



Dear Members of the Southern African HIV Clinicians' Society and Readers of the Southern African Journal of HIV Medicine

This is an update of articles published in the SAJHIVMED between May and July 2019. Our hope with this summary is that you will visit the journal and look at the published material yourself. The articles address contemporary and regional issues in HIV medicine. The topics speak to all aspects of the epidemic: epidemiology, public health, prevention, clinical medicine, tuberculosis and opportunistic diseases, management guidelines, opinion pieces, editorials and case reports. For the teachers, trainers, healthcare managers and administrators among us, there is a wealth of local information in these papers. Please acknowledge our talented researchers by reading what they write. With me, I am sure you will want to thank the authors, our reviewers and our publishers (AOSIS). I wish you an enjoyable read in the company of the Southern African Journal of HIV Medicine.

May 2019

1. Aigbodion SJ, Motara F, Laher AE. Occupational blood and body fluid exposures to human immunodeficiency virus post-exposure prophylaxis. SAJHIVMED /Vol 20, No 1 /a958 / 22 May 2019

Recommended reading. This is a must-read for all practising in the southern African region but particularly final-year medical students who will soon become interns and nurses who are already working on the wards of our hospitals.

This is a well written, descriptive (anonymous questionnaire), cross-sectional study reflecting the two-year experience of interns exposed to HIV-positive blood/body fluids in four large Gauteng public hospitals affiliated to the University of the Witwatersrand. The study data was collected at the end of 2017 and sampled 175 doctors aged 24-30yr, who collectively provided n=182 incidence reports of occupational exposure to HIV. The prevalence of exposure was more or less identical whether the intern was rotating through surgery, OBGYN, or medicine. More than a fifth (N=30, 22%) had >1 exposure. While most initiated post-exposure therapy within 24 hours (79% on first-exposures, and 89% on their third exposure) only two-thirds viz. 63% (first-exposure) and 62.5% (third exposure) completed the 28-day ART course. [How many started ART within 2-4 hours?] Taking all exposures into account, the full 28-day course was completed by only n=51 (36.2%). A third took only two-ARVs as PEP. n=33 (18%), were unaware of alternative treatment options. **Two (1.1%) seroconversions are reported and documented.** Are the number of ARVs used in PEP important? "There is no evidence to suggest that a three-drug regimen is superior to a two-drug regimen". The authors seem to think not. They have a point. But not all ARVs are equal in potency nor do all offer the same level (barrier) to viral resistance. Three-drug regimens, usually boosted protease inhibitor (bPI) based, reflect a time when ARVs were generally less potent or more toxic than now and when regimens that combined different classes of ARV demonstrated greatest efficacy. The authors acknowledge limitations: the cross-sectional and retrospective nature of the data, the limited range of the questions, insufficient data on exposure to ART-resistant virus. PEP

studies cannot be randomized controlled trials nor can they be placebo-controlled. These studies are therefore important despite their limitations.

PS. The 2019 Southern African HIV Clinicians' PEP Guidelines are in preparation and will be available later this year. If I was a prospective intern, I would be hoping that my senior in the unit gave me complimentary copies of these two articles before I started work! NB The Society's last PEP guideline was in 2015. A more up-to-date edition is recommended.

2. Mndzebele S, Matonyane LG. Sexual behaviours, awareness and perceptions towards voluntary medical male circumcision among students in Dr Kenneth Kaunda District, South Africa. SAJHIVMED / Vol 20, No 1 / a846 / 22 May 2019

Editor's comment: This cross-sectional, questionnaire-based, descriptive study of young male South African college student's attitudes to medical male circumcision found that their 351 participants had high levels of knowledge and understanding of the procedure and its benefits. Many of the students were themselves circumcised viz. 77.6%, and had chosen to have MMC (78.2%). Is this a changing trend in SA?

