PROGRAM & ABSTRACT BOOK

35TH IUSTI-EUROPE CONFERENCE

14 CME Credits

SEPT. 29 - OCT. 01, 2022

TBILISI, GEORGIA

www.iusti-europe2022.org

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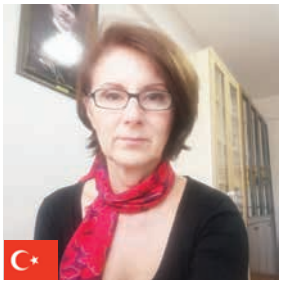
Prof. Jana Hercogova (Czech Republic)

PROGRAM FOR THURSDAY 29TH SEPTEMBER, 2022			
11:00-17:30	TH-01	IUSTI-E ADVANCED COURSE 2022	ONLINE
10.00-13.00	GE-01.1	GEORGIAN SESSION/STI	VENUE
13:00-13:30	GE-01.2	LUNCH	VENUE
13.30-17.30	GE-01.3	GEORGIAN SESSION/DERMATOLOGY	VENUE
17:30-18:30	TH-02	OPENING CERENONY	VENUE
18:30-19:15	TH-03	OPENING KEYNOTE/PLENARY LECTURE # 1	HYBRID
19:30-21:00	TH-04	WELCOME RECEPTION/SOCIAL EVENT	TBILISI CITY COUNCIL

PROGRAM FOR FRIDAY 30TH SEPTEMBER, 2022			
10:00-11.00	FR-01	FREE COMMUNICATION SESSION	HYBRID
11:00-12:30	FR-02	SESSION A – BASHH SEMINAR	HYBRID
12:30-13:00	FR-03	COFEE BREAK AND POSTER VIEWING	HYBRID
13:00-13:30	FR-04	PLENARY LECTURE # 2	HYBRID
13:30-14:00	FR-05	PLENARY LECTURES # 3	HYBRID
14:00-14:30	FR-06	PLENARY LECTURES # 4	HYBRID
14:30-15:00	FR-07	LUNCH AND POSTER VIEWING	HYBRID
15:00-17:00	FR-08	SESSION B - SYPHILIS	HYBRID
17:00-19:30	FR-09	SESSION C - HPV	HYBRID

PROGRAM FOR SATURDAY 1ST OCTOBER, 2022			
10:00-11.00	ST-01	FREE COMMUNICATION SESSION	HYBRID
11:00-12:30	ST-02	SESSION D: EADV/ECDC/IUSTI-E SYMPOSIUM	HYBRID
12:30-13:00	ST-03	COFEE BREAK AND POSTER VIEWING	HYBRID
13:00-13:30	ST-04	PLENARY LECTURES # 5	HYBRID
13:30-14:00	ST-05	PLENARY LECTURES # 6	HYBRID
14:00-14:30	ST-06	IUSTI-EUROPE DEBATE	HYBRID
14:30-16:00	ST-07	LUNCH AND POSTER VIEWING	HYBRID
14:30-15:15	ST-08	HOLOGIC WORKSHOP	HYBRID
16:00-18:00	ST-09	SESSION E – FUTURE PERSPECTIVE	HYBRID
18:00-18:30	ST-10	CLOSING PLENARY # 7	HYBRID
18:00-19:00	ST-11	CLOSING CEREMONY	HYBRID

Prof. Khalil Ghanem
(USA)



Prof. Deniz Gökengin
(Turkey)

Prof. Björn Herrmann
(Sweden)

Dr. Patrick Horner
(UK)

Prof. Chris Kenyon
(Belgium)

Prof. Catherine Mercer
(UK)

Dr. John Saunders
(UK)

Prof. Georg Stary
(Austria)

Dr. John White
(UK)

Dr. Teodora Wi
(Switzerland)

Dr. Philipp Bosshard
(Switzerland)

Dr. Marco Cusini
(Italy)

Prof. Nicolas Dupin
(France)

Dr. Derek Freedman
(Ireland)

Dr. Mitzy Gafos
(UK)

Prof. Lorenzo Giacani
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Prof. Electra Nicolaidou
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Dr. Melanie Taylor
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(Spain)

Prof. Henry de Vries
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Prof. Arne Wikström
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Dr. Andrew Winter
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Dr. Irith De Baetselier
(Belgium)

Dr. Laura Fernandez-Lopez
(Spain)

Ms. Megi Gogishvili
(Spain/Georgia)

Prof. Oleg Pankratov
(Belarus)

Dr. Sofia Papanikou
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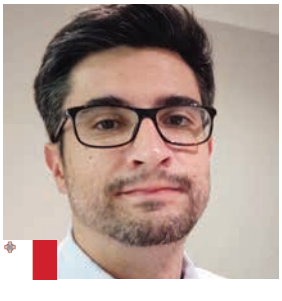
Dr. Delphine Rahib
(France)

Dr. Nydile Ramesh
(UK)

Dr. Natia Todua
(Georgia)



Dr. Matthew Valentino
(Malta)

Dr. Kerstin Wissel
(Switzerland)

Dr. Manik Kohli
(UK)

Dr. Claire Dewsnap
(UK)

Dr. Emma Harding-Esch
(UK)

Dr. Elizabeth Okecha
(UK)

Dr. Suneeta Soni
(UK)

Prof. Christopher Bunker
(UK)

Dr. Benjamin Bluemel
(ECDC)

Dr. Ien Chan
(UK)

Ms Gabrielle Schittecatte
(ECDC)

Dr Christopher Scott
(UK)

Dr. Helene Zondag
(The Netherlands)

Dr. Peter Greenhouse
(UK)

Prof. Gleb Bondarenko
(Ukraine, Special Guest)

Prof. Archil Chkhotua
(Georgia)

Prof. Maya Datuashvili
(Georgia)

Dr. Alexander Khelaia
(Georgia)

Prof. Alexander Khuskivadze
(Georgia)

Prof. Tina Kituashvili
(Georgia)

Dr. George Kochiashvili
(Georgia)

Dr. Bidzina Kulumbegov
(Georgia)

Dr. Vakhtang Kvirkvelia
(Georgia)

Prof. Maya Matoshvili
(Georgia)

Prof. Temur Mikeladze
(Georgia)

Prof. Mamuka Nemsadze
(Georgia)

Prof. George Tevdorashvili
(Georgia)

THURSDAY

SEPT. 29 2022

VIRTUAL IUSTI-EUROPE ADVANCED COURSE 2022

STIs: HOW TO SOLVE PROBLEMS?

TH-01

Chairs: Prof Angelika Stary (Austria), Dr Marco Cusini (Italy)

11.00-11.05
Angelika Stary (Austria), Marco Cusini (Italy)
WELCOME TO THE IUSTI EUROPE ADVANCED COURSE 2022

TH-01.1

SESSION 1

Chairs: Prof. S. Tiplica (Romania), Prof. S. Lautenschlager (Switzerland)

11.05-11.20
George Sorin Tiplica (Romania)
IUSTI EUROPE: EFFORTS TO SUPPORT STI PROBLEMS

11.20-11.35
Dr. Stephan Lautenschlager (Switzerland)
GLOBAL IMPACT OF COVID ON STIS

11.35-11.50
Prof Deniz Gokengin (Turkey)
HIV AND PREP AND WHAT ELSE?

11.50-12.00
DISCUSSION

TH-01.2

SESSION 2

Chairs: Dr. E. Hiltunen (Finland), Prof. G. Stary (Austria)

12.00-12.15
Prof. Georg Stary (Austria)
IMMUNOLOGY AND STIS

12.15-12.30
Dr. Eija Hiltunen-Back (Finland)
VACCINES AND STIS: PRACTICAL ISSUES

12.30-12.45
Dr. Marco Cusini (Italy)
SYPHILIS DIAGNOSIS: AN UPDATE ON PITFALLS

12.45 - 13.00
Prof. Angelika Stary (Austria)
NEW AMPLIFICATION METHODS: DO WE NEED THEM?

13.00-13.15
DISCUSSION

TH-01.3

LUNCH BREAK

TH-01.4

SESSION 3

Chairs: Dr. V. Padovese (Malta), Prof. M. Skerlev (Croatia)

14.00-14.15
Prof. Electra Nicolaidou (Greece)
THE ITCHING VULVA

14.15-14.30
Dr. Valeska Padovese (Malta)
THE PROBLEMATIC VAGINA

14.30-14.45
Prof. Mikhail Gomberg (Russia)
THE RED PENIS: HOW TO SOLVE IT?

THURSDAY

SEPT. 29 2022

14.45-15.00	Prof. Mihael Skerlev (Croatia) HPV 2022
15.00-15.15	DISCUSSION
TH-01.5	**SESSION 4** **Chairs: Marti Vall Mayans, C. Heller-Vitouch**
15.15-15.30	Dr. Claudia Heller-Vitouch (Austria) SCABIES: STILL PROBLEMATIC TO TREAT
15.30-15.45	Dr. Raj Patel (UK) GENITAL HERPES: ARE THERE NEW GUIDELINES TO HELP?
15.45-16.00	Dr. Marti Vall Mayans (Spain) GONORRHOEA TREATMENT: IS RESISTANCE A PROBLEM?
16.00-16.15	Prof. Jargen Skov Jensen MYCOPLASMA GENITALIUM: NEW TREATMENT GUIDELINES
16.15-16.30	DISCUSSION
TH-01.6	**SESSION 5** **Chairs: Dr. A. Winter (UK), Dr. H. de Vries (The Netherlands)**
16.30-16.45	Dr. Andy Winter (UK) MONKEY POX: WHAT IT MEANS FOR STI CLINICIANS
16.45-17.00	Dr. Henry de Vries (The Netherlands) ALL AROUND STIS
17.00-17.15	Dr. Derek Freedman (Ireland) QUALITY SEX – OUR ASPIRATION
17.15-17.25	DISCUSSION
TH-01.7	
17.25-17.30	Prof. Angelika Stary (Austria), Dr. Marco Cusini (Spain) **CONCLUSION OF THE IUSTI EUROPE ADVANCED COURSE 2022**

THURSDAY

SEPT. 29
2022

TH-02

17:30-18:30 **OPENING CEREMONY:**

Dr. Joseph Kobakhidze (Georgia) – Congress Co-President
Prof. George Galdava (Georgia) – Congress Co-President
Dr. Claudia Heller-Vitouch (Austria) – IUSTI Regional Director
Prof. George-Sorin Tiplica (Romania) – IUSTI-E Chair

18:30-19:15 **OPENING KEYNOTE/PLENARY LECTURE # 1**

Dr Teodora Wi (WHO, Switzerland)
GLOBAL STI: WHAT'S NEXT

TH-03

19:30-21:00 **WELCOME RECEPTION/SOCIAL EVENT**

FR-01

10:00-11:00 **FREE COMMUNICATION SESSION**

Dr Marco Cusini (Italy)
NEW HOSPITAL-TERRITORY INTEGRATED MODELS FOR THE PREVENTION AND CONTROL OF SEXUALLY TRANSMITTED INFECTIONS, IN ITALY

Irith De Baetselier (Belgium)
MISSED MONKEYPOX INFECTIONS AMONG MALE ATTENDEES OF A SEXUALLY TRANSMITTED INFECTION CLINIC IN ANTWERP, BELGIUM

Dr Laura Fernandez-Lopez (Spain)
ACCEPTABILITY OF THE SARS-COV-2 RAPID TEST OFFER IN COMMUNITY-BASED HIV TESTING CENTERS

