Evaluating the Use of Rapid Syphilis Testing Among Patients in a Sexually Transmitted Infections Clinic in Lilongwe, Malawi

Background Limited-resource countries, such as Malawi, rely largely on the syndromic diagnosis of genital ulcer disease (GUD) to detect and treat syphilis. However, rapid treponemal tests are available for point-of-care testing and offer inexpensive syphilis serology assessments, though they cannot differentiate between untreated and previously treated syphilis as a stand-alone test. We assessed syphilis seroprevalence in the sexually transmitted infections (STI) clinic at Bwaila District Hospital in Lilongwe, Malawi, in August 2017.

Methods Rapid syphilis testing (RST), with the Alere Determine1HM Syphilis TP test or SD Bioline 3.0 Syphilis test, was offered in conjunction with standard opt-out HIV rapid testing. Anyone who tested RST positive was treated with three weekly doses of benzathine penicillin 2.4 MU IM, per Malawian standard of care. Per routine protocol, all patients also underwent a genital examination where GUD was diagnosed as the presence of one or more genital ulcers. We calculated syphilis seroprevalence, and used exact statistics to test for differences in proportions (α=0.05).

Results 848 patients had an RST, HIV test, and a genital exam, with 73 (9%) testing positive by RST. Among the 82 patients (10%) diagnosed with GUD, 26% (95% CI: 17%–36%) had a positive RST, compared to 7% (95% CI: 5%–9%) of patients without GUD (p<0.0001). Of the 89 patients (10%) who tested newly positive for HIV, 19% (95% CI: 12%–29%) had a positive RST, compared to 7% (95% CI: 6%–9%) among those who were HIV negative (p=0.0009).

Of the 73 patients who screened positive by RST, 71% (95% CI: 59%–81%) did not have GUD.

Conclusion Syphilis serology was more prevalent among patients who had GUD and who were HIV-infected. Syndromic diagnosis of GUD may not be sufficient to identify patients who require syphilis treatment. However, accurate staging is critical for appropriate treatment, and concerns surrounding over treating previously treated cases should be addressed.

Disclosure No significant relationships.
syphilis may lead to more serious complications in this population. We sought to inductively explore syphilis-related knowledge, and attitudes around biomedical prevention options for syphilis in an age of HIV pre-exposure prophylaxis (PrEP), with the goal of informing effective strategies to address the syphilis epidemic.

Methods We conducted in-depth, one-on-one interviews with a heterogeneous sample of GBM in Vancouver, including men living with HIV and/or with a history of syphilis. Our interviews focused on participants’ knowledge around syphilis and perceptions regarding syphilis PrEP. Interviews were audio-recorded, transcribed verbatim, and analyzed using Grounded Theory.

Results Twenty-five GBM were interviewed (64% white; median age: 43 years). Four overarching themes emerged regarding men’s views about syphilis. First, syphilis-related knowledge differed according to HIV and syphilis serostatus. Second, competing ideas emerged regarding men’s concerns about syphilis. While our participants expressed concern about getting syphilis, they also described the importance of sexual intimacy and pleasure. Third, many participants said that syphilis was not perceived to be particularly alarming; preventing HIV infection remained a primary concern for many. Finally, although syphilis PrEP was appealing to some, participants were concerned about antibiotic resistance, cost, and side effects.

Conclusion Concern for syphilis appeared low among GBM. Our participants tended to organize their safer sex strategies around HIV, not syphilis. Although syphilis-related knowledge was relatively high among GBM living with HIV and those with a prior syphilis diagnosis, this knowledge did not appear to be associated with safer sexual practices, such as increased condom use. This work highlights the importance of examining other potential acceptable prevention solutions, such as syphilis PrEP.

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P737 EVALUATING SYphilIS PARTNER NOTIFICATION OUTCOMES IN SEVEN JURISDICTIONS

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Background The effectiveness of partner notification services (PNS) for limiting syphilis transmission relies on the ability of disease intervention specialists (DIS) to find and assure treatment of partners. We measured estimates of partners found and treated due to PNS in seven jurisdictions.

Methods We reviewed early syphilis cases (primary, secondary, early latent) reported during 2015–2017 in seven jurisdictions in the United States (Florida, Louisiana, Michigan, North Carolina, Virginia, New York City, and San Francisco). We measured the numbers of: early syphilis (index) cases interviewed by DIS, (sex) partners reported (primary cases: ≥3 months; secondary cases: ≥6 months; early latent cases: ≥1 year), partners with enough locating information to begin PNS, partners treated prophylactically, and infected partners brought in for treatment resulting from PNS. We considered partners to be brought to treatment by PNS if: 1) a DIS-assigned disposition code indicated “brought to treatment” or 2) the partner was treated 0–90 days after the index case was interviewed.

Results DIS interviewed 23,428 index patients with early syphilis (range among jurisdictions 1,106–9,388), representing 78.9% of reported cases (50.1%–99.5%). Of those interviewed, 18,482 (78.9%) reported 78,960 partners, of whom outcomes of patient-initiated versus provider-initiated PNS, within strata of gbMSM first-diagnosed and re-diagnosed.

Results Of the 759 infectious syphilis cases in BC in 2016, 648 (85%) were among gbMSM, among whom 474 (73%) were first-diagnoses and 174 (27%) were re-diagnoses. A significantly greater proportion of gbMSM first-diagnosed chose patient-initiated PN compared to gbMSM re-diagnosed (62% vs 42%; P<0.01). Among gbMSM first-diagnosed, patient-initiated PN resulted in a greater proportion of partners notified compared to provider-initiated PN (177/199; 89% vs 426/603; 70%; P<0.001). There was no difference in the proportion of partners tested and/or treated, (156/177; 88% vs 380/426; 89%; P=0.05), and diagnosed (24/156 15% vs 51/380 13%; P>0.05). A similar trend in PN outcomes was observed among partners of gbMSM re-diagnosed.

Conclusion Patient-initiated and provider-initiated PN had similar outcomes among partners of both gbMSM first-diagnosed and re-diagnosed. However, gbMSM first-diagnosed were more likely to choose to notify their own partners. These findings demonstrate that patient-initiated PN have similar outcomes to provider-initiated PN and can increase the overall capacity for PN.

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