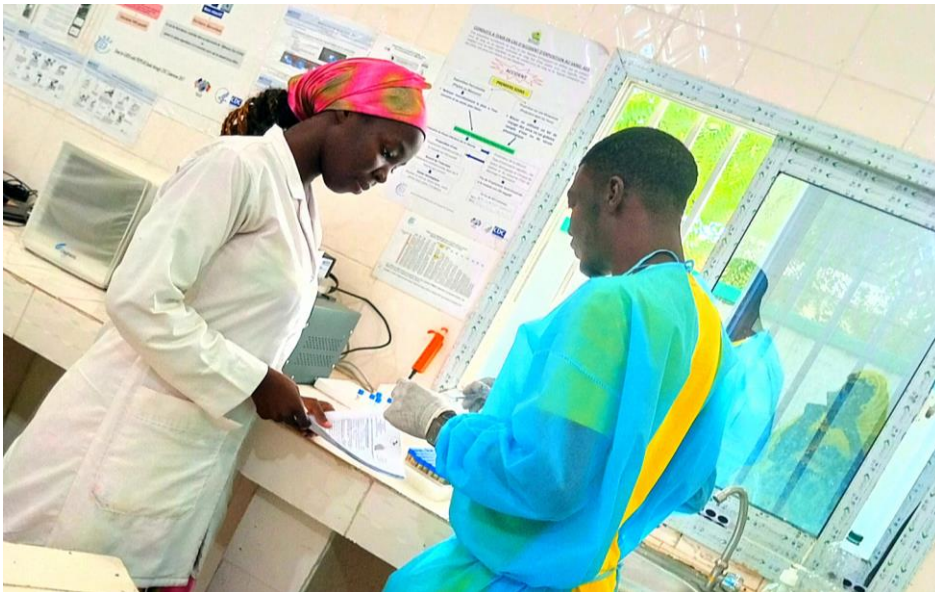


Mentorship Drastically Reduces Viral Load Sample Rejection at the Regional Hospital Annex Kousseri, Far North Region of Cameroon



Success Story in Laboratory Systems Strengthening in Cameroon

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Global Health Systems Solutions (GHSS)

Denver Layout, Bonamoussadi, P.O. Box. 3918 Douala

Littoral Region, Republic of Cameroon

Tel: +237-691754425

Email: info@ghsscm.org



The Regional Hospital Annex of Kousseri in the Logone and Chari Division of the Far North Region of Cameroon is one of the leading referral hospitals in the region. It serves close to 700,000 inhabitants and even the neighbouring country, Chad. An average of 1,300 people living with HIV/AIDS are followed up on care and treatment at this health facility. Most HIV patients live in distant villages with poor road networks, making it difficult to visit the health facility routinely for medical follow-up.

With the support and follow-up of psychosocial workers at the health facilities, the patients are encouraged to come for their viral load (VL) examination. HIV Viral Load laboratory examination is one of the main indicators used to monitor the efficacy of antiretroviral treatment in HIV patients, as well as the need for a change in the antiretroviral regimen. It is essential for every patient eligible for a viral load test to have their blood sample collected in time, the samples analyzed and the results returned as soon as possible for a proper follow-up.

VL Rejection Challenge Identified

In February 2022, GHSS assigned a mentor to work with the laboratory staff to guide and follow up on the implementation of laboratory Quality Assurance with continuous onsite training. This action aimed at improving the quality of laboratory services and patient care. During one of the mentorship sessions on viral load sample management in February 2022, the mentor identified a high rejection of viral load samples from the reference laboratory at Pette, where it rejected 76 VL samples collected from eligible patients. A similar scenario was observed in May 2022, where 16 of the 75 VL samples collected were rejected.

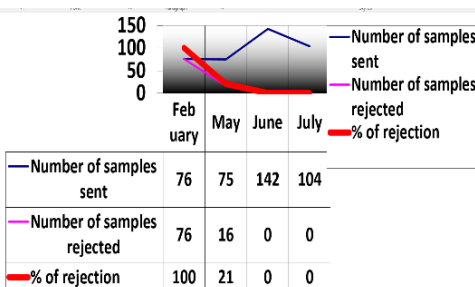
After a root-cause analysis, incomplete and poor sample labelling was identified as the main reason for rejecting the viral load samples. Another reason indicated

by the reference laboratory was insufficient sample volume. The mentor noticed that cryotubes containing VL samples were labelled with serial numbers. The marker used for labelling was not permanent; thus, it was wiped off from the cryotube after a while.

GHSS' Interventions to Resolve VL Rejection Challenge

To address the issue identified, GHSS carried out onsite training of laboratory personnel and psychosocial workers on viral load sample management. Emphasis was laid on the technique of venous blood collection, the material needed for a sample collection, identification of EDTA tubes /cryotubes, the quantity of samples required, and the necessary documents to be transported alongside the samples' aliquots. The VL management circuit within the health facility was also reviewed. All eligible patients for VL examinations were sent for sample collection accompanied by a well-completed request form. This ensured that the person collecting the blood samples had all the necessary information for sample identification. The laboratory personnel were trained on the use of adhesive tapes in the absence of permanent markers to ease the labelling of samples and reduce the chances for any information to be wiped off.

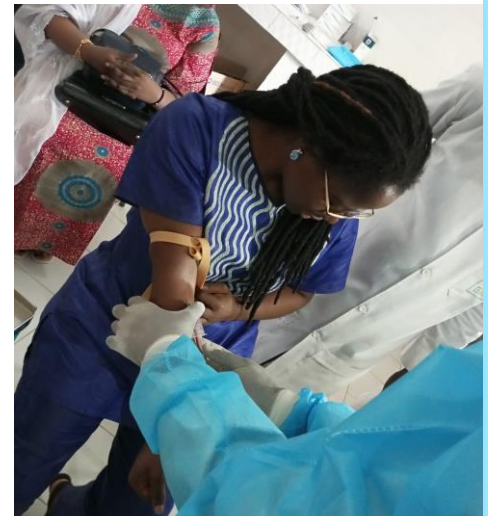
Viral Load Sample Rejection Reduced



Curve showing the drop in VL sample rejection after intervention of GHSS mentor

With the implementation of recommendations and proposed corrective actions provided by the mentor of Global Health Systems Solutions, a significant improvement in VL sample management was recorded. As of June

2022, 142 VL samples were collected with no sample rejected, and a return of the results of all 142 samples. This trend continued in the subsequent months. As of July 2022, the laboratory personnel collected 104 VL samples, and all sample results were returned to the health facility.



Onsite briefing on VL sample collection

A timely result significantly impacts patient care as this guides the therapeutic decision to be made for a good follow-up of patients. With the improvement in VL management, the results of patients are now readily available, and clinicians can quickly identify patients with high viral load for immediate follow-up and counselling. For the patients with undetected viral load results, their confidence is reassured as they see the need to appropriately adhere to their treatment and the efficacy of the medications they consume. With the proper diagnosis and follow-up of care and treatment, there is excellent hope towards attaining epidemic control. The hospital's reputation is now enhanced, and the waste of resources previously used to collect rejected samples has been eliminated. Patients who come to The Regional Hospital Annex of Kousseri now leave the health facility satisfied with the services provided.