Final Programme and Abstract Book

14th Congress of the BADV

2nd Vilnius Summit on Communicable Diseases

October 4–7, 2017, Vilnius, Lithuania

http://www.badv2017vilnius.org
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welcome Message</td>
<td>4</td>
</tr>
<tr>
<td>Scientific programme</td>
<td>8</td>
</tr>
<tr>
<td>Abstracts (Dermatology)</td>
<td>23</td>
</tr>
<tr>
<td>Abstracts (HIV and associated (TB, VH, STI)</td>
<td>44</td>
</tr>
<tr>
<td>Abstracts (Other infections)</td>
<td>66</td>
</tr>
<tr>
<td>Author Index</td>
<td>82</td>
</tr>
</tbody>
</table>
It is our great pleasure to invite medical doctors, public health specialists, nurses to participate in the unique joint event - 2nd Vilnius Summit on Communicable Diseases and 14th Congress of the Baltic Association for Dermatovenereologists, which will be held in the Academy of Sciences of Lithuania (Gedimino Avenue, 3, Vilnius) on 4-7th October 2017.

The aim of the joint Meeting is to present and discuss evidence-based policies, guidelines, approaches and best practices of the communicable disease control and prevention within the European region. Among the speakers are experts from the World Health Organisation, the European Centre for Diseases Prevention and Control, and other international organisations, the most prominent specialists of communicable diseases.

Relevant topics will be discussed including current threats of communicable diseases in Europe and the world, antimicrobial resistance, health care and veterinary medicine-related infection problems, challenges of the European Vaccine Action Plan and development of new vaccines, social health determinants and inter-related infections: HIV, viral hepatitis, sexually transmitted infections and tuberculosis.

The most Vilnius tourist attractions and all hotels where delegates will stay are situated within easy walking distance from the conference venue.

We hope that the 4-day event will provide an excellent opportunity to learn about the latest scientific achievements, to improve qualification and will contribute to the strengthening of international cooperation, and your stay in Lithuania will be useful and enjoyable.

Prof. Dr. Aurelijus Veryga
Minister of Health of the Republic of Lithuania

Dear Colleagues,
Dear Friends,

It is my great honor to welcome you to the 14th congress of the Baltic Association of Dermatovenereologists (BADV) which this time will be held in Vilnius, Lithuania 5-7 October 2017 and Congress president will be well known professor from Lithuania- Dr. med. Saulius Caplinskas.

At the 14th BADV congress we are going to discuss a broad spectrum of scientifically important issues and problems in dermatovenereology. Congress program will include main dermatological, skin cancers, cosmetic dermatological and STI problems. It will be an excellent possibility for all of us to exchange the ideas, experience and the latest achievements in the disease prevention, diagnostics and treatments.

This year we have already invited top dermatovenereologists from Europe to take a part as speakers and I am confident that also this year congress program will be outstanding.

Also we are inviting leading pharmaceutical companies to organize symposiums and demonstrate their production in exhibitions.

I am sure that all participants and speakers will be delighted with congress and will enjoy beautiful Vilnius atmosphere.

Andris Rubins, Dr.hab. med.
Professor and Chairman, University of Latvia President of Latvian Association of Dermatovenereologists President of Baltic Association of Dermatovenereologists(BADV) President of Euro-Asian Association of Dermatovenereologists(EAAD)
Dear Colleagues,

It is a great pleasure to welcome you to the 2nd Vilnius Summit on Communicable Diseases and 14th Congress of the Baltic Association of Dermatovenerologists (BADV) which will be held in Vilnius on 4-7 October 2017.

The 1st Vilnius Summit on Communicable Diseases took place in June 26th up to July 1st. This meeting was a consistent continuation of the international conferences, which have gained a major political repercussions and were highly evaluated by the specialists, including the 4th European Conference on HIV/AIDS and Related Issues on Social and Behavioural Aspects held in Vilnius in September 2002, 2nd Open Europe AIDS Conference “Europe and HIV/AIDS: new challenges, new opportunities” in Vilnius in September 2004, 5th European Conference on Clinical and Social Research of AIDS and Drugs in April 2009, 1st European Conference “Antimicrobial resistance and infection control” held in Kaunas in November 2011, 2nd European Conference “Antimicrobial resistance and infection prevention” in Vilnius in October 2012, and the annual National Conferences on Communicable Diseases that have been held since 2013.

The key topics of the 2nd Vilnius Summit on Communicable Diseases “From political consensus to implementation” will be challenges of the European Vaccine Action Plan implementation, creation of new vaccines, challenges of antimicrobial resistance, health care and veterinary related infection, social determinants of health and interrelated infections: HIV infection, viral hepatitis, sexually transmitted diseases and tuberculosis.

The BADV Congresses have been a remarkable event which brought together unique and international mix of various leading universities and dermatology institutions, pharmaceutical companies giving an opportunity to obtain new information about possibilities in diagnostics, therapy and prevention of the diseases, to foster collaborations and evaluate emerging technologies, to receive a high quality continuing medical education update.

The Congress in 2017 will be no exception and will bring together many prominent well-known dermatovenerology related experts from the Baltic States, Europe and the rest of the world to discuss the latest advances in this constantly evolving field. This Congress will be a kind of unique at the same time, because the audience will include not only dermatovenerology specialists but also family doctors, infectologists and other medical professionals, who encounter issues of sexually transmitted diseases and dermatology in their work. The Congress Programme includes key presentations on October 5-6th and seminar for companies on October 7th. On the 5th October issues of bacterial infections, STI, viral hepatitis and HIV will be discussed, on the 6th October – issues of dermatology.

We hope that this joint event will provide an unique opportunity to learn the newest scientific achievements and to strengthen the networking, to advance your patient care skills in everyday clinical practice, and you will find the event and your stay in Vilnius both valuable and enjoyable.

Our Lithuanian reputation for hospitality, friendliness, safety, and efficiency will be extended to all delegates, exhibitors, and accompanying persons. Vilnius, Lithuania's capital, is known for its baroque architecture, seen especially in its medieval old town, and we hope that it will serve as a beautiful venue to host this unique joint event.

Prof. Dr. Saulius Caplinskas
Director, Centre for Communicable Diseases and AIDS
President of the 2nd Vilnius Summit on Communicable Diseases
Vilnius, Lithuania
Maloniai kviečiame gydytojus, visuomenės sveikatos specialistus, bendrosios praktikos slaugytojas dalintis unikaliam savo pobūdžių Jungtiniamo renginyje - 2-oje tarptautinėje Vilniaus užkrečiamųjų ligų konferencijoje ir 14-ame Baltijos dermatovenerologų draugijos kongrese, kurie vyks 2017 m. spalio 4-7 d. Lietuvos mokslo akademijoje (Gedimino prospektas 3, Vilnius).

Tarptautinės užkrečiamųjų ligų konferencijos tikslas - pristatyti ir aptarti įrodymais pagrįstą užkrečiamųjų ligų kontrolės ir prevencijos Europos regione politiką, gaires, požiūrius ir geriausios praktikos pavyzdžius. Tarp pranešėjų – Pasaulio sveikatos organizacijos, Europos ligų kontrolės ir prevencijos centro, kitų tarptautinių organizacijų atstovai, žymiausiai užkrečiamųjų ligų specialistai. Bus aptariamos aktualios šiuo metu temos - šiuolaikinės užkrečiamųjų ligų grėsmė Europoje ir pasaulyje, sukeliojų atsparumo vaistams, su sveikatos priežiūra ir su veterinarija susijusių infekcijų problemas, Europos vakcinacijos veiksmų plano įgyvendinimo iššūkiai ir naujų vakcinų kūrimas, socialinės sveikatos determinantės ir tarpusavyje susijusios infekcijos: ŽIV, virusiniai hepatitai, lytiškai plintančios infekcijos, ŽIV, virusiniai hepatitai.

Daugelis dažniausiai Vilniaus turistų lankomų vietų ir visi viešbučiai, kuriuose gyvens delegatai, lengvai pasiekiami pėsčiomis nuo konferencijos vietos.

Tikimės, kad 4 dienas truksiantis renginys suteiks puikią galimybę susipažinti su naujausiais mokslo pasiekimais, kelti kvalifikaciją ir padės stiprinti tarptautinį bendradarbiavimą, o Jūsų viešnagė Lietuvoje bus vertinga ir maloni.

Prof. Dr. Aurelijus Veryga
Lietuvos Respublikos sveikatos apsaugos ministras

Gerbiami colegos,
mieli draugai,

man didelė garbė pakviesti jus į 14-ajį Baltijos dermatovenerologų asociacijos kongresą, kurį šį kartą vyks Vilniuje, Lietuvoje, 2017 m. spalio 5-7 d., o kongreso prezidentas bus gerai žinomas profesorius iš Lietuvos dr. Saulius Čaplinskas.

14-ame BADV kongrese aptarsime įvairių svarbių dermatovenerologijos moksliinius klausimus ir problemas. Kongreso programoje numatytos svarbiausios dermatologės, ods vėžio, kosmetinės dermatologės ir LPI temos. Tai bus puiki galimybė mums visiems pasidalinti mintimis, patirtimi ir naujausiais ligų prevencijos, diagnostikos ir gydymo pasiekimais.

Šiais metais jau pakviėmėme žymiausius dermatovenerologus iš Europos skaitytą pranešimus, esu įsitikinęs, kad ir šį metų kongreso programa bus išskirtinė.

Kviečiau ir didžiausias farmacines kompanijas organizuoti simpoziumus ir pade monstruoti savo gaminius parodose.

Esu įsitikinęs, kad Jūsų dalyviai ir pranešėjai bus patenkinti kongresu ir galės pasimėgauti nuostabia Vilniaus atmosfera.

Hab. dr. Andris Rubins
Latvijos universiteto profesorius ir pirmininkas, Latvijos dermatovenerologų asociacijos prezidentas, Baltijos dermatovenerologų asociacijos (BADV) prezidentas, Europos ir Azijos dermatovenerologų (EAAD) prezidentas
Kvietimas

Gerbiami kolegos,

man malonu jus pakviesti į 2-ąją Vilniaus užkrečiamųjų ligų konferenciją ir 14-ąjį Baltijos dermatovenerologų asociacijos kongresą (BADV), kurie vyks Vilniuje 2017 m. spalio 4-7 d.


2-osios Vilniaus užkrečiamųjų ligų konferencijos „Naujos ir atsinaujinančios ligos ir jų problemas“ svarbiausios temos buvo Europos skiepėjo veiksmų plano plano iššūkiai, naujų vakcinų kūrimas, atsparumo vaistams problemos, su sveikatos priežiūra ir veterinarija susijusių infekcijų, socialinės sveikatos determinantės ir tarpusavio susijusių infekcijų: ŽIV, virusinis hepatitis, lytiškai plintančio ligos ir tuberkulozė. BADV kongresai visada buvo puikus renginys, suburiantis įvairių šalių pirmaujančių universitetų ir dermatologijos įstaigų, farmacijos kompanijų atstovus ir suteikiantis galimybę sužinoti naujausią informaciją apie ligų diagnostiką, gydymą ir prevenciją, puoselėti bendradarbiavimą ir vertinti atsirandančias technologijas, gauti tęstinų medicinos žinių.

2017 m. kongresas tęs šias tradicijas ir suburs daug žymių su dermatovenerologija susijusių specialistų iš Baltijos šalių, Europos ir viso pasaulio aptarti naujausius žingsnes pasiektus. Šis kongresas bus ir savotiškai unikalus, nes auditorijų sudarys ne tik dermatovenerologai, bet ir šeimos gydytojai, infektologai ir kitų medicinos specialybių atstovai, susiduriantys su lytiškai plintančiomis ligomis ir dermatologija savo darbe. Kongreso programoje – pagrindiniu pranešimai spalio 5-6 d. ir kompanijų seminarai spalio 7 d. Spalio 5 d. bus aptarti bakterinių infekcijų, LPI, viršinio hepatitis ir ŽIV klausimai, spalio 6 d. – dermatologijos klausimai.


Prof. dr. Saulius Čaplinskas
Užkrečiamųjų ligų ir AIDS centro direktorius
BADV kongresas prezidentas
Vilnius, Lietuva
TUESDAY, OCTOBER 3, 2017

Centre of Communicable Diseases and AIDS, Nugaletojų 14 D, Vilnius

9:00-17:00 Northern Dimension Partnership on Public Health and Social Wellbeing (NDPHS) Expert Group on HIV, TB and Associated Infections meeting

Chair: A. Arsalo (Finland)

WEDNESDAY, OCTOBER 4, 2017

Lithuanian Academy of Science, Gedimino Av.3, Vilnius

Big hall

08:15-17:00 REGISTRATION

9.00 Welcome message on behalf of MoH (Ausra Bilietiene - Motiejuniene) and Lithuanian Academy of Science (Vytautas Basys)

Key lecture: The Battle Over Genome Editing. Virgilijus Siksnys (TBC), Lithuania

9:30-11:00 Symposium A „Vaccine-preventable infections“

Chairs: S. Datta (WHO), L. Asokliene (Lithuania), A.Kozlov (Russian Federation)

European Vaccine Action Plan; good practices, progress and challenges.
Siddhartha Datta, WHO, Copenhagen

New vaccines implementation challenges in Lithuania. Nerija Kupreviciene, Lithuania

Therapeutic HPV vaccination. Maria Issagouliantis, Latvia

Poster satellite discussion (up to 5 minutes)

Pneumococcal vaccination in risk groups in Lithuania 2016. Asta Skrickiene, Center for Communicable Diseases and AIDS, Lithuania

Unvaccinated children situation in Lithuania 2003-2016. Ieva Sebeleauskaitė, Center for Communicable Diseases and AIDS, Lithuania

Overview of side reactions to vaccines in Lithuania 2016. Kristina Zukauskaitė, Center for Communicable Diseases and AIDS, Lithuania

11:00-11:30 Health Break

11:30-13:00 Symposium B "Communicable diseases and social determinants of health"

Chairs: A. Arsalo (Finland), M. Mardaescu (Romania)

Current priorities and challenges of the NDPHS Expert Group on HIV, TB and Associated Infections.
Ali Arsalo, NPD, Finland

Scientific programme

13:00-14:30 Lunch Break

14:30-16:00 Symposium C “Tuberculosis”
   Chairs: T. Ulrichs (Germany), M. Danilovits (Estonia), M. Singh (Germany)

Progress and challenges in tuberculosis prevention and control in WHO European Region. Martin van den Boom, WHO, Copenhagen

Challenges in TB control in Eastern Europe. Timo Ulrichs, Germany

TB control in Lithuania. Kestutis Miskinis, Lithuania

Challenges in TB control in Estonia. Manfred Danilovits, Estonia

Genotypic diversity of Mycobacterium tuberculosis in patients with a combination of TB and HIV infection. Diana Vakhrousheva, Kseniya Belousova, Russian Federation

New Approaches to TB Diagnostics. Mahavir Singh, Germany

Programmatic use of delamanid and further developments to Otsuka’s TB programme. Norbert Hittel, USA

16:00-16:30 Health Break

16:30-18:30 OPENING Plenary
   Chairs: A.Veryga (MoH, Lithuania), Martin van den Boom (WHO), M. Catchpole (ECDC)

