Evidence for Elimination

Supplemental Digital Content 1: E4E’s Qualitative End-line Survey and Viral Load Results

In effort to confirm final outcome status on trial participants and correlate retention outcomes with viral load suppression, a qualitative survey and Dried Blood Spot collection for viral load testing was added to the original study. The additional information collected from trial participants aimed to ascertain vital status (alive, deceased), engagement in HIV care status (active or not in care, transferred out), and viral load suppression, as well as to solicit perceptions of women to infer key enablers of and barriers to clinic attendance to seek treatment and care. Questions on CD4 understanding were also asked in hopes to better comprehend the success of the CD4 counselling component.

E4E staff trained facility nurses to conduct a paper-based end-line survey and collect a blood sample for viral load testing on a convenience sample of mothers whom village and facility health workers were able to contact at the end of the trial period. The survey was administered to active study participants in person during their routine clinic visits in both SOC and POC Plus arms. For participants not active in care, village health workers attempted to contact them either by phone or in person, asking them to return to the clinic for treatment and the survey. Survey questions included open and close-ended questions on the patient’s knowledge of CD4 count, reason for attendance/non-attendance, and status of the HIV-exposed infant.
End-line surveys were collected on 540 or 47% of women. Among survey participants, 85% self-reported still being active in care, although by the trial’s retention definition 21% of those women were not retained in care. Among women receiving a viral load test (n=362), 70% had an undetectable viral load (<1000 copies), with no difference seen between SOC and POC arms. No correlation was found at the individual level between viral suppression and retention in care, although only 34 women were classified as being retained. When the data was collapsed to a facility level, there was a significant correlation between proportions of women retained and having an undetectable viral load (Spearman’s rho= 0.438, p= 0.025). Infant HIV testing was reported by 89% of the women, with 92% also reporting a result; 2% of the infants were diagnosed HIV-positive by 12 months.

Two-thirds of the surveys returned included qualitative responses on the importance of CD4 results. These data showed that the majority of women in both arms demonstrated a correct understanding of CD4, although some women in the POC arm noted that CD4 results were not adequately explained by facility staff. Women identified challenges to attending ART visits including negative partner influence, lack of disclosure, poor staff attitudes, competing demands on time, relocation, medication side-effects, difficulty traveling to the clinic, or simply forgetting review dates. The 60 (11%) women not retained and not active in care did provide insight into why the intervention may not have worked; one women in the POC arm proclaimed, “I just didn’t want to take medication, [I] felt I was not sick and would start when sick.” Another women, also in the POC arm stated she “decided to opt out because results weren’t explained well and [the] nurse's attitude was not good.” However, other women
identified positives reasons why they remained in care, like two POC participants who stated “I am forced to come to review dates and to avoid defaulting” and “It helps increase my CD4 cells”.

While our qualitative data were drawn from a small subset of the trial participants, these data provide additional context to some of the trial findings. The fact that some women in the POC arm highlighted that CD4 results were not adequately explained suggests that the lack of impact of POC CD4 could in part be due to inadequate patient education and counseling. Then again, as stated in the main manuscript text, even with adequate education/counseling, it may be that POC CD4 testing per se does not have a discernable impact in patient retention in care. While none of the barriers to ART visit attendance identified here are new to the literature, the concerns expressed by patients emphasize the need for innovative, multi-faceted strategies that improve retention in care.
References
