Tenofovir stock shortages have limited impact on clinic- and patient-level HIV treatment outcomes in public sector clinics in South Africa.

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Abstract

OBJECTIVE: Using data from four public sector clinics in South Africa, we sought to investigate provider- and patient-level outcomes, to understand how the 2012 tenofovir stock shortage affected the HIV care and monitoring of ART patients.

METHODS: Prospective cohort analysis of ART-naïve, non-pregnant, HIV-infected patients >18 years initiating first-line ART between 1 July 2011-31 March 2013. Linear regression was used for all outcomes (number of ART initiates, days between pharmacy visits, transfers, single-drug substitutions, treatment interruptions, missed pharmacy visits, loss to follow-up and elevated viral load). We fit splines to smooth curves with knots at the beginning (1 February 2012) and end (31 August 2012) of the stock shortage and displayed results graphically by clinic. Difference-in-difference models were used to evaluate the effect of the stock shortage on outcomes.

RESULTS: Results suggest a potential shift in the management of patients during the shortage, mainly fewer average days between visits during the shortage vs. before or after at all four clinics, and a significant difference in the proportion of patients missing visits during vs. before (RD: 1.2%, 95% CI: 0.5%, 2.0%). No significant difference was seen in other outcomes.

CONCLUSION: While South Africa has made great strides to extend access to ART and increase the quality of the health services provided, patient care can be affected when stock shortages/outs occur. While our results show little effect on treatment outcomes, this most likely reflects the clinics’ ability to mitigate the crisis by continuing to keep patient care and treatment as consistent as possible.

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