3. Edet A, Akinsola HA, Bessong PA. Virologic and immunologic responses of patients on highly active antiretroviral therapy in a rural community health centre in Limpopo, South Africa: A retrospective study. SAJHIVMED / Vol 20, No 1 / a818 / 22 May 2019

Editor's comment: Recommended reading – a study that ought to be read by all. This retrospective analysis records 12 years' data (2004-2016) and asks the question, "what are the long term immunologic (CD4) and virologic (viral load) consequences of ART in a rural region of South Africa". "Is (rural) SA is on the road to achieving the UNAIDS 90-90-90 goals?" "Will universal ART in this rural region will offer the reward of 'Treatment as Prevention' i.e. long-term viral suppression and no further viral transmission?" The study is well set out and easy to follow. 1247 patients were followed. All had to have been on ART for a minimum of 6 months. The analysis suggests that achieving the 90-90-90 goal is unlikely: viral suppression at <50cp/ml at 6m, 12m, 24m, 36m and 132m after starting ART is 64%, 70%, 70%, 69% and 94% respectively. The last percentage can be ignored: patient numbers at ≥ 12 years are only 16! And the long-term adequacy of viral suppression? N=882 (59%) recorded two or more consecutive viral loads <50cp/ml? But only 14% had persistent viral load suppression at <50cp/ml for the initial 54 months of the study. Will rural SA reach the UNAIDS 90-90-90 goals by 2020. Will viral transmission come to an end any time soon? The answers are all too obvious after reading this intelligent and readable article. **PS. If you teach HIV medicine, this is a useful study to have in your repertoire.**

4. Essa R, Maharaj S, Hari K, Motakef S. Tonsil histopathology in HIV-infected versus HIV-uninfected adults. SAJHIVMED / Vol 20, No 1 / a936 / 28 May 2019

Editor's comment: This is a retrospective histological review covering 10 years (2005-2015) of adult tonsillectomies in the Department of ENT at the University of the Witwatersrand in Johannesburg. Although the results are divided into two arms viz HIV-infected (N=84) and HIV-uninfected (n=74) the study is largely descriptive and there is no attempt to link findings with patient demographics, CD4 results, viral loads, and the clinical details of the cases. Statistical and comparative data is, for the most part, left unexplored. Although reactive lymphoid hyperplasia was the most frequent histological finding in both arms viz. 77% in HIV+ and -ve, no data is provided to explain the cause of

the reactive hyperplasia in the HIV uninfected group. Were other viruses implicated e.g. EBV, CMV, HPV, HHV8 etc?

5. Moorhouse M, Cohen K. The role of rilpivirine in Southern Africa. SAJHIVMED / Vol 20, No 1 / a825 / 29 May 2019 **Opinion Piece**

Editor's comment: Recommended reading. This is a comprehensive review of the role of rilpivirine (RPV) in the context of ART, Pre-Exposure (PrEP) and Post-exposure Prophylaxis (PEP) in low-and middle-income countries' (LMIC's) public sector programmes. The authors address regional ART-issues that will impact on RPV use viz. irregular/unavailable viral load testing, RPV's loss of efficacy in the context of high (baseline) viral loads, rifampicin and RPV (tuberculosis therapy), RPV and dolutegravir (DTG), other drug-drug interactions, and long-acting RPV in future PrEP and PEP programmes. Interesting and relevant. **For those who are writing exams later this year or early 2020, this is a must-read. But for all of us, this is a nuts-and-bolts review that deserves to be read.**

June 2019

6. Manjengwa PA, Mangold K, Musekiwa A, Kuonza LR. Cognitive and behavioural determinants of multiple sexual partnerships and condom use in South Africa: Results of a national survey. SAJHIVMED / Vol 20, No 1 / a868 / 10 June 2019

