Background Sexually Transmitted Infections (STIs), including Neisseria gonorrhoeae (NG) and Chlamydia trachomatis (CT), continue to be a global health problem, with the majority of disease burden in Low-and-Middle-Income Countries. This could in part be addressed through increased access to point-of-care-tests (POCTs) to detect infection and appropriately manage cases and contacts. Criteria for the development of STI POCTs have been established, and several CT and NG POCTs have been brought to market. Yet even those diagnostics with good evidence of clinical effectiveness often fail to be implemented and adopted into routine care.

Methods We first reviewed whether the Cepheid CT/NG GeneXpert POCT fulfils published international guidance for STI POCT development: the (RE)ASSURED and Target Product Profile (TPP) criteria. Then, through a systematic review of Medline and Embase of published literature that reported on the test's implementation, demonstrated its values in different settings and to a variety of stakeholders. This information was then applied to form the basis of a value proposition for an 'ideal' CT/NG POCT.

Results The Cepheid CT/NG GeneXpert did not fulfill all (RE)ASSURED or TPP criteria, however, studies of test implementation showed multiple stakeholder values for use of the test across various healthcare settings and locations. The majority of values identified were setting-specific. Sexual health services and outreach services had the least overlap in values, whereas General Practice and other non-sexual health specialist services served as a 'bridge' between the two.

Conclusion We recommend that those wishing to improve CT/NG diagnosis be supported to identify the values most relevant to their settings and context, and prioritise implementation of those tests most closely aligned with those values.

P235 MAINTAINING ACCESS TO HIV PREP IN A PANDEMIC: PREP-USER AND HEALTH CARE PROFESSIONAL PERSPECTIVES ON A TELEPHONE-BASED PREP SERVICE

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Background To maintain access to PrEP during the COVID-19 pandemic our PrEP service (1000 PrEP-users) shifted to a largely telephone-based model (tele-PrEP).

Objectives To conduct a service evaluation of tele-PrEP, exploring the views and experiences of PrEP-users and sexual health care professionals (HCPs), to understand benefits and drawbacks to inform future service delivery.

Methods Parallel, web-based, anonymous surveys of PrEP-users and HCPs were developed using validated questions wherever possible. The PrEP-user survey was offered to people who had a tele-PrEP appointment between 13.11.2020–17.12.2020 and consented to participate. All HCPs conducting tele-PrEP appointments were invited to participate. Basic demographic data was captured. Data were analysed in Excel using descriptive statistics. Free text responses were thematically categorised using the Framework for a Systems Approach to Healthcare Delivery.

Results Sixty-two PrEP-users and 8 HCPs completed the surveys (response rate 55% and 89% respectively). Demographic characteristics of PrEP-user respondents were broadly representative of our whole PrEP-cohort. Tele-PrEP was rated 'excellent' or 'good' by 61/62 PrEP-users, and 59/62 would recommend it to friends. PrEP-users identified convenience as a key benefit along with access to PrEP with reduced potential for COVID-19 exposure. Drawbacks were largely technological, including poor connection or issues with online booking. All HCPs felt that tele-PrEP allowed them to assess patients safely and confidently. HCPs also rated its convenience highly and felt it enabled better use of limited face-to-face clinic capacity. However, HCPs thought that tele-PrEP might create barriers for vulnerable patients, particularly those with low digital, health and/or English-language literacy. One HCP and 10/62 PrEP-users expressed a personal preference for face-to-face appointments.

Conclusion Tele-PrEP is feasible and acceptable. While most respondents rated the service highly, others identified a need/preference for face-to-face appointments. Therefore, our service will continue tele-PrEP whilst ensuring availability of face-to-face care for those who require or request it.

P236 EXAMINING THE IMPACT OF THE UK'S COVID-19 PUBLIC HEALTH RESPONSE ON SEXUAL BEHAVIOUR AND HEALTH SERVICE USE AMONG MSM

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Background The introduction of social distancing in response to the COVID-19 pandemic led to reduced STI/HIV service provision in the UK. We investigated sexual risk behaviours among MSM and unmet need for sexual healthcare during the pandemic.

Methods A cross-sectional online survey (N=2,018) fielded via social media and dating apps (23/06–14/07/2020). We examined sexual behaviour and service use since lockdown (23/03/2020) and in the three previous months, and 'unmet need for STI testing' since lockdown (any new male partners and/or multiple condomless anal sex (CAS) partners without testing for STIs).

We compared behaviours over the past three months between socio-demographically equivalent sub-samples recruited via Grindr into the present survey (N=956) and a 2017 survey (N=1,918).

Results In 2020, 36.7% of participants reported new male partners and 17.3% reported multiple CAS partners since lockdown. Comparing time since lockdown vs previous three months, HIV testers were less likely to test at sexual health clinics (22.3% vs 70.2%) and more likely to use free online self-sampling services (64.3% vs 17.1%), and PrEP users were less likely to report PrEP use (21.7% vs 65.7%).

Since lockdown, 25.3% of participants had unmet need for STI testing. Unmet need was more likely among Asian vs White participants (aOR=1.76,[1.14–2.72],p=.01); living in Scotland (aOR=2.02,[1.40–2.91],p<.001) or Northern Ireland (aOR=1.93,[1.02–3.63],p=.04) vs England; and living with HIV (aOR=1.83,[1.32–2.53],p<.001).