Video message from European Commissioner Vytenis Andriukaitis

Welcome message. Ministry of Health Aurelius Veryga, Lithuania

Welcome message on behalf of Lithuania academy of science

Challenges in Communicable Diseases - WHO perspective. Martin van den Boom, WHO, Copenhagen

Continuum of HIV Care and antimicrobial resistance. Mike Catchpole, ECDC, Stockholm

Ending AIDS: progress towards the 90–90–90 targets. Vinay Saldanha, UNAIDS, Moscow

SMALL HALL

9:00-19:00 Poster presentations/discussions

Activities of the municipal Public Health Offices

Initiatives of the Centre for Communicable Diseases and AIDS

THURSDAY, OCTOBER 5, 2017

Lithuanian Academy of science, Gedimino Av.3, Vilnius

Big hall

08:15-17:00 REGISTRATION

9:00-9:15 Welcome A. Rubins, S. Valiukeviciene, S. Caplinskas

9:15-10:00 Key lecture: Pruritus management in patients with chronic internal diseases. Jacek Szepietowski, Poland
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Chairs</th>
<th>Topic</th>
<th>Presenters</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:00-11:00</td>
<td>PLENARY A &quot;STI&quot;</td>
<td>A. Poder (Estonia), M. Domeika (Sweden), I. Jakobsone (Latvia)</td>
<td>Trends of STI-s in Europe.</td>
<td>Airi Poder, Estonia</td>
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<td></td>
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<td>Facing STI challenge in epidemiological transition.</td>
<td>Saulius Caplinskas, Lithuania</td>
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<td>Gonorrhoea and Chlamydia (epidemiology, diagnostics and therapy) in Latvia.</td>
<td>Ilze Jakobsone, Latvia</td>
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<td>Syphilis. Silvestra Rubins, Latvia</td>
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<td>Clinical Manifestations of Congenital syphilis.</td>
<td>Vesta Kucinskiene, Lithuania</td>
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<td>STI management - evidence based international approaches and international collaborative projects.</td>
<td>Marius Domeika, Sweden</td>
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<td>11:00-11:30</td>
<td>Health Break</td>
<td></td>
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<tr>
<td>11:30-13:00</td>
<td>Plenary B &quot;HIV&quot;</td>
<td>C. Moog (France), E. Karamov (Russian Federation)</td>
<td>On behalf of WHO, topic HIV/STI/VH/TB.</td>
<td>Martin van den Boom, WHO, Copenhagen (title TBC)</td>
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<td>Lessons learned from HIV patients that control infection.</td>
<td>Christian Moog, France</td>
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<td>Late presentation in HIV infection.</td>
<td>Cristina Mussini, Italy</td>
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<td>Risk factors involved in late detection of HIV mother to child transmission - data from the National Registry of HIV pregnant women and perinatally exposed children in Romania.</td>
<td>Mariana Mardarescu, Romania</td>
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<td>Increasing HIV epidemy in Slovakia - challenge to reach UNAIDS goals „90-90-90“.</td>
<td>Danica Staneková, Slovakia</td>
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<td>13:00-14:30</td>
<td>Lunch Break</td>
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<tr>
<td>14:30-16:00</td>
<td>PLENARY C &quot;Psoriasis&quot;</td>
<td>M-A. Richard (France), J. Szepietowski (Poland), E. Christophers (Germany)</td>
<td>The manifold faces of psoriasis.</td>
<td>Enno Christophers, Germany</td>
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<td>The New Aims in Psoriasis Treatment.</td>
<td>Jacek Szepietowski, Poland</td>
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<td>Treatment of severe psoriasis in children.</td>
<td>Skaidra Valiukeviciene, Lithuania</td>
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<td>Enthesitis as a predisposing factor of psoriatic arthritis in patients with nail psoriasis?</td>
<td>Tatjana Sidorcika, Latvia</td>
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<tr>
<td>16:00-16:30</td>
<td>Health Break</td>
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<td>16:30-17:30</td>
<td>PLENARY D &quot;Acne, Hidradenitis and Pruritus“</td>
<td>C. Zouboulis (Germany), V. Kucinskiene (Lithuania),</td>
<td>European guidelines for hidradenitis suppurativa management. Biological role and evidence based potential.</td>
<td>Christos Zouboulis, Germany</td>
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<td>Biological role for auto inflammatory PASH syndrome.</td>
<td>Vesta Kucinskiene, Lithuania</td>
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<td>What’s new in the management of Acne.</td>
<td>Christos Zouboulis, Germany</td>
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<tr>
<td>17:30-18:00</td>
<td>Poster satellite discussion “Communicable Diseases and Public Health“ (up to 5 minutes)</td>
<td></td>
<td>The Sialon II Project - integrating bio-behavioural survey among men who have sex with men in 13 European countries - project results and recommendations.</td>
<td>Lorenzo Gios and Massimo Mirandola, Italy</td>
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<td>Sexual behaviour and STI (Lithuania population representative studies results).</td>
<td>Agne Simkunaite – Zazecke and Irma Caplinskienė, Lithuania</td>
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<tr>
<td></td>
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<td>BCG vaccination coverage by WHO in Baltic States and Lithuania.</td>
<td>Joana Korabliovienė, Center for Communicable Diseases and AIDS</td>
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<tr>
<td></td>
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<td>Epidemiological situation of varicella (chickenpox) in Lithuania.</td>
<td>Egle Savickienė, Center for Communicable Diseases and AIDS</td>
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<tr>
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<td>Tick-borne encephalitis epidemiology in Lithuania 2002-2016.</td>
<td>Milda Zygutienė, Center for Communicable Diseases and AIDS</td>
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<tr>
<td>Author</td>
<td>Title</td>
<td>Exposition number</td>
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<td>Demina Olga Kartelishev A.V. (Russia)</td>
<td>Pathophysiological significance of apoptosis markers in the pathogenesis of acne</td>
<td>3</td>
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<tr>
<td>Ocak Ali Haydar, ErdogaCagla, KAZAzay Ferah, Donmez Levent, Uzun Soner (Turkey)</td>
<td>The prevalence of neurological disease between the patients of bullous pemphigoid and the evaluations of their cognitive and functional impairment</td>
<td>4</td>
<td></td>
<td></td>
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<tr>
<td>Jacek C Szepietowski (Poland)</td>
<td>The new aims in psoriasis treatment</td>
<td>5</td>
<td></td>
<td></td>
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<tr>
<td>Jievaltaite Vaiva, Stumbriene Jaune, Kucinskiene Vestia, Valiukeviciene Skaidra, Makstiene Jurgita (Lithuania)</td>
<td>Primary facial localized cutaneous nodular Amyloidosis</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kozlov Andrey (Russia)</td>
<td>Evolution by Tumor Neofunctionalization – a new paradigm in Tumor Biology</td>
<td>7</td>
<td></td>
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<tr>
<td>Kuliesiene Neringa, Daugelavicius Rimantas (Lithuania)</td>
<td>Role of glucose in the interaction of 3-bromopyruvic acid with candida albicans cells</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marcis Šepte, Anna Romanova (Latvia)</td>
<td>Allergic contact dermatitis</td>
<td>9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rutale Mindaugas, Dauksiene Jurgita (Lithuania)</td>
<td>The use of complementary and alternative medicine among acne vulgaris patients in Lithuania</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Soha Alena Silvestrs Rubins, Andris Rubins (Latvia)</td>
<td>Dissecting folliculitis: a clinical case and review of literature</td>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ozola Elina, Donina Simona, (Latvia)</td>
<td>PET-CT in Asymptomatic Recurrence of Melanoma</td>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tautvydaite Laura, Valiukeviciene Skaidra (Lithuania)</td>
<td>The prevalence of contact sensitization in patients with hand dermatitis</td>
<td>13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tvaronaviute Kamilija, Andrekute Kristina, Makstiene Jurgita, Linkeviciute Gintare, Raisutis Renaldas, Valiukeviciene Skaidra (Lithuania)</td>
<td>High-frequency ultrasound microscopy for EX vivo imaging of cutaneous melanoma</td>
<td>14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Migle Janulaitiene, Virginija Pallulyte, Svirigale Grinceviene, Jolita Zakareviciene, Alma Vladisaukiene, Agne Marcinkute, Milda Pleckaityte (Lithuania)</td>
<td>Prevalence and distribution of Gardnerella vaginalis subgroups in women with and without bacterial vaginosis</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Korablioviene Joana, Caplinskas Saulius, Zagrebrneviene Galina, Sebeliauskaite Ieva (Lithuania)</td>
<td>Comparative analysis of the 2016 and 2015 Tuberculin skin test</td>
<td>16</td>
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<td>Korablioviene Joana, Caplinskas Saulius, Zagrebrneviene Galina, Pełkeviucyte Greta (Lithuania)</td>
<td>History of anti-tuberculosis actions in Lithuania</td>
<td>17</td>
<td></td>
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<td>Title</td>
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<td><strong>Polozovaite Brigita, Radaviciute Indre, Jancoriene Ligita</strong> (Lithuania)</td>
<td><strong>Real life experience with direct-acting antivirals ombitasvir / paritaprevir / ritonavir / dasabuvir with or without ribavirin in chronic hepatitis C virus genotype 1 infection treatment</strong></td>
<td>18</td>
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<td><strong>Polozovaite Brigita, Radaviciute Indre, Jancoriene Ligita</strong> (Lithuania)</td>
<td><strong>Real life experience with generic Sofosbuvir and Daclatasvir for genotype 2 and 3 chronic hepatitis C treatment</strong></td>
<td>19</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ramanauskaite Dovile, Polozovaite Brigita, Matulionyte Raimonda, Gaiuzyte Gabriele</strong> (Lithuania)</td>
<td><strong>Implementation of routine opt-out HIV screening program in Vilnius University Infectious Diseases Centre</strong></td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Vladimir Eremin, Elena Gasich, Sviataslau Sasinovich, Alina Nemira, Oleg Suetnov</strong> (Belarus)</td>
<td><strong>HIV, hepatitis B and C in Belarus</strong></td>
<td>21</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Zhavoronok S. V, Tumash O. O, Moskaliova N. V.</strong> (Belarus)</td>
<td><strong>Determination and clinical value of the FAS/APO-1(CD95) antigen and the soluble form SFAS / APO-1 antigen in HIV infection</strong></td>
<td>22</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Other infections</strong></td>
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<td><strong>Bartuliene Aura, Caplinas Saulius, Zagrebeveiene Galina</strong> (Lithuania)</td>
<td><strong>Human echinococcosis epidemiological situation in Lithuania 2007-2016</strong></td>
<td>23</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ozbek Celik Berna, Mataraci-Kara Emel</strong> (Turkey)</td>
<td><strong>In vitro effectiveness of various antibiotics alone and combined with clarithromycin or Esomeprazole as lock solutions against embedded Enterobacteriaceae strains</strong></td>
<td>24</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Korablioviene Joana, Caplinas Saulius, Zagrebeveiene Galina, Skrickiene Asta, Savickiene Egle</strong> (Lithuania)</td>
<td><strong>BCG vaccination coverage by who region in Baltic states and Lithuania</strong></td>
<td>25</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Alvydas Pavilonis, Rita Pianciuniene, Zeneta Mazeliene, Povila Kavaliauskas, modestas Ruzauskas, Marius Virgailis, Irena Klimiene, Rita Sluzdiniene</strong> (Lithuania)</td>
<td><strong>Staphylococcus haemolyticus Isolated from Hospital Patient Resistance to Antibiotics and Resistance to Antimicrobial Genes</strong></td>
<td>26</td>
<td></td>
<td></td>
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<td><strong>Savickiene Egle, Caplinas Saulius, Skrickiene Asta, Sebelauskaite leva, Korablioviene Joana</strong> (Lithuania)</td>
<td><strong>Epidemiological situation of Varicella (chickenpox) in Lithuania</strong></td>
<td>27</td>
<td></td>
<td></td>
</tr>
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<td><strong>Sebelauskaite leva, Caplinas Saulius, Korablioviene Joana, Skrickiene Asta, Savickiene Egle</strong> (Lithuania)</td>
<td><strong>Unvaccinated children situation in Lithuania in 2003-2016</strong></td>
<td>28</td>
<td></td>
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<td><strong>Savickiene Egle, Pienicka Dina, Skrickiene Asta, Korablioviene Joana, Savickiene Egle</strong> (Lithuania)</td>
<td><strong>Pneumococcal vaccination in risk groups in Lithuania 2016</strong></td>
<td>29</td>
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<td><strong>Sebelauskaite leva, Caplinas Saulius, Korablioviene Joana, Skrickiene Asta, Savickiene Egle</strong> (Lithuania)</td>
<td><strong>Overview of the 2016-2017 influenza season in Lithuania</strong></td>
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<td>08:15-17:00</td>
<td>REGISTRATION</td>
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<td>09:00-11:00</td>
<td>Free Communications / Case report session A</td>
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<td>Chairs: E. Buinauskaite (Lithuania), M. Septe (Latvia), P. Kohl (Germany)</td>
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<td>10:00-13:00</td>
<td>Symposium D „HIV and AI“</td>
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<td></td>
<td>Chairs: V. Eremin (Belarus), E. Leskovsek (Slovenia), E. Karamov (Russian Federation)</td>
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<td></td>
<td>How to be happy being a doctor. Evelina Buinauskaite, Lithuania</td>
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<td>Continuum of HIV Care. Mike Catchpole, ECDC, Stockholm</td>
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<td>The significance of high frequency ultrasound and spectrophotometry in diagnostics of melanocytic skin tumours. Gintare Linkeviciute, Lithuania</td>
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<td>HIV cascade in Lithuania. Saulius Caplinskas, Lithuania</td>
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<td>Experience removal of benign tumours of the skin in problem face areas. Ingrida Ritina, Latvia</td>
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<td>Building a repository to support HIV research, the experience of the Centre for AIDS Reagents. Yan Le Duff, UK</td>
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<td>Side effects in cosmetic dermatology. Alena Soha, Latvia</td>
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<td>Impact of recombination on HIV-1 evolution: viral loads and immune response. Feng Gao, USA</td>
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<td>Dissecting folliculitis: a clinical case and review of literature. Alise Bulcer, Latvia</td>
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<td>Apoptosis in HIV infection. Sergey Zhavoronok, Belarus</td>
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<td>Rosacea complication – Rhynophyoma. Evita Jakusonoka, Latvia</td>
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<td>HIV-1 molecular epidemiology in Moscow. Miguel Thomson, Spain</td>
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<td>What is your diagnosis? – 5 interactive cases from Berlin. Peter Kohl, Germany</td>
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<td>Presentation on genotypes / subgenotypes / subtypes of HIV and viral hepatitis in different groups of patients (IDUs, infection with medical manipulation, sexual transmission, mother-to-child transmission). Vladimir Eremin, Belarus</td>
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<td>Swimmer’s itch: case report. Angelika Krumina, Latvia</td>
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<td>HIV and TB Co-infection in Russia. Eduard Karamov, Russian Federation</td>
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</tbody>
</table>
Forgotten diseases in Europe but not in Africa. Evelina Buinauskaite, Lithuania

PrimerID-tagged Deep Sequencing Analysis of Transmitted HIV1 Variants among Acutely Infected People Who Inject Drugs Confirms the HIV-1 Transmission Bottleneck. Andrey Kozlov, Russian Federation