Prof Mikhail Gomberg (Russia)
THE ROLE OF ANAEROBIC MICROORGANISMS IN THE DEVELOPMENT OF URETHRITIS IN MEN

Dr Delphine Rahib (France)
EFFECT OF A HIV SCREENING PROGRAM OFFERING REMINDERS AND AT HOME SOLUTIONS IN FRENCH MEN WHO HAVE SEX WITH MEN

Dr Natia Todua (Georgia)
TREATMENT OF ANOGENITAL (VENEREAL) WARTS, TAKING INTO ACCOUNT AVAILABLE RESOURCES IN GEORGIA

FR-02

11:00-12:30 **SESSION A - BASHH SEMINAR "ONLINE TESTING AND TREATMENT FOR SEXUALLY TRANSMITTED INFECTIONS"**

Chairs: Suneeta Soni (UK) and Claire Dewsnap (UK)

1. Position statement on inappropriate testing and treatment through some online and private providers

Dr. Suneeta Soni (UK)
Background

Dr. Emma Harding Esch (UK)
Assessment of online testing and self-sampling providers for STI

Dr. Elizabeth Okecha Online prescribing for STI
What's on offer?
Dr. Suneeta Soni (UK)

Next steps
Question, comments from European colleagues and discussion

2. Dr. Manik Kohli (UK)
Position statement on doxycycline as STI prophylaxis

Questions discussion

3. Dr. Claire Dewsnap (UK)
BSIG website

FRIDAY SEPT. 30 2022

FR-03

12:30-13:00 COFFEE BREAK AND POSTER VIEWING

FR-04

13:00-13:30 PLENARY LECTURE # 2

Prof. Khalil Ghanem (USA)
SYPHILIS 2020'S DRIVERS, CHALLENGES AND MANAGEMENT

FR-05

13:20-14:00 PLENARY LECTURE # 3

Dr. Patrick Horner (UK)
MY LIFE WITH URETHRITIS

FR-06

14:00-14:30 PLENARY LECTURE # 4

Prof. Georg Stary (Austria)
UNDERSTANDING THE IMMUNE RESPONSE TO HPVI

FR-07

14:30-15:00 LUNCH AND POSTER VIEWING

FR-08

15:00-17:00 SESSION B – SYPHILIS, CONTEMPORARY APPROACH

Chairs: Prof Nicolas Dupin (France) and Prof Stephan Lautenschlager (Switzerland)

Prof. Nicolas Dupin (France)
Neurosyphilis

Prof. Stephan Lautenschlager (Switzerland)
Syphilis: Special cases and special conditions

Dr. Philipp Bosshard (Switzerland)
Laboratory diagnosis of syphilis: what is the Gold-Standard?

Dr. Melanie Taylor (USA)
Congenital syphilis

FR-09

17:00-19:30

SESSION C – HPV IN XXI CENTURY

Chairs: Prof. Mihael Skerlev (Croatia) and Prof. Arne Wikström (Sweden)

Prof. Electra Nikolaidou (Greece)
Global burden of disease

Prof. Suzana Ljubojevic (Croatia)
Oncologic aspects of HPV in men"

Prof. Mihael Skerlev (Croatia)
Prophylaxis and HPV in children

Prof. Arne Wikström (Sweden)
Home-based treatment of HPV-induced lesions

Dr. Claudia Heller Vitouch (Austria)
Office-based treatment: When is this used and which are the best methods?

ST-01

10.00-11.00 **FREE COMMINICATION SESSION**

Ms Megi Gogishvili (Spain/Georgia)
COMPARISON OF HIV TESTING PERFORMED PRE AND DURING COVID-19 AT COMMUNITY-BASED TESTING CENTERS IN EUROPE: COBATEST, 2019-2020

Prof. Oleg Pankratov (Belarus)
SYPHILIS IN THE REPUBLIC OF BELARUS: MORBIDITY AND EPIDEMIOLOGICAL TRENDS

Dr. Nydile Ramesh (UK)
HOW DO SOCIOECONOMIC DETERMINANTS OF HEALTH AFFECT THE PREVALENCE OF HTLV-1 GLOBALLY?

Dr. Matthew Valentino (Malta)
THE MONKEYPOX OUTBREAK IN MALTA: CLINICAL CHARACTERISTICS AND DIAGNOSTIC CHALLENGES

Dr. Kerstin Wissel (Switzerland)
IMPACT OF ON-SITE PCR TESTING FOR BACTERIAL STIS ON THE NUMBER OF BLIND TREATMENTS AT A LARGE SWISS STI CLINIC

Dr. Sofia Papanikou (Greece)
SEXUALLY TRANSMITTED INFECTIONS AMONG HIV (-) MSM, AT THE STIS CLINIC OF ANDREAS SYGGROS HOSPITAL, ATHENS, GREECE, 2018-2020

ST-02

11.00-12.30 **SESSION D: EADV / ECDC / IUSTI-E SYMPOSIUM - MONKEYPOX OUTBREAK 2022**

Chairs: Prof. Christopher Bunker (UK), Prof. George-Sorin Tiplica (Romania)

Dr. Benjamin Bluemel (ECDC)
MONKEYPOX EPIDEMIOLOGICAL UPDATE: WHAT SURVEILLANCE DATA TELLS US

Ms Gabrielle Schittecatte (ECDC)
RISK COMMUNICATION AND COMMUNITY ENGAGEMENT ACTIVITIES IN THE CONTEXT OF THE 2022 MPX OUTBREAK

Dr. Benjamin Bluemel (ECDC)
SURVEY ON MONKEYPOX VACCINE ACCEPTANCE AMONG USERS OF DATING APPS

Dr. Ien Chan (UK)
MPX FROM A DERMATOLOGIST PERSPECTIVE

Dr. Christopher Scott (UK)
MPX – GUM ASPECTS

ST-03

12.30-13.00 COFEE BREAK AND POSTER VIEWING

ST-04

13.00-13.30 PLENARY LECTURE # 5

Prof. Deniz Gokengin (Turkey)
DELIVERING HIV CARE IN CENTRAL AND EASTERN EUROPE

ST-05

13.30-14.00 PLENARY LECTURE # 6

Prof. Catherine Mercer (UK)
WHAT DRIVES PEOPLE TO OUR CLINICS? - BEHAVIOUR, ATTITUDES, ALCOHOL, DRUGS OR NONCHALANCE

ST-06

14.00-14.30 IUSTI-EUROPE DEBATE: SCREENING FOR INFECTION - PRO'S AND CON'S

Chair: Dr. Peter Greenhouse (UK)

Pro: Dr. John Saunders (UK)

Con: Prof. Björn Herrmann (Sweden)

ST-07

14.30-16.00 LUNCH AND POSTER VIEWING

ST-08

14.30-15.15 HOLOGIC WORKSHOP

Chair: Dr. Christian Stoeckigt (The Netherlands)

Dr. Helene Zondag (GGD Amsterdam, The Netherlands)
POTENTIAL IMPROVEMENT OF SYPHILIS SCREENING BY EARLY DETECTION USING TREPONEMA PALLIDUM TMA ASSAY

ST-09

16.00-18.00 **SESSION E – FUTURE PERSPECTIVE**

Chairs: Prof. Henry de Vries (The Netherlands) and Dr. Marti Vall-Mayans (Spain)

Prof. Lorenzo Giacani (USA)
ADVANCES IN A VACCINE FOR SYPHILIS

Dr. Jeffrey Klausner (USA)
THE PROMISES OF DOXY PREP AND PEP

Dr. Mitzy Gafos (UK)
HIV PREP FOR WOMEN

Dr. Maurine Murtagh (Switzerland)
STI POCT LANDSCAPE IN 2022

ST-10

18.00-18.30 **CLOSING PLENARY # 7**

Dr. John White (UK) and Prof. Chris Kenyon (Belgium)
WHAT WE HAVE LEARNT

ST-11

18.00-19.00 **CLOSING CEREMONY**

- მაღალტექნოლოგიური აპარატურა.
- მაღალკვალიფიციური მომუშავე პერსონალი.
- საერთაშორისო სტანდარტების კვლევები.
- მუდმივი მუშაობა განვითარებაზე.

MD
მედ
დიაგნოსტიკა

032 2 800 200

Glib Bondarenko

REGISTRATION OF NEUROSYPHILIS IN UKRAINE

Institute of Dermatology and Venereology of NAMS of Ukraine, Kharkiv, Ukraine

Background: Over 40,000 new cases of syphilis have been registered in Ukraine over the past 10 years. According to official statistics, the incidence of syphilis is generally characterized by a gradual decline - from 14.1 per 100,000 (6,446) in 2011 to 5.6 per 100,000 in 2019, and 3.8 per 100,000 in 2020 year (1597). The incidence of syphilis among men in 2019 is higher than among women: 7.29 per 100,000 male population (937) and 4.74 per 100,000 female population (660), respectively, gender ratio 1.5: 1.0. The age structure of new cases of syphilis among women and men was dominated in groups of 30-39 years, in men the intensive rate is 11.57, in women - 10.52, there is almost no gender difference. In most patients, early latent, late and unspecified forms of syphilis are found in the structure of syphilis. During the period 2011-2020, there was a decrease in the proportion of patients with early syphilis from 83.3% to 65.2% against an increase in the proportion of cases of late syphilis - from 7.2% to 14.4% and other and unspecified forms - from 9 , 4% to 20.3%. The incidence of syphilis among pregnant women fell - from 584 cases in 2011 to 236 cases in 2020, among newborns there were 3 cases of congenital syphilis in this period. Cases of stillbirth caused by syphilis were registered in 2016 and 2018. There is no separate registration of neurosyphilis in Ukraine. Therefore, this problem caught our attention. Aim of the study was to analyze the incidence of neurosyphilis in Ukraine for the period of 2014-2018.

Methods: The analysis of statistical indicators in Ukraine (2014-2018).

Results: We analyzed the level of registration of neurosyphilis in 12 regions of Ukraine for the last 5 years. We obtained information on 157 cases of neurosyphilis (1.9% of the total incidence of syphilis in these areas). In general, the incidence of neurosyphilis over the past 5 years ranged from 0.1% to 5.9%. The highest percentage of neurosyphilis was registered in Zakarpattia (5.9%) and Khmelnytsky (4.3%) regions. The lowest percentage of neurosyphilis was registered in Kharkiv (0.1%) region.

Conclusions: A wide examination for syphilis using treponemal tests of patients in neurological, psychiatric and ophthalmological clinics is necessary for the early detection of neurosyphilis in Ukraine.

Marco Cusini [1], Maria Cristina Salfa [2], Barbara Suligoli [2], Laura Atzori [3], Patrizia Bordonaro [3], Andrea Cellini [4], Manola Comar [5], Anna Giammanco [6], Anna Maria Lucchini [7], Anna Teresa Palamara [8]

NEW HOSPITAL-TERRITORY INTEGRATED MODELS FOR THE PREVENTION AND CONTROL OF SEXUALLY TRANSMITTED INFECTIONS, IN ITALY

[1] Retired, Milan; [2] COA Istituto Superiore di Sanità, Rome; [3] Azienda Ospedaliera Università di Cagliari, Cagliari; [4] Dipartimento Sanità Pubblica, Rome; [5] IRCCS Burlo Garofalo, Trieste; [6] Dipartimento pro-mi-se, Università di Palermo, Palermo; [7] ASL Città di Torino, Torino; [8] Dipartimento malattie infettive, Istituto Superiore di Sanità, Rome, Italy

Background: The aim of the study was to investigate of high risk human papilloma virus (hrHPV) prevalence among Georgian women. Also, evaluation of correlation between Xpert HPV and the Papanicolaou (PAP-smear) tests results and to confirm importance of combined use of high risk HPV and PAP-smear testing as a primary screening method.