Compared to 2017, the 2020 sub-sample were less likely to report new male partners (46.8% vs 71.1%, p<.001), multiple CAS partners (20.3% vs 30.8%, p<.001) and unmet need (32.8% vs 42.5%, p<.001) in the past three months.

Conclusion We found ongoing potential STI/HIV transmission among MSM during the initial UK lockdown, despite a reduction in sexual activity, and potential inequalities in access to sexual healthcare. These findings will support public health planning to mitigate against health risks during and after the COVID-19 response.

P237 DIAGNOSTIC AGREEMENT EVALUATION OF TREPONEMAL TEST FOR SYPHILIS TESTING

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Background Laboratory diagnosis of syphilis infection requires treponemal and non-treponemal antibody tests. Treponemal pallidum (TP) antibody tests can be used for screening and confirmation, as part of a two-stage diagnostic algorithm. The diagnostic performance of treponemal tests should be assessed for potential implementation by local STI laboratories. We evaluated three treponemal antibody tests using serum samples from syphilis patients enrolled in a cohort study.

Methods The Picasso study is a cohort of participants with clinically diagnosed syphilis. Enrolment criteria required a positive rapid point-of-care TP test (Alere Determine syphilis, Abbott Inc, USA) followed by qualitative and semi-quantitative RPR test or clinical evidence of syphilis infection, AND additional confirmatory testing with TPPA (Serodia TPPA, Fujirebio Inc, USA) and TPHA (Syphilis TPHA liquid, Human Diagnostics, Germany). Three comparisons of interest were: TPPA vs rapid TP, TPPA vs TPHA and TPHA vs rapid TP. For each comparison, statistical analysis included positive percent agreement (PPA) and prevalence-adjusted and bias-adjusted kappa (PABAK) correlation coefficient (i.e. a modification of Cohen's kappa when prevalence is too high). TPHA-indeterminate results were considered negative for analyses.

Results The Picasso study has enrolled 163 participants; all of them had a positive rapid TP test; 85% had an RPR≥ 1:8; 160 had a positive TPPA test, and 142 had a positive TPHA test. The PPA between TPPA and rapid TP was 98.0% with a PABAK of 0.96. For TPPA vs TPHA comparison, the PPA was 89.2% with a PABAK of 0.78. The PPA between rapid TP and TPHA was 87.2% with a PABAK of 0.74.

Conclusion We found a good concordance when comparing TPHA with either the TPPA or rapid syphilis test.

P238 RIGHT TEST, RIGHT TIME: ENSURING TIMELY RENAL FUNCTION MONITORING IN CLIENTS TAKING PREP

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Background Clients receiving PrEP (HIV Pre-Exposure Prophylaxis) require renal function (estimated Glomerular Filtration Rate (eGFR)) monitoring as detailed in BASHH/BHIVA guidelines. Annual monitoring is required for individuals < 40 with normal baseline eGFR and no risk factors for kidney disease. Our busy urban sexual health clinic lacked a structured system for eGFR monitoring, with concern clients were being tested unnecessarily or not at all.

Method A retrospective review was conducted of all clients under 40 years who received PrEP between June and November 2020. eGFR results and additional tests performed without clinical justification were extracted from records in the year preceding the issue of each PrEP prescription. The number of unnecessary repeat eGFRs within 12 months was recorded.

Results 199 clients were identified of whom 186 (93.5%) had eGFR checked in the year prior to issuing PrEP. 13 clients (6.5%) therefore had inadequate eGFR monitoring whilst continuing to take PrEP.

Of those tested, 55 (29.6%) had eGFR re-checked within a year without clinical justification with a total of 69 unnecessary tests performed. This equates to £345 expenditure on tests, six hours of clinical time administering results and over-investigation of clients with minor fluctuations in eGFR.

We implemented a new pathway for eGFR testing, including a visible alert on each client's record allowing clinical staff to immediately see when the eGFR was last checked, and when the next is due.

Conclusion This study identified both under- and over-testing of eGFR for clients taking PrEP. Whilst it is vital that eGFR testing is not missed, over-testing wastes clinical and financial resources which are at a premium in an era of budgetary constraints and reduced appointment availability due to COVID-19. As the number of clients taking PrEP increases, it is important for all services to ensure robust and efficient methods of eGFR monitoring.

P239 CLINICAL OUTCOMES OF SYPHILIS IN HIV-NEGATIVE AND HIV-POSITIVE MSM: OCCURRENCE OF REPEAT SYPHILIS EPISODES AND NON-TREPONEMAL SEROLOGY RESPONSES

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Objectives HIV-positive men who have sex with men (MSM) may be at a higher risk of repeat syphilis, have different clinical manifestations, and have a different serological response to treatment compared to HIV-negative MSM. The objective of this study was to assess whether HIV-negative and HIV-positive MSM with infectious syphilis (primary, secondary or early latent), differed in history of previous syphilis episodes, disease stage and non-treponemal titre of initial and repeat episodes, and the titre response 6 and 12 months after treatment. Furthermore, the determinants associated with an inadequate titre response after treatment were explored.

Methods This retrospective analysis used data of five longitudinal studies (4 cohorts and one RCT) conducted at a large sexually transmitted infection (STI) clinic in Amsterdam, the Netherlands. Participants were tested for syphilis and completed questionnaires on sexual risk behaviour every 3 or 6 months. We included data of participants with one or more syphilis diagnoses in 2014–2019.