Two patients with syphilis had a lichen planus like lesions. Melikoglu Mehmet, Turkey

Automated Cell Culture, HIV Virus Production, and Cell-Based Assays. Anke Schultz and Anja Germann, Germany

A delayed granulomatous inflammation to a tattoo ink. Kasparane Lana, Latvia

Concomitant leprosy and HIV infection – immunological response. Pandya Krishnakant, India

Allergic Contact Dermatitis. Anna Romanova, Latvia

Sexual behaviour and HIV/STD prevention - the Slovenian experience. Evita Leskovsek, Slovenia

Efficacy of Lymecycline over doxycycline in the treatment of Acne Vulgaris. Singh Ajay Kamur, India

On behalf of European Liver Patients’ Association (ELPA) (title TBC). Tatjana Reic, Croatia

Actinic keratosis: Treatment efficacy and application site reactions. Alise Balcere, Latvia

Primary Cicatrical Alopecias. Uladzimir Adaskevich, Belarus

Biological therapy in patients with psoriasis and hepatitis. Viktorija Vilkickaite, Lithuania

Dermoscopy: spot the mark, mark the spot. Agata Bulinska, Australia

Antimicrobial resistance. Mike Catchpole, ECDC, Stockholm

Diagnosing of pigmented and non-pigmented skin lesions by dermatoscopy. Agata Bulinska, Australia

The new oncological theory and it’s possible practical application. Andrey Kozlov, Russian Federation

Skin rejuvenation with fractional lasers. Pier Luigi, Italy

Actinic keratosis - what is hot and what is not. Evelina Buinauskaite, Lithuania

From stable to table – the AMR situation in the field of animal health. Vidmantas Paulauskas, Lithuania

Peculiarities of the pathogenesis and locoregional recurrence in case of head and neck basalioma. Jelena Moisejenko – Golubovica, Latvia

Poster satellite discussion (up to 5 minutes) Surgery, flaps and grafts. Klaus Eisendle, Austria
<table>
<thead>
<tr>
<th>Time</th>
<th>Session/Activity</th>
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</table>
| 15:15-16:30  | Symposium H „Skin fragility and inflammation“<br>
  *Chairs: A. Rubins (Latvia), D. Zaslavsky (Russia), K. Kingo (Estonia), K. Eisendle (Austria)*<br>
  H Poster satellite discussion<br>
  Communicable Diseases and Public Health (up to 5 minutes) |
| 15:15-16:30  | Dermatology – practical notes. Andris Rubins, Latvia                            |
| 15:15-16:30  | Questions of neonatal and infant dermatology. Denis Zaslavsky, Russian Federation |
| 15:15-16:30  | Dermatologic diseases of the breast and nipple. Klaus Eisendle, Austria          |
| 15:15-16:30  | The possibilities of clinical research on chronic inflammatory skin diseases. Külli Kingo, Estonia |
| 15:15-16:30  | Contact Dermatitis – Diagnosis and Treatment. Silvestrs Rubins, Latvia           |
| 15:15-16:30  | Dead Sea Minerals in Dermatology. Orit Palti, Israel                            |
| 16:30-17:00  | Health Break                                                                     |
| 17:00-18:30  | Symposium I „Melanoma“<br>
  *Chairs: S. Valiukevičienė (Lithuania), R. Bergman (Israel), A. Bulinka (Australia), K. Poīsa (Latvia)*
<table>
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<tr>
<th>Title</th>
<th>Author(s)</th>
<th>Country</th>
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<tbody>
<tr>
<td>An international prospective analysis of melanoma awareness over a 12-year period.</td>
<td>Sugrue Ryan, Ireland</td>
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<td>Use of dermatoscopy in diagnosing malignant neoplasms deriving from epidermis.</td>
<td>Agata Bulinska, Australia</td>
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<td>Dysplastic nevi – good or bad for the patient?</td>
<td>Kristīne Poisa, Latvia</td>
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<td>Early detection of Melanoma – why, who and when?</td>
<td>Reuven Bergman, Israel</td>
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<td>Individualized therapy and long-term course of a melanoma patient.</td>
<td>Bolte Merle, Germany</td>
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<td>What is important for the management of melanoma.</td>
<td>Skaidra Valiukeviciene, Lithuania</td>
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**SMALL HALL**

**9.00-19:00** Poster presentations/discussions

Dermatology (see the Table of 5th October)

HIV and associated infections (TB, VH, STI) (see the Table of 5th October)

Other infections (see the Table of 5th October)

**CLOSING CEREMONY**

**19.00-20.00** Visit to the Church Heritage Museum (Maironio St. 9)

Concert of the Professor of the Lithuanian Academy of Sciences and Theater Virginija Survilaite (organ) and Vytautas Oskinis (flute).

Programme includes W.A. Mozart - Andante C major for flute and organ, J.Stanley - Voluntary in d for organ, J.S. Bach - Sonata for flute and organ in C major.

20.00-23.00 Gala Dinner (Venue: Archangel Conference and Arts Centre, Maironio St. 11)

**SUNDAY, OCTOBER 8, 2017**

**08:30-15:00** SATELITE SYMPOSIA WORKSHOPS

- Lithuanian Academy of Science, Gedimino Av.3, Vilnius
- Archangel Conference and Arts Centre, Maironio St. 9, Vilnius
- Archangel Conference and Arts Centre, Maironio St. 11, Vilnius
- Faculty Of History, Vilnius University, Centre Of Cultural Community Studies, Universiteto g. 7, Vilnius
### ANTRADIENIS, 2017 m. spalio 3 d.

<table>
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<tr>
<th>Laikas</th>
<th>Programa</th>
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| 9:00-17:00   | Šiaurės matmens partnerystės visuomenės sveikatos ir socialinės gerovės srityje (NDPHS) ŽIV, tuberkuliozės ir susijusių infekcijų ekspertų grupės susitikimas  
**Pirmininkas:** A. Arsalo (Šiaurės matmens partnerystės) |

### TRECIAI DIENIS, 2017 m. spalio 4 d.

<table>
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<th>Laikas</th>
<th>Programa</th>
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<tr>
<td>08:15-17:00</td>
<td><strong>REGISTRACIJA</strong></td>
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<td>9:00</td>
<td><strong>Sveikinimo žodis</strong> Aušra Bilotienė - Motiejūnienė (SAM viceministrė) ir Vytautas Basys (Lietuvos mokslų akademija)</td>
</tr>
</tbody>
</table>
| 9:30-11:00   | **Simpoziumas „Infekcijos, kurių galima išvengti skiepiais”.**  
Pirmininkai: S. Datta (PSO), L. Ašoklieniūnė (Lietuva, A. Kozlov (Rusija)) |

#### Užkrečiamųjų ligų ir AIDS centras, Užsienio sveikatos srityje (NDPHS) ŽIV, tuberkuliozės ir susijusių infekcijų ekspertų grupės susitikimas

**Pirmininkai:** A. Arsalo (Šiaurės matmens partnerystės)

<table>
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<tr>
<th>Laikas</th>
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<td>11:00-11:30</td>
<td><strong>Pertraukėlė</strong></td>
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</table>
| 11:30-13:00  | **B Simpoziumas „Užkrečiamosios ligos ir socialiniai sveikatos veiksniai”.**  
Pirmininkai: A. Arsalo (Suomija), M. Mardarescu (Rumunija) |

**Migrantų sveikatos patikra prieš išvykimą:** tarptautinės patirties apžvalga. Boris Sergeev, IOM, Rusijos Federacija
### ŽIV infekcijos poveikis TB epidemiųjai Rusijoje
Olga Nechaeva, Rusijos Federacija

13:00-14:30
Pieptų pertrauka

| 14:30-16:00 | C simpoziumas “Tuberkuliozė”  
**Pirmininkai:** T. Ulrichs (Vokietija), M. Danilovits (Estija), M. Singh (Vokietija) |
<table>
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<tbody>
<tr>
<td><strong>Tuberkuliozės prevencijos ir kontrolės pažanga ir problemas PSO Europos regione.</strong> Martin van den Boom, PSO, Kopenhaga</td>
<td></td>
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<tr>
<td><strong>TB kontrolė iššūkiai Rytų Europoje.</strong> Timo Ulrichs, Vokietija</td>
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<tr>
<td><strong>TB kontrolė Lietuvoje.</strong> Kęstutis Miškinis, Lietuva</td>
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<td><strong>TB kontrolė iššūkiai Estijoje.</strong> Manfred Danilovits, Estija</td>
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<td><strong>TB kontrolė Baltarusijoje (TBC).</strong> Alena Skrahina, Baltarusija</td>
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<td><strong>Nauji tuberkuliozės diagnostikos metodai.</strong> Mahavir Singh, Vokietija</td>
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<tr>
<td><strong>Mycobacterium tuberculosis genotipų įvairių tarp tuberkuliozė sergančių ŽIV užsikrėtusių pacientų.</strong> Diana Vachruševa, Ksenija Belousova, Tatjana Umpeleva ir Sergej Skorniakov, Rusijos Federacija</td>
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<tr>
<td><strong>Programinis delamanido vartojimas ir kiti Otsukos TB programos pasiekimai.</strong> Norbert Httel, JAV</td>
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### 9:00-19:00
Stendiniai pranešimai/diskusijos

### Savivaldybių visuomenės sveikatos biurų veikla

### Užkrečiamųjų ligų iššūkiai - PSO perspektyva

### ŽIV gydymo ir ligų sukėlėjų atsparumas vaistams kontinuumas.
Mike Catchpole, ECDC, Stokholmas

<table>
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<tr>
<th>16:00-16:30</th>
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<tr>
<td><strong>9:00-19:00</strong></td>
<td>Stendiniai pranešimai/diskusijos</td>
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### ŽIV infekcijos poveikis TB epidemiųjai Rusijoje

### Pagrindinė paskaita: Niežulio valdymas tarp pacientų, sergančių lėtinėmis vidaus ligomis.
Jacek Szepietowski, Lenkija

### TB kontrolė Lietuvoje
Kęstutis Miškinis, Lietuva

### TB kontrolė iššūkiai Estijoje
Manfred Danilovits, Estija

### TB kontrolė Baltarusijoje (TBC)
Alena Skrahina, Baltarusija

### Nauji tuberkuliozės diagnostikos metodai
Mahavir Singh, Vokietija

### Mycobacterium tuberculosis genotipų įvairių tarp tuberkuliozė sergančių ŽIV užsikrėtusių pacientų
Diana Vachruševa, Ksenija Belousova, Tatjana Umpeleva ir Sergej Skorniakov, Rusijos Federacija

### Programinis delamanido vartojimas ir kiti Otsukos TB programos pasiekimai
Norbert Httel, JAV

### 16:30-18:30
Plenarino posėdžio atidarymas

**Pirmininkai:** A. Veryga (SAM, Lietuva), Martin van den Boom (PSO), M. Catchpole (ECDC)

### Europos Komisijos nario Vytenio Andriukaicio vaizdo pranešimas

### Sveikinimo žodis
LR sveikatos apsaugos ministras Aurelijus Veryga, Lietuva

### Sveikinimo žodis Lietuvos mokslų akademijos vardu

### Užkrečiamųjų ligų iššūkiai - PSO perspektyva
Martin van den Boom Dara, PSO, Kopenhaga

### ŽIV gydymo ir ligų sukėlėjų atsparumas vaistams kontinuumas
Mike Catchpole, ECDC, Stokholmas

### AIDS pabaiga: 90-90-90 tikslų siekiai
Vinay Saldanha, UNAIDS, Maskva

### MAŽOJI SALĖ

#### 9:00-19:00
Stendiniai pranešimai/diskusijos

#### Savivaldybių visuomenės sveikatos biurų veikla

#### Užkrečiamųjų ligų ir AIDS centro iniciatyvos

### KETVIRTADIENIS, 2017 m. spalio 5 d.

<table>
<thead>
<tr>
<th>Lietuvos mokslų akademija, Gedimino pr.3, Vilnius</th>
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<tr>
<td><strong>08:15-17:00 REGISTRACIJA</strong></td>
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<td><strong>09:00-9:15</strong></td>
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</table>
| **10:00-11:00** | A PLENARINIS POSĖDIS „LPI“  
**Pirmininkai:** A. Poder (Estija), M. Domeika (Švedija), I. Jakobsone (Latvija) |
| **LPI plitimo tendencijos Europoje.** Ari Poder, Estija |
| **Sprendžiant iššūkius, susijusius su atsaku į sergamumą gretutinėmis ligomis (Lietuvos perspektyva).** Saulius Čaplinskas, Lietuva |
| **Gonorėja ir chlamidijozė (epidemiologija, diagnostika ir gydymas).** Ilze Jakobsone, Latvija |
| **Sifilis.** Silvestrs Rubins, Latvija |
| **Įgimto sifilio klinikinės apraiškos.** Vesta Kučinskienė, Lietuva |
| **LPI valdymas - įrodymais pagrįsti tarptautiniai metodai ir bendri tarptautiniai projektai.** Marius Domeika, Švedija |

### 11:00-11:30 Pertraukėlė
# Moksline programa

<table>
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<tr>
<th>Laikas</th>
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<td>11:00-11:30</td>
<td>Pertraukėlė</td>
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</table>
| 11:30-13:00| B PLENARINIS POSĖDIS „ŽIV“
|            | Pirmininkai: C. Moog (Prancūzija), E. Karamov (Rusijos Federacija)        |
| 11:30-13:00| ŽIV, LPI, VH, TB. . Martin van den Boom, PSO, Kopenhaga                    |
| 11:30-13:00| ŽIV infekuotų pacientų, kurie kontroliuoja infekciją, patirtis. Christian Moog, Prancūzija |
| 11:30-13:00| Pavėluotas kreipimasis medicininės pagalbos dėl ŽIV infekcijos. Cristina Mussini, Italia |
| 11:30-13:00| Rizikos veiksnių, susiję su vėlyva vaiko užsikrėtimo ŽIV nuo motinos diagnoze, - Nacionalinis Rumunijos ŽIV tarp nėščiųjų ir pavojingų kontaktų perinataliniu laikotarpiu turėjusįų kūdikių registras. Mariana Mardaescu, Rumunija |
| 13:00-14:30 | Pietų pertrauka                                                          |
| 14:30-16:00| C PLENARINIS POSĖDIS „Psoriazė“
|            | Pirmininkai: M-A. Richard (Prancūzija), J. Szepietowski (Lenkija), E. Christophers (Vokietija) |
| 14:30-16:00| Daugiaveidžių psoriazė. Enno Christophers, Vokietija                      |
| 14:30-16:00| Nauji psoriazės gydymo tikslai. Jacek Szepietowski, Lenkija               |
| 14:30-16:00| Sunkios vaikų psoriazės gydymas. Skaidra Valiukevičienė, Lietuva          |
| 14:30-16:00| Entezitas kaip psoriazinį artritą tarp nagų psoriazės sergančių pacientų provokuojantis veiksnys? Tatjana Sidoricka, Latvija |
| 16:00-16:30| Pertraukėlė                                                              |
| 16:00-16:30| D PLENARINIS POSĖDIS „Aknė, hidradenitas ir niežėjimas“
|            | Pirmininkai: C. Zouboulis (Vokietija), V. Kučinskinė (Lietuva),           |
| 16:00-16:30| Europinės hidradenitis suppurativa gydymo gairės. Biologinis vaidmuo ir įrodytinas grindažiamas potencialas. Christos Zouboulis, Vokietija |
| 16:00-16:30| Savaiminio uždegiminio PASH sindromo biologinis vaidmuo. Vesta Kučinskinė, Lietuva |
| 17:30-18:00| Stendinių pranešimų satelitinė diskusija „Užkrečiamosios ligos ir visuomenės sveikata“ (iki 5 minučių) |
| 17:30-18:00| Sialon II projektas – integruotas biologinis ir elgesio vyrų, turinčių lytinių santykių su vyrais, tyrimas 13 Europos valstybių: projektu rezultatai ir rekomendacijos. Lorenzo Gios ir Massimo Mirandola, Italia |
| 17:30-18:00| Lytinis elgesys ir LPI (reprezentatyvių Lietuvos visuomenės tyrimų rezultatai). Agne Širimbaitė – Zažeckė ir Irma Ėapiškienė, Užkrečiamųjų ligų ir AIDS centras, Lietuva |
| 17:30-18:00| Skiepijimo BCG vakcina aprėptis Baltijos šalyse ir Lietuvoje PSO duomenimis. Joana Kirabliovienė, Užkrečiamųjų ligų ir AIDS centras, Lietuva |
| 17:30-18:00| Epidemiologinė vėjaraupių padėtis Lietuvoje. Eglė Savickienė, Užkrečiamųjų ligų ir AIDS centras, Lietuva |
| 17:30-18:00| Erkinio encefalito epidemiologija Lietuvoje 2002-2016 m. Milda Žygutienė, Užkrečiamųjų ligų ir AIDS centras, Lietuva |