Methods: The study was conducted among 2060 Georgian female population during the 5 years. The smear was collected in PreservCyt medium, the standard method was used for PAP-smear collection, Xpert HPV test was performed on Cepheid GeneXpert System. Categorical variables were statistically treated by Chi2-test. Null hypothesis was rejected at $p<0.05$.

Results: In total 2060 females were investigated for high risk HPV testing. In 260 correlations between HPV and PAP-smear testing were conducted. The prevalence of hrHPV was 17,3% (45 of the260 women) and among them the most frequent was HPV 16 - 26.7%, as well as HPV-P3 (31,33,35,52,58) - 51.1%. The incidence of HPV 18 and HPV 45- was rare- each- 6.7%. Females with abnormal cytological screening results have a significantly higher risk of hrHPV positivity compared with normal cytological results (HSIL – NILM p-0.007, HSIL – ASCUS p< 0.001, HSIL – LSIL-p-0.006). The prevalence of hrHPV among cytological-confirmed cervical intraepithelial neoplasia LSIL-CIN-1, ASCUS, HSIL- CIN 2 and NILM were found as 18,6 %, 11,2% and 71,4%, 17,7% respectively. In Georgian population incidence of cervical hrHPV infection was high - 17,3%.

Conclusion: The incidence of hrHPV infection is high among female population with NILM, the above mentioned indicates importance of double screening (hrHPV and PAP-smear) for prevention of cervical intraepithelial neoplasia.

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SEXUALLY TRANSMITTED INFECTIONS (STIs) IN ITALY: EPIDEMIOLOGICAL OVERVIEW FROM THE TWO ITALIAN SENTINEL SURVEILLANCE SYSTEMS

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Background: STIs are widely spread worldwide. In Italy there are two different sentinel surveillance systems: one reporting data on patients with a symptomatic STI started in 1991, and the other started in 2009, which reports data on people tested for at least one of the following STIs: Chlamydia trachomatis, Trichomonas vaginalis , Neisseria gonorrhoeae infection . The National AIDS Unit (COA) of the Italian National Institute of Health coordinates both surveillance systems and receives data through a web-based platform. In this abstract we report the updated situation up to December 31st 2020

Methods: the first system encompasses data received through a data base from twelve STI clinics scattered over the country that report information from symptomatic patientse with a confirmed diagnosis, the second system from twelve microbiological laboratories that receive sample for the detection of Ct, Tv and Ng.

Results: Data from clinical centres demonstrate a constant increase in the reporting of STIs excluding the year 2020. Males accounted for 71.6% of cases. MSM were 18.5% of cases. The prevalence of MSM raised to 33.5% in 2020. We observed an important increase of Gonorrhoea and Syphilis cases in the last five years. On the contrary, anogenital warts reports started to decrease both in male and female from 2018. Data from laboratories come from a different kind of population with a prevalence of females of 84.1%. We observed an increase in the prevalence of Chlamydial infections in the last five years.

Conclusions: Some major considerations can be drawn: - for the year 2020 data are influenced by COVID pandemy, that reduced the rate of asymptomatic screening - MSM account for a significant percentage of STIs (i.e. 88% of cases of Lymphogranuloma and 75% of cases of early syphilis) – HPV vaccine can be the cause of reduction of anogenital warts.

Irith De Baetselier [1], Christophe Van Dijck [1,2], Chris Kenyon [1], Eric Florence [1], Marc Vandenbruaene [1], Ludwig Apers [1], Ilse Kint [1], Maartje Van Frankenhuijsen [1], Veerle Huyst [1], Thibaut Vanbaelen [1], Séverine Caluwaerts [1], Kristien Wouters [1], Dorien Van den Bossche [1], Koen Vercauteren [1], Marjan Van Esbroeck [1]

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MISSED MONKEYPOX INFECTIONS AMONG MALE ATTENDEES OF A SEXUALLY TRANSMITTED INFECTION CLINIC IN ANTWERP, BELGIUM

Background: So far, the 2022 monkeypox outbreak in non-endemic countries primarily affected men who have sex with men (MSM). Although many cases present with typical skin lesions, a proportion of cases may go unnoticed because of the subtlety of their clinical signs and symptoms, or because their clinical presentation overlaps with that of other sexually transmitted infections (STIs). We aimed to describe which monkeypox cases remained undiagnosed among men presenting for anorectal/pharyngeal chlamydia/gonorrhea (CT/NG) testing at our STI clinic, in June 2022.

Methods: All left-over DNA extracts of anorectal/pharyngeal samples taken for CT/NG screening and diagnosis in June 2022 were retrospectively tested by a PCR targeting monkeypox virus (MPXV). Samples from suspected or confirmed monkeypox cases at the time of sampling were excluded.

Results: DNA extracts from 192 men were included. Eight men had at least one MPXV-PCR positive sample (MPXV-PCR cycle threshold values 18.2 to 24.1). Of these eight men, five were known HIV positive. Half of them had concurrent STIs: gonorrhea (n=1), chlamydia (n=1), syphilis and gonorrhea (n=1), gonorrhea and chlamydia (n=1). All but one reported at least one of the following complaints at the time of testing: anal blood loss (n=2), anal pain (n=6) or painful inguinal lymph nodes (n=1). The other man had only three barely visible erythematous maculae on his face and right arm. Two men returned to the clinic within two to five days due to the development of typical monkeypox skin lesions.

Conclusion: Monkeypox diagnoses were frequently missed among MSM presenting for STI testing at an STI clinic at the beginning of the 2022 epidemic. Patients and clinicians should be aware that monkeypox symptoms may be subtle or overlap with those of other STIs. Prospective studies should evaluate the usefulness of systematic MPXV-testing among STI clinic attendees.

Simone Paghera, Michele Rosso, Stefania Di Costanzo, Cristiano Sabelli

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A NON-ALCOHOL BASED MEDIUM ALLOWS HPV DETECTION AFTER STORAGE AT CHALLENGING TEMPERATURES

Background: Low to middle income countries exhibit a high incidence of cervical cancer, but scarcity of resources and specialized healthcare personnel to perform an adequate screening for HPV using HPV DNA testing. Additionally, these settings often present extreme environmental conditions, such as extreme temperatures. Therefore, it is necessary to ensure that sampling devices and transport media used for HPV sampling can withstand extreme conditions and ensure nucleic acid integrity up to testing. In this study we wanted to test whether a sample eluted in Copan MSwab® could withstand high temperatures and maintain sample integrity prior testing.

Methods: To test MSwab stability at higher temperatures, a simulated vaginal sample was prepared resuspending HeLa cells (HPV18+) in vaginal matrix (Biochemazone). After immersion of the swab tip in the cellular suspension for 5 seconds to simulate vaginal sampling, the collected sample was then resuspended into 5ml of Copan MSwab. The eluted sample was stored at different temperatures (RT, 30°C, 34°C, 50°C) and three replicates were analyzed at different timepoints (24, 48, 96 hours and 1 week). The sample was then vortexed, and 1 ml was loaded onto Xpert® HPV cartridges (Cepheid) for analysis.

Results: The data analyzed show an overall stability of the sample resuspended in MSwab across the different conditions. After 1 week, up to 50°C of conservation of a simulated vaginal sample, the variance of the amplification Ct does not exceed the value of ±1 Ct.

Conclusion: Copan MSwab is a transport and preservation medium that can be used to test the eluted vaginal sample up to 1 week after elution even if stored at extreme temperatures. Copan MSwab can be considered a useful substitute to expensive and difficult to handle alcohol-based media even in extreme settings, such as remote regions where it is not always possible to maintain controlled temperatures and refrigeration.

Simone Paghera, Michele Rosso, Stefania Di Costanzo, Cristiano Sabelli

HPV DETECTION IN SIMULATED VAGINAL SAMPLES: NON-ALCOHOL-BASED MEDIUM MAINTAINS NUCLEIC ACID STABILITY AFTER LONG TERM STORAGE

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Background: The progressive implementation of vaginal self-sampling for HPV DNA testing in cervical cancer screening programs introduced the necessity of sampling devices and elution media that can ensure sample integrity up to testing. Several cervical cancer screening programs ship sampling devices to women's homes and need to consider shipping delays. Laboratories might be overwhelmed and unable to process samples immediately upon elution. To meet these real-world needs, in this study we aim to evaluate: 1.Long-term stability of the vaginal "dry" sample (stocked on Copan FLOQSwabs®); 2. Long-term stability of the vaginal "wet" sample (after elution in Copan MSwab®)

Methods: To evaluate long-term stability of the "dry" sample, a simulated vaginal matrix (Biochemazone) spiked with HeLa Cells (HPV18+) was collected with Copan Self Vaginal FLOQSwabs® and stored at -20°C and at room temperature (RT). Swabs were eluted in 5mL of MSwab® at T0 and after 14, 21, 28, 45 and 60 days. To test the long-term stability of the "wet" sample, MSwab® was stored at -20°C and RT for up to 60 days after swab elution. Samples were tested with Xpert® HPV cartridge (Cepheid). Ct variation of internal control (SAC) and target gene (HPV18) were analyzed to evaluate sample stability.

Results: The data analyzed show overall sample stability across conditions. "Dry" and "wet" samples analyzed at different times exhibited a variation of amplification Ct within 1.5 range compared to samples tested at T0.

Conclusion: In this study, we show that Copan MSwab® can maintain HPV nucleic acid integrity for long storage time in dry collection, wet collection and even when the sample is stocked dry for a long time and tested with a delay post-elution. Thanks to these properties, Copan MSwab® allows laboratory flow flexibility, adapting to different real-world testing needs from the small point of care settings to the big, automated laboratory pipelines.

Laura Fernàndez-López [1,2], William Mejías [3], Júlia Collignon [4], Héctor Adell [5], Gema Fernández-Rivas [6], Vicoria González [1,2,6], Jordi Casabona [1,2]

PILOT STUDY FOR THE ACCEPTABILITY AND FEASIBILITY OF SARS-COV-2 RAPID TEST OFFER IN COMMUNITY-BASED HIV TESTING CENTRES

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Background: HIV Community-based voluntary, counselling, and testing (CBVCT) services can help to bring COVID-19 testing closer to vulnerable populations these services attend which may be more vulnerable to SARS-CoV-2 infection. Objective: to assess acceptability and feasibility of offering rapid tests for the detection of SARS-CoV-2 in CBVCT services.

Methods: Rapid SAR-CoV-2 antigen and antibody tests were offered to users of 3 CBVCT services in Catalonia who attended for the screening of HIV/Syphilis/HCV from July to December 2021. After the intervention, participants had to complete an acceptability survey. A double results reading was performed by community services workers and by laboratory personnel. A descriptive analysis of participants' characteristics and acceptability survey variables was performed. Agreement between different results readings was estimated using kappa index.