Editor's comment: Recommended reading. This is another well-crafted paper. It is a cross-sectional and descriptive report that draws upon the Third National HIV Survey of 2012. The researchers ask why South Africans continue to take risks. Two high-risk groups are defined: those with multiple sexual partners (MSPs) and those who do not use condoms consistently viz. non-Condom Users, nCU. The parent survey included 10,034 people. This paper reports on 6061 who provided information about sexual behaviour in the preceding 12 months. **Thirteen percent** (n=744/6061) **were MSPs** and **53%** (n=3158/6039) **were nCUs**. Respondents in the MSP group indicated that 'perceived benefits' (adjusted Odds Ratios, aOR =2.16) and a related issue, intergenerational sex (aOR= 2.14), and non-susceptibility to HIV i.e. irrational beliefs, "it won't happen to me", lay behind their actions. Similar reasoning defined the responses of the nCUs: perceived benefits (aOR= 1.25), non-susceptibility to HIV (aOR= 1.6) and my "personal belief" (aOR=1.35). These irrational and dangerous responses jeopardise attempts to bring the epidemic to an end. I recommend this paper to your reading. Is our community aware of these data? And would that make any difference?

7. Sharp J, Wilkinson L, Cox V, Cragg C, van Cutsem G, Grimsrud A. Outcomes of patients enrolled in an antiretroviral adherence club with recent viral suppression after experiencing elevated viral loads. SAJHIVMED / Vol 20, No 1 / a905 / 11 June 2019

Editor's comment: Patients at high risk of treatment failure (n=165) were enrolled in an adherence club rather than being retained in their parent treatment facility viz. Ubuntu Clinic, Khayelitsha, Western Cape, SA. Most were women viz. 81.8%. Enrollment started in 2012-2014 and the study ended in mid-2015. Data were analysed retrospectively. The target population had demonstrated difficulty with ART adherence prior to their integration into the study. The outcome with regard to both retention in care viz. 98% (6m), 95% (12m) and 89% (18m) and viral suppression viz <400cp/mL, 90% (6m), 84% (12m) and 75% (18m) are comparable with those of clinic-based adherence studies elsewhere. It's a clearly written article with an important message: with commitment from patients and caregiver, high-risk patients can be accommodated within a 'differentiated' model of ART delivery. Limitations? I would watch the 18-month numbers down the line and would want data that

is more inclusive of Western Cape men. Despite the absence of a control group, the retrospective nature of the study and the incomplete tracing of those lost to follow up, its nevertheless a good read.

8. Coetzee M, Delport SD. Peripartum HIV infection in very low birth weight infants fed 'raw' mother's own milk. SAJHIVMED / Vol 20, No 1 / a912 / 19 June 2019

Editor's comment: An important paper to read. Another retrospective study that identified 80 very low birth-weight (<1500gm) infants born to HIV infected mothers between 2010-2013. The authors are paediatricians from Kalafong Hospital in Pretoria. Two (2.5%) of the 80 infants tested HIV-positive after birth. Neither mother had been on ART during pregnancy. Sixty-three infants (79%) had been exposed to maternal ART during pregnancy. None tested positive at the 4-6 week follow-up clinic visit. The two infants who were infected belonged to a group of 17 ART-naïve mothers. All the newborns received nevirapine prophylaxis. All were given mother's milk – 'raw mother's own milk'. A small group (n=21/80, 26%) required additional donor breast milk. When did the two acquire infection? Was the 'raw' breast milk the source of their virus/infection? The authors argue not. Both children developed clinical signs of 'acute' HIV seroconversion shortly after birth. They tested HIV-PCR positive on day 9 and day 20 respectively. Neither had been tested at birth. The authors do a good job of taking the reader through the complicated evolution of mother-to-child HIV prevention in the last decade in South Africa. Current goal posts viz. birth testing of all exposed infants and universal HIV testing and treatment of all, ought to pre-empt the loop-holes identified in this study. This paper is an important read. Very low birth weight newborns are at-risk people who require focused care.