**MAŽOJI SALĖ**

<table>
<thead>
<tr>
<th>Laikas</th>
<th>Įvyikis</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.00-19.00</td>
<td>Stendiniai pranešimai/diskusijos (skaitymo programoje anglių kalba)</td>
</tr>
<tr>
<td>18.00-19.00</td>
<td>Ekskursija į Vilniaus universitétą (Universiteto g. 7, Vilnius)</td>
</tr>
<tr>
<td>19.00-22.00</td>
<td>Vakarienė (Vilniaus universiteto Istorijos fakulteto kavinė, Universiteto g. 7, Vilnius) su kvietimais</td>
</tr>
</tbody>
</table>
DIDŽIJOJI SALĖ

08:15-17:00
REGISTRACIJA

09:00-11:00
Laisvus bendravimas / A posėdis, atvejų aptarimas
Pirmininkai: E. Buinauskaitė (Lietuva), M. Septe (Latvija), P. Kohl (Vokietija)

10:00-13:00
D simpoziumas „ŽIV ir susijusios infekcijos"
Pirmininkai: V. Eremin (Baltarusija), E. Leskovsek (Čekija), T. Reic (Belgija)

Kaip jaustis laimingu būnant gydytoju. Evelina Buinauskaitė, Lietuva
ŽIV gydymo kontinuumas. Mike Catchpole, ECDC Stokholmas

Aukšto dažnio ultragarso ir spektrofotometrijos svarba melanocitinių odos navikų diagnostikoje. Gintarė Linkevičiūtė, Lietuva
ŽIV kaskada Lietuvoje. Saulius Čaplinskas, Lietuva

Gerybinių odos navikų pašalinimo problemiškose veido odos srityse patirtis. Ingrida Ritina, Latvija
Informacijos banko kūrimas ŽIV tyrimams remti, AIDS reagentų centro patirtis. Yan Le Duff, JAV

Šaltutiniai poveikiai kosmetinėje dermatologijoje. Alena Soha, Latvija
Rekombinacijos poveikis ŽIV-1 raidai: virusų koncentracija ir imuninis atsakas. Feng Gao, JAV

Folikulito disekcija: klinikinis atvejis ir literatūros apžvalga. Alise Balcere, Latvija
ŽIV infekcijos apoptozė. Sergey Zhavoronok, Baltarusija

Kaip tavo diagnozė? – 5 interaktyvūs atvejai Berlyne. Peter Kohl, Vokietija
Pranešimas apie ŽIV ir virusinio hepatito genotipus, subgenotipus, potipius įvairiose pacientų grupėse (ŠNV, infekcija dėl medikų veiksmų, lytinius užsikrėtimus, vaiko užsikrėtimus nuo motinos). Vladimir Eremin, Baltarusija

Kokia tavo niežėjimas: klinikinis atvejis. Angelika Krumina, Latvija
ŽIV-1 molekulinė epidemiologija Maskvoje. Miguel Thomson, Ispanija

Plaukikų niežėjimas: klinikinis atvejis. Evelina Buinauskaitė, Lietuva
Pradmens tapatbyje pagrįsta išsami pritartai ŽIV-1 variantų sekos nustatymo analizė tarp švirkščiamųjų narkotikų vartotojų, sergančių ūmine infekcija, patvirtina ŽIV-1 plitimo „butelio kaklelio“ efektą. Andrey Kozlov, Rusijos Federacija

Užmirštos ligos Europoje, bet ne Afrikoje. Evelina Buinauskaitė, Lietuva
Pradmens tapatyje pagrįsta išsami pritartai ŽIV-1 variantų sekos nustatymo analizė tarp švirkščiamųjų narkotikų vartotojų, sergančių ūmine infekcija, patvirtina ŽIV-1 plitimo „butelio kaklelio“ efektą. Andrey Kozlov, Rusijos Federacija

Du sifiliu sergantys pacientai su žaizda kaip lichen planus. Melikoglu Mehmet, Turčija
Automatizuotas įstulčių pasėlis, ŽIV virusų gamyba ir įstulčiinių tyrimai. Anke Schultz ir Anja Hermann, Vokietija

Vėlai pasireiškęs granulomatinis uždegimas dėl tatuiruotočių rašalo. Kasparane Lana, Latvija
Raupsų ir ŽIV derinys – imunologinis atsakas. Pandya Krishnakant, Indija

Alerginis kontaktinis dermatitas. Anna Romanova, Latvija
Lytinė elgsena ir ŽIV, LPI prevencija – Slovėnijos patirtis. Evita Leskovsek, Slovėnija

Limeciklino veiksmingumas palyginti su doksičiklino gydant acne vulgaris. Singh Ajay Kumar, Indija

Aktininė keratozė: gydymo efektyvumus ir vietinės reakcijos. Alise Balcere, Latvija

11:00-11:30
Pertraukė

11:30-13:00
E SIMPOZIUMAS "Dermatologija ir vidaus ligų medicina" Pirmininkai: A. Bulinska (Australija), U. Adaskevich (Baltarusija)
D simpoziumas „ŽIV ir susijusios infekcijos" (išėjimas)
Pirmininkai: V. Eremin (Baltarusija), E. Leskovsek (Čekija), T. Reic (Belgija)
Pirmūsiai alopecija. Uladzimir Adaskevich, Baltarusija

Biologinė pacientų, sergančių psoraiže ir hepatitu, terapija. Viktorija Vilkickaitė, Lietuva

Dermoskopija: pastebėti žymę, pažymėti vietą. Pandya Krishnakant, Indija

13:00-14:00 Pietų pertrauka

14:00-15:15 F simpoziumas „Odos onkologija ir chirurgija“  
Pirminkai: K. Eisendle (Austrija), A. Kozlov (Rusija), Pier Luigi, Italija

Pigmentinių ir nepigmentinių odos pažeidimų diagnostika dermatoskopu. Agata Bulinska, Australija

Nauja onkologinė teorija ir galimas praktinis pritaikymas. Andrey Kozlov, Rusijos Federacija

Odos atnaujinimas frakcinu lazeriu. Pier Luigi, Italija

Aktininė keratozė – naujienos. Evelina Buinauskaitė, Lietuva

Patogenezės ir lokoregioninio pasikartojimo ypatumai galvos ir kaklo bazaliniomis atvejus. Jelena Moisejenko – Golubovica, Latvija

Chirurgija ir audinių persodinimas. Klaus Eisendle, Austrija

Ankstyvoji melanomas diagnostika – kodėl, kam ir kada? Reuven Bergman, Izraelis

Aukšto dažnio ultragarso ir spektrofotometrijos svarba melanocitinių odos auglių diagnostikoje. Gintarė Linkevičiūtė, Lietuva

15:15-16:30 H simpoziumas „Odos jautrumas ir uždegimai“  
Pirminkai: A. Rubins (Latvija), D. Zaslavskis (Rusija), K. Kingo (Estija), K. Eisendle (Austrija)

Dermatologija - praktinės pastabos. Andris Rubins, Latvija

Naujagimių ir kūdikių dermatologijos klausimai. Denisas Zaslavskis, Rusijos Federacija

Legionierų ligų Lietuvoje: mitas ar tikrovė? Tatjana Kazanova, Visuomenės sveikatos laboratorija

Lėtinių uždegiminių odos ligų klinikinių tyrimų galimybės. Külli Kingo, Estija

Kontaktinis dermatitas - diagnozė ir gydymas. Silvestrs Rubins, Latvija

### ABSTRACT BOOK 2017

<table>
<thead>
<tr>
<th>题</th>
<th>作者</th>
<th>摘要</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negyvosios jūros mineralai dermatologijoje.</td>
<td>Orit Palti, Izraelis</td>
<td>Erkių platinamos ligos ir epidemiologinė situacija Vilniaus regione. Natalija Abramova, Egle Orechovienė, Biruta Zdanevičienė, NVSC</td>
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<td>Kauno apskrčties sukėlėjų atsparumo valdymo grupės veikla.</td>
<td>Orina Ivanauskienė, NVSC Kauno departamentas</td>
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<td>Brigita Kairienė, NVSC Klaipėdos departamentas</td>
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</tr>
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<td>Karolina Prunkienė, Panevėžio visuomenės sveikatos biuras</td>
<td></td>
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<td>Karolina Prunkienė, Panevėžio visuomenės sveikatos biuras</td>
<td></td>
</tr>
<tr>
<td>G. vaginalis grupės sukėlėjų paplitimas tarp sveikų moterų ir moterų, sergančių vaginoze.</td>
<td>Miglė Janulaitienė, Nacionalinė visuomenės sveikatos priežiūros laboratorija</td>
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</tbody>
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**16:30-17:00**

**Pertraukėlė**

**17:00-18:30**

**I simpoziumas „Melanoma“**

**Pirmininkai:** S. Valiukevičienė (Lietuva), R. Bergman (Izraelis), A. Bulinska (Australia), A. Berzina (Latvija)

**Tarptautinė perspektyvi informuotumo apie melanomą per 12 metų analizė.** Sugrue Ryan, Airija

**Dermatoskopijos naudojimas nustatant piktybines neoplazmas, atsirasias epidermyje.** Agata Bulinska, Australija

**Displastinis apgamas: grėsmė pacientui?** Kristine Poša, Latvija

**Ankstyvas melanomos nustatymas - kodėl, kas ir kada?** Reuven Bergman, Izraelis

**Individualus gydymas melanoma sergančio paciento ir ilgalaikis kursas.** Bolte Merle, Vokietija

**Kas svarbu gydant melanomą?** Skaidra Valiukevičienė, Lietuva

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**MAŽOJI SALĖ**

**9.00-19:00**

**Stendiniai pranešimai/diskusijos:**

**Dermatologija (žiūrėti į spalio 5 d. lentelę)**

**ŽIV ir susijusios infekcijos (TB, virusiniai hepatitai, LPI) (žiūrėti į spalio 5 d. lentelę)**

**Kitos infekcijos (žiūrėti į spalio 5 d. lentelę)**

**UŽDARYMO CEREMONIJA (su kvietimais)**

**19.00-20.00**

**Ekskursija į Bažnytinio paveldo muziejų (Maironio g. 9)**

Lietuvos mokslų ir teatro akademijos prof. Virginišos Surviliaitės (vargonai) ir Vytauto Oškinio (fleitai) koncertas.

Skambės W.A. Mozart - Andante C-dur fleitai ir vargonams J.Stanley - Voluntary in d vargonams J.S. Bach - Sonata fleitai ir vargonams C-dur.

**20.00-23.00**

Šventinė vakarienė (Arkangelo konferencijų ir menų centras, Maironio g. 11)

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**ŠEŠTADIENIS, 2017 m. spalio 7 d.**

**08:30-15:00**

**PALYDOVINIAI SIMPOZIUMAI**

**SEMINARAI**
ABSTRACT NO 2 (ORAL)   **ACTINIC KERATOSIS: WHAT IS HOT AND WHAT IS NOT**

Evelina Buinauskaite, Lithuania

**INTRODUCTION**
Actinic keratosis (AK) was first described in 1896 by Duhreuilh, who called his lesion “keratosis senilis”. In 1926 Freudenthal described the histopathological features of keratosis senilis. In 1958 Pinkus renamed the lesion as actinic keratosis (AK) in an attempt to better describe a keratotic (thickened, scaly) lesion caused by ultraviolet rays in sunlight. Nowadays AK is accepted to be the most frequent carcinoma in situ in man and one of the most common reasons for patient to consult a dermatologist. During the years with the evolving concept of the disease various diagnosing and treatment options were introduced: some made a huge difference and some were less successful.

ABSTRACT NO 3 (ORAL)   **DERMOSCOPY: SPOT THE MARK, MARK THE SPOT**

Pandya Krishnakant, THEREJUVENECLINIC, India

**OBJECTIVE**
Dermoscopy is a non-invasive method that enables clinicians to evaluate numerous morphological features, colours and microstructures of the epidermis, the dermoepidermal junction, and the pappilary dermis of dermatological conditions not visible to naked eyes. It improves diagnostic accuracy by 20 to 30%. Primarily used for pigmented skin lesions it has extended its application to various dermatological disorders. **Computerised Image Enhancement Dermoscopy (CIED)** has revolutionized DERMATOLOGIE.

**METHOD**
Using Dermatoscope with polarised function and magnification up to 200 X, digital images of dermatological pathologies were taken. Incorporating CIED with various features like geometric correction, duplication, grey scaling, inversion, pseudo colour, spatial filters, arithmetic operations, background fitting, histogram, colour selection, binarization, shape analysis, calibration, geometrical and manual measurement, the images visualisation and interpretation aided to a qualitative clinical judgement.

**RESULTS**
Out of 25,000 dermoscopic images of various pathologies, viz - skin, hair, nail disorders, inflammatory and infective conditions, cutaneous non malignant, pre malignant and malignant images were studied. Specific features were noted and serial imaging helped in diagnosis of non malignant, pre-malignant and malignant conditions, prognosis and therapeutic response.

**CONCLUSION**
We are moving from the era of clinico-pathological diagnosis into era of clinico-imaging diagnosis. CIED will always be limited by the extreme complexity of biological system compared to physical ones. Dermoscopy should not be the final diagnostic tool without histopathological examination of the clinically suspicious lesions. CIED can be extremely useful for diagnosis and therapeutic purposes.

