methods for diagnosis of Neisseria gonorrhoeae and Trichomonas vagi-
nalis infections. However, PCR was available for testing for Chla-
mydia trachomatis, N. gonorrhoeae, Mycoplasma genitalium, Gardnerella
vaginalis, M. hominis and Ureaplasma urealyticum using Russia-pro-
duced diagnostic tests. Serology remained in use for diagnosis of chlamydial infection and trichomoniasis. No appropriate and com-
plete quality assurance and control system was available.

Conclusions

In Tver, Russia, the detection of several STI agents has to be optimised, and international evidence-based standards and
appropriate quality management systems introduced. Beneficially, the
laboratory diagnosis is further centralised, which makes it easier to
implement appropriate international evidence-based STI guidelines.

**P2.024** EVALUATION OF THE GENITAL MICROBIOTA IN MEN AND
WOMEN USING AN AUTOMATED SYSTEM FOR ANALYSIS OF
MICROSCOPY IMAGES OF WET AND STAINED SMEARS


E Rybina, E Bulatova, Z Martikainen, S Zatsiorskaya, V Panteleyev, A
Savicheva, Eastern European Network for Sexual Reproductive Health, Ott Institute
of Obstetrics and Gynecology Academy of Medical Sciences of Russian Federation, St
Petersburg, Russian Federation

Background

In Russia, microscopy of the genital microbiota in both
women and men are performed at laboratory, not at physician's
office. Microscopy is a simple and cheap method, which, together
with a clinical presentation, provides sufficient information for diag-
nosis of bacterial vaginosis, vulvovaginal candidiasis, trichomoniasis,
cervicitis, urethritis. Improvement of microscopy diagnostic methods
with the use of automated computerised system is important.

Methods

Clinical samples were obtained from 100 men and 150
women of reproductive age. In total, 150 vaginal, cervical and
decimal urethral samples, 75 male urethral samples and 17 prostatic
samples were analysed using microscopy of Gram and methylene
blue stained preparations. The presence of polymorphonuclear leuk-
cocytes, lactobacilli, "clue" cells, yeasts, trichomonads, gramme-
negative diplococci was assessed. Vaginal samples were also assessed
for bacterial vaginosis using the Nugent score. For analysis, image
analyzer including a Biological Microscope MT5000 Series, Neiji
Techno Co., Ltd (Japan), digital colour camera Progress CT3 and
software UroGyn were used.

Results

In 17.33%, 11.33% and 2% of the vaginal samples, "clue"
cells, yeasts and trichomonads were visualised by microscopy. Signs
of cervicitis were detected in 2% of the women, in none of the female
samples signs of urethritis were seen. In men, signs of urethritis were
revealed in 3.45%, and prostatitis - in 29.4% of the samples. In none
of the samples, Gram-negative diplococci were detected. There was
complete agreement between the results obtained using the image
analyzer and those obtained using traditional light microscopy.

Conclusion

An automated system for the analysis of images obtained
by microscopy investigation of urogenital samples from
women and men is easy to use, allows documentation of results and
facilitates their interpretation.

**P2.026** AUDIT OF ADHERENCE TO UK NATIONAL GUIDELINE FOR
MANAGEMENT OF EPIDIDYMO-ORCHITIS


C Whitfield, S Rodgers. Manchester Centre for Sexual Health, Manchester, UK

Background

The UK guideline for epididymo-orchitis management
makes recommendations about appropriate diagnostic
tests, treatment regimes and health promotion principles. This
audit compares our clinic’s performance with reference to these
guidelines.

Methods

Case notes of patients diagnosed with epididymo-orchitis
over seven months were reviewed. Details of sexual orientation,
investigations, treatment and management were recorded.