Results: 136 participants were recruited (116 cases with complete information), mostly men (69%), who have sex with men (56%), between 25-45 years old (72.41%), with university studies (72.41%) and regular work (66.38%), and 76.72% were vaccinated against COVID-19. No reactive antigen test results were found, and for antibody tests, 18.10% were negative, 71.55% IgG positive and 4.31% IgG and IgM positive. The intervention was highly valued by participants, who were satisfied to receive a rapid antigen (97.41%) and antibody (93.97%) tests at a CBVCT service. Most agreed that community centres can offer these tests (97.41% and 93.97% for antigen and antibody tests, respectively), and 94.83% and 93.97% would recommend a friend to attend these centres to be tested with rapid antigen and antibody tests, respectively. Concordance between readings of the results made by community service workers and laboratory personnel was 92.98% (Kappa (95% CI) = 0.840 (0.775 - 0.941)).

Conclusion: Implementation of rapid tests against SARS-CoV-2 in HIV CBVCT services is feasible and well accepted by users.

Megi Gogishvili [1,2], Laura Fernàndez López [1,2,3], Jordi Aceitón [1,2], Jordi Casabona [1,2,3], COBATEST Network Study Group

COMPARISON OF HIV TESTING PERFORMED PRE AND DURING COVID-19 AT COMMUNITY-BASED TESTING CENTERS IN EUROPE: COBATEST, 2019-2020

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Objectives: The impact of the COVID-19 on HIV testing has been predicted right from the start of the pandemic. Standardized testing data collected by Community-based voluntary counseling and testing (CBVCT) services in Europe as part of COBATEST network can serve as good base to demonstrate how COVID-19 might have impacted HIV testing. This study compares the data on HIV testing performed by CBVCT services pre COVID-19 (2019) and during first year of the pandemic (2020) among COBATEST Network member centers.

Methods: Only COBATEST member centers that submit complete data in 2019 and 2020 were included in this study. People were excluded if aged < 16, previously diagnosed or test results were not available. Only the most recent record per client was kept. Descriptive analysis of the data and of some key indicators were performed.

Results: From 2019 to 2020, forty centers from 15 European countries reported data on HIV testing in both years using the COBATEST standardized data reporting tools. In total 111,117 persons were tested for HIV by forty centers in 2019, and in 2020 the same 40 centers reported 70084 (36.9% less) persons tested. Most of the centers demonstrated substantial decrease in persons tested ranging from 30% to 60% compared to 2019. Three centers had reported more than 60% decrease in HIV testing in 2020 compared to 2019. Minor increase was found in 4 centers and one center reported substantial increase.

Conclusions: Overall, drastic change in proportion of persons tested for HIV in 2019 compared to 2020 has been found. The difference could be attributed to availability of these services during lockdowns and also to restrictions imposed by governments on free movement across the cities/towns/countries due to COVID-19 pandemic. However, this data should be interpreted cautiously as no specific data has been collected on the impact of COVID-19 pandemic in these 40 centers.

Mikhail Gomberg, Dmitriy Kim, Alexander Guschin

THE ROLE OF ANAEROBIC MICROORGANISMS IN THE DEVELOPMENT OF URETHRITIS IN MEN

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Introduction: Etiological agents in NGU cannot be determined in 20%-50% of cases, while selection of adequate therapy and its effectiveness depends on what causes of the disease. Currently, the important role of anaerobic BV-associated microorganisms in the development of pathology of the urogenital tract in women has been demonstrated, but their effect on men's health remains insufficiently studied.

Objective. To study the role of BV-associated microorganisms in the development of urethritis in men.

Materials and methods: The study included samples of biological material from 166 males with and without symptoms who visited the clinic to be tested for STI after unprotected sex, and from 174 of their female sexual partners (F). After STD exclusion, all men were divided into 2 clinical groups: group 1 – men with urethritis, group 2 – healthy men. In each group, 2 subgroups were identified, depending on the BV-status of their female sexual partners (1A-FBV+,1B-FBV-, 2A-FBV+,2B-FBV-). Assessment of the laboratory signs of urethritis was conducted under microscopic examination of Gram-stained smears. All samples were examined using real-time PCR for the presence of N.gonorrhoeae, C.trachomatis, M.genitalium, T.vaginalis, HSV1,2. The biological material from females was additionally examined in the process of the study for the presence of U.parvum, U.urealyticum, M.hominis, Enterobacteriaceae spp, Staphylococcus spp, Streptococcus spp, G.vaginalis, A.vaginae, BVAB2,3, Megasphaera spp, Leptotrichia/ Sneathia spp, Candida spp. The biological material from males was additionally retrospectively examined for the presence of the above-mentioned microorganisms.

Results: In subgroup 1A anaerobic microorganisms were detected significantly more often, not only in comparison with healthy males from subgroups 2A and 2B, but also with males from subgroup 1B. There was also a statistically significant decrease in the frequency of detection of anaerobic BV-associated microorganisms after clindamycin or nifuratel therapy in patients from subgroup 1A.

Conclusion: The data obtained shows that anaerobic BV-associated microorganisms could be etiological agents in the development of NGU in men.

Mikhail Gomberg [1], Dmitry Temnikov [2], Vadim Temnikov [2]

COMORBIDITIES IN NEUROSYPHILIS

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Introduction: In Russia, during the last decade, there has been a steady trend in reducing the incidence of syphilis in general. However, there is an unfavourable trend seen in the growth of its late forms, including neurosyphilis (NS).

Objective: To analyze the structure of concomitant chronic diseases in patients with NS in the Rostov region of Russian Federation.

Materials and methods: Case histories of 617 patients with NS diagnosis treated in the Rostov region from 1999 to 2017 were analyzed retrospectively.

Results: Among comorbidities in the patients studied, the vast majority were diseases of the nervous system and mental disorders (n=200; 27.25+\-3.98%), followed by diseases of the blood circulatory system (n=170; 23.16 +\-3.06%) , diseases of the digestive system (n=78; 10.36+\-2.23%), and diseases of the respiratory system (n=47 6.4+\- 1.78%). Other concomitant chronic diseases in patients with NS were rare.

Conclusion: Analysis of the structure of concomitant diseases showed that diseases of the nervous system and mental disorders are dominating. At the same time, in the structure of morbidity among regional population, these diseases are only in the10th place. Our data showed that upon admission to a specialized SRD clinic, 1/3 of patients with NS were already diagnosed with neurological and mental diseases. These patients were not referred for serological examination at the outpatient stage, and syphilis, and, subsequently, NS, were detected only upon admission to the hospital. Our findings recommend serological tests for syphilis to all neurological and psychiatric patients to be administered at an earliest feasible moment.

Mikhail Gomberg [1], Vladimir Kovalyk [2], Elena Vladimirova [2], Kirill Yurlov [3] , Alla Kushch [3]

UPOINT PROFILE OF HERPES VIRUS TYPE IV-VI ASSOCIATED CHRONIC PROSTATITIS

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Background: There exist data on the significance of herpes viruses in prostatitis. With improved diagnostic technics it is possible to detect cytomegalovirus (CMV), Epstein Barr virus (EBV) and human herpesvirus 6 (HHV-6) in urogenital swabs. The aim of the study was to determine specific clinical signs of virus associated prostatitis.

Methods: 297 patients with chronic prostatitis/chronic pelvic pain syndrome (category IIIA) were examined. After microscopy, bacteriology and virology studies, 103 men with virus associated disease were detected. No other possible etiologic agents were detected. The urinary, psychosocial, organ specific, infection, neurologic or systemic, and tenderness (UPOINT) system profile was estimated by means of clinical, laboratory and instrumental (trans rectal ultrasound) studies. We used the Hospital Anxiety and Depression Scale to specify the psychosocial status.

Results: All men had elevated levels of leucocytes in expressed prostatic secretion. Pre- and post-prostate per rectal massage bacteriology of the urine indicated non-bacterial prostatitis. CMV, EBV and HHV-6 were detected in 35,8% men with the disease. UPOINT system profile in virus-associated cases, in comparison with the non-viral cases, showed the following: U (urinary) domain 69,9% vs 66,8% (p value 0.05), P (psychosocial) - 71,8% vs 48,9% (X2=14.179, p=0.001), O (organ specific) – 77,6% vs 85,9% (p0.05), I (infection) – 6,8% vs 9,2% (p0.05). N and T domains were not attributed to our subjects.

Conclusion: Men with virus-associated chronic prostatitis/chronic pelvic pain syndrome have significantly higher levels of psychosocial problems (depression and anxiety) than in non-viral disease. These findings justify a therapy with antidepressants and anxiolytic as well as antiviral drugs in virus associated chronic prostatitis/chronic pelvic pain syndrome.

Shalva Kevlishvili [1], Oleg Kvlividze [2,3], George Galdava [1,2]

FEATURES OF THE SPREAD OF STIs AMONG MSM IN GEORGIA

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Background: Until recently, in Georgia, issues related to the life of MSM were viewed as a taboo subject. Accordingly, the epidemiology of STIs in MSM has not yet been studied, which significantly reduces the effectiveness of measures aimed at the prevention of STIs in the country. Moreover, according to international experience, the prevalence of STIs among MSM has its own specifics, which probably should be characteristic also for Georgia. The desire to fill in the missing information in order to optimize the fight against STIs in the country was the aim of this study.

Materials and Methods: Comparative analysis of the prevalence of a number of STIs among MSM and heterosexual men has been conducted as part of GFATM and other projects. The study consisted of a survey of 76 MSM aged from 18 to 45 years for a history of STIs living in five cities of Georgia: Tbilisi, Batumi, Kutaisi, Telavi and Zugdidi. We also conducted a similar survey of 76 heterosexual men aged from 18 to 52 years old, who are patients of STI clinics in the above cities, and who highlight a high risk of sexual behavior in the questionnaire.

Results: The following infections were recorded among the respondents: syphilis in 21 (27.63%) MSM and 10 (13.16%) heterosexual men; gonorrhea in 28 (36.84%) and 14 (18.42%), trichomoniasis in 39 (51.32%) and 32 (42.1%), chlamydia infection in 23 (30.26%) and 21 (27, 63%) respectively, HIV / AIDS was registered only in 3 (3.94%) MSM.

Conclusion: As a result of the study, significant extension in the prevalence of STIs among MSM in compare with heterosexual men have been found. The obtained data may well be extrapolated to the entire population of MSM in Georgia, that talks about the need of carrying out of detailed national epidemiological analysis among MSM.

Khachik Khachikyan, Anahit Topchyan, Armine Hakobyan

VITILIGO-LIKE DEPIGMENTATION AFTER IMIQUIMOD TREATMENT OF GENITAL WARTS

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Background: Infection with human papillomavirus is the most common viral sexually transmitted infection. Genital warts are one of the most common manifestations of this infection. Currently, immune response modifiers imiquimod used in the treatment of genital warts, certain types of actinic keratoses and superficial basal cell carcinoma. Hypopigmented lesions has been reported in the dermatological literature following the use of imiquimod.

Objective: To assess the efficiency and tolerability of the imiquimod 5% cream for external application, in topical therapy of patients with anogenital warts.

Methods: In randomised, double-blind, controlled clinical study involved aged from 19 to 37 years old 42 men, suffering from anogenital warts. The diagnosis was confirmed clinically and by PCR-identification of HPV. All the patients were treated by the cryodestruction, after which imiquimod 5% cream was applied in the treated areas 3 times a week for 8 weeks.

The results of treatment were assessed in 1, 3, 6 and 12 months after the therapy.

Results: During follow-up after 3 months 23 patients developed areas of vitiligo-like hypopigmentation (dermoscopically discovered amoeboid, feathery, nebuloid and petaloid hypopigmented patterns) at the site of application of imiquimod cream which did not increase in size. After 12 months of follow-up after therapy Imiquimod-induced hypopigmented did not repigment. In the case reports presented here, it can be assumed that the vitiligo-like depigmentation at the site of application of imiquimod cream was due to an immunosupressive mechanism induced by imiquimod.

