

erythromycin, ciprofloxacin, penicillin and tetracycline respectively. Resistance for ciprofloxacin had rise from 56% in 2012, 58.8% in 2013, 66.7% in 2014 to 68.5% in 2015.

Conclusion Spectinomycin, cefixime, ceftriaxone, azithromycin are useful. Ciprofloxacin the most prescribed antibiotic is no longer reliable for treatment of GC. Continuous surveillance is essential to modify treatment guidelines. Worsening GC drug resistance will compromise effective treatment and decrease disease control efforts.

P2.31 ANNULAR LICHEN PLANUS ON PENIS TREATED WITH TOPICAL PIMECROLIMUS 1%

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Introduction Lichen planus (LP) is an idiopathic inflammatory disease of the skin and mucous membranes. Classical LP is characterised by pruritic, violaceous papules that favour the extremities. Annular lichen planus (ALP) is a long-recognised clinical variant of lichen planus, but is often considered uncommon in occurrence. ALP commonly involves the male genitalia but also has a predilection for intertriginous areas such as the axilla and groin folds. Distal aspects of the extremities, and less commonly the trunk, may also be involved.

Methods We report the case of 38 year-old uncircumcised male patient who addressed our clinic for multiple asymptomatic annular lesions on the glans penis and corpus penis and whitish linear bilateral and symmetric lines on buccal mucosa with 2 years duration. During this period the patient was treated several times with antifungal and corticosteroid drugs without improvement.

Results Diagnosis was based on clinical features and histological examination. The patient was treated with topical pimecrolimus 1% with significant improvement after 3 weeks.

Conclusion This description highlights the importance of patients presenting annular lesion on penis be routinely required to undergo further medical examination for Candida spec., Sexually transmitted infections and if is necessary to perform the biopsy because the exact diagnosis is basis for proper treatment.

P2.32 SYPHILIS MANAGEMENT IN CHILE: IS PARTNER NOTIFICATION A MISSED OPPORTUNITY?

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Introduction Partner Notification (PN) is an essential strategy for sexually transmitted infection (STI) control, but both policies and methods of implementation vary among countries. Using syphilis as a case study, we investigated the Chilean policy regulations relating to PN and examined the effect of these policies in the field.

Methods Qualitative techniques were used to gain insights into current Chilean policies related to syphilis management and control, and to understand the nuances of delivering PN in

the current system. The latest national standards/policies with the words “STIs” or “syphilis” in the title were analysed. 48 semi-structured face-to-face interviews were conducted with healthcare providers (HCP). A third of the interviews were transcribed verbatim and translated from Spanish to English for thematic analysis, which followed an inductive approach based on grounded theory. Following the identification of themes, remaining interviews were coded utilising a method of constant comparison to highlight concordance and dissonance of participant views.

Results A total of six documents met the inclusion criteria. While syphilis prevention is highlighted in them, PN was barely acknowledged as a necessary activity to reduce the risk of transmission and reinfection. No document provided detailed information about PN strategies. HCP recognised PN as an essential strategy for STI control; however, they identified a lack of available guidelines and resources to ensure best practice. Additionally, the PN strategies currently undertaken are inconsistent and varied across services.

Conclusion Strengthening policies at a local and national level to reinforce PN should be considered by Chilean authorities. A priority action plan which includes training of HCP in PN and a strong support network for efficient delivery of PN would both enhance STI control and the long-term impact of existing policies.

P2.33 CO-OCCURRENCE OF *TRICHOMONAS VAGINALIS* AND BACTERIAL VAGINOSIS AMONG WOMEN; PREVALENCE AND TREATMENT OUTCOMES

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Introduction Both *Trichomonas vaginalis* (TV) and bacterial vaginosis (BV) cause vaginitis and place women at higher risk for HIV infection. Both are treated with metronidazole (Mtz) but at different doses. The purpose of this study was to examine the co-occurrence of these infections and BV treatment outcomes among TV+/BV+ women multi-dose Mtz for the treatment of TV.

Methods Women attending three sexually transmitted disease clinics in the southern US who had a diagnosis of TV (culture or NAAT confirmed) were interviewed and examined for BV using a Nugent score ≥ 7 . Women were randomised to either 2 g single dose or 500 mg Mtz BID for 7 days multi-dose for the treatment of TV and followed 3–12 weeks post TV treatment and retested for both TV and BV. Medical records were abstracted for Amsel criteria for a subset of the cohort.

Results Of 528 TV+ women at baseline, 49.8% also had BV per Nugent score, 44.3% reported a history of BV and 5.9% also had yeast. Of 289 women whose medical records were abstracted, 23.5% had a vaginal discharge consistent with BV (i.e. thin and white/grey), and 34.1% were BV+ per Amsel at baseline. Of the 46 women who were BV+ at baseline per Amsel (i.e. diagnosed at point of care) and per Nugent (i.e.

lab diagnosed) and were treated with multi-dose Mtz, 96% reported taking all their medicine. While 36% of these women reported condomless sex during follow-up, there was no association between sexual exposure and BV status at TOC. Of these 46 women, 42.9% remained BV+ at TOC and 19.4% reported BV-related symptoms. BV status at TOC was not associated with TV cure rates ($p>0.56$).