Results

There were 84 patients comprising 61(71.2%) heterosexual
men, 22(26.2%) men who had sex with men (MSM), and 1(1.2%)
bisexual man. Fifty one (60.7%) men had all four recommended
tests, treatment regimes and health promotion principles. This
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Methods

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Results

There were 84 patients comprising 61(71.2%) heterosexual
men, 22(26.2%) men who had sex with men (MSM), and 1(1.2%)
bisexual man. Fifty one (60.7%) men had all four recommended
microbiological investigations of gramme stained urethral smear, ure-
thal swab for N. gonorrhoeae culture, first pass urine (FPU) for nucleic
acid amplification tests for N. gonorrhoeae and C. trachomatis, and
microscopy and culture of mid-stream urine (MSU) for bacteria. Of
the 84 patients, 81(96.4%) had 3 tests taken of urethral smear, swabs
and FPU, but MSU was only performed in 57(67.9%) men. Ten
(11.9%) men were diagnosed with chlamydia and 3(3.6%) with gon-
orrhoea, and 82(97.6%) patients received appropriate antibiotic treat-
ment according to the guidelines. Advice on rest, analgesia and scrotal
support was poorly documented (9.5%, 9.5% and 8.3% respectively).
Guidance about abstinence from sex and partner notification (PN)
was documented in 65(77.4%) cases and explanation about the condi-
tion recorded in 54(64.3%) cases. A leaflet was offered in 3(3.6%)
cases. Seventy six (90.5%) patients had a follow up appointment
offered at 2 weeks but only 42(55.3%) patients attended. At the
review, PN was completed for all patients. A written action plan
was recorded in 100% of men with ongoing symptoms.
Conclusions Recommended antibiotic treatment was nearly always offered to patients. However general advice and written documentation were poor and non-attendance at follow up was high. Urine culture testing and documentation should be significantly improved for initial management, and a robust system developed to assess compliance with treatment, PN and symptom resolution.

**P2.027 GENEXPERT GBS AND CT/NG REAL TIME PCR ASSAYS AS INNOVATIVE TOOLS FOR CERVICO-VAGINAL INFECTIONS' SCREENING**

G Di Renzo, G Babucci, I Giardina, M Cimino, E Picchiassi, F Tarquini, M Centra, G Coasta. University of Perugia, Perugia, Italy

Background Group B Streptococcus (GBS), Chlamydia trachomatis (CT) and Neisseria gonorrhoeae (NG) cervico-vaginal infections can be involved in pregnancy complications such as preterm birth and premature rupture of membrane (PROM). These infections can also be transmitted to the newborn during delivery leading to serious consequences. Therefore, CDC guidelines suggest microbial prenatal screening for administration of target prophylaxis based on culture results. To accurately predict the colonisation of genital tract, the test should be better performed during labour, because microbial presence may be transient/intermittent and re-colonisation can occur. GeneXpert®GBS and GeneXpert®CT/NG tests (Cepheid), fully-automated, easy-to-use and rapid PCR-assays (about 45 and 90 min, respectively) can be the right alternative to culture tests (at least 72 hours).

This study evaluates the advantages of GeneXpert®GBS in the management of women, with unknown cervico-vaginal microbial status, during labour. Moreover, it assesses whether the prevalence of CT, NG and GBS infections is higher in pregnancy complicated by preterm labour or PROM.

Methods During a four months’ period, all women with singleton pregnancy at beginning of labour either-term or preterm or PROM were enrolled. Exclusion criteria were planned caesarean section or recent use of systemic or topical antibiotics. Cervico-vaginal (for CT/NG) and vaginal-rectal (for GBS) swabs were collected from each patient and analysed by GeneXpert®GBS and GeneXpert®CT/NG assays on GeneXpert®System.

Results CT/NG screening showed positive results only among PROM pregnancies (2.5% CT positive) while no positive results were found among preterm/term pregnancies.

Among pregnant women analysed for GBS, 24.4% resulted positive and 75.6% negative. Only positive patients received IAP, instead of current guidelines, for which all patients would have been treated due to unknown GBS infection status.

Conclusion With GeneXpert®GBS test, we could correctly manage all women and reduce administration of IAP. We calculated that the savings for the hospital was 3,500 EUR every three months.