Conclusion: From the results obtained, it can be concluded that the use of imiquimod in complex therapy in patients with genital warts can lead to the development of persistent vitiligo-like hypopigmentation. When using imiquimod it is necessary to warn patients about the possibility of a adverse effect.

Viktoriia Korolenko

EPIDEMIOLOGICAL ANALYSIS OF THE DYNAMICS OF CHANGES IN THE INCIDENCE OF SYPHILIS, UKRAINE, 2010-2019

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Background: According to the WHO, approximately 10.6 million occur annually new cases of syphilis. Disease remains an urgent public health problem due to impact on pregnancy, perinatal infection and mortality. An important component of syphilis surveillance is the assessment and monitoring of the incidence trend, prevalence at different points in time, in certain population groups in order to effectively implement control and prevention programs. The purpose of the work is to analyze the dynamics of the incidence of syphilis in the population of Ukraine.

Methods: Epidemiological analysis of syphilis for 2010-2019 in Ukraine was carried out. The source of the data is reporting and statistical documentation on infectious and parasitic diseases (reporting form N1), diseases that are transmitted mainly by diseased means (reporting form N9).

Results: During 2010–2019, 39751 case syphilis disease were recorded in Ukraine. Overall, in 2019 the number of case syphilis per 100,000 population was 5.4, 65.36% lower than the 15.69 per 100,000 calculated in 2010. Among all cases of syphilis, 0.79% is children 0-17 years old. The indicator per 100,000 population is 0.24, which is 76.5% less than in 2010. In 2019, 11.11% were registered in the age group from 0-1 years, 5-9 years - 27.78%, 15-17 years - 61.11%. In 2019, the number of syphilis cases per 100,000 population in the regions of Ukraine ranged from 1.12 to 12.95. During 2010–2019, 28 case of congenital syphilis was registered.

Conclusion: Over a period of 10 years, a tendency to decrease the incidence of syphilis was revealed. Simultaneous registration of cases of congenital syphilis requires improvement of comprehensive approaches to the fight and prevention of this disease, as well as screening of future mothers.

Volodymyr Korolenko

CURRENT TRENDS OF STIS PREVENTION DEVELOPMENT IN UKRAINE

State Service of Ukraine on Medicines and Drugs Control, Kyev, Ukraine

Background: To study and analyze the directions of development of preventive care for STDs.

Methods: Statistical analysis of the official data of the Ministry of Health of Ukraine regarding medical and preventive care STIs in Ukraine for 2009-2019, bibliosemantic, systemic approach and analysis.

Results: During 2000-2019, a tendency to decrease the incidence of STIs was revealed (syphilis 15.5 times, gonorrhea 6.8 times). Correlation analysis using the Pearson's coefficient (r; $p<0.05$) proved the presence of a strong direct correlation between the incidence of STIs and the supply of dermatovenereological beds (r=0.973), average number of days of operation of such bed (r =0.860); a moderate direct correlation between the incidence of late syphilis and the availability of such beds (r=0.617), the average number of days of operation of a dermatovenereological bed (r=0.561); moderate inverse correlation between the average length of stay of a patient on a dermatovenereological bed and the incidence of late syphilis (r= -0.307).

During preventive examination, only 70% of cases of syphilis (2019), 46.6% of gonorrhea, 47.3% of chlamydial infections are detected.

Conclusion: The above indicates the insufficient STI early diagnosis, as well as the insufficient quality of their treatment. The obtained results prove the temporary need to preserve dermatovenereological beds, and simultaneous strengthening of preventive work regarding STIs, starting with early diagnosis at the primary level and public health activities.

In order to strengthen the preventive component, it is advisable to provide in the work plans of public health institutions for the introduction of epidemiological surveillance for STIs in the scope of the third generation.

The impact of the full-scale invasion of the Russian Federation into Ukraine with destruction of the medical and pharmaceutical infrastructure, migration and depopulation processes on STI incidence in Ukraine requires a detailed study.

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COMPLICATIONS OF CHRONIC UROGENITAL CHLAMYDIA INFECTION IN WOMEN

Background: Chronic chlamydia infection is the most common disease of female urogenital organs. Urogenital chlamydia infection causing inflammatory process in the endometrium, fallopian tubes, ovaries and peritoneum which leads to complications. The purpose of the study is to identify the spectrum of complications in examined women with chronic urogenital chlamydia infection.

Methods: 128 women with urogenital chlamydia infection aged 16 to 40 were examined. The physical examination included complaints, general and sexual history, and objective examination. Laboratory tests: indication of chlamydia according to the Romanovsky-Giemza method; detection of chlamydia antigens by DIF; the study of chlamydia trachomatis antibody titres using ELISA.

Results: As complications of the course of chronic chlamydia infection, infertility was found in 48 patients (37.5%) of which 10 (7.81%) were primary, 38 (29.69%) were secondary; 39 women miscarried (30.47%); 25 women had chronic abdominal pain (19.53%); and 16 women had an ectopic pregnancy (12.5%). The structure of ectopic pregnancy showed that 11 women (68.75%) had tubal pregnancy and 5 women (31.25%) had ovarian pregnancy. A significant number of patients had sexual function disorders in the form of decreased libido – 39 women (30.47%), hypo/anorgasmia – 56 women (43.75%), pain during intercourse – 29 women (22.66%), and neurotic symptoms with characteristic somatic, vegetative-vascular, sensory and psycho-emotional disorders – 56 women (43.75%). Adhesive disease is included in the list of expected complications, but there were no patients with this pathology.

Conclusion: The analysis of the results indicates a wide range of complications in women. The most prevalent ones include infertility, miscarriages, sexual dysfunctions in the form of hypo/anorgasmia, neurotic symptoms with characteristic somatic, vegetative-vascular, sensory, and psycho-emotional disorders. A diverse range of complications requires careful treatment.

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EVALUATION OF IMPORTANCE OF HIGH RISK HUMAN PAPILLOMAVIRUS DOUBLE SCREENING IN GEORGIAN POPULATION

Background: The aim of the study was to investigate of high risk human papilloma virus (hrHPV) prevalence among Georgian women. Also, evaluation of correlation between Xpert HPV and the Papanicolaou (PAP-smear) tests results and to confirm importance of combined use of high risk HPV and PAP-smear testing as a primary screening method.

Methods: The study was conducted among 2060 Georgian female population during the 5 years. The smear was collected in PreservCyt medium, the standard method was used for PAP-smear collection, Xpert HPV test was performed on Cepheid GeneXpert System. Categorical variables were statistically treated by Chi2-test. Null hypothesis was rejected at $p<0.05$.

Results: In total 2060 females were investigated for high risk HPV testing. In 260 correlations between HPV and PAP-smear testing were conducted. The prevalence of hrHPV was 17,3% (45 of the260 women) and among them the most frequent was HPV 16 - 26.7%, as well as HPV-P3 (31,33,35,52,58) - 51.1%. The incidence of HPV 18 and HPV 45- was rare- each- 6.7%. Females with abnormal cytological screening results have a significantly higher risk of hrHPV positivity compared with normal cytological results (HSIL – NILM p-0.007, HSIL – ASCUS p< 0.001, HSIL – LSIL-p-0.006). The prevalence of hrHPV among

cytological-confirmed cervical intraepithelial neoplasia LSIL-CIN-1, ASCUS, HSIL- CIN 2 and NILM were found as 18,6 %, 11,2% and 71,4%, 17,7% respectively. In Georgian population incidence of cervical hrHPV infection was high - 17,3%.

Conclusion: The incidence of hrHPV infection is high among female population with NILM, the above mentioned indicates importance of double screening (hrHPV and PAP-smear) for prevention of cervical intraepithelial neoplasia.

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ONCOLOGIC ASPECTS OF HPV IN MEN

Human papillomavirus (HPV) in the anogenital region can cause a variety of clinical manifestations, from benign condylomas to preinvasive neoplasia and invasive carcinomas. Most genital HPV infections are transient and asymptomatic. About 70% of HPV infections in the genital region regress within a year, and 80% within 2 years.

Intraepithelial neoplasia (IN) means intraepidermal dysplastic change, which is further classified as I, II or III, depending on the depth of the epithelium involved. The classification of IN in men is confusing because there is no consensus for it. Three variants of penile IN have been described: Bowenoid papulosis, Bowen's disease and erythroplasia Queyrat.

Anal intraepithelial neoplasia (AIN) represents a significant health problem in immunosuppressed individuals, men who have sex with men (MSM). If it is not recognized in time and treatment is not started, cancer will develop from IN.

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RISK FACTORS ASSOCIATED WITH BACTERIAL VAGINOSIS IN PREGNANT WOMEN IN SENEGAL

Background: Bacterial vaginosis (BV) is associated with a high risk of complications, particularly during pregnancy.

Objectives: The aims of this study were to determine the prevalence of BV in pregnant women in Dakar, Senegal, and to identify its associated risk factors.

Methods: This prospective cross-sectional study was conducted from July 2020 to March 2021 in pregnant women with 34 to 38 weeks of amenorrhea and seen for their routine prenatal consultation at the Nabil Choucair health center in Dakar, Senegal. Vaginal swabs were taken and examined using the Nugent scoring system for the diagnosis of the BV. Data analysis on SPSS (version 25) was done using the chi-square test to measure the strength of association. A value of $p \leq 0.05$ was considered statistically significant.

Results: BV was found in 28.0% (112/400) of the screened women with a median age 24 (21-29) years. A pH >4.5 predictive of BV was found in 80.4% (90/112) of samples. BV was associated with vaginal candidiasis in 49.1% (55/112) while Trichomonas vaginitis was found in 1.8% (02/112). In 80.4% (90/112) of affected women, BV was caused by Gardnerella vaginalis. Mobiluncus spp. was found in 19.6% (22/112) pregnant women in association with G. vaginalis. Symptoms characterized by episodes of pruritus, pelvic pain, burning and/or dyspareunia were seen among 59.8% (67/112) of these women with BV while 40.1% (45/112) of them reported no symptoms.

Conclusion: In view of these results and in order to reduce gestational complications and adverse outcomes in the newborn, screening for BV in pregnant women should be favored in developing countries.

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EPIDEMIOLOGY AND RISK FACTORS ASSOCIATED WITH LOWER GENITAL TRACT INFECTIONS IN PREGNANT WOMEN IN DAKAR

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Background: Bacterial vaginosis (BV) is associated with a high risk of complications, particularly during pregnancy.

Objectives: The objectives of this study were to determine the prevalence and risk factors associated with lower genital tract infections among pregnant women followed at the Nabil Choucair Health Center in Senegal.

Methods: This was a descriptive and analytical study of pregnant women conducted over a 09 month period between July 2020 and March 2021. Vaginal swabs were analyzed using the wet mount method, Gram stain (Nugent criteria) and culture on specific medium. Data analysis on SPSS (version 25) software was performed using the chi-squared two test to measure the strength of association.

Results: Microbiological confirmation of infection was established in 227 pregnant women, for an overall prevalence of 59.11% (227/384). Only 55.99% (215/384) had presented a symptomatology related to the infection. Among these infections, vulvovaginal candidiasis was the most common with 42.71% (n = 164), followed by bacterial vaginosis at 29.16% (n = 112) and vaginal trichomoniasis 1.30% (n = 5). Mixed infections were recorded at 24.78% (n = 94) with a predominance of Gardnerella vaginalis/Candida spp. co-infection estimated at 13.80% (n = 53). Other germs found in mixed infections were 8.07% (n = 31) for group B streptococcus (GBS) and 0.78% for E. coli (n = 3).

