando¹, Samwel Onditi¹, Tiffany Clark², Illah Evance¹, Rodgers Dena³, Chester Kolek⁴, Troy Martin² ¹PMI MalariaCare, PATH, Kenya, ²PMI MalariaCare, PATH, Washington DC, ³PMI MalariaCare, MCDI, Kenya, ⁴MOH, Migori County, Kenya

Introduction

In Kenya, the Hospital Medicine and Therapeutic Committee (HMTc) is the hospital committee that evaluates the clinical use of drugs, formulates policies for managing drug use and administration and manages the formulary system. HMTcs also assure administrative and departmental review of clinical hospital outcomes.

Despite the Kenya Ministry of Health (MOH) revision of the national guidelines for HMTcs in 2015, few hospitals have functioning committees. As part of its multi-pronged quality assurance approach, MalariaCare, a President's Malaria Initiative-funded project, set out to revive the HMTcs as an internal quality assurance platform to further strengthen malaria case management services. This report describes HMTc activities and initial effects on malaria case management indicators and health systems in Migori County Referral Hospital (MCRH) after initiation of its HMTc in April 2016.

Methods

- Four HMTc quarterly meetings were held between April and December 2016.
- MCRH HMTc participants included representatives from each department and MalariaCare staff. Meetings focused on reviewing gaps identified during the most recent malaria case management supervision visit conducted by MalariaCare in coordination with the National Malaria Control Program (NMCP) and MOH, and on developing action plans to address these gaps.
- Six action plans were developed during the HMTc meetings:
 - 1) Conduct a benchmarking trip to an established HMTc;
 - 2) Revise and disseminate hospital malaria standard treatment guidelines and charts to improve adherence to test results and eliminate treatment based on clinical diagnosis;
 - 3) Organize continuing medical education (CME) sessions, based on gaps emerging from supervision visits;
 - 4) Harmonize lab reporting systems;
 - 5) Develop hospital drug formulary to guide rational drug use;
 - 6) Hold interim monthly HMTc meetings to monitor progress.



Migori County Referral Hospital HMTc with MalariaCare

- From August 2016 – May 2017, MalariaCare and the NMCP supported three malaria supervision visits as an external quality assurance activity. To measure improvements in clinical management, supervisors observed 3 clinicians providing care in the outpatient department using a checklist, and results were scored.

Results

Benchmarking Trip

The MCRH HMTc visited the Kakamega County Referral Hospital HMTc to observe how they function. From this trip, the team identified the use of a medication error book as a best practice to incorporate at their facility. This tool, along with a clinician contact list, empowers pharmacists to review, verify and record prescription errors, including malaria prescription errors, when dispensing patient medications – and provide immediate feedback to clinicians to correct the prescription. Repetitive errors are discussed at the HMTc. Figure 1 provides an overview of the prescription verification process. Figure 2 shows an example of the current medication error book in use.

Figure 1. Pharmacists' Prescription Verification Process

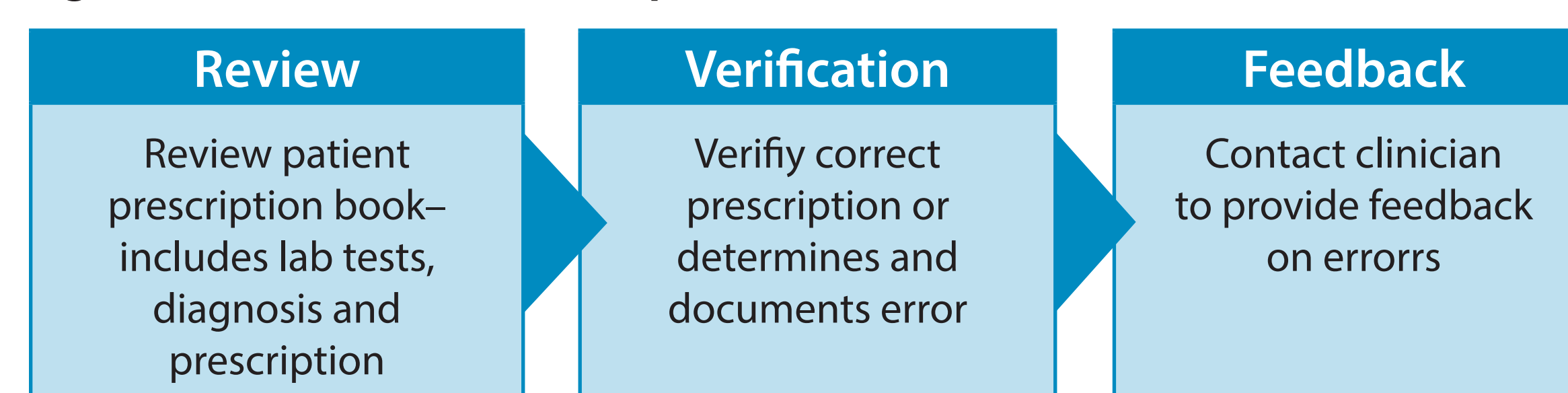


Figure 2. Medication Error Book Example

Medication Error Book Key Fields
• Date
• Patient & prescription details
• Pharmacist's intervention
• Pharmacist's name
• Clinician's name
• Clinician's department

Continuing Medical Education and Guideline Distribution

Two CME sessions on malaria diagnosis and treatment with 100 hospital staff each were held in August and December 2016. Topics were based on key gaps identified during supervision visits, including conducting a complete history taking and physical exam, and managing severe malaria cases. In June 2016, 11 copies of malaria treatment guidelines and febrile case management flow charts were distributed to all hospital departments.

