who experience severe renal failure, as renal replacement therapy (dialysis, transplant) is seldom available in poorer regions of the country [4]. Existing renal dysfunction is a risk factor for TDF toxicity [5]. Toxicity may also be compounded by the concomitant usage of other nephrotoxic drugs taken as treatment for common infective complications, such as cryptococcal m

Population characteristics, health status and results of laboratory screening tests are summarised in Table 1. Participants were all Black Africans, mostly female (57%) and a mean 33.9 years old (standard deviation = 7.7). Twelve percent were older than 45 years (n = 91). More than 40% of the cohort were from outside South Africa, predominantly from Zimbabwe (38% of participants). Three quarters were employed and the same proportion described themselves as being single. Around a third reported current alcohol use (36%) and 16% smoke. Only 3% of the participants had WHO Stage IV disease and 16% Stage III conditions. CD4 cell counts at screening were a median 208 cells/ L (inter-quartile range = 118–299), with only 8% having a count below 50 cells/ L and 13% above 350. Plasma viral load varied markedly between patients, with 18% having fewer than 10,000 copies per ml, while 39% had counts above 100,000.

Laboratory screening tests

One percent of patients had a creatinine clearance below 50 mL/min. The CD4 cells/ L for these four patients were 128, 306, 293 and 131. Microalbuminuria was not infrequent, occurring in 5% of patients. Prevalence of proteinuria was, however, very low, measured either by microalbuminuria or 3+ proteins on urine dipstick. Prevalence of hepatitis B antigenaemia was 8%. Almost 40% of patients with hepatitis B had a raised transaminase, of whom two patients had an ALT or AST above 200 IU/L (one had an AST of 842 and ALT of 686, while the AST was 285 and ALT 611 in the other). Among the whole cohort, mild elevations of ALT/AST levels (1-2.4 fold the upper limit of normal) were relatively frequent (19%), and a further 4% had even higher levels.

The mean haemoglobin was 12.0 g/dL (sd = 1.7) in women and 13.9 g/dL (sd = 2.0) in men ($p \leq 0.001$). Overall, 9% of patients had anaemia and 2% severe anaemia, with the frequency of anaemia in women

hepatitis is unknown. The rationale for screening for hepatitis virus is unclear to us.

Mild anaemia was very common, but significant anaemia (<8 g/dl), the threshold suggested in local guidelines as a contraindication to AZT, was very unusual, in keeping with other studies [24, 25]. In addition, neutropaenia was uncommon. This suggests that AZT may be used relatively safely in this group, without screening, although the role of the drug in resource-limited settings outside of second regimens is now largely confined to those with renal disease [2, 6].

Limitations of the study include the difficulties in generalising the findings to South Africa as a whole, given the urban nature and high percentage of Zimbabweans in the screened population. The findings, however, might apply to similar inner-city areas of the country, or even to parts of Zimbabwe. Also, participants in this study were on average relatively young and the creatinine clearance abnormalities may be more frequent among older patients. Excluding patients with peripheral neuropathy or exposure to antiretroviral drugs for preventing mother-to-child transmission of HIV may also limit generalisability of results, although unlikely to any meaningful degree. The use of community workers to identify potential participants, rather than using systematic sampling, may have incurred selection bias. Community workers could, for example, have been more likely to approach patients they knew, those of the same gender as themselves, or those they believed would be more likely to participate. Having been instructed to refer patients with a CD4 below 400 may have resulted in them purposely recruiting sicker looking patients. Finally, hepatitis B was screened using antigen testing, which may miss occult HBV infections [23, 26] and cases of delta virus, though the latter is very rare in South Africa [22, 27].

Conclusion

The study suggests that there might be minimal value in routine laboratory screening to identify relative and

21. Firnhaber C, Reyneke A, Schulze D, Malope B, Maskew M, MacPhail P, Sanne I, Di Bisceglie A. The prevalence of hepatitis B co-infection in a South African urban government HIV clinic. South African Med J. 2008;98(7):541–4.
22. Matthews PC, Beloukas A, Malik A, Carlson JM, Jooste P, Ogwu A, Shapiro R, Riddell L, Chen F, Luzzi G, et al. Prevalence and characteristics of hepatitis B virus (HBV) Coinfection among HIV-positive women in South Africa and Botswana. PLoS One. 2015;10(7):e0134037.
23. Di Bisceglie AM, Maskew M, Schulze D, Reyneke A, McNamara L, Firnhaber C. HIV-HBV coinfection among South African patients receiving antiretroviral therapy. Antivir Ther. 2010;15(3 Pt B):499–503.
24. Southern African HIV Clinicians Society: Adult antiretroviral therapy guidelines. 2014. [http://www.sahivsoc.org/Files/2014%20Adult%20ART%20Guideline%20(Dec%202014).pdf]. Accessed 10 May 2017.
25. Zhou J, Jaquet A, Bissagnene E, Musick B, Wools-Kaloustian K, Maxwell N, Boulle A, Wehbe F, Masys D, Iriondo-Perez J, et al. Short-term risk of anaemia following initiation of combination antiretroviral treatment in HIV-infected patients in countries in sub-Saharan Africa, Asia-Pacific, and central and South America. J Int AIDS Soc. 2012;15(1):5.
26. Firnhaber C, Viana R, Reyneke A, Schultze D, Malope B, iro R,