Conclusion: A very high prevalence of vaginal infections in pregnant women residing in urban areas was observed in this study. For a better management, a vaginal swab (VS) during pregnancy should be included in the monitoring package of pregnant women in Senegal. Otherwise, targeted interventions such as laboratory screening of symptomatic pregnant women are needed to reduce the burden of disease and complications associated with lower genital tract infections.

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SYPHILIS IN THE REPUBLIC OF BELARUS: MORBIDITY AND EPIDEMIOLOGICAL TRENDS

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Background: After an epidemic rise in the incidence of syphilis in Belarus with a peak in 1996 (210 cases/100000), there was a steady decrease in incidence until 2019 (4.7 cases/100000). In 2020 and 2021 an increase was registered to 8.4 and 11.1 cases/100000.

The purpose and objective of the research is to present and discuss the dynamics and structure of the morbidity and epidemiological trends of syphilis in Belarus in 1996-2021.

Methods: The analysis of the annual reports on the incidence of STIs for 1996-2021 in Belarus was carried out.

Results: The analysis of the morbidity structure, clinical forms of the disease, the sex and age of the patients, the annual proportion of manifest and latent, early and late forms of syphilis revealed significant changes: decrease in the proportion of early forms of syphilis from 99.9% in 1996 to 33% in 2021 with an increase in the proportion of late and other forms from 0.1% in 1996 to 67% in 2021; prevalence in 2020-2021 of latent forms (85.3-91%) over manifest (9-14.7%); the ratio of men and women with syphilis did not differ significantly, with a slight predominance of men in recent years; low, stable of syphilis rate in the age groups 0-14, 15-17 and 18-19 years; a 2-fold decrease in the proportion of patients aged 20-29, an increase in the proportion of patients aged 30-39 (1.3 times) and, especially, 40 years and older (2 times). We changed in 2019 the procedure for screening and diagnosing syphilis and use the Reverse sequence lab-based serologic screening algorithm: screening - treponemal test, confirmation - non-treponemal test (quantitative), confirmation of negative non-treponemal - other treponemal test.

Conclusion: The epidemiological trends with syphilis in Belarus have changed and are controversial, especially given the interruptions in the availability of penicillins and the absence of benzathine benzylpenicillin.

Oleg Pankratov

EXPERIENCE OF PREVENTION OF MOTHER-TO-CHILD TRANSMISSION OF SYPHILIS IN THE REPUBLIC OF BELARUS

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Background: In 2007 WHO launched an initiative for the global elimination of CS. The overarching global goal of the present strategy is the elimination of CS as a public health problem. Late congenital syphilis has not been registered in Belarus for more than 30 years, early congenital syphilis - since 2011.

Methods: All pregnant women in Belarus are tested for syphilis three times with both treponemal (EIA IgG / IgM) and non-treponemal (RPR) tests: at the first visit, at 28-30 weeks of pregnancy, and also upon admission to the maternity hospital. When a disease is detected, courses of specific and prophylactic treatment are prescribed.

Results: In June 2016 Belarus was reviewed and approved for validation of EMTCT of HIV and syphilis as a public health problem by the WHO. In 2018-2019, in accordance with the WHO recommendations, in Belarus stoped using RMP, and Belarusian treponemal ELISA with a high level of sensitivity and specificity began to be used for screening for syphilis in pregnant women, with followed using of a non-treponemal test (RPR or VDRL) and other treponemal test. This algorithm is provided for by the new national clinical protocol (2019). Belarus also fulfilled the requirement to establish a National Reference Laboratory for the Diagnosis of Syphilis, which was included in the WHO/CDC program of external quality control. In 2018, the Global Validation Committee confirmed validation until 2020, but additionally recommended to use WHO proposed definition of cases of CS in global surveillance.

Conclusion: The system of perinatal care and medical care for pregnant women available in the Republic of Belarus makes it possible to prevent the vertical transmission of syphilis. Obtaining and confirming the status of validation of the EMTCT of syphilis is a dynamic two-way process that requires constant active work.

Sofia Papanikou [1,2], Kassiani Mellou [3], Vasilis Raftopoulos [4], Vasiliki Chasapi [1], Electra Nicolaidou [5,6]

SEXUALLY TRANSMITTED INFECTIONS AMONG HIV (-) MSM, AT THE STIS CLINIC OF ANDREAS SYGGROS HOSPITAL, ATHENS, GREECE, 2018-2020

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Background: MSM in Greece might be at increased risk for STIs because of their sexual behavior or specific biologic factors such as the number of concurrent partners, condomless sex, anal sex, or substance use.

Methods: A retrospective cohort study was conducted at the STIs Clinic of Andreas Syggros Hospital, Athens, in collaboration with the Department of HIV/AIDS Surveillance of the National Public health Organization (NPHO) for the period 2018-2020. The study's main aim was to estimate the occurrence of STIs among HIV (-) MSM examined at a large STI Clinic in Athens during 2018-2020, capture their demographic characteristics, and identify possible risk factors to inform interventions for preventing STIs among this population group.

Results: 888 HIV negative MSM with a median age of 31 years (range 18-89 years) were evaluated for STIs during 2018-2020. 83% were Greek. 3% had MSc or Ph.D., 35.8% had a university diploma. 72% identified as homosexual, and 28% had a bi-sexual orientation. 607 (68.4%) were tested for STIs as they experienced STI symptoms, 165 (18.6%) were referred for screening because their partner had an STI infection, 109 (12.3%) were asymptomatic, and 5 (0.7%) were tested for other reasons. 37.2% were diagnosed with syphilis, 14.3% with gonorrhea, and 21.3% with HPV infection. Bisexuals had a 1.44 times greater probability of being diagnosed with HPV than MSM homosexuals. The most common combination of infection during the study period, among HIV (-) MSM was syphilis & HPV (2.3%).

Conclusions: Specific STI prevention programs focused on syphilis, gonorrhea and HPV infection should be targeted for HIV (-) MSM. The existing data on medical charts should be enriched with more information regarding this population characteristics to identify potential risk factors and behaviors among HIV (-) MSM in Greece.

Sofia Papanikou [1,2], Kassiani Mellou [2], Vasilis Raftopoulos [3], Vasiliki Chasapi [1], Vasilis Paparizos [5]

SEXUALLY TRANSMITTED INFECTIONS AMONG HIV (+) MSM, AT THE HIV/AIDS UNIT OF ANDREAS SYGGROS HOSPITAL, ATHENS, GREECE, 2018-2020

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Background: In Greece, intercourse between men who have sex with men (MSM) remains the predominant mode of HIV transmission. Recently published data on the frequency of STIs among HIV (+) MSM in Greece is limited.

Methods: We conducted a retrospective cohort study among old and new diagnosed HIV (+) MSM who were followed or examined for new STIs at the HIV/AIDS Unit of Andreas Syggros, a major reference center for STIs, in Athens during 2018- 2020. Cohort data included patient demographics (age, ethnicity and occupation) and performed clinical and laboratory STI diagnostics (syphilis, gonorrhea, herpes, HAV, HBV, HCV, HPV infection) during 2018-2020 retrieved from medical records.

Results: The cohort consisted of 1082 HIV (+) MSM with median age of 48 years (range: 18-87 years). 84.8% were Greek citizens. 36.3% of them were tested because of STI symptoms, 33.8% were asymptomatic and tested as part of routine screening, and 15.5% were tested because they had a sexual partner with an STI. Most of the participants seem to prefer working in fields that are related to communication with many people. During the study period, 197/1082 (18.2%) were diagnosed with syphilis, 57/1082 (5.3%) with gonorrhea, and 309 (28.6%) with herpes. A high percentage of MSM were diagnosed with two or more STIs during the study period. The most common STI combination was syphilis and herpes (8.6%), followed by syphilis & HPV(2.7%).

Conclusions: Specific STI prevention programs focused on syphilis, gonorrhea, and herpes should be targeted for HIV (+) MSM. The existing data on medical charts should be enriched with more information regarding the characteristics of this particular patient group in order to have the ability in the future to identify potential risk factors and behaviors among HIV (+) MSM in Greece.

Delphine Rahib, Nathalie Lydié, on behalf of the MemoDepistages group

EFFECT OF A HIV SCREENING PROGRAM OFFERING REMINDERS AND AT HOME SOLUTIONS IN FRENCH MEN WHO HAVE SEX WITH MEN

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Background: Testing is critical to HIV treatment and prevention. The MemoDepistages is a French government-based STI testing program based on a personalised screening solution with quarterly reminders. The first screening was performed using self-sampling kits for STIs. For subsequent screenings, participants could choose their screening method among laboratory screening, POC, HIV self-test sent at home and self-sampling kit sent at home. This study aimed to define if the MemoDepistages program increased the annual screening frequency for HIV.

Methods: The program was advertised by dating apps and social media. Inclusion criteria were: MSM aged over 18, ≥2 sexual male partners in the last year, HIV-seronegative, not using PrEP at last intercourse. Data on screening were collected using an online self-administered questionnaire. The number of screening one year before and after the subscription to the program was compared by sous-group. Increase in testing number was compared using a KHI^2 test.

Results: 3313 men subscribed, and 3180 (96%) needed to increase their test frequency. Among them, 1639 (51.5%) get tested at least once for HIV during the follow-up. After one year in the program, 500 (30.5%) completed their 4 HIV tests, and 1248 (76,1%) increased their testing frequency. The increase was highest for men with financial difficulties (81.4%, $p<0.05$) and men with less than five partners in the past six months before the study (79.1%, $p<0.05$).

Conclusion: MemoDepistages increased HIV test frequency for more than three men out of four in need to do so. It also helped three men out of ten to reach the quarterly testing goal. The gain was better for an economically disavantaged population with few partners.

Nydile Ramesh, Beatrice Cockbain, Carolina Rosadas, Graham P Taylor

HOW DO SOCIOECONOMIC DETERMINANTS OF HEALTH AFFECT THE PREVALENCE OF HTLV-1 GLOBALLY?

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Background: Human T-cell Lymphotropic Virus type 1 (HTLV-1) is a neglected human retrovirus associated with many clinical disorders, most notably Adult T-cell Leukaemia (ATL) and HTLV-1 associated myelopathy (HAM). Found in endemic clusters across the world, high prevalence has been reported in marginalised groups who suffer from health inequities. This study investigated the association between HTLV-1 prevalence and four socioeconomic determinants of health: education; income; employment; social class. All are markers of health inequity.

Methods: A systematic review was conducted by searching Ovid/Medline, Embase, Global Health Database, Web of Science, LILACS and SciELO databases. Primary studies in English, Spanish and Portuguese mentioning HTLV-1 and at least one of education, income, employment, or social class were included. A random-effects meta-analysis was performed, and odds ratios (OR) were calculated to determine the association between the four socioeconomic determinants of health and HTLV-1 prevalence.

Results: 46 studies were included, and the results found that individuals who had not completed primary education were more than twice as likely to have HTLV-1 infection, compared to those who had completed primary education (OR 2.08 [95% CI 1.54-2.81]; $P<0.01$). The other determinants were not found to be statistically significant, but studies were limited.