9. Lazarus E, Otjombe K, Dietrich J, Andrasik MP, Morgan CA, Kublin JG, Gray GE, Isaacs AJ, Laher F. Vaginal practices among women at risk for HIV acquisition in Soweto, South Africa. SAJHIVMED / Vol 20, No 1 / a866 / 20 June 2019

Editor's comment: This is a 3-month observational study (August 2014 -April 2015) of 50 HIV uninfected Sowetan women between the ages of 18-25 who provided questionnaire directed answers investigating the frequency and nature of post-coital vaginal 'cleansing' practices. Do vaginal practices increase the risk of HIV acquisition i.e. by causing low-level, but recurrent trauma to the genital tract? The aim of the study was to describe local practice. The authors note that South Africa's overall HIV prevalence among 20-24 year-olds is 16% and in Gauteng where this study was performed, prevalence in the general population is 18%. Exposure to infection was high. On average, the study group recorded sex 15.3 X per month with their main partner, 10 X per month with a casual partner and 3.6 X per month with a 'new' casual partner. Condom use was unusual. But increased over the course of the study viz. 2% at baseline to 20% (main partner) and to 56% (casual partner) by the end of the study. No incident HIV infections occurred. Cleansing practices included washing the vagina with water (44%) and using fingers to facilitate cleaning (48%) and were more likely to follow inconsistent condom use or sex with a casual partner, p=0.001. These practices decreased over the course of the study. Despite being asymptomatic, 40%, n=20 women had positive baseline lab tests for a genital tract infection.

10. Kateule E, Kumar R, Mwakazanga D, Mulenga M, Daka V, Chongwe G. A cross-sectional study of the factors associated with male circumcision status among college youth in Ndola, Zambia. SAJHIVMED /Vol 20. No 1 / a952 / 20 June 2019

Editor's comment: This report discusses the knowledge, attitudes and perceptions of 136 male Zambian students with regard to male circumcision and in particular, voluntary medical male

circumcision (VMMC). 63% of the students had been circumcised and most (96%) had taken the formal medical route viz. VMMC. This study has several limitations: cohort-bias, the observational nature of the data, self-reporting by the students and 'predictable' results e.g. the circumcised students viewed the procedure as safe (aOR=5.13, CI = 2.09-14.82), and effective in reducing viral transmission from infected women to uninfected men (aOR=3.65, CI =3.12-11.67). [Note the wide confidence intervals]. The 2012-2015 national coverage of VMMC in Zambia was only 54% while the adult prevalence of HIV was 12.3% (ZAMPHIR Fact sheet, December 2016). What is it that makes adult men complacent in the face of this epidemic? This study doesn't provide the answer but certainly begs the question.

11. Chakalisa U, Wirth K, Bennett K, Kadima E, Manyake K, Gaolathe T, Bachanus P, Marukutira T, Lebelonyane R, Dryden-Petersen S, Butler L, Mmalane M, Makhema J, Roland ME, Pretorius-Holme M, Essex M, Lockman S, Powis KM. Self-reported risky sexual practices among adolescents and young adults in Botswana. SAJHIVMED / Vol 20, No 1 / a899 / 26 June 2019

Editor's comment: Recommended reading. This is an important substudy of a cross-sectional, cluster-randomised Combination Prevention Project based in Botswana: the 'YaTsie Project'. The aim of the parent study is to evaluate the impact of interventions on the prevention of HIV in that country. The aim of the substudy was to identify and characterize the risk-taking sexual activities that promote viral transmission. The findings of the sub-study are not surprising: self-reported risk-taking sexual behaviour of adolescents and young adults *differs* between males and females. Subjects were aged 16-24 years. Of the 3380 study participants, n=2311 reported being sexually active viz. women (65%), men (35%). Enrolment took place from Oct. 2013- Nov. 2015. Univariate and multivariate data underline the importance of the following markers of risk among women: inconsistent condom use, intergenerational sex (with male partners >10 years older), and transactional sex among the poor. On the other hand, women were less likely than men to report sexual debut before 15 years, to use alcohol at/during intercourse, and to report ≥ 2 (multiple) sexual partners in the preceding 12 months. Men living close to urban areas and those with internet access were at greater risk of being HIV-positive. **This paper is a must-read for health workers and administrators across southern Africa.** HIV-prevention success has been elusive in this age group. Treatment as Prevention will take us far. But papers such as this provide tools that communities can use to facilitate change.