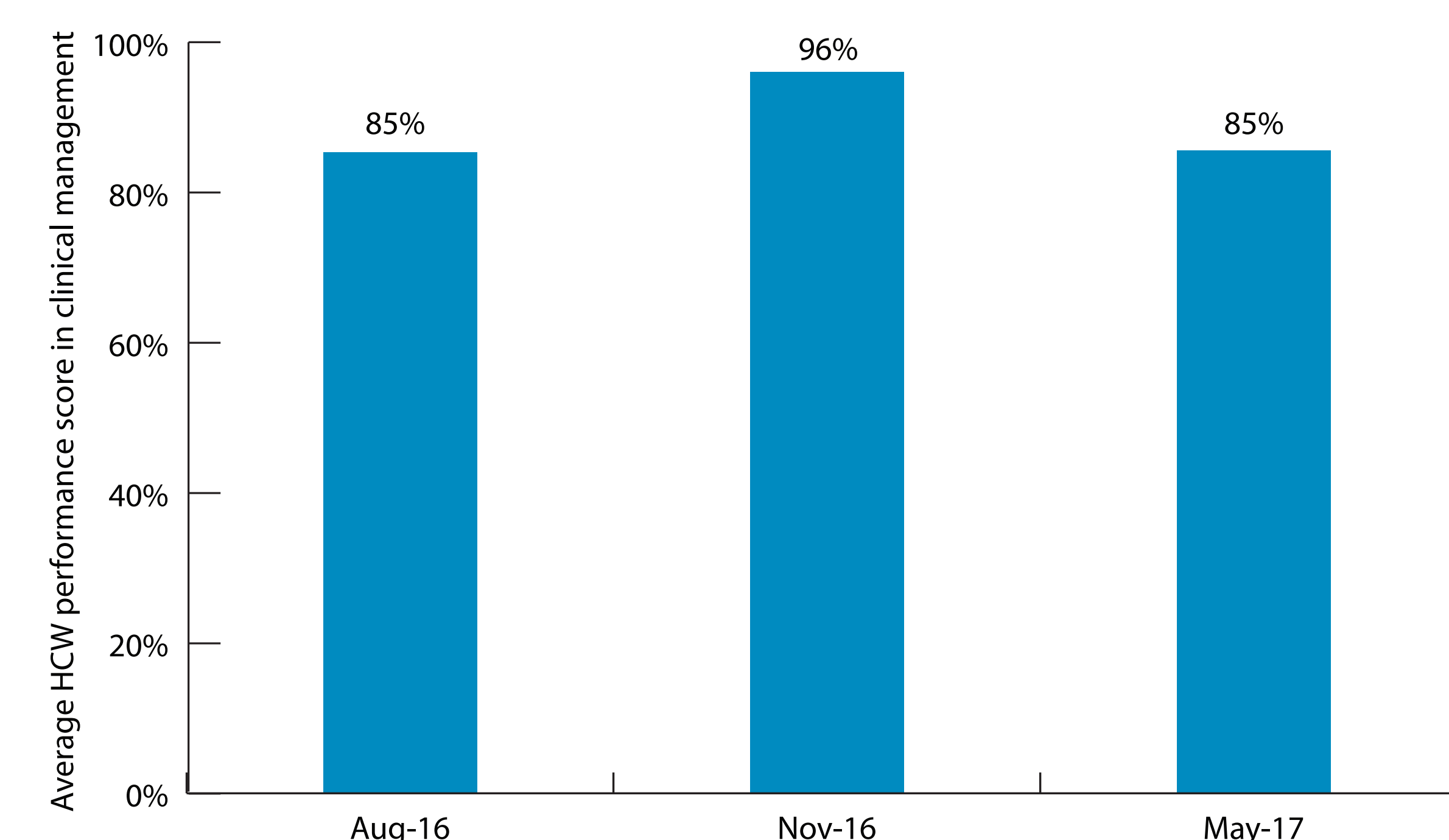


Health workers attending a CME session at Migori County Referral Hospital

Results, continued

The score on the clinical checklist improved between August and November 2016, then fell again between November 2016 and May 2017 (Figure 3). From late April to early June 2017 there was a strike within the hospital and primarily medical students were attending to patients – only one of three health workers observed in May 2017 had been previously mentored.

Figure 3. Average health care worker (HCW) performance in clinical management



Other Activities

Of the six activities, three were to be jointly implemented by MalariaCare and MCRH and three by MCRH alone. Two of the three MCRH-led activities – the interim monthly HMTc meetings and hospital drug formulary development – were not completed due to the doctors' strike. The harmonization of the lab reporting system was started and is still underway.

Discussion

- Benchmarking trips to established HMTcs can be a useful tool for nascent HMTcs to discover best practices to implement within their facilities.
- Further evaluation is needed to determine the effects of specific HMTc approaches, such as medication error books and CMEs on health care worker practices.
- To institutionalize HMTcs, they should be incorporated into the county strategic plan, so that they have the leadership and financial support necessary for on-going operations.
- Developing internal quality assurance mechanisms, such as HMTcs, can enhance external quality assurance efforts by providing a structured forum to engage in quality improvement efforts between external quality assurance touch points.

Conclusion

Strengthening Hospital Medicine and Therapeutic Committees may be an effective way to strengthen internal quality assurance measures and improve malaria case management.

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