scientific reports

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Syphilis screening coverage and positivity by HIV treatment status among South African pregnant women enrolled in the 2019 antenatal HIV sentinel survey

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We describe coverage of maternal syphilis screening, syphilis positivity, coverage of treatment and their association with maternal HIV infection and antiretroviral treatment (ART) status among pregnant women attending South African antenatal clinics. The 2019 antenatal care sentinel survey was a cross-sectional survey conducted from 1 October to 15 November 2019 at 1589 sentinel sites in all nine provinces of the country and aimed to enrol 36,000 pregnant women ages 15–49 years regardless of HIV, ART or syphilis status. Data collection procedures included obtaining written informed consent, a brief interview, medical record review and blood specimen collection. Completed data collection forms and specimens were sent to designated regional laboratories for data capture and HIV serology testing. Data analysis determined four outcomes i) syphilis screening coverage ii) syphilis positivity iii) coverage of any treatment and iv) with Benzathine penicillin G (BPG). Multivariable logistic regression models with or without interaction between HIV infection and ART status with province were used to determine factors associated with syphilis positivity. Of the 41 598 women enrolled, 35 900 were included in the analysis for syphilis screening coverage. The weighted syphilis screening coverage was 96.4% [95% Confidence Interval (CI) 95.9–96.7%] nationally and was lowest among HIV positive women not on ART at 93.5% (95% CI 92.2–94.5%). Syphilis positivity was 2.6% (95% CI 2.4–2.9%) nationally. Among those who were syphilis positive, 91.9% (95% CI 89.8–93.7%) had documentation of syphilis treatment status, of whom 92.0% (95% CI 89.8–93.9%) were treated, with the majority treated with one or more doses of BPG [92.2% (95% CI 89.8–94.3%)]. HIV-positive women, not on ART [adjusted odd ratio (aOR) 2.24 (95% 1.71–2.93)] and those on ART [aOR 2.25 (95% CI 1.91–2.64)] were more likely to be syphilis positive compared to those who were HIV negative. The national syphilis screening coverage met the global screening target of 95%. Syphilis positivity was higher among HIV positive women compared to negative women. Introduction of rapid syphilis testing and ensuring a universal supply of appropriate treatment for syphilis will reduce the likelihood of mother-to-child transmission of syphilis.

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