12. Mukumbang FC, van Wyk B, Van Belle S, Marchal B. 'At this [adherence] club, we are a family now': A realist theory-testing case study of the antiretroviral treatment adherence club, South Africa. SAJHIVMED / Vol 20, No 1 / a922 / 26 June 2019

Editor's comment: "How successful are adherence clubs really?" This paper examines two adherence clubs associated with a provincial public health facility in the Western Cape (Facility Y) and provides a theoretic explanation ('realist evaluation') as to how and why clubs work. The authors remind us that 'only 62.3% of all people living with HIV (PLHIV) in South Africa are virally suppressed', (www.hsrb.ac.za/uploads/pageContent/9234/FINALPresentationsfor17Julylaunch.pdf.) and that only 63.3% of infected South Africans are retained in the national South African HIV healthcare programme. (Fox MP et al. PLoS Med 2018;15:30-43) Without a cure in sight, South Africa needs a long term programme that delivers stronger numbers. Although much of the paper is taken up with providing a coherent thesis, the discussion and case evaluation provide practical steps to assist with improving outcomes from adherence clubs. Figure 4 in the article is a useful summary of the thesis.

13. Bisschoff C, Coulon J, Isaacs Z, van der Linde, Wilson L, van Zyl R, Joubert G. HIV testing at birth. Are we getting it right? SAJHIVMED / Vol 20, No 1/ a951 / 27 June 2019

Editor's comment: This is a brief retrospective, descriptive, file-audit of births to HIV-positive mothers at the Mangaung University Community Health Centre, Bloemfontein, South Africa, during 2016. **A third of all the mothers treated at the clinic in 2016 tested HIV-positive.** 428 babies were born to these mothers. 7.3% of infected mothers were teenagers. 87.6% of the HIV-exposed infants were tested at birth (PCR) of whom 4 (1.1%) were positive. While birth PCR testing levels are commendable, only n=157 (36.7%) of exposed infants had the recommended 10-week follow-up HIV-PCR test. Almost all exposed infants (n=427, 99.8%) were given nevirapine prophylaxis. Did any of the infected children start on ART? "No records were kept". While PMTCT has been a great success, gaps in care still exist. A third of the mothers in 2016 were HIV positive...!? Ouch!!

July 2019

14. Solomons DJ, van der Merwe A, Esterhuizen TM, Crowley T. Factors influencing the confidence and knowledge of nurses prescribing antiretroviral treatment in a rural and urban district in the Western Cape province. SAJHIVMED / Vol 20, No 1 / a923 / 02 July 2019

Editor's comment: NIMART=Nurse-Initiated and (nurse) Managed Antiretroviral Treatment. This is a cross-sectional survey conducted among 77 NIMART nurses recruited from 29 healthcare centres in the Western Cape province of SA. The study covered both urban and rural nurses and aimed to identify factors influencing the nurses' knowledge base and managerial/clinical confidence. Important limitations are noted by the authors: the cross-sectional and retrospective design, the small cohort, the large numbers of nurses who despite being NIMART 'authorized', nonetheless *refused* to participate in the study viz. n=18 (25%) rural nurses, and n=22 (33%) urban nurses. Potential biases e.g. the 'self-completing' of the questionnaires, may have led to further limitations. Nonetheless, many nurses (50%) indicated high levels of confidence with regard to the nursing aspects of HIV patient management and examination. But importantly, only 14% felt themselves to be expert enough in the day-to-day interaction with patients, and in particular, with the switching and stopping of ART. Contact with a 'clinical mentor or clinician' was limited for almost half (n=36/77, 47%): once a week (n=19), once a month (n=14), annually (n=3). Worrying are the replies of some: 'no' (n=34, 44%), when asked 'do you feel your workload is acceptable?', and 'no', (n=37, 48%) when asked 'are you satisfied with your work conditions'. Not surprisingly, the study found that training, personal feedback, mentoring and seeing/caring for lots of patients had positive results with respect to knowledge and confidence. The small print is what worries me. NIMART-trained nurses are a precious asset to South Africa's HIV response. I'm worried by those NIMART nurses who refused to participate and those who did, yet expressed unhappiness with their situation. How widespread are these attitudes and views?