ABSTRACT NO 4   **THE USE OF COMPLEMENTARY AND ALTERNATIVE MEDICINE AMONG ACNE VULGARIS PATIENTS IN LITHUANIA**

Mindaugas Rutale, Lithuanian University of Health Sciences, Lithuania

**BACKGROUND**
Complementary and alternative medicine (CAM) is a broad set of health care practices that are not part of that country’s own tradition or conventional medicine and are not fully integrated into the dominant health-care system (1). Current research shows the increase in the CAM usage in various countries including China and the USA, especially among patients with chronic illnesses as well as in dermatology. Complementary therapies have been studied in many skin diseases, including atopic dermatitis, psoriasis (2) and acne (3). According to the Global Burden of Disease (GBD) study, acne vulgaris affects ~85% of young adults aged 12–25. Acne consistently represents the top three most prevalent skin conditions in the general population, as found in large studies within the UK, France, and the USA (4) and the Global Burden of Disease Project estimates the prevalence of acne at 4% to 9%, ranking it as the eighth most prevalent disease worldwide (5). The pathogenesis of acne is a result of multifaceted processes within the pilosebaceous unit resulting in bacterial overgrowth and inflammation. Propionibacterium acne, a normal component of the cutaneous flora, inhabits the pilosebaceous unit using lipid-rich sebum as a nutrient source (6). The conventional medicine for acne treatment are oral and topical retinoids, oral and topical antibiotics, benzoyl peroxide, adapalene, azelaic acid (7,8) but not always are these measures effective. The WHO recommends integrative medicine practice, which is now widely accepted as the appropriate terms for describing the adjunctive role played by complementary therapies as part of multidisciplinary mainstream acne care. A number of studies prove the effectiveness of some of these measures (9). The aim of the current study was to assess the use of CAM modalities among Acne Vulgaris patients in Lithuania.
METHODS
The method of questionnaire was chosen. Five hundred questionnaires were distributed at community pharmacies in Vilnius and others Lithuanian cities. The response rate was 80.6% (N=403). The questions about experience, use and knowledge of complementary and alternative medicine were included. Z-score and chi-square test were used to analyze differences among groups. The results were considered statistically significant when p<0.05.

RESULTS
The results of this study showed that community pharmacy patients in Lithuania use CAM as one of the most popular measures for acne treatment and prevention (i.e. approximately 44% of respondents). Prescription medicines and cosmetics are used by respectively 65.8% and 57.7% of respondents.

DISCUSSION
Among the CAM measures the most popular ones were medicinal herbs (61%), dietary changes (57.6%) and dietary supplements (50.2%). These measures are mostly used by the respondents over 30 years of age as compared with the respondents under the age of 30 (p<0.05). The main sources of information about the treatment opportunities and other information about acne were physician (39.5%) and pharmacist (36.2%).

CONCLUSION
Acne patients in Lithuania use not only medicinal plants like aloe, tea tree or dietary supplements like fish oil, zinc, vitamins E and A, but also aromatherapy, homeopathy, colon cleansing (usually probiotics). For the proper choice of treatment it is important to raise patients’ awareness about the reliable sources of information, such as physician or pharmacist.

ABSTRACT NO 5 (ORAL) A DELAYED GRANULOMATOUS INFLAMMATION TO A TATTOO INK
Lana Kasparane, University of Latvia, Latvia

INTRODUCTION
Earlier, in the middle of the 20th century, tattoos could be seen only in certain social groups, such as prisoners, prostitutes and the military. Nowadays, tattooing has acquired a new meaning - a fashion trend, body art. Statistics show that 12% of the whole European population has one tattoo or more, including teenagers between 12-19 years old. The higher prevalence of the tattoo is between 25-34 years old, with increasingly prevalence among women [3]. Despite an increasing number of tattooing, there is still no specific EU legislation on tattoos products, so the number of complications increases. The most common adverse events are acute aseptic inflammation, bacterial and viral infection (hepatitis B and C, HIV), allergic/hypersensitivity and autoimmune type reactions (granulomatous, sarcoil and pseudo-lymphomatous reactions), pigmentary disorders, underlying dermatoses reactivated by tattooing (sarcoidosis, lichen, psoriasis) and even skin cancer (squamous cell carcinoma and keratocanthoma, melanoma, basal cell carcinoma) [3]. Despite such serious complications by tattoos, this fashion phenomenon is becoming more frequent.

CASE PRESENTATION
A 33 year old male patient, otherwise healthy, presented with a small, in diameter 0.4 cm, dense, disseminated multiple asymptomatic nodules on the arms within the tattoo ink. On physical examination, wide range of patient’s body is covered with tattoos – arms, chest and back. On the back and chest tattoos consisting of black pigment, while tattoos on arms were black, blue, green, red and yellow colored. The remaining skin showed no other abnormalities. No lymph node enlargement. Any other symptoms, chronic diseases or allergic reactions patient denied.

A 3 mm punch biopsy was taken with suspected sarcoidosis, as well, chest X-ray were recommended. Biopsy revealed a granulomatous inflammation in the dermis, possibly as a reaction to the tattoo ink. Chest X-ray were normal. One month after treatment with Ung. Daivobet (calcipotriol, betamethasone), the elements become smaller, less dense and with no new elements. Continuing the same therapy one month more, the elements completely disappeared. After 3 months follow up is recommended.

DISCUSSION
Cutaneous complications related to permanent tattoos affect 2-30% of those patients who have tattooed their skin [2]. They may be acute, secondary to a physical injury from the injection of pigments into the skin immediately following a tattoo or may occur after various months or years [1]. More than 100 colorants and 100 additives are in use. Over 80% of the colorants in use are organic and more than 60% of them are azo-pigments, such as mercury (red), chrome (green), manganese (purple), cobalt (blue), cadmium (yellow), hydrated iron oxide (ochre), sandalwood (red) and Brazilwood (red). These chemicals stay in the body for life, but little is known about the long term effects of them [1;3]. In our case, a granulomatous reaction had developed in reaction to the tattoo ink.

Granulomatous inflammation is a distinctive form of chronic inflammation produced in response to various infectious, autoimmune, toxic, allergic, neoplastic conditions, as well as foreign body reaction, as it was in our case [5]. Most of granulomatous reactions occur in cinnabar (red) and ferric oxide (black) based pigments, but there have also been described for dichromate (green) and cobalt (blue) based pigments [3;4]. The interval between tattooing and induction of granulomatous manifestations is widely variable, ranging from months to decades. In general, the longer the time interval between tattoo initiation and manifestation of granulomas, the more likely it will be to find an underlying systemic disease, so to exclude that, it is recommended to take serum analyses for ACEs and lysosome, and chest X-ray [1;4]. There are several treatment possibilities, including topical or intralesional corticosteroids, laser removal and surgical excision [1;4;6]. Most often is used corticosteroids, especially topical form, but recurrences are common [1;4;6], so more common is used intralesional form. It is safe and quite effective. Using the laser as treatment tool, must be careful, because in such cases it may increase the risk of further adverse effects [6]. Surgical excision has the worst cosmetic effect, so most part of patient did not choose it.

CONCLUSION
With increasing number of tattooing, the number of complications increases too. But a small part of society knows about them. As well as younger population gets tattoo and little is known about the tattoo ink long term effect on body, there is a need to raise public awareness of the potential complications of tattoos, their complex treatment and difficulties to get rid of the tattoo.
ABSTRACT NO 7 (ORAL) FORGOTTEN DISEASES IN EUROPE BUT NOT IN AFRICA

Evelina Buinauskaite, Lithuania

INTRODUCTION
Per capita food waste by consumers is between 95-115 kg a year in Europe and North America, while consumers in sub-Saharan Africa, south and south-eastern Asia, each throw away only 6-11 kg a year. The way of life, culture and other things influence peoples’ (patients) lives and diseases. Human skin color is variable around the world and ranges from almost black to nearly colorless. If you mainly studied from almost black to nearly colorless. If you mainly studied

REFERENCES

ABSTRACT NO 9 (ORAL) INDIVIDUALIZED THERAPY AND LONG-TERM COURSE OF A MELANOMA PATIENT

Bolte Merle, Anina Haep, Pia Duecker, Dorothee Nathan, Germany

BACKGROUND
Since 2011 immunotherapies incredibly increased prognosis and survival of melanoma patients stage IV. Up to 5 year survival is achieved with anti PDL1 infusions by about 35 % of patients. Toxicity mainly caused by autoimmune phenomena boosted during 8th-10th week after start of therapy regenerates in about 80% of cases. Therapy trials and individual cases show the necessity of therapeutic combinations and adjustments. Complexity and choices shall be demonstrated with this case.

RESULTS
In 2010 a 49-year old patient presented with a melanoma (tumor thickness 2.0 mm) on his abdomen. Excision with safety margins and SLND (1+/2) were performed, follow-up lymph node excision left inguinal revealed no further metastases (summarized 1+/19), thereafter classified as stage IIB (pT2aN1M0). February 2012 operation of lymph node metastases inguinal right side. March 2015 2 left axillary macroscopic lymph node metastases were detected by axillary lymph node dissection (pT2aN2bM0, BRAF wildtype). October 2015 operation of recurrent axillary lymph node metastases; simultaneous start with PDL1-inhibitor nivolumab (Opdivo®) due to mediastinal and pulmonary metastases and additional IL-2 inhalations (3 cycles 11/15-02/16). Afterwards change of nivolumab to 4 cycles with ipilimumab until 06/2016. A partial response of lung metastases was achieved while axillary metastases were still progredient. Therefore axillary radiation with 59.4 Gy was successfully applied. A mixed response of lung metastases caused further IL-2 inhalations + nivolumab. After 5 cycles (12/16-02/17) progressive pleural infiltrating lung metastases left lower lobe and a regressive pectoral axillary metastatic conglomerate were operated. Nivolumab was restarted 04/17 and is still ongoing as a stable disease is stated.

CONCLUSION
After 20 months and 5 different repeatedly changed and combined therapies the patient is in a stable course, temporarily reporting a moderate quality of life, mainly diminished by diarrhea caused by immunotherapies. We regard immunotherapies as an ideal basic therapy combinable with radiation and IL-2 inhalations. The costs for delivered 16 cycles of nivolumab and 4 cycles of ipilimumab are about 110 tsd €. The patient spent 138 days in hospital and appreciated life time with his family. Melanoma gets a chronic disease and presents new challenges to the health care system.
ABSTRACT NO 10 THE PREVALENCE OF CONTACT SENSITIZATION IN PATIENTS WITH HAND DERMATITIS

Laura Tautvydaite, Lithuanian University of Health Sciences, Hospital of Lithuanian University of Health Sciences Kauno Klinikos, Kaunas, Lithuania
Skaidra Valiukevičienė, Lithuanian University of Health Sciences, Hospital of Lithuanian University of Health Sciences Kauno Klinikos, Kaunas, Lithuania

BACKGROUND
Hand dermatitis (HD) is a common illness. The aim of this study was to determine the prevalence of contact sensitization in patients with HD and their relationships with subjects age, gender, specialty and atopic dermatitis (AD).

METHODS
A retrospective cross-sectional study was performed in accordance with the international ESSCA project and it’s standard protocol using patch test with 29 contact allergens. Patch tests done in 2013-2014 for patients with HD (n=197) were analysed.

RESULTS
Mean age of the subjects was 45.64 years. One-third of them (25.38%) has one positive patch test reaction. 4.57% of participants are sensitized to 3 or more contact allergens. The prevalence of nickel sulphate among women with HD was 16.56% (PI 95% 11.20-23.67), among men – 10.87% (PI 95% 4.07-24.36). More than one-half of those working in health care or vet industry and one-half of office employees with HD are sensitized to contact allergens more often than participants working in other fields (p=0.026). Among subjects with HD and atopic dermatitis 18.18% are sensitized, less often in comparison with those without AD, accordingly 45.73% (p=0.008).

CONCLUSION
More than one-third (41.1%) of the patients with hand dermatitis are sensitized to one or more contact allergens while age and gender have no significant difference. There is a tendency among women rather than men with hand dermatitis that nickel sulphate is more common than other contact allergens. Health care and vet professionals have an increased risk of developing contact allergy on the hands. In this study there is no strong link of atopic dermatitis and hand dermatitis.

ABSTRACT NO 11 (ORAL) COMBINED TREATMENT OF ROSacea. CASE REPORT

Alena Soha, EraEsthetic clinic, Latvia
Silvestrs Rubins, University of Latvia, Department of Dermatovenerology, Latvia
Andris Rubins, University of Latvia, Department of Dermatovenerology, Latvia

BACKGROUND
Introduction. Rosacea is a cutaneous condition with several clinical subtypes that are commonly seen in daily medical practice. There are 4 subtypes of rosacea based on morphological characteristics, with 3 cutaneous subtypes: erythematotelangiectatic, papulopustular, phymatous rosacea, and ocular rosacea. Patients can have signs or symptoms of more than one subtype at the same time, and progression from one subtype to another may occur. Rosacea has a statistically significant, negative impact on patients’ health-related quality of life (HRQoL).

METHODS
Clinical case

RESULTS
A 42-year-old Caucasian woman presented with painful facial papules and pustules, persistent central facial erythema, telangiectasia, and secondary features, such as burning and oedema, which started 6 years ago as flushing. The patient’s professional occupation was associated with such factors as shift – based work, high indoor temperature, as well as high physical load. The patient had a low self-esteem, depressed mood, and lack of confidence in a successful outcome of the treatment. The following investigations were normal: full blood count, erythrocyte sedimentation rate, renal, liver profiles; CRO, autoantibody screen. Based on anamnesis and clinical picture, the papulopustular subtype of rosacea was diagnosed. At the first step of the treatment she was treated with oral doxycycline 100 mg for a period of 4 weeks, as well as local metronidazolum cream 1% with 2 applications per day for a period of 10 weeks. The second step included 3 courses of the pulsed dye laser for a period of 3 months and local ivermectin cream with 1 application per day for a period of 8 weeks. The third step was based on intradermal abobotulinumtoxin A on the facial erythema. After 5 months of a multi-step therapy, particular resolution of facial rash was achieved, the facial erythema and oedema had improved and became less pronounced, with a significant decrease of subjective feelings of burning and flushing on the face. The skin condition requires further local and laser therapy. However, the emotional state of the patient has improved considerably with the presence of compliance in subsequent treatment, which is an important factor for the success of the therapy.

CONCLUSION
Rosacea is a chronic facial skin disease with a presumed key vasodilatory component, may significantly impair patients’ lives, leading to considerable emotional distress and behavioral withdrawal from normal social interactions. Although none of the treatment options provide a complete cure, the patient’s quality of life and self-esteem have significantly improved. Therefore, it is important to combine different methods of etiopathogenetic treatment.
ABSTRACT NO 12  THE PREVALENCE OF NEUROLOGICAL DISEASE BETWEEN THE PATIENTS OF BULLOUS PEMPHIGOID AND THE EVALUATIONS OF THEIR COGNITIVE AND FUNCTIONAL IMPAIRMENT

Eskiçiocak Ali Haydar, Akdeniz University Medical School Hospital, Turkey
Erdogan Cagla, Akdeniz University Medical School Hospital, Turkey
Kätzlich Ferah, Akdeniz University Medical School Hospital, Turkey
Donmez Levent, Akdeniz University Medical School Hospital, Turkey
Uzun Soner, Akdeniz University Medical School Hospital, Turkey

BACKGROUND
Bullous pemphigoid (BP) is an autoimmune bullous skin disease characterised with subepidermal blisters, that is generally seen in elderly individuals. The presence of Parkinson's disease and dementia are not only independent risk factors for BP, but also associated with higher rate of mortality and morbidities including cognitive and functional impairment. The aim of this work was to examine the prevalence of neurological disease between the patients of BP and investigate their cognitive and functional conditions.