Conclusion: Not completing primary education doubled the odds of having HTLV-1 infection. This could be because individuals with low education may have reduced access to and understanding of health information or may be placed in situations where risk factors for the infection are more prevalent. This result has significant implications for public health policy. For example, targeted awareness campaigns, focusing on those with lower education are needed. In addition to this, more research is needed to improve the understanding of the impact of socio-determinants of health on HTLV-1 to reduce its prevalence globally.

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NATIONWIDE NETWORK FOR SURVEILLANCE EMERGING RESISTANT NEISSERIA GONORRHOEAE IN KOREA

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Background: Gonococcal infection caused by Neisseria gonorrhoeae is a major public health concern. However, the molecular diagnostic method for the diagnosis of sexually transmitted infection (STI) has replaced a traditional culture. Consequently, surveillance of AMR of N. gonorrhoeae has been minimal. We managed a Gonococcal Isolation Network (GIN) in Korea.

Methods: GIN was organized by Research Institute of Bacterial Resistance (RIBR) in Yonsei University College of Medicine in 2020. This GIN had a network with five collaborating independent clinical laboratories (ICLs) which contracted with private clinics and had their specimen transfer logistics. Gonococcal cultures were done on modified Thayer Martin agar and Chocolate agar for 72 hours in ICLs. Antimicrobial susceptibility of N. gonorrhoeae was done by CLSI disk diffusion test (penicillin G, ceftriaxone, spectinomycin, tetracycline, ciprofloxacin, nalidixic acid, and cefixime). E-test was used for ceftriaxone and azithromycin. Molecular epidemiologic tests were done with penA genotying, MLST, and NG-MAST.

Results: During the study period, we tried 524 gonococcal cultures from various provinces in Korea (324 males and 200 females). Until now, a total of 158 N. gonorrhoeae isolates were collected from patients with STI symptoms (95 males and 63 females). The resistance rate of penicillin was 40.3% and penicillinase-producing N. gonorrhoeae was 26.1%. The resistance rate of tetracycline and ciprofloxacin was 86.6% and 71.6%, respectively. In 2022 ceftriaxone-resistant strains were not found among Korean gonococci, but 0.7% of organisms showed intermediate resistance to European EUCAST guidelines.

Conclusion: We could collect more than 200 isolates annually. AMR trends, emerging resistant gonococcal surveillance, and molecular epidemiologic study will also be available with this network. With this network, AMR could be monitored continuously. addition, these data will be reported to GLASS as a Kor-GLASS report.

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DEVELOPMENT OF A MULTIVARIABLE PREDICTION MODEL FOR IDENTIFICATION OF PATIENTS AT RISK FOR SUFFERING FROM A SEXUALLY TRANSMITTED INFECTION

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Background: Sexually transmitted infections (STIs) are world-wide on the rise. Up til today, a considerable number of patients in a STI clinic will not suffer from a STI upon systematic testing. Our aim was to identify risk factors and to develop a tool for STI risk pre-test probability.

Methods: In a prospective setting we enrolled 178 patients (n=129 heterosexual, n=49 non-heterosexual) at the outpatient STI clinic of the Medical University of Graz between 2019 and 2021. All participants underwent systematic testing via microbiological analysis and by a multiplex STI- PCR from all relevant sites (pharyngeal, urethral, vaginal, cervical, anal). Treatment, if necessary, was performed in accordance with Austrian and European STI Guidelines.

Results: We could detect a STI in 39% (95%CI: 32-47) of patients. The commonest pathogen was Chlamydia trachomatis (17%), followed by Neisseria gonorrhoeae (12%). We identified risk factors for a confirmed STI with logistic regression and developed a simplified, point-based risk assessment tool by rounding the log-odds ratios of a multivariable logistic regression model of confirmed STIs. Due to the multivariable analysis, in total, the three following parameters highly predicted for a STI: (1) age <25 years, (2) non-heterosexual orientation, (3) presence of discharge.

Conclusions: We verified three parameters that can easily be enquired. Those can stratify patients presenting to a STI clinic according to the subsequent risk of developing a confirmed STI. These findings might probably significantly influence priority in diagnostic testing and work-up, especially for doctors who are not working in a STI clinic.

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HPV PROPHYLAXIS AND HPV IN CHILDREN (OVERVIEW)

Human papillomavirus (HPV)-associated genital pathology represents one of the major problems among STIs mostly due to the high recurrence rate, difficult eradication and oncogenic potential. Besides, the young, sexually active population in the generative period is mostly affected. However, the special attention is given to the HPV-induced lesions in children as such entities might rise a suspicion of the sexual abuse which is not always a case (though such possibility should not be ignored!).

As the very careful and friendly-orientated manner of taking the medical history and clinical examination is rather important in order to obtain the exact data (especially in the case of examining children and their parents), the clinical variations are presented ranging from clinically invisible or poorly visible, “asymptomatic” lesions to the bizarre forms of giant condyloma of Buschke-Löwenstein type, observed rarely in children, as well. The diagnostic approach to HPV genital infections needs to be complex including HPV DNA typing whenever it seems appropriate and well documented (especially in the paediatric age, as this might become a medical legal issue!).

Different methods are presented for the treatment of genital warts, such as cryotherapy, podophyllotoxin, curettage, and immumnomodulygtory treatment such as imiquimod andf/or sinecatechins, however the combined, so-called “proactive sequential treatment” has been proven to be the most effective under the circumstances. In general, treatment should be guided by the available resources, the experience of the provider and the preference of the patient.

The results of the most recent studies have clearly shown that 9v HPV vaccine (prophylactic, but therapeutic as well, in some cases) was generally well tolerated, induced high-titres of serum antibodies to HPV types, and effectively prevented acquisition of infection and clinical disease caused by common HPV types.

Natia Tepnadze, Maka Chkheidze, Debora Dzadzievi, Luka Kharkhelauri

GENDER AND AGE DISPARITIES IN THE PREVALENCE OF SEXUALLY TRANSMITTED INFECTIONS IN GEORGIA

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Objectives: Sexually transmitted infections (STIs) are a major public health problem in Georgia. They are diverse from an etiological and clinical point of view: more than 30 bacterial, viral and parasitic pathogens have been associated with sexual transmission. STIs are often viewed stigmatizing and may seriously impact on the health and well-being of affected individuals. Complications, which vary with the infecting organism, include infertility, ectopic pregnancy, cervical cancer, adult mortality and fetal and neonatal mortality. increased resistance to antimicrobials is emerging concerns, especially in gonorrhea.

There are several laboratory methods for detecting STIs, ranging from cell culture to nucleic acid amplification testing (NAAT). Only viable bacteria can be quantified in bacterial cultures, but NAATs such as real-time polymerase chain reaction (PCR) can quantify both viable and non-viable bacteria. The higher sensitivity and better specificity of NAATs are their main advantages over other tests.

Methods: Study included symptomatic and asymptomatic patients who have been tested for the STIs at the Medical Center CITO within the period of January-December 2021. The age of the enrolled patients was between 18 years and 71 years.

Results: Ureaplasma parvum and urealiticum – males, n=117, age <25, n=4 and females, n=439, age <25, n=24; Mycoplasma genitalium and hominis – males, n=109, age <25, n=3 and females, n=423, age <25, n=25; Chlamydia trachomatis – males, n=158, age <25, n=8 and females, n=349, age <25, n=39; Neisseria gonorrhoeae - males, n=73, age <25, n=7 and females, n= 336, age <25, n=34; Human Papilloma Virus (HPV) 14 genotypes – males, n=1, age <25, n=0, females, n= 98, age <25, n=4). The age of the enrolled patients was between 18 years and 71 years.

Conclusion: Ureaplasma parvum is the most frequent sexually transmitted infection in the studied population (Females, 38.49% and Males, 27.35%) followed by HPV (Females, 24% positive for at least one genotype – the most common genotypes are 16 (7%) and 18 (4%)).

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THE FEMALE VAGINAL MICROBIOME AND SEXUALLY TRANSMITTED INFECTIONS (STI)

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There are trillions of bacteria, that usually colonize the human body. 9% of them are localized in the female genital tract: vulva, vagina, cervix, uterus and adnexa. Virtually 90% of this microbiome is epitomized by Lactobacilli. Among lactobacilli, 4 different species: L. Crispatus, L. Gasseri, L. Jensenii ⌧⌧ L. Iners dominate the vaginal microbiota of women of child bearing age.

The main goals of the lactobacillus are to maintain vaginal milieu (pH 3.8-4.4), produce Hydrogen Peroxide, Lactic Acid and Bacteriocins (ribosomal antimicrobial peptides), antiviral actions, vaginotrophism, competition with pathogens for receptors binding on vaginal epithelial cells (VEC) and bactericidal actions.

The vaginal microbiome (VMB) is influenced by endogenous factors, such as: hormones, circadian rhythms and exogenous factors, which include: life-style habits, hygiene and nutrition. Modifications of the healthy vaginal microbiome creates Dysbiosis. Vaginal Dysbiosis can lead to the development of infection and/or disease. Healthy vaginal bacterial communities are thought to help prevent sexually transmitted infections (STI).

Vaginal microbiome in a “low-lactobacillus” state, is a biological risk-factor for both the acquisition and transmission of STIs. Bacterial Vaginosis, Anaerobic Vaginitis as well as sexually transmitted diseases are detrimental to reproductive health and fecundity.

Bacterial Vaginosis (BV) is a common clinical syndrome in which the protective lactic acid-producing bacteria are supplanted by a diverse array of anaerobic bacteria. Epidemiologically, BV has been shown to be an independent risk-factor for adverse outcomes including: preterm birth, development of pelvic inflammatory disease (PID) and acquisition of sexually transmitted infections.

Epidemiological studies have demonstrated that BV is associated with markedly increased risk for acquisition of sexually transmitted infections, including HIV and the development of pelvic inflammatory disease (PID). Transmission of STIs is also associated with BV, since BV increases viral replication and vaginal shedding of HIV-1 and herpes simplex virus type 2 (HSV-2). During pregnancy, BV has been linked to late fetal loss, and 10-30% of pregnant women with BV give birth prematurely. BV may be a relatively nonspecific marker of risk, motivating the development of new biomarkers for investigating and managing the vaginal microbiome.

Multidisciplin ary expertise in such fields as bioinformatics, epidemiology, gynecology, immunology, infectious diseases, microbial ecology, and molecular biology is necessary to exploit the data that will be generated on the vaginal microbiome, to identify new clinical interventions, and to assess these interventions rigorously.

Natia Todua [1], Tinatin Shaishmelashvili [2]

TREATMENT OF ANOGENITAL (VENEREAL) WARTS, TAKING INTO ACCOUNT AVAILABLE RESOURCES IN GEORGIA

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Background: Anogenital (venereal) warts is one of the most frequently sexually transmitted infection worldwide. It affects both genders, but prevalence is higher in men, especially in MSM, rather than in women. In Georgia there is no obligation to officially register condyloma acuminatum and therefore there is no accurate epidemiology database. Since 2017 HPV vaccination has been available in Georgia and recommendation suggests vaccinating 9 -18 years old females and males. Due to low vaccine coverage and also due to the main aim which serves to vaccinate particular groups of the female population, the prevalence of anogenital warts remains unchanged. The main objectives of research is to determine better treatment options that are available to patients with this disease in Georgia .

Methods: Data of 37 patients with confirmed Condyloma acuminata, presenting in several clinics in Tbilisi,Georgia between 2021-2022 were randomly evaluated and afterwards analyzed the efficacy of various types and combinational treatments of CA. The main purpose of the Study was to compare the efficacy of single - topical (imiquimod 5% cream) and destructive (cryotherapy) methods of treatment and combination of these two.