15. Chateau AV, Dlova NC, Dawood H, Aldous C. Outcomes of Stevens-Johnson syndrome and toxic epidermal necrolysis in HIV-infected patients when using systemic steroids and/or intravenous immunoglobulins in Pietermaritzburg, South Africa. SAJHIVMED / Vol 20, No 1 / a944 / 04 July 2019

Editor's comment: This retrospective study of 36 HIV-positive patients reports the outcome of Stevens-Johnson syndrome (SJS), Toxic Epidermal Necrolysis (TEN) and the SJS-TEN 'overlap' syndrome during the 18 month period, January 2010 to July 2011. Short term (3-day) oral steroids and intravenous immunoglobulins (IVIG) were used in all. Active debridement of bullae, de-roofing

of blisters etc., was avoided in favour of careful skin cleansing. **32 of the 36 patients were female. 16 were pregnant. Almost all (93.8%) were on nevirapine at the time of admission and the mean CD4 count of the group was 267 cells/mm³ (SD 60.6).** Ten (27.8%) were also taking anti-tuberculosis drugs, isoniazid (n=2) and rifampicin (n=8). One pregnant patient died. No adverse steroid-related events were identified. Unfortunately, the study has not provided more recent data. I would love to know if the disappearance of nevirapine from most ART programmes has resulted in the disappearance of these life-threatening skin conditions? Nevirapine is no longer a regular part of local and international ART guidelines. (Meintjes G, Moorhouse MA, Carmona S, et al. Adult antiretroviral therapy guidelines 2017. *S Afr J HIV Med.* 2017; 18 (1): a776. <https://doi.org/10.4102/sajhivmed.v18i1.776>.)

16. Munderi P, Were E, Avihingsanon A, Mbida PAM, Mohapi L, Moussa SB, Jansen M, Bicer C, Mohammed P, van Delft Y. Switching at Low HIV-RNA-1 RNA into Fixed-Dose Combinations: TDF/FTC/ RPV is non-inferior to TDF/FTC/ EFV in first-line suppressed patients living with HIV. *SAJHIVMED / Vol 20, No 1 / a949/ 23 July 2019*

Editor's comment: Highly recommended. This paper details the results of the SALIF study. SALIF = Switching at low HIV-1 RNA into Fixed-dose Combinations. The study was conducted between August 2012 and October 2015 in five sub-Saharan countries viz. Cameroon, Kenya, Senegal, South Africa and Uganda, and one Asian country, Thailand. It's a phase 3b, randomized, open-label, non-inferiority first-line ART switch-study that introduced rilpivirine (RPV) to virologically suppressed (HIV-RNA <50 cp/mL) patients who had completed ± 12 months of either efavirenz (55%) or nevirapine (45%). The backbone NRTI component of the regimen was tenofovir (TDF) + emtricitabine (FTC) before and after the switch. The RPV switch required the following: virological suppression (Viral load <50cp/mL), CD4 count >200c/mm³, a normal baseline ECG, and the absence of concurrent TB therapy. Of the total cohort of 426 subjects, half (n= 211), i.e. the comparator arm, either continued with TDF+FTC+EFV throughout the study or switched to EFV from NVP after an initial ± 12 months on TDF + FTC + NVP. The rilpivirine arm, n = 213, switched to RPV + TDF + FTC having completed an initial 12 months on TDF + FTC + EFV. Both drug combinations were administered as single-tablet combination regimens (STRs). The RPV arm met the 48 wk efficacy viz. $\geq 10\%$ non-inferiority criteria and rate of virological failure requirements viz. viral suppression (<400cp/mL), RPV arm, n=200/213 (93.8%), EFV arm, n=203/211 (96.2%). More in the RPV arm (8%), vs the EFV (4.7%) arm, discontinued the study (n =27). This appeared to have been driven by an increase in adverse events (3.3% vs 0.5%) in the RPV arm and an unanticipated closure of one of the study sites. The number of discontinuations is small. And the increase in adverse events hasn't been previously reported in similar RPV vs EFV studies. Drs Moorhouse and Cohen provide an Opinion Piece on Rilpivirine Use in South Africa in the SAJHIVMED of the 29th May this year. See item no. 5 above.