**P2.028 EVALUATION OF THE VAGINAL MICROBIOTA USING QUANTITATIVE REAL-TIME PCR**

K Shalepo, V Nazarova, I Menukhova, A Savicheva. Ob Institute of Obstetrics and Gynecology Academy of Medical Sciences of Russian Federation, St Petersburg, Russian Federation

Background For characterization of the vaginal microflora, it is often necessary to assess quantities of microorganisms. The study objective was to evaluate vaginal microflora in norm, bacterial vaginosis (BV) and vulvovaginitis (VV) using quantitative real-time PCR.

Methods A total of 255 women of reproductive age, who addressed a gynaecologist due to vaginal discharge, were included in the study. BV was diagnosed using the Amsel criteria and the Nugent score. VV was diagnosed on the basis of clinical presentation and microscopy results. The patients were divided into 3 groups: healthy (n = 128), BV (n = 48) and VV (n = 79). Vaginal swabs were analysed using a real-time PCR test (FemoFlor, DNA-Technology, Russia), which assesses total bacteria, lactobacilli, anaerobic bacteria and genital mycoplasmas. The quantities of the microorganisms were summarised as median values in each group of patients.

Results In the group of healthy women, total bacteria were present in a median load of 7.9×10^6 DNA copies per reaction, in BV group - 3×10^6, in VV group - 6.7×10^6. The median loads of lactobacilli in the group of healthy women, BV and VV groups were 4×10^5, 1.4×10^6 and 1.6×10^6 copies per reaction, respectively. Quantities of Gardnerella vaginalis/Prevotella bivia/Perphromonas spp. in the three groups were 2.5×10^2, 8.7×10^2 and 5.8×10^2 copies per reaction, respectively. Megasphaera spp/Weillonella spp/Dialister spp were present in the three groups in loads of 1, 4.3×10^5 and 5.8×10^5 copies per reaction, respectively. The median values of Mycoplasma hominis were equal in the three groups (median values 1 copy per reaction). The quantities of Ureaplasma urealyticum/parvum were 1.4×10^5 and 1 copies per reaction, respectively.

Conclusion Real-time PCR is a fast and accurate tool for the assessment of the vaginal microbiota.

**P2.029 ALL THAT IS GENITAL IS NOT VENEREAL**

S F Kazi. K Godse, S Patil, N Nadkarni. P.D. Y. Patil Hospital, Navi Mumbai, India

ALL THAT IS GENITAL IS NOT VENEREAL

Unusual cases with lesions on genitals

Genital disease (GD) has a broad spectrum. Though sexual transmission obviously plays a major role in its pathogenesis, many diseases with genital presentation are not sexually transmitted diseases (STD) but due to strong clinical resemblance cause a lot of diagnostic confusion and therapeutic misadventures. We report 4 such cases.

Case 1 and 2 A 35 yr old female presented with recurrent attacks of itchy, painful lesions over the genitals along with musculo-articular symptoms. On examination there were classical “knife cut ulcers” over the labia, perianal areas and inframammary folds.

Another 26 year old unmarried female presented with vulvar lesions. Indurated tender swelling, ulceration of the vulva, violaceous plaques with edema were present.

Histopathology showed epitheloid cell granuloma with occasional Langhans giant cells. Clinicopathological correlation clinched both cases as Metastatic Crohn’s disease which responded to a course of oral metronidazole and corticosteroids.

Case 3 A young male presented with penile swelling, multiple discharging ulcers since 2 months. There was distortion of the shape and multiple shallow necrotic ulcers on the shaft of the penis with phimosis. Non- tender right inguinal lymphadenopathy. Biopsy showed multiple tubercloid granulomas. Mantoux test was strongly positive with high ESR suggesting Genital Tuberculosis. The patient was started on AKT 3 weeks later ulcers healed with destruction of overlying skin.

Case 4 A 56 year old married male came with raised lesions and a glazed whitish discolouration of glans penis with phimosis and thinning of urinary stream.

Biopsy revealed atypical undifferentiated cells and horn pearls. Imprint cytology and FNAC were done and a final diagnosis of Squamous Cell Carcinoma was made which required partial amputation of penis.