METHODS
Nineteen consecutive BP patients who presented to our outpatient clinic of bullous diseases from March 2015 to March 2017, were examined by a neurologist. Karnofksy Performance Scale (KPS), Barthel Index and Mini Mental State Examination (MMSE) were performed. The control group comprised of 21 patients who were referred to our department for various cutaneous neoplasms.

RESULTS
Twelve cases (%63.2) with BP and 3 controls (%14.3) had at least one neurological disease (p=0.001). Comparing cases to controls, Alzheimer’s disease was seen in 21.1% (n=4) versus 4.8% (n=1) Parkinson's disease in 10.5% (n=2) versus 4.8% (n=1), cerebrovascular diseases in 26.3% (n=5) versus 0% (n=0). The other neurological diseases that presented in the BP group were epilepsy (n=1), transient ischemic attack in (n=1) and normal pressure hydrocephalus (n=1).

The mean KPS score of the BP group (64.21) was lower compared to the control group (92.38) (p=0.001)

The mean Barthel index score was also lower with the patients of BP (59.74) than the control group (98.81) (p=0.015). However, the MMSE scores was lower with the BP group (15.95) compared to the control group (22.29) but the difference showed no statistical significance (p=0.881).

CONCLUSION
Neurological diseases were seen more frequent in the BP cases compared to the controls. The BP cases had impaired self-sufficiency and physical functions. Studies with wider size of sample are needed to evaluate the cognitive functions of the BP patients.

ABSTRACT NO 13 (ORAL)  CONTACT DERMATITIS – DIAGNOSIS AND TREATMENT

Silvestrs Rubins, Latvian Dermatology Institute, Latvia

Contact dermatitis (CD) is a very common, inflammatory skin disease. CD is subdivided into ACD (allergic contact dermatitis) and ICD (irritant contact dermatitis), each of those having several subtypes. Diagnosis of CD is based on anamnesis, clinical picture, and specific testing. For ACD the patch test remains the golden standard. More than 500 haptens can be patch tested. Treatment is based on 4 important components: 1) avoidance and/or elimination of irritant or specific allergen; 2) anti-inflammatory and regenerative treatment; 3) symptomatic treatment and 4) skin protection and prevention. These and other aspects will be discussed during the presentation.

ABSTRACT NO 21 (ORAL)  EFFICACY OF LYMECYCLINE OVER DOXYCYCLINE IN THE TREATMENT OF ACNE VULGARIS

Singh Ajay Kumar, India

BACKGROUND
Acne Vulgaris is a chronic skin disease characterised by inflamed spots and blackheads on the face, neck, back, and chest. Nodules and Cysts scarring can also occur, especially in more severe disease. People with acne often turn to a plethora of medicines and alternative therapies. Systemic therapies includes - Erythromycin 250-500 mg, Azithromycin 500mg, Trimethoprim-Sulphamethoxazole, Trimethoprim, Isotretinoin, Minocycline, Doxycycline, Tetracycline and Hormonal tablets.
Topical therapies include - Retinoid, Antimicrobials, Azelaic acid, Salicylic acid, Benzoyl peroxide,Dapsone

In this study we have given oral antibiotics drugs Doxycycline and Lymecycline.

The Pathogenesis of acne involves the interplay of excess sebum production, abnormal keratinization within the follicle and bacterial colonization of the pilosebaceous duct by Propionibacterium acnes. However, the influence of these different factors may be somewhat different in adult female acne compared with adolescent acne and this will ultimately necessitate a slightly different treatment approach.

**Lymecycline** is a semi synthetic tetracycline antibiotic with improved oral absorption,enhanced tissue penetration and slower elimination relative to tetracycline. Lymecycline has been in clinical use for several decades in the proposed indications and has a well-established benign profile. These drugs enter gram negative bacteria by passive diffusion through hydrophilic channels formed by the porin proteins of the outer cell membrane and by active transport via an energy-dependent system that pumps all tetracyclines across the cytoplasmic membrane. Entry of these drugs into gram positive bacteria requires metabolic energy, but is not as well understood. This system is also believed to exist in gram positive bacteria.

**METHODS**

160 patients aged between 25 yrs to 35 yrs old with moderate to severe acne vulgaris (nodule and cyst) were recruited. 80 patients were given Doxycycline 100mg twice a day for 6 weeks to 8 weeks and Lymecycline 408mg twice a day for 6 weeks. 80 patients were given Doxycycline 100mg twice a day for 6 weeks to 8 weeks and Lymecycline 408mg twice a day for 6 weeks. Patients were evaluated at baseline 6 to 8 weeks.

**RESULTS**

70 doxycycline and 81 lymecycline patients were evaluable. The last observation carried forward for the count of non-inflammatory lesions changed from 37.5 ± 17.8 to 37.7 ± 17.8 in the doxycycline group and from 36.9 ± 15.5 to 33.4 ± 19.3 in the lymecycline group (no significant changes); corresponding changes in inflammatory lesions (nODULES AND CYSTS) were from 19.4 ± 12.4 to 12.2 ± 10.0 in the doxycycline group and from 20.1 ± 11.3 to 12.6 ± 8.4 in lymecycline group (P< 0.05 comparing baseline vs. final in both groups). Porphyrin counts varied from 899.5 ± 613.9 to 233.5 ± 219.5 in the doxycycline group and from 956.9 ± 661.8 to 411.8 ± 411.5 in the lymecycline group (P<0.05 between the groups at study end). 36 (42.9%) patients receiving doxycycline suffered 55 adverse events (46 of them gastrointestinal), while 23 (33.3%) lymecycline patients had 37 adverse events (12 of them gastrointestinal). Five patient in the lymecycline group withdrew the study due to gastritis, and one more patient in the same group experienced mild eosinophilia.

**CONCLUSION**

It has been shown that during the treatment duration the acne lesion especially nodule and cysts have responded very well from Lymecycline in comparison to Doxycycline moreover patients who developed some resistance to other systemic drugs, responded wonderfully by Lymecycline 408 mg. There is also not seen any Phototoxic reaction with Lymecycline which are usually seen with Doxycycline. Patients have less side effects by lymecycline. Lymecycline is also found to be effective in patients with mild inflammatory papules and Pustules.
ABSTRACT NO 33  PET-CT IN ASYMPOTOMATIC RECURRENCE OF MELANOMA

Elina Ozola, University of Latvia, Latvia
Simona Donina, Riga Stradins University, Latvia

INTRODUCTION
Early-stage melanoma can be treated with surgery, however, 6–10% of patients present with regional or distant metastases for which the therapeutic options are limited and the prognoses are poor [Meier F et al., 2002, Balch CM et al., 2001]. 50–80% of patients with locoregional metastases will experience disease recurrence after treatment, making accurate restaging, therapy assessment, and follow-up vital for the appropriate management of melanoma [5 Leiter U et al., 2004]. It is suggested that routine CT, MRI, or PET scanning in the absence of clinical symptoms, physical findings, or abnormal laboratory values has an extremely low yield for detecting metastasis [Shannon C et al., 2013, Bakker JJ et al., 2014].

CASE REPORT DESCRIPTION
49 years old man noticed a nodular lesion on his right shin. Lesion was excised in 10/2015, melanoma was confirmed by pathologist. Diagnosis: Melanoma cutis cruris dx p T3a N0 M0 IIA. SN biopsy was not performed. Immunotherapy with ECHO-7 virus was started in 11/2015. 07/2016 during ultrasound examination specific lymph nodes were detected in right inguinal region (diameter 0.42 and 1.2 cm). Serum LDH and S-100 were not elevated. 08/2016 inguinal lymph nodes dissection was performed and in 4 lymph nodes pigmented epithelial and spindle cell melanoma metastasis were detected. 09/2016 PET-CT scan: no evidence of pathological process or hyper metabolic activity in skin or other organs. IFN alpha was administrated 6 mil/U 3 times per week. 03/2017 abdominal ultrasound showed haemangioma 1.1 cm in diameter and no specific lymph nodes in inguinal region. 04/2017 Progression of disease – metastasis in subcutaneous tissues of right tight, excision of metastasis was preformed.

Histologically: Pigmented epithelial and spindle cell melanoma metastasis. 05/2017 Tissue sample was tested for BRAF gene mutation: no mutations were found. 05/2017 PET-CT: one lesion with hyper metabolic activity in right hepatic lobe S7 and subcutaneous tissue in right tight. Patient was asymptomatic, with no elevated serum LDH and S-100. MRI was performed before operation and additional lesion suspicious for malignancy was found in liver S8. Radical resections of liver metastases were preformed. Histologically: Morphology of pigmented melanoma metastasis in the liver S7 and subcutaneous tissues. 05/2017 Therapy with check-point inhibitor was considered.

CONCLUSION
Although melanoma was detected at stage IIA for which 5-year survival rate is 81% and 10-year survival rate is about 67%, still there are patients with early stage melanoma who develops metastasis in a short term after surgery and immunotherapy. PET-CT should be considered as a diagnostic tool to detect metastasis early despite of lack of clinical symptoms or abnormal laboratory tests, especially in cases when accesses to medical treatment of metastatic melanoma are limited.

SUMMARY
BRAF gene wild-type malignant melanoma stage IIA patient developed regional and distant metastases in a short term after complete tumour resection and immunotherapy. Since there is limited accesses to check-point inhibitors in our country, early detection of resectable metastases is very important.

ABSTRACT NO 52 (ORAL) DEAD SEA MINERALS IN DERMATOLOGY REVIEW

Orit Palti, Israel

BACKGROUND
Dead Sea salt lake located in the Syrian-African Rift Valley, with the border crossing between Israel and Jordan at its center. The concentration of salts in the Dead Sea is 34.2% - ten times higher than the concentration of salts in the Mediterranean Sea. This high concentration is due to the fact that the lake is terminal (the water of the lake has nowhere to go) and is located in an area with a hot desert climate characterized by high evaporation rates. The lake is the fourth salty, majestic waters. The clean, unpolluted air and warm climate provide a healing environment that is like no other place in the world.

The aim of this review is to learn about the therapeutic properties of Dead Sea minerals by analyzing the composition of Dead Sea salt composition and by finding supportive scientific proof for each component activity.

METHODS
Analytical tests were performed in order to find the composition of Dead Sea salt. The test methods were conducted using inductivity coupled plasma mass spectrometer (ICP-MS, ICP-AES, ION CHROMATOGRAPHY, TITRATION, ALKALINITY BY POTENTIOMETRIC TITRATION, GRAVIMETRY, CONDUCTOMETER, ICP-SFMS, X-RAY DIFFRACTION, SCANNING LECTRON MICROSCOPY).

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RESULTS
Typical composition of main components for Dead Sea salt:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specifications %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnesium Chloride</td>
<td>31.0 -35.0</td>
</tr>
<tr>
<td>Potassium Chloride</td>
<td>24.0 -26.0</td>
</tr>
<tr>
<td>Sodium Chloride</td>
<td>4.0 – 8.0</td>
</tr>
<tr>
<td>Calcium Chloride</td>
<td>0.4 – 0.6</td>
</tr>
<tr>
<td>Bromide</td>
<td>0.3 – 0.6</td>
</tr>
<tr>
<td>Sulphate</td>
<td>0.05 – 0.2</td>
</tr>
<tr>
<td>Insolubles</td>
<td>0.05 – 0.3</td>
</tr>
<tr>
<td>Water of Cryst.</td>
<td>34.0 – 38.0</td>
</tr>
</tbody>
</table>

The analytical test results also showed that Dead Sea salts contain 21 minerals including magnesium, calcium, sulfur, bromide, iodine, sodium, zinc and potassium. These essential minerals naturally occur in our bodies but must be replenished, as they are lost throughout the day. These minerals are known to treat, detoxify, and cleanse our bodies and are well supported by the medical literature.

CONCLUSION
Dead Sea salt is filled with natural healing elements that occur naturally in our bodies but are often lost as we go about our busy days. Soaking in water enriched with this salt is known to benefit the body from the inside out, treating skin conditions and improving internal processes.

Here are some common ailments that are effectively treated using Dead Sea salt:
- **Magnesium**: Promotes quick healing of skin tissue and also essential for cell metabolism.
- **Bromide**: Soothes skin, relaxes body muscles and calms nerves.
- **Boron**: Facilitates the masking of psoriasis symptoms - David interludes psoriatic arthritis.
- **Potassium**: Helps balance moisture in the skin and body, aiding in the reduction of water retention and in the nourishment of cells. Potassium also regulates the nervous system.
- **Calcium**: An essential mineral, known to strengthen bones and teeth. Also strengthens cell membranes, and cleanses pores. Regulates skin permeability and cells membrane.
- **Lithium**: (Belenauter) to a sufferer from psoriasis.
- **Manganese**: Has antioxidant properties, increases skin micro-circulation (anti-aging skin care) and improves the condition of connective tissues.
- **Zinc**: When applied topically it is known to protect the skin against sunburn and windburn. Also known to boost the immune system. Internally, it is a key factor in enzymatic regulation of cell proliferation. Improves regulation of secretions from the milk glands (anti-acne) and has anti-inflammatory effect.

As you can see, these minerals play an important role in our health and provide many benefits. These minerals have incredible properties on their own and when combined, they are known to treat and heal many common conditions.

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**ABSTRACT NO 53 (ORAL) DISSECTING FOLLICULITIS: A CLINICAL CASE AND REVIEW OF LITERATURE**

**Alise Balcere**, Latvia  
**Arnis Abolins**, Riga Stradins University, Latvia  
**Maiga Skudra**, Riga Stradins University, Latvia  
**Natalija Gerula**, University of Latvia, Latvia

**BACKGROUND**
Dissecting folliculitis, also called dissecting cellulitis of the scalp or perifolliculitis capitis abscedens et suffodiens, is a rare disease that most often affects young black men, but sometimes has been reported in fair skinned individuals. It is characterised by multiple painful nodules and abscesses that interconnect forming sinus tracts. The disease has a chronic course and is known to be resistant to treatment.

**METHODS**
We present a case of almost unilateral posttraumatic dissecting folliculitis.

**RESULTS**
A 40-year-old fair skinned male presented with alopecia and cerebriform appearance of the scalp (mainly right parietal area) due to clinically interconnecting sinus tracts. Lesions were sensitive to palpation and pressure led to purulent discharge from comedo-like openings. The disease had started 9 years ago after a car accident, in which the same area was traumatised by glass splinters. The accident had a substantial impact on patient’s mental wellbeing. The diagnosis was confirmed on histopathological examination. Several antibacterial agents had been used during course of the disease with limited success. During last months, a remarkable improvement was achieved with intralesional triamcinolone acetonide injections.