Moorhouse et al. focus on the limitations of RPV in first-line ART in SA viz. baseline viral loads are unchecked in the public sector, many needing to start ART in SA present with low CD4 counts <200c/mm³, many in SA are already on TB (rifampicin) therapy and the recording of baseline QT intervals in South Africans initiating ART is not routine. Nevertheless Munderi's paper suggests that a novel role for RVP e.g. first-line switch studies remains an option in those who satisfy the criteria. This is a thoughtful and well-written paper.

17. Lilian RR, Rees K, Mabitsi M, McIntyre JA, Struthers HE, Peters RPH. Baseline CD4 and mortality trends in the South African human immunodeficiency virus programme: Analysis of routine data. *SAJHIVMED / Vol 20, No 1/ a963/ 24 July 2019*

Editor's comment: Highly recommended. This paper reviews HIV changes viz. in mortality and CD4 numbers at presentation, in South Africa from 2004-2016. The tables and figures provide a very clear window on what's happening in this region. UCT's TIER.Net database provided the n=203,131 and n=101,814 anonymised patient records of the respective Johannesburg (JHB) and Mopani (MPI, Limpopo, rural) regions analysed. The paper focuses on mortality in relation to CD4 counts <200c/mm³. But also draws attention to the post-2013 decline in ART-initiations in both regions - despite the fact that neither has yet achieved the 90-90-90 goals of the UNAID and the WHO. In both regions it is women who outnumber men with regard to ART initiations viz. 63-67% JHB and 68% MPI. In their analysis of the meaning of a low baseline i.e. CD4 count <200c/mm³ at ART initiation, this is the group with the greatest mortality *early* after starting ART and *over a 5 year period*. The data is significant (p< 0.001) whether urban or rural. The risk is still present in the 2016/2017 data. And the percentage of those initiating ART at these low levels remains high at this time viz. ±40% in JHB and 35% in MPI. Who are the ones who are at greatest risk of initiating ART at low CD4 levels? Men, the elderly, the hospitalized. The authors make the point – not new – that these citizens of SA are not invisible to society. This is a very thought-provoking study. For those among us who teach medicine, this paper has robust data, excellent tables and figures and a great deal to talk about. **This paper is a must-read for all our HIV Clinicians' Society members.**

18. Rossouw TM, van Dyk G, van Zyl G. Rapid emergence of resistance to antiretroviral treatment after undisclosed prior experience: A case report. SAJHIVMED / Vol 20 No1 / a965 / 30 July 2019 Case report.

Editor's comment: This is a short case report of a 43-year-old female whose prior exposure to first-line ART (2012-2013) was revealed following failure of what had been believed to be the patient's first exposure to ART in July 2014. Genotype testing at the commencement of ART in July 2014 failed to reveal viral mutations. However these emerged after the (re)start of antiviral therapy. This report is a reminder that failure to suppress HIV on first-line therapy must trigger the possibility of prior exposure to ARVs in addition to inadequate adherence. A comprehensive medical history must *always* include questions about prior ART exposure.