Screening for Sexual Health Infections Including Chlamydia, Gonorrhoea and Syphilis in Accordance with European AIDS Clinical Society (EACS) Guidelines

C. Kerr, D. Moynan, N. Allen, S. Murphy, G. Farrell, C. Bergin

Department of Genito-Urinary Medicine and Infectious Diseases (GUIDe), St. James's Hospital, Dublin 8

Introduction

Sexually transmitted infections (STI) can cause mucosal disruption and inflammation and are a well-known risk factor for HIV transmission and acquisition (1). As per EACS guidelines (2), STI screening at diagnosis and regular follow-up screening is paramount in clinical care.

With current figures from the health prevention surveillance centre (HPSC) noting rates of syphilis at their highest since the MSM outbreak in 2001 (3) and increasing rates of Chlamydia and Gonorrhoea (4), adhering to EACS guidelines for screening at diagnosis of HIV-infection and yearly/as indicated thereafter remains crucial.

This audit aims to assess the rates of baseline nucleic acid amplification testing (NAAT) for chlamydia and gonorrhoea infection and serum syphilis testing among newly attending HIV-infected persons at the HIV clinic of St James's Hospital, Dublin.

Methods

A retrospective analysis was performed of all newly attending HIV-positive patients at St. James's Hospital HIV clinic in the year 2016 (n=266). The screening for chlamydia and gonorrhea infection was examined and the results documented.

Similarly, compliance with the screening for syphilis infection was reviewed and patients were categorised as having active infection, infection at some time (positive enzyme immunoassay [EIA] and Treponema pallidum particle agglutination assay [TPPA] and IgM negative) or negative serology.

Data was collected using the Electronic Patient Record System (EPR), anonymised and analysed using STATA.

Syphilis serology at first visit

Syphilis serology results

Positive serology breakdown

Chart 1. Pie charts demonstrating screening for and results of syphilis serology screening

CTNG NAAT screening at First presentation

CTNG NAAT results

Positive CTNG NAAT result breakdown

CTNG infection in patients with active Syphilis

Chart 2. Pie charts demonstrating screening for and results of CTNG NAAT testing

Results

From January to December 2016 there were 266 new attendances. The greatest modes of transmission were MSM; 200/266 (75%) followed by heterosexual; 48/266 (18%), IVDU; 13/266 (5%), 3/266 (1%) vertical transmissions, 1/266 (0.5%) bisexual and 1/266 (0.5%) from a needle stick injury.

249/266 (94%) had syphilis serology tested at diagnosis. 84/249 (34%) were noted to have positive syphilis serology; 31 (37%) of these positive results represented active syphilis and 53 (63%) represented a infection at some time. 80/84 (96%) of all patients with positive serology were MSM.

It was found that 223/266 (84%) had NAAT testing for chlamydia and gonorrhoea carried out at their first clinic visit. 36/223 (16%) had positive NAAT results for chlamydia, gonorrhoea or both. All 36 (100%) were MSM. 17/36 (47%) tested positive for gonorrhoea, 13/36 (36%) tested positive for chlamydia and 6/36 (17%) tested positive for both chlamydia and gonorrhoea.

Of those with active syphilis, 7/31 (23%) also tested positive for chlamydia, gonorrhoea or both.

Conclusion

This data demonstrates that screening for sexual health infections including chlamydia, gonorrhoea and syphilis at diagnosis of HIV infection is appropriately performed in this centre, but improvements can still be made. Rates of syphilis, chlamydia and gonorrhoea are concentrated in the MSM population, reflecting international and Irish national figures. With cases of syphilis increasing throughout the country, most notably in the MSM population, targeted primary care measures remain crucial in the prevention of these diseases.

Chart 3. Graph illustrating risk categories and age ranges of the cohort

References

1. Patel P, Borkowf CB, Brooks JT et al. Estimating per-act HIV transmission risk: a systematic review. AIDS 2014; 28:1509–19
2. EACS 2017: European AIDS Clinical Society. Guidelines version 9.0. [cited Oct 2017]. Available from: <http://eacsociety.org>
3. Cullen G, Igoe D. Syphilis in Ireland, 2015. Middle Gardiner St [Internet]. 2015 [cited 2018 May 31];1:25–7. Available from: www.hpsc.ie
4. Sexually Transmitted Infections in Ireland 2016. HSPC. [cited 2018 June 11]. Available from www.hpsc.ie