**CONCLUSION**
This case adds to the existing evidence that there might be a link between trauma and/or strong psychoemotional stress and development of dissecting folliculitis. It also shows, that a substantial efficacy can be achieved with intralesional triamcinolone acetonide injections.
ABSTRACT NO 56 (ORAL) SIDE EFFECTS IN COSMETIC DERMATOLOGY

Alena Soha, EraEsthetic clinic, Latvia
Silvestrs Rubins, University of Latvia, Department of Dermatovenerology, Latvia
Andris Rubins, University of Latvia, Department of Dermatovenerology, Latvia

BACKGROUND
Modern aesthetic medicine offers a wide variety of different protocols to improve facial appearance that range from use of cosmetics and topical agents to surgical intervention, energy-based therapies (lasers, intense pulsed-light, or radio frequency), and injectable products. These treatments improve the patient’s self-perception, psychological functioning, and personal and professional interaction with others.

As a result, the number of aesthetic procedures is constantly on the rise, followed by the number of complications. Although almost all of those are considered safe, there could be adverse reactions in years or months subsequent to the treatment.

An in-depth understanding of different aesthetic correction protocols can help physicians improve patient outcomes and reduce the risk of complications.

RESULTS
Such complications can be divided into early and late onset complications based on the time when their symptoms tend to appear. Early onset complications typically reveal themselves hours to days post procedure, while late onset complications usually develop weeks to years after the invasive or laser treatment had been performed.

Many common side effects are local and short lived, lasting between 2-72 hours. These include pain, tenderness, bruising, redness and swelling, and can often be minimised with good technique and equipment.

Significant complications should not occur after treatment and can include infection, nodular masses, inflammation, dyspigmentation, and scar formation. Serious complications that occur due to vascular occlusion include tissue necrosis and blindness, which can happen due to the compression of the vessel or direct intravascular injection.

Careful attention to patient selection, education, and correct technique can minimize the incidence of complications, and an understanding of the early signs of complications and their proactive management can decrease their impact.

Proper preparation for emergencies should reduce the severity of adverse outcomes associated with such procedures as injections and laser treatment.

Patients’ expectations must be managed, so that they do not envisage an unrealistic outcome, and they must be made aware of the limitations and risks of injections or laser treatment. It is known that most of the positive reviews come from relatively young patients who have received minimally invasive, light treatment procedures. The wide spread of such reviews forms inadequate expectations of the correction results in other groups of patients, which in turn leads to frequent dissatisfaction of said groups of patients with the results of complex multi-step correction procedures. Therefore, it is safe to say that forming the right expectations from the beginning of the treatment is key to subsequent satisfaction of the patient.

CONCLUSION
To sum up, collecting and sharing adverse reactions is important in order to improve the practitioner’s knowledge and to develop consistent, effective protocols. Doctors should always consider seeking advice from a trusted colleague, as patient’s well-being is at stake.

ABSTRACT NO 58 (ORAL) WHAT IS IMPORTANT FOR THE MANAGEMENT OF MELANOMA?

Skaidra Valiukevičienė, Lithuanian University of Health Sciences, Hospital of Lithuanian University of Health Sciences Kauno Klinikos, Kaunas, Lithuania
Reda Zilinskiene, Lithuanian University of Health Sciences, Hospital of Lithuanian University of Health Sciences Kauno Klinikos, Kaunas, Lithuania
Jurgita Maksitienė, Lithuanian University of Health Sciences, Hospital of Lithuanian University of Health Sciences Kauno Klinikos, Kaunas, Lithuania
Greta Petkeviciute, Lithuanian University of Health Sciences, Hospital of Lithuanian University of Health Sciences Kauno Klinikos, Kaunas, Lithuania

Cutaneous melanoma (CM) is the most dangerous skin tumour and causes 90% of skin mortality. In recent years in Europe the incidence of CM has increased in people over the age of 60 years [1]. Diagnosis of CM is made clinically using dermatoscopy and staging is based upon the AJCC system (AJCC 7th ed.). For patients with localized (stage I or II) CM the most important histologic predictive factors are tumour thickness, ulceration and mitotic index. The 8th AJCC staging starts since 1th January, 2018. Based on that the definition of primary tumour (T) category are maintained, except new subcategories of T1 (CM <0.8 mm in thickness = T1a, corresponding CM 0.8 – 1.0 mm and ulcerated melanomas <0.8 mm in thickness = T1b). Tumour mitotic rate is removed as a staging criteria for T1 and remains as an overall important prognostic factor [2].

In the treatment of primary CM is definitive to perform surgical excision with 1–2 cm safety margins within 4 – 6 weeks of initial diagnosis with sentinel lymph node (SLN) biopsy if T>1 mm in thickness. Interferon alpha may be admitted to patients with stage II and III as an adjuvant therapy. Presently, no sufficient data are available to establish a treatment algorithm for stage IV melanoma. Therefore some general principles can already made following [1]: 1) molecular tests of tumour tissue (BRAF, NRAS or c-KIT mutation according to subtype) in metastatic tumour tissue from stage IIIb; 2) PD1 checkpoint blockade either as monotherapy or in combination with CTLA-4 blockade should be considered for first line treatment with unresectable CM, independently from BRAF status; 3) When BRAF-inhibitors are considered for BRAF mutated patients, they must be given in combination with MEK inhibitors. 3) In BRAF mutated patients there are presently no data whether BRAF/MEK inhibition should be given in the first or second line, and trials on the best sequencing of targeted therapy and immunotherapy are ongoing. 4)
Chemotherapy may be considered in patients in good performance status with resistance to kinase inhibitors and checkpoint blockade. 5) c–KIT inhibitors may have a role in the small proportion of c–KIT mutant CMs.

In conclusion, for optimal management of CM are important molecular tests for therapeutic information in advance stage of disease, the follow-up of patients in first 5–10 years after surgery (from 2 to 4 times per year) and making optimal therapeutic decision for stage IV melanoma by an interdisciplinary medical team [1,3].

REFERENCES

ABSTRACT NO 59 PRIMARY FACIAL LOCALIZED CUTANEOUS NODULAR AMYLOIDOSIS

Vaiva Jievaltaite, Jaune Stumbriene, Vesta Kucinskiene, Jurgita Makstiene, Skaidra Valiukeviciene, Lithuanian University of Health Sciences, Hospital of Lithuanian University of Health Sciences Kauno Klinikos, Kaunas, Lithuania

BACKGROUND
We present a rare case report of Primary Localized Cutaneous Nodular Amyloidosis (PLCNA) which were treated with cryotherapy (CT) with partial clinical response.

CASE REPORT
A 52-year-old woman had 10 years history of reddish-yellow infiltrated plaques on both cheeks. Dermatoscopy of skin lesions showed peripheral telangiectasia and homogeneous yellow diffuse infiltrate in the centre. Histopathological examination of affected skin revealed eosinophilic deposits in the dermis which were positive for Syria and Congo red staining. The material stained by Congo red produced green birefringence under polarized light. Immunohistochemical staining. The material stained by Congo red produced green birefringence under polarized light. Immunohistochemical examination disclosed that the amyloid deposits are positive for lambda light chains and negative for kappa light chains. Serum protein concentrations of α1 globulin were 3.1%, correspondingly Kappa and Lambda light chains - 21.7 mg / l and 73.6 mg / l, ratio of them- 0.29. Separation of blood monoclonal protein fractions was negative. Trephine biopsy did not show any specific abnormality. Serological blood tests and radiological investigation of internal organs were without significant changes, except mitral regurgitation and nodules in the thyroid occurred. The course of performed CT procedures (4 times every 4 weeks) of skin lesions showed partial clinical response with patient positive satisfaction.

CONCLUSION
Treatment of this rare disease is controversial and based on published several case reports. CT, CO2 laser, local corticosteroids injections or excision can stabilize this condition. Also, there is a risk of PLCNA progression to systemic amyloidosis from 7% to 50% of cases. Therefore, a regular follow-up of patient every 6 or 12 months is important.

ABSTRACT NO 61 (ORAL) AN INTERNATIONAL PROSPECTIVE ANALYSIS OF MELANOMA AWARENESS OVER A 12-YEAR PERIOD

Sugrue Ryan, Ireland
Joyce KM, Ireland
Kelly JL, Ireland
Hussey AJ, Ireland
Regan PJ, Ireland

BACKGROUND
Melanoma awareness has been the focus of several national healthcare campaigns. However, the efficacy of these campaigns has mixed results. Current research is limited to traditional data collection techniques in a small public cohort with no international comparisons. This study utilises the prospectively-maintained Google Trends database as novel marker for population awareness in an international population. With this in mind, our aim is to quantify & compare melanoma awareness with international standards and its influence on melanoma outcomes.

METHODS
All melanoma searches on Google between 2004 & January 2017 were included in this study (n>10,000,000). Temporal and geographical trends in search volume were calculated and compared with searches for other types of skin cancers, risk factors and treatment. A subanalysis explored relationships between melanoma searches, healthcare campaigns & melanoma treatment outcomes.

RESULTS
Melanoma is the most common skin cancer searched online since 2004. In United Kingdom, there is a cyclical search increase during summer months (p<0.05). In contrast, Southern Hemisphere searches exhibit no seasonality. Melanoma searches mirrored the search volume for skin cancer and sunburn. A correlation between melanoma searches, Melanoma Awareness Month (p<0.05) & mortality rate (p<0.03) exists, but not with melanoma incidence (p>0.05).

CONCLUSION
This is the first study to quantify melanoma awareness in an international population over a 13 year period. Seasonal variations in melanoma awareness, particularly in the Lithuanian population, are discordant with the non-cyclical rate of melanoma diagnosis. Healthcare awareness campaigns can use this data to expand their influence.
ABSTRACT NO 72  THE SIGNIFICANCE OF HIGH FREQUENCY ULTRASOUND AND SPECTROPHOTOMETRY IN DIAGNOSTICS OF MELANOCYTIC SKIN TUMOURS

Gintare Linkeviciute, Lithuanian University of Health Sciences, Hospital of Lithuanian University of Health Sciences Kauno Klinikos, Kaunas, Lithuania
Kristina Andrekute, Ultrasound Institute of Kaunas University Of Technology, Lithuania
Renaldas Raisutis, Ultrasound Institute of Kaunas University Of Technology, Kaunas, Lithuania
Indre Drulyte, Ultrasound Institute of Kaunas University Of Technology, Lithuania
Skaidra Valiukeviciene, Lithuanian University of Health Sciences, Hospital of Lithuanian University of Health Sciences Kauno Klinikos, Kaunas, Lithuania

BACKGROUND
Spectrophotometric Intracutaneous Analysis (SIAscopy) is a non-invasive technique for the diagnosis of melanocytic skin tumours (MST). The analysis is based on the evaluation of skin chromophores, i.e. melanin, haemoglobin and collagen within the epidermis and papillary dermis. The presence of dermal melanin, collagen holes and ‘erythematous blush’ with blood displacement are highly reproducible and reliable indicators of cutaneous melanoma (CM). Furthermore, the vertical thickness of CM measured by high frequency ultrasound (US) is important for the diagnostics and staging. Our objective was to assess the diagnostic validity of SIAscopy and US in the detection of MST compared to the histopathologic results of the excised lesions.

METHODS
A prospective study was conducted on CM (n=20) and melanocytic nevi (MN) (n=18). SIAscope SimSys© and 22 MHz
DUB - USB US Taberna pro medicum© were used to investigate MST. The intensity of blood flow (absent/low/medium/high), ‘erythematous blush’ with blood displacement and collagen holes (present/absent), epidermal, dermal melanin and collagen fibres (absent/sparse/moderate/abundant) were evaluated in the SIAscans. The vertical tumor thickness was measured by US manually (mT), automatically (aT) and histologically (Breslow index, pT).

RESULTS
After pathological examination 2 melanomas in situ, 13 superficial spreading CM, 1 nodular CM, 1 lentigo maligna melanoma, and 3 NOS CM (Not Otherwise Specified), correspondingly 9 compounds and 9 dysplastic MN were diagnosed. The diagnoses assigned by SIAscopy and pathologic examination corresponded in 90 % cases of CM. ‘Erythematous blush’ with blood displacement (OR=30.37; CI 2.10-188.97), collagen holes (OR=47.40; CI 6.69-335.99), moderate and abundant dermal melanin, correspondingly (OR=17.49; CI 2.10-145.40) and (OR=22.73; CI 2.03-254.54) were identified by SIAscopy as characteristic features for CM.

CONCLUSION
Our results demonstrated that high frequency ultrasonic and spectrophotometric digital imaging are accurate non-invasive technologies to predict the diagnosis and thickness of CM before surgical treatment. The algorithm for automatic analysis of images and informative technology system is being developed and oriented to improve the early diagnostic of CM.

ACKNOWLEDGEMENTS
This work was partially sponsored by the scientific foundation of Lithuanian University of Health Sciences (LUHS) under the united LUHS and Kaunas University of Technology project ImageFusion ‘Ultrasonic, optical and spectrophotometric data fusion technology for the diagnosis of superficial tissue lesions’.

ABSTRACT NO 74 (ORAL) TREATMENT OF SEVERE PSORIASIS IN CHILDREN

Skaidra Valiukveiciene, Ilona Sakalauskiene, Jurgita Karciauskienė, Lithuanian University of Health Sciences, Hospital of Lithuanian University of Health Sciences Kauno Klinikos, Kaunas, Lithuania

BACKGROUND
Psoriasis is a chronic, immune-mediated, inflammatory skin disease, affecting 1–3% of the population. About one third of disease develops during childhood.

METHODS
The articles from PubMed and Cochrane databases with key words “pediatric psoriasis”, “children psoriasis”, and “psoriasis treatment” were analysed and our experience in the treatment of severe pediatric psoriasis is described.

RESULTS
At the time there are no international guidelines for pediatric psoriasis. The treatment of children with psoriasis is based on published case reports, expert opinions, adult...
ABSTRACT NO 77  ACTINIC KERATOSIS: TREATMENT EFFICACY AND APPLICATION SITE REACTIONS

Alise Balcerē, Riga Stradins University, Latvia
Raimonds Karls, Riga Stradins University, Latvia
Mara Rone Kupfere, Riga Stradins University, Latvia
Angelika Krumina, Riga Stradins University, Latvia

BACKGROUND
Actinic keratoses (AK) are keratinocyte proliferations in the epidermis of chronically sun exposed skin. Their presence is a marker of photodamage and increasing evidence supports their similarity with squamous cell carcinoma (SCC), namely considering AK as a SCC in situ. Each lesion has a probability to progress to invasive SCC, even more so, if field carcinisation is seen, therefore treatment of AK has a substantial health benefit.

METHODS
In this review, we compare efficacy and severity of application site reactions for available actinic keratosis topical treatments. Efficacy is evaluated as percentage of lesion reduction and complete resolution rates. Application site reactions are compared according to prevalence of severe reactions.

CASE REPORT
42 years old female with recurrent itchy rash on hands since 20 years old. Periodically having perioral dermatitis. From 1th of March 2017 until 7th of March 2017 haven’t taken any medication. On 7th of March 2017 Chemotechnique European Baseline Series S-1000 was putten on and patient was prescribed Dermovate ointment and Tab. Doxycycline 100 mg ½ per day. On 9th of March after using Dermovate ointment patient complained about unpleasant and burning sensation. After 48 h of test (Chemotechnique European Baseline Series S-1000) weak positive reaction was seen only on N7 Nickel (+) and N18 formaldehyde (+), patient was prescribed Fucicort Cream on hands two times per day and continues Tab. Doxycycline 100 mg ½ per day. On 10th of March (72 h after tests) positive on N1 Chromates (+), N5 Cobalt (+), N7 Nickel (++), and N18 formaldehyde (+++) continues therapy. 7 days after using Fucicort Cream twice per day hand skin became better.

