Sexually transmitted infections (STIs) are very common type of communicable disease in our setting and a major issue worldwide due to an increasing incidence. The World Health Organization (WHO) estimates that every year 340 million people are infected by bacterial or protozoan STIs\(^1\).

In our country, STI are reported to the Epidemiological Surveillance Network of Catalonia. In 2015, the corresponding diagnosis rates of infections by chlamydia, gonococcus and syphilis were 38.6, 25.0 and 18.5 cases per every 100,000 inhabitants in Catalonia and 7.6, 11.4 and 8.4 cases per every 100,000 inhabitants in Spain\(^2,3\). The prevalence of these infections which can be usually be treated with single-dose antibiotics has suffered a seven-fold increase throughout the last ten years.

In the imprisoned population, the prevalence of these infections is even higher than among the community. In a European meta-analysis\(^4\), the prevalence for chlamydia infection was 11% among young offenders of up to 25 years old in three different settings in Catalonia in 2012. Moreover, the prevalence for chlamydia infection was 6% and that of gonorrhea 1% among inmates from the Young Offenders Correctional Facility in Barcelona and as far as syphilis is regarded, the corresponding prevalence rates were 2.3% and 3.6% for each group.

In Catalonia there are also other particular features of the young offender population\(^5\) and these justify the implementation of a solid intervention to prevent the spread of STIs in this setting: 42% of the population has a background of STI (most particularly, condylomas, syphilis and gonorrhea), 77% reported not having used condoms in their last sexual encounter and 81% had used drugs that can interfere with safer sexual practices: cannabis (32%), hachis (28.2%), alcohol (18.9%) and cocaine (11.2%).

It is relatively frequent that STIs are asymptomatic: 75% of chlamydia infections, 50% of gonorrhea and many cases of HIV I and syphilis. This, however does not prevent their transmission and their severe long-term consequences such as sterility, inflammatory pelvic disease and congenital diseases in the offspring of pregnant women with STIs among others.

In the correctional settings there are several measures that could be implemented with regard to these diseases, such as including a safer approach to sexual relationships within the educational activities offered to inmates, the provision of condoms in vis-a-vis sessions and in penitentiary leaves, STI screening upon admission and periodically, the administration of HBV vaccination, early diagnosis and treatment of symptomatic STIs.

Reinforcement activities for the prevention, diagnosis and early treatment of these infections should be complemented by the detection of the infection in the patient’s sexual partners as to prevent their transmission to the rest of the community and potential re-infection of inmates themselves. Therefore, a step further against STIs needs to be taken and contacts of those diagnosed with these infections should be studied.

**PROTOCOL FOR THE STUDY OF CONTACTS OF INDIVIDUALS DIAGNOSED WITH STIs IN CATALONIA\(^6\)**

By mid-2017 and according to Act 023/2015 as of September 15th by which the Epidemiological Surveillance Network of Catalonia was created and the report system for diseases of compulsory declaration and for epidemic outbreaks established\(^7\), the Public Health Agency of Catalonia drafted the Protocol for the study of contacts of individuals diagnosed with STIs in Catalonia, which is summarized down below.

**Stages to carry out the study of contacts**

1. The physician who has diagnosed the STI collects information on the patient’s sexual partners during the period in which the disease can be potentially transmitted (which can vary from 2 months to...
several years). It is essential that the healthcare provider clearly explains why it is important to report partners that they are at risk of suffering a STI.

2. Healthcare providers agree with the patient on the notification model that will be used to study contacts in each of the identified partners. The ideal option is that inmates themselves notify their partners the risk of infection and recommends them to pursue consultation to rule out potential infection (patient referral). If the patient prefers not to contact any (or none) of the partners or does not have the possibility of doing so (due to a lack of contact with the exterior, for example), healthcare providers will be responsible for doing so (provider referral), prior inmate’s express consent. If after an agreed period of time there are still partners with whom the patient has not been able to establish contact, providers will offer their support or take over the responsibility of doing so (conditional referral), as established by the prevailing legal framework.

3. Management of contacts that access the healthcare system: Those pursuing consultation (preferably in a primary care center) should be granted a preferential visit, if possible within the same day, to collect the clinical record, perform a complete physical examination and collect the necessary samples to diagnose a STI and be offered the corresponding treatment if there is a suspicion of active infection.

In all STI diagnosis, physicians are compelled to report it to the Diseases of Compulsory Declaration Registry in their autonomous community and to initiate the corresponding study of contacts, both of the index case and of all infected cases.

Monitoring and evaluation of the implementation of contact study

Although there is no evidence on the long-term effectivity of contact study, some publications state that patient referral, if appropriately complemented with information provided by the physician (reinforced patient referral) reduces the frequency of reinfection among patients diagnosed with chlamydia urethritis, gonorrhea, trichomonas and non-gonorrheal urethritis. Other studies suggest that in the case of syphilis and HIV the most effective method is provider referral.