Results: Cryotherapy combined with topical treatment (imiquimod) versus cryotherapy and imiquimod 5% cream alone . The effectiveness of cryotherapy ranged 35 - 75 percent, while for topical treatment it was 32 - 73 percent compared with 75 to 92 percent for combination therapy.

Conclusion: The evaluation of patients provided a better understanding of the higher efficacy of combinational treatment and the cost effectiveness, based on this study it is possible that it can be implemented as the most effective treatment and outcome of CA in the future.

Laurence Toutous Trellu [1], Julie Cloppet Mouchet [1], Mélanie Michaud [1], Pénélope Bornhauser [2]

INTEGRATION OF THE PSYCHO-SEXOLOGICAL ASPECTS IN THE MEDICAL TREATMENT OF A PERSON WITH SYPHILIS INFECTION

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Background: Syphilis bears the image of a great sexually transmitted disease. Sexual health of the infected person may be affected. Yet, no study explored this aspect. The aim of the present research is to investigate the sexological impact of syphilis in order to improve our knowledge on this aspect, and consequently, to improve the quality of care for our patients and messages on prevention.

Methods: 43 patients, with confirmed syphilis were recruited at the venerology consultation of University Hospital of Geneva. They had to participate in a two-step experiment. First, they had to fill in questionnaires concerning their sexual function. Participants were then invited to discuss with the psycho-sexologist during a semi structured interview, to collect detailed qualitative data on the way they experienced their infection sexologically. The study was accepted in the local ethical committee.

Preliminary results: All the patients full filled the questionnaires. 8 women and 35 men, aged from 20 to 57 (39.12±10.56) were included. 13/43 were co-infected with HIV.

The results showed that 25/43 (58.1 %) of the patients reported a negative impact of syphilis on sexual life: blockage feeling for a new sexual intercourse, lack of sexual desire, loss of confidence in the actual and or future sexual partners. We also noted changes in sexual practices for 20/43 (46.51%) of the patients, with safer sex or abstinence, but all these changes only lasted for the duration of the treatment.

Conclusion: Because there is a short-term impact of syphilis on the sexual sphere of the patients, offering an urgent sexological counselling during the early treatment phase will allow better resilience of people encountering sexual difficulties.

M. Valentino M, D. Gamoudi, K. Muscat, A. Gauci, V. Padovese

THE MONKEYPOX OUTBREAK IN MALTA: CLINICAL CHARACTERISTICS AND DIAGNOSTIC CHALLENGES

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Background: As of July 23rd, 2022, the WHO has announced that in view of rising monkeypox virus (MPXV) cases in non-endemic countries, the outbreak has become a global health emergency. Being the most densely populated country in Europe, Malta faces unique challenges, with high infection rates compared to the rest of Europe.

Methodology: The study is a retrospective analysis of medical records of patients diagnosed with MPXV at the genito-urinary clinic (GUC), Mater Dei Hospital, Malta, from May to August 2022.

Clinical and demographic data, including gender, sexual orientation, age, nationality, country of transmission, HIV status and STIs co-infection were analysed.

Results: In the study period, Malta recorded 30 confirmed MPXV cases. Of these, 18 were diagnosed at the local GUC (17 males and 1 female). 7 patients were in the age group 20-29, 8 aged 30-39, 2 aged 40-49 and 1 aged 60-69. Of the 18 patients, 13 were MSM, 2 bisexual and 3 heterosexual. Regarding nationalities, 14 were non-Maltese and 4 were Maltese. 6 were imported cases whilst 12 locally spread. 4 patients were known to be HIV positive. Coincidentally, 3 patients were coinfected with Syphilis, 6 with Gonorrhoea, 2 with Herpes Simplex Virus and 3 with Chlamydia. Clinical presentations included skin lesions (14), lymphadenopathy (10), fever (9), genital ulcers (7), myalgias (4), anal ulcers (4), dysuria (3), anal discharge (2), proctitis (1), urethritis (1) and sore throat (1).

Conclusion: The results of the study shed light on the MPXV outbreak in Malta and can support clinicians in the identification of future cases, hence curbing infection rates.

Christophe Van Dijck [1], Niel Hens [2], Chris Kenyon [1], Achilleas Tsoumanis [1]

THE ROLES OF ASYMPTOMATIC MONKEYPOX TRANSMISSION, CONTACT TRACING AND VACCINATION IN DETERMINING EPIDEMIC SIZE IN BELGIUM. A MODELLING STUDY

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Background: Since the beginning of the 2022 monkeypox epidemic in non-endemic countries, most infections have been diagnosed among men who have sex with men (MSM). This observation and other features of the outbreak suggests that the virus is transmitted during sexual contact. Additionally, the range of clinical presentations and absence of typical monkeypox lesions in a proportion of cases indicates that many infections may remain undiagnosed.

Methods: We used an individual-based network model to simulate a monkeypox outbreak that is transmitted during sexual contact in a network of 10,000 MSM in Belgium. We compared simulations in which the proportion of undiagnosed cases was either 0% or 50%, and we estimated the impact of partner notification + abstinence and post-exposure vaccination of partners. All simulations were run 100 times for 720 days and started with the introduction of ten monkeypox cases at day 1.

Results: A scenario in which half of the cases remained undiagnosed resulted in a 9.5x larger epidemic by day 720 (median 1,294.5 men, IQR 1,022.2 – 1,540.2) compared to a scenario in which all cases were diagnosed (median 136 men, IQR 98.2 – 229.5). Tracing 25% of partners reduced the epidemic size by 67.8% (416.5 men, IQR 215.5 - 587), respectively by 58.1% (57 men, IQR 44.8 - 83). Post-exposure vaccination reduced the epidemic size by an additional 7.4% (385.5 men, IQR 199.2 – 574.5), respectively 17.5% (47 men, IQR 34 – 68.5).

Conclusion: Undiagnosed monkeypox cases may have an important impact on the epidemic. Even if only a small proportion of partners are notified, this may substantially reduce the epidemic if all partners abstain from sex. Additional post-exposure vaccination has limited additional value.

Arne Wikström

HOME-BASED TREATMENT OF HPV-INDUCED LESIONS

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Background: Genital HPV infections cause substantial burden, both to the individual who suffers from recurrent warts and in health economic costs. It is therefore important to offer treatment methods that are effective and easy to use for the individual patient.

Methods: In this talk a short summary is given of home-based treatment methods that are available on the market with sufficient evidence of efficacy.

Results: Podophyllotoxin is probably the drug most often used. It is a cytotoxic drug that is effective on certain genital locations. Imiquimod is also an effective drug with another mechanism of action, inducing cytokines important for HPV eradication. Green tea extracts, sinecatechins, is also an alternative for home based treatment. All of these mentioned drugs can be associated with local side effects such as erythema and erosions that might be painful. Some of them can also have a few systemic side effects. Nowadays it is common to combine surgical therapy with home-based treatment, so called proactive sequential therapy.

Conclusions: The ideal treatment for HPV infection still does not exist. For total HPV clearance, the individual immune response is crucial for eradicating latent virus. With all existing methods you can only treat the visible lesions.

Kerstin Wissel [1], Marcel R. Eugster [2], Mila Laffers [1], Benjamin Hampel [1,3]

HIGH RATES OF MACROLIDE RESISTANCE IN MYCOPLASMA GENITALIUM AMONG SYMPTOMATIC PATIENTS FROM A LARGE SWISS STI CLINIC

[1] Checkpoint Zurich; [2] Unilabs Dübendorf; [3] Department of Public and Global Health, Epidemiology, Biostatistics and Prevention Institute, University of Zurich, Zurich, Switzerland

Aims: Mycoplasma genitalium (MG) has emerged as a sexually transmitted pathogen over the last decades. Prevalence and antibiotic resistance rates are varying between populations and countries; however the latest data shows that antimicrobial resistance and failure of azithromycin treatment is increasing in some European countries. However, first line treatment for MG remains a macrolide antibiotic according to current guidelines. For Switzerland, there is almost no data on macrolide resistance among MG so far. The aim of our study is to collect data from the largest clinic for sexually transmitted infections (STI) in Switzerland regarding the actual macrolide resistance situation of MG and is to investigate the impact of on-site testing (with results available within 24 hours) on the use of antibiotic prescriptions.

Methods: Samples from patients with symptoms of urethritis and/or proctitis of Checkpoint Zurich who tested negative for Chlamydia trachomatis and Neisseria gonorrhea were additionally screened for MG by GeneXpert Dx System GX-IV, Cepheid, using rtPCR (SpeeDx ResistancePlusâ MG-Assay). An identified macrolide resistance-associated 23S rRNA gene mutation was used to assess macrolide resistance. Samples between 1/2021 to 12/2021 were included in the study.

Results: We screened a total of 468 samples and identified 105 samples (22%) that were positive for MG. Sixty-eight % of the positive samples showed macrolide resistance-associated mutations in the 23S rRNA gene and were assessed as macrolide resistant.

Conclusions: The macrolide resistance rate in our clinic, which is visited by a high-risk population of mainly man who have sex with man (MSM), is high and markedly exceeds 50%. This supports previous evidence that macrolide resistance situation in Europe is rising and surveillance for antimicrobial resistance of MG is essential. On-site testing with antibiotic treatment adapted to the individual resistance test may be an option for STI clinics that are able to implement the required infrastructure.

Kerstin Wissel [1], Mila Laffers [1], Marcel R. Eugster [2], Benjamin Hampel [1,3]

IMPACT OF ON-SITE PCR TESTING FOR BACTERIAL STIS ON THE NUMBER OF BLIND TREATMENTS AT A LARGE SWISS STI CLINIC

[1] Checkpoint Zurich; [2] Unilabs Dübendorf; [3] Department of Public and Global Health, Epidemiology, Biostatistics and Prevention Institute, University of Zurich, Zurich, Switzerland

Aims: Standard diagnostic for sexually transmitted infections (STI) is a polymerase chain reaction (PCR) for N. gonorrhea (NG) and C. trachomatis (CT) and, in case of negative results, a PCR for Mycoplasma genitalium (MG). As the time to receive the results of the PCR varies, so-called blind treatments are often done due to urgent request from symptomatic patients before test results are available. The aim of our study is to collect data from the largest STI clinic in Switzerland regarding the number of blind treatments administered before and after on-site PCR testing was implemented.

Methods: Until 2020, swab samples from patients with STI symptoms of Checkpoint Zurich were sent to an external laboratory for PCR testing for NG and CT, with results available 24 to 48 hours later. In case of a negative result, the laboratory needed to be contacted to perform a further PCR on MG. In 2021 the process was changed by using the GeneXpert Dx system GX-IV from Cepheid. Samples were analyzed on-site by rtPCR (Xpert CT/NG assay) within 90 minutes . In case of a negative result, a further PCR test on MG (SpeeDx ResistancePlus® MG-Assay) was performed the same day. Treatment documentation and swab samples between 01/2020 and 12/2021 were evaluated retrospectively for this study.

Results: In 2020, a total of 1538 infections with either CT, NG or MG were detected. 109 (7.1%) received a blind treatment prior to receiving the results. In 2021, 2209 infections with either CT, NG or MG were detected. Only 35 (1.6%) received a blind treatment in advance. The rate of blind treatments could be reduced by a factor of 4.4 between 2020 and 2021 ($p < 0.001$).

Conclusions: By introducing on-site PCR testing in our clinic, the number of blind treatments with ceftriaxone and doxycycline was significantly and substantially reduced.

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