RESULTS
In field treatment of actinic keratoses diclofenac 3% gel, fluorouracil 5%, ingenol mebutate, imiquimod 3.75% or 5% can be used. Their efficacy for lesion reduction has been evaluated to exceed 80% (diclofenac 3%, fluorouracil 5%, imiquimod 5%, ingenol mebutate), while complete clearance rates vary from 30% (diclofenac 3%) to 49% (fluorouracil 5%) one year after treatment. Application site reactions vary according to treatment modality with local irritation being the most common reaction.

CONCLUSION
Actinic keratosis field treatment options seem to offer similar reduction of lesion count but variable complete clearance rates and diverse application site reactions.

ABSTRACT NO 78  ALLERGIC CONTACT DERMATITIS

Mārcis Šepte, Dermatologist in Ventspils polyclinic, Latvia
Anna Romanova, University of Latvia, Faculty of Medicine

CASE REPORT
42 years old female with recurrent itchy rash on hands since 20 years old. Periodically having perioral dermatitis. From 1th of March 2017 until 7th of March 2017 haven’t taken any medication. On 7th of March 2017 Chemotechnique European Baseline Series S-1000 was putten on and patient was prescribed Dermovate ointment and Tab. Doxycycline 100 mg ½ per day. On 9th of March after using Dermovate ointment patient complained about unpleasant and burning sensation. After 48 h of test (Chemotechnique European Baseline Series S-1000) weak positive reaction was seen only on N7 Nickel (+) and N18 formaldehyde (+), patient was prescribed Fucicort Cream on hands two times per day and continues Tab. Doxycycline 100 mg ½ per day. On 10th of March (72 h after tests) positive on N1 Chromates (+), N5 Cobalt (+), N7 Nickel (++), and N18 formaldehyde (+++) continues therapy. 7 days after using Fucicort Cream twice per day hand skin became better.

RECOMMENDATIONS
Fucicort Cream for one more week, then Protropic ointment 0,1% once per day for a month and continuing Tab. Doxycycline 100 mg ½ per day at least two months.
ABSTRACT NO 79 (ORAL)  
**DERMATOLOGY – PRACTICAL NOTES**

**Andris Rubins**, Department of Dermatovenerology, Faculty of Medicine, University of Latvia

Accurate diagnosis of skin diseases is the basis for a successful treatment. Clinic, differential diagnostics, diagnosis and possible therapy, the use of advanced technologies and medication of most commonly found skin diseases (Acne vulgaris, Atopic dermatitis, Psoriasis, Scabies, Skin mycoses, Viral diseases etc.) and relatively rare skin diseases (Vitiligo, Neurofibromatosis etc.) will be discussed. Advice will be given on the successful diagnosis and treatment of skin diseases.

ABSTRACT NO 82 (ORAL)  
**BIOLOGICS ROLE FOR AUTOINFLAMMATORY PASH SYNDROME TREATMENT**

**Vesta Kucinskiene**, Lithuanian University of Health Sciences, Hospital of Lithuanian University of Health Sciences Kauno Klinikos, Kaunas, Lithuania

**Skaidra Valiukeviciene**, Lithuanian University of Health Sciences, Hospital of Lithuanian University of Health Sciences Kauno Klinikos, Kaunas, Lithuania

**Viktorija Vilkickaite**, Lithuanian University of Health Sciences, Hospital of Lithuanian University of Health Sciences Kauno Klinikos, Kaunas, Lithuania

**BACKGROUND**

PASH syndrome is a very rare autoinflammatory syndrome (AIS) with combination of few skin diseases: pyoderma gangrenosum, acne, suppurative hidradenitis. It develops because of genetic predisposition which leads to the increased levels of inflammatory cytokines (eg, interleukin (IL)-1β, IL-17, TNF-α) and chemokines (e.g., IL-8, CXCL) in the damaged skin [1, 2]. AIS treatment is complicated because of the limited success when using classical immunosuppressive approach with glucocorticoids and dapsone, azathioprine, methotrexate, etc. In this presentation we aim to discuss the efficacy and safety of biologics when treating PASH syndrome.

**METHODS**

It was performed the review of searched publications in PubMed and Medline databases using the key words „autoinflammatory syndromes“, „PASH syndrome“, „biologics“.

**RESULTS**

We found that the IL-1β receptor antagonist - anakinra and TNF-α inhibitors – infliximab and adalimumab were the most usable biologics to treat PASH syndrome and comorbidities. Our case of PASH syndrome with Duhring herpetiformis dermatitis and also other similar case reports [1] showed good clinical response at the dose of infliximab 5 mg/kg at 0, 2 and 6 weeks. A good long-term control was obtained as well in other case of PASH and Crohn’s disease [2] with adalimumab 80 mg at 0 week and then 40 mg every 2 weeks usage. The patient with PASH syndrome and polyarthritus treated with anakinra 100 mg/daily achieved partial clinical remission. Following the limited effect of anakinra in PASH syndrome this drug is recommended to use in AIS with joint-related symptoms [2]. The combination of biologic and classical immunosuppressive medications results in more rapid improvement and gives better control than monotherapy [3].

**CONCLUSION**

At present, biologics are the most promising medications for the treatment of PASH syndrome but clinical response to different treatment modalities varies. Monotherapy with biological medication is not effective enough. The modality of dual TNF/IL-17A inhibition [4] in the treatment of inflammatory diseases is in future, but serious infections and onco- logical diseases have to be excluded.

**REFERENCES**

ABSTRACT NO 85 (ORAL) WHAT IS YOUR DIAGNOSIS? – 5 INTERACTIVE CASE REPORTS FROM BERLIN!

Peter Karl Kohl, Berlin, Germany

BACKGROUND
Due to the rarity of skin diseases case presentations remain the most important way of learning and teaching in dermatology and venereology. In the past 38 years of working in the field of dermatology, venereology and dermatopathology I have diagnosed many interesting, peculiar and rare clinical cases.

METHODS
Good clinical practice including history, clinical description and documentation by clinical photography or mobile phone is essential for differential diagnosis. From each patient skin biopsy was taken and examined histopathologically including immunohistochemistry.

RESULTS
For presentation at the 14th Congress of the Association of Baltic Dermatovenerologists in Vilnius I have selected 5 cases both with skin inflammation and with skin cancer which are especially instructive. After demonstrating the history and clinical pictures I will ask the audience about their opinion and thus stimulate interaction. Further on I will present a take home message to each presented case.

CONCLUSION
Good history, clinical observation, clinical description, clinical photography, skin biopsy and dermatopathologic examination remain the hallmarks of good clinical diagnosis which is again the basis of therapy and compliance of the patient.

ABSTRACT NO 101 (ORAL) PRURITUS MANAGEMENT IN PATIENTS WITH CHRONIC INTERNAL DISEASES

Jacek C Szepietowski, Department of Dermatology, Venereology and Allergology, Wroclaw Medical University, Wroclaw, Poland

Itch is the most common symptom in dermatology, but it may also be present in patients with systemic disorders, such as end stage renal failure, hyper- or hypothyroidism, diabetes, haematological malignancies, polycytaemia vera, liver problems, HIV infection and many others. This type of itch is called systemic itch. It usually has a chronic course and presents without visible skin lesions, however scratch lesions, such as excoriations and or lichenification, may be also be seen. The pathogenesis of systemic itch is not completely clear and varies between the underlying disorders. For example, in the pathogenesis of uremic pruritus one may consider xerosis, imbalance in ions, hyperparathyroidism, trypptase and chymase imbalance, neurogenic inflammation and dysregulation of peripheral opioid receptor expression. It is obvious that chronic systemic itch has negative impact on patients’ well-being. Many patients with chronic systemic itch considered it as the most bothersome symptom of the disease they have. Patients suffering from itch were found to have low self-image, suffer from obsessive-compulsive disorders and have difficulties in coping with aggression. Severe itch at night frequently resulted in significant sleeping problems. It was also observed, that in many diseases itch intensity significantly correlated with degree of quality of life impairment, level of stigmatization, presence and severity of depressive symptoms as well as with emotional stress. Based on available data and own experience it could be concluded that systemic itch is a devastating symptom impairing all aspects of patients’ life. The therapy of systemic itch a challenge. Treatment modalities are different in various types of systemic itch. For example, uremic pruritus may be controlled with emollients and UVB therapy; gabapentin is the best studied oral agent that also could be of help. As the last step nalfurafine or antidepressants should be tried. Cholestatic itch may be treated with anion exchange resin cholestyramine, bile acid ursodeoxycholic acid, rifampicin, opioid antagonist naltrexone, and the serotonin inhibitor sertraline. The holistic approach with psychological support should also be considered in itchy patients with chronic internal diseases.

ABSTRACT NO 102 (ORAL) THE NEW AIMS IN PSORIASIS TREATMENT

Jacek C Szepietowski, Department of Dermatology, Venereology and Allergology, Wroclaw Medical University, Wroclaw, Poland

Psoriasis is a common chronic inflammatory skin disease affecting 1-3% of general population. Although during the recent decades several new treatment modalities have been proposed for psoriasis subjects there are still several unmet needs in psoriasis treatment. The current agreeded treatment goal is to achieve PASI (Psoriasis Area and Severity Index) 75, that means at least 75% reduction of psoriatic lesions. That was clearly proven that this response is not sufficient to have marked improvement of patients quality of life in the reasonable percentage of subjects. Our psoriasis patients would like to have clear skin without any skin lesions and this should be achieved in the short time: one to two weeks after the therapy initiation. The treatment goals are dependent of available treatment modalities. New biological agents, especially anti-IL17 drugs (secukinumab, ixekizumab) are able to offer better clinical results than previous antipsoriatic therapies. Secukinumab showed high efficacy in the treatment of psoriasis with more than 70% of patients achieving PASI 90. The availability of this agent in the treatment of psoriasis began the discussion of new treatment goals for this debilitating disease. Recent studies suggested that the strong and rapid efficacy of secukinumab sustained for at least of 5 years of treatment. Based on this data one can suggest the new treatment goals for psoriasis: at least 90% reduction of skin lesions (clear or almost clear skin) with maintained response.
ABSTRACT NO 103 (ORAL) DIAGNOSING OF PIGMENTED AND NON-PIGMENTED SKIN LESIONS BY DERMATOSCOPY

Agata Bulinska, School of Medicine, The University of Queensland, Brisbane, Australia

As melanoma rates are rising dramatically, and dermatologist meets with skin cancer more often, there is a need of bringing in easy, teachable and tested methods of skin examination. Such method is dermatoscopy. This simple, non-invasive skin examination became available in practice in the 1990s. Dermatoscopic examination (with hand-held 10 x magnifying skin microscope with a source of light) essentially relies on the analysis and interpretation of structures and colors. Skilled use of dermatoscopy can be seen surprisingly short training periods. The method presented here for the diagnosis of pigmented [1] and non-pigmented [2] skin lesions by dermatoscopy is derived from pattern analysis and is based on a logical structure, using simple, easily comprehensible, and clearly defined terms [3]. This system will serve as a basis to help acquire a profound knowledge of dermatoscopy and to diagnose malignancies at an early stage including early melanoma. To master dermatoscopy one needs a system like pattern analysis [4] that helps to organize one’s observations and catalog them appropriately.

REFERENCES

ABSTRACT NO 104 (ORAL) USE OF DERMATOSCOPY IN DIAGNOSING MALIGNANT NEOPLASMS DERIVING FROM EPIDERMIS

Agata Bulinska, School of Medicine, The University of Queensland, Brisbane, Australia

Skin cancers are epidemically growing health problem worldwide [1]. Early diagnosis of malignant melanoma with use of dermatoscopy was of interest of researchers and clinicians during last decades of previous century. However 98% of skin neoplasms derives from epithelium. Skin cancers originating from keratinocytes are basal and squamous cell carcinomas. They present serious challenge for public health [3]. Diagnostic method based on pattern analysis, using logic structure and geometrical well defined terms is useful not only for melanocytic, but as well for keratinocytic tumors. Pattern analysis helps clinician to relay on objective algorithm and avoid situation, when physician would base only on own unconfirmed observations [4, 5].

REFERENCES
ABSTRACT NO 117 (ORAL) SWIMMER’S ITCH: CASE REPORT

Alise Balcere, Department of Infectiology and Dermatology, Riga Stradiņš University, Latvia
Māra Rone Kupfere, Department of Infectiology and Dermatology, Riga Stradiņš University, Latvia
Angelika Krūmiņa, Department of Infectiology and Dermatology, Riga Stradiņš University, Latvia

BACKGROUND AND AIMS
manifests as intensely itching papular rash due to cercariae of bird schistosomes that accidentally penetrate human skin instead of bird skin. The highest possibility to acquire swimmers itch is by being engaged in recreational water activities especially in shallow waters of small and eutrophic lakes.1 cases.

METHODS
Several cases of swimmer’s itch were reported by mass media during this summer in Latvia. We report a case of swimmer’s itch, it’s clinical and dermatoscopical signs.

RESULTS
A 67-year-old patient presented with erythematous papules few millimetres in diameter mainly on the left side of her body. Papules started to appear after spending around 1.5 hours in the river “Liela Jugla” and presented with intense itch. Dermatoscopy of many lesions showed puncture site and superficial scale. No systemic symptoms were present. The patient did not feel relief from systemic antihistamines, though considered topical solution containing menthol and anesthesin helpful.

CONCLUSION
Swimmers itch is a cutaneous disease with worldwide distribution and can be acquired in lakes and rivers of Baltic states.

Abstract topic: Miscellaneous and case reports.

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ABSTRACT NO 118 EXPERIENCE REMOVAL OF BENIGN TUMORS OF THE SKIN IN PROBLEM FACE AREAS

Ingrida Ritina, Beauty institute “Liorá”, Riga, Latvia
Silvestrs Rubins, Departament of Dermatovenerology, University of Latvia, Riga, Latvia
Andris Rubins, Department of Dermatovenerology, University of Latvia, Riga, Latvia

BACKGROUND
For dermatologists and aesthetic medicine specialists choosing the treatment method of benign skin tumors (BST) is an important matter. Benign skin tumors are papilloma, dermatofibroma, xanthelasma, dermal nevus, milia. They are not threatening human health, but present aesthetic discomfort by unsightly appearance of the skin. Patients see experts for their removal on medical or aesthetic grounds. For doctors and patients is important to choose safe and effective procedure for following the rehabilitation period would be shorter, not remain after healing scars and pigmentation disorders. Doctors with special demands refer to the choice of treatment of BST in the area of eyelids and nose.

PURPOSE
To assess the efficiency and convenience of the method of destruction BST using the plasma generating device Plexr®.

MATERIAL AND METHODS
We selected 110 people with 141 BST in the face area who wanted to remove the BST. All BST was examined visually and using a dermatoscope Dermlite 3DN. The procedure of destruction of 141 BST made using the device Plexr® by point interrupted exposure combined with continuous „spray” technique.

RESULTS
For 2 years, the authors removed 141 BST by sublimation in the face area, 