HIV-infected women with sexually transmitted infections (STIs) or bacterial vaginosis (BV) during pregnancy are at increased risk for poor obstetric outcomes. In resource-limited settings, diagnostic testing for STIs and BV is often not available and most pregnant women are managed using syndromic algorithms. As part of a Nairobi perinatal cohort, HIV-1-infected pregnant women were interviewed and samples were collected for STIs and BV testing. Diagnostic accuracy of STIs and BV by syndromic algorithms was evaluated with comparison to the reference standard. Among 441 women, prevalence of BV was 37%, trichomoniasis 16%, chlamydia 4%, syphilis 3% and gonorrhoea 2%. Significantly more women with STIs were aged 21-years-old, had not attended secondary school and had a history of STIs. Syndromic diagnosis of STIs and BV demonstrated a sensitivity of 45% and 57%, and positive predictive value of 30% and 42%, respectively. Among these HIV-infected, pregnant women, STIs and vaginal infections were common and syndromic diagnosis was insensitive, resulting in missed opportunities to intervene and improve infant and maternal health.