In view of the importance that the degree of implementation of contact study has, it is essential to monitor and assess the activity by means of the following parameters: number of contacts identified per patient, percentage of contacts whom are reported, percentage of reported contacts who pursue consultation and who receive it, percentage of individuals diagnosed with STI that are treated for it and number index cases that are needed to interview to identify a new case in each of the STI for which the contact study is carried out.

CONCLUSIONS

STIs are the infectious diseases with a higher report rate in developed countries and their prevalence is clearly raising. They are mostly asymptomatic processes which can entail serious long-term complications.

Moreover, apart from preventive activities (health education and provision of condoms) and welfare activities (diagnosis, treatment and monitoring of treated individuals to check their healing) it is also necessary to avoid the spread of these diseases in the community and the potential reinfection of inmates. Therefore, it is essential that before any individual diagnosed with STIs, a thorough contact study be performed as soon as possible to identify and treat involved partners and thus avoid the appearance of new cases in the community and the reinfection of the index case.

Correctional healthcare providers play a key role in the implementation of this strategy since their location improves the receptiveness and can promote the access of the inmates to the healthcare system and since many inmates are receptive to healthcare-related messages.

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BIBLIOGRAPHIC REFERENCES

1. World Health Organization. Global strategy for the prevention and control of sexually transmitted infections: 2006-2015. Geneva: WHO; 2015. Available from: http://www.who.int/hiv/pub/toolkits/stis_strategy%5B1%5Den.pdf
2. CEEISCAT. Vigilancia epidemiológica de las infecciones de transmisión sexual a Catalunya a partir del sistema de notificación de malalties de declaración obligatoria i del sistema de notificación microbiológica. Informe anual 2015. Available from: http://www.ceeiscat.cat/documents/anual_ITS.pdf
3. Ministerio de Sanidad, Igualdad y Consumo. Vigilancia epidemiológica de las infecciones de transmisión sexual, 1995-2015. Available from: http://www.msssi.gob.es/ciudadanos/enfLesiones/enfTransmisibles/sida/vigilancia/Vigilancia_ITS_1995_2015.pdf
4. ECDC. Systematic review on communicable diseases in prison settings. Estocolmo; noviembre 2017. Available from: https://ecdc.europa.eu/sites/portal/files/documents/Systematic-review-on-communicable-diseases-in-prison-settings-final-report.pdf
5. CEEISCAT. Sistema Integral de Vigilancia Epidemiológica de Sida/VIH/ITS de Cataluña 2015. Barcelona; 2015. Available from: www.ceeiscat.cat/documents/sives2015_CAT.pdf
6. Agència de Salut Pública de Catalunya. Protocol per a l’estudi dels contactes de les persones diagnosticades d’ITS a Catalunya. Available from: http://canalsalut.gencat.cat/web/content/contingut_responsiu/salutAZ/1/infeccions_transmissiosexual/recursos_prof/documents/protocol_ec_its.pdf
7. Decreto 203/2015, de 15 de septiembre, por el que se crea la Red de Vigilancia Epidemiológica de Cataluña y se regulan los sistemas de notificación de enfermedades de declaración obligatoria y brotes epidémicos. DOGC [15]-[09]-[2015], pág. 1-19. Available from: http://dogc.gencat.cat/es/pdogc_canals_interns/pdogc_resultats_fitxa/?action=fitxa&documentId=702922&language=es_ES
8. Ley orgánica 15/1999, de 13 de diciembre, de protección de datos de carácter personal. Artículo 11. Available from: https://www.boe.es/buscar/pdf/1999/BOE-A-1999-23750-consolidado.pdf
9. Ley orgánica 3/1986, de 14 de abril, de medidas especiales en materia de salud pública. Available from: https://boe.es/buscar/pdf/1986/BOE-A-1986-10498-consolidado.pdf
10. Ley 18/2009, de 22 de octubre, de salud pública. Available from: http://portaljuridic.gencat.cat/ca/pjur_ocults/pjur_resultats_fitxa/?documentId=532871&action=fitxa
11. Ley 41/2002, de 14 de noviembre, básica reguladora de la autonomía del paciente y de los derechos y obligaciones en materia de información y documentación clínica. Available from: https://www.boe.es/boe_catalan/dias/2002/12/02/pdfs/A03057-03062.pdf
12. Ley orgánica 15/1999, de 13 de diciembre, de protección de datos de carácter personal. Artículo 4. Available from: https://www.boe.es/buscar/pdf/1999/BOE-A-1999-23750-consolidado.pdf
13. Codi de Deontologia Mèdica del Consell General de Col·legis Oficials de Mèdics. Article 51.5. Available from: https://www.comb.cat/cat/colegi/docs/codi_deontologic.pdf
14. European Centre for Disease Prevention and Control. Public health benefits of partner notification for sexually transmitted infections and HIV. Stockholm: ECDG; 2013.