Conclusion A high rate of BV co-infection (49.8%) was found among women with TV, much of which was asymptomatic. The rate of BV persistence post multi-dose Mtz was also high both microbiologically (42.9%) and clinically (19.4%) and did not appear to be influenced by TV treatment status. Additional research and development of novel therapeutics (i.e. biofilm disruptors) are urgently needed for women with BV, particularly among TV+ women where BV rates are high.

P2.34 DOES ORAL SEX CAUSE FEMALE INFERTILITY?

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Introduction We present the following tri-factorial hypothesis:

1. All members of the *Chlamydiaceae* have evolved primarily as commensals of the digestive tract of their host(s) with fecal-oral transmission (FOT) as the principal route of dissemination to new hosts. In communities where fecal-oral transmission is reduced (e.g., via global sanitation), the occurrence of chlamydiae in the digestive tract of their host is reduced. 2. *Chlamydia trachomatis* is a commensal microorganism of the human gastro-intestinal (GI) tract, and an opportunistic pathogen in the genital and respiratory tracts, and the conjunctiva. Under conditions of reduced FOT, direct contact (e.g., sexual) is the primary mode of transmission.

3. *C. trachomatis* is efficiently transmitted to the GI tract of new hosts via oral sex. The practice of oral sex has 'reintroduced' *C. trachomatis* to the human GI tract in communities where FOT was previously reduced.

Methods Circumstantial, historical and recent evidence from humans and animals that support the hypothesis is reviewed. Imaging of mCherry expressing *Chlamydia muridarum* in the murine GI tract was obtained.

Results and Conclusion: Tenets 1 and 2 imply a paradigm shift to reflect a revision of the status of *C. trachomatis* from that of a principal pathogen to that of a commensal organism that causes opportunistic infection at mucosal epithelia other than its preferred GI site. High frequency on/off switching of the expression of autotransported polymorphic membrane proteins, the unique properties of peptidoglycan and lipo-oligosaccharide, and observed extruded inclusions in the GI tract of *C. muridarum*-infected mice may facilitate chlamydial survival and colonisation of the GI tract. Tenet 3 implies that orally inoculated chlamydiae that survive in and colonise the GI tract, may reach the rectum and chronically, or episodically, infect the female genital tract eventually causing/contributing to tubal pathology and infertility. The global hypothesis therefore raises the provocative question: does oral sex cause or contribute to female infertility?

P2.35 NEUROSYPHILIS: STILL THE SHADOW ON EARTH

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Treponema pallidum subsp. *pallidum* (*T. pallidum*), the etiologic agent of syphilis, can disseminate into virtually any organ including the central nervous system (CNS). Among those infected organs, the diagnosis and treatment of central nervous system (CNS) infection is recognised to be the most challenging. If left untreated, neuroinvasion with *T. pallidum* might lead to asymptomatic meningitis and develop severe even irreversible symptomatic neurosyphilis (NS). In the early 20th century, about 10% of the population of the United States and Europe were infected with syphilis. A century has passed, syphilis still remains a global public health problem, especially in developing countries, such as China, where an estimated 400 thousand people were infected annually in recent ten years. Despite a major health consequence that can cause undue physical, psychological harm and suffering for patients, neurosyphilis has not yet been a priority and remains a medical and public-health problem in many countries. The reasons that the surveillance data of neurosyphilis are limited at global level may because of the following: 1. the *Tp* invades the CNS in most patients with early syphilis, who may have no symptom at all, which is difficult to determine which patient requires lumbar puncture (LP); 2. the diagnosis of neurosyphilis relies on CSF findings and the laboratory test criteria for diagnosis of neurosyphilis is neither sensitive nor specific; 3. symptomatic neurosyphilis is a "great imitator" and lack of specific clinical manifestations, which may result in misdiagnosis and leaves the disease without treatment for years. Here we reviewed the neurosyphilis in Shanghai Skin Disease hospital, China main land and investigated more than 6000 syphilis patients in Shanghai Skin Disease Hospital. We reinstate the need for LP among syphilis patients, particularly in the settings where syphilis is prevalent among key populations. As the incidence of syphilis continues to increase, further work is needed to better understand neurosyphilis.

P2.36 SEXUALLY TRANSMITTED CO-INFECTIONS AND THE EFFECT OF DRUG USE ON RISK OF VIROLOGIC FAILURE AMONG HIV-POSITIVE MEN ON ANTIRETROVIRAL THERAPY

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Introduction Incidence of syphilis, chlamydia and gonorrhoea continue to rise among HIV-positive men who have sex with men (MSM) in Ontario. We previously observed an elevated risk of sexually transmitted infections (STI) among recreational drug users. Our aim was to determine the effect of a new STI diagnosis and recreational drug use on virologic failure (VF) among MSM successfully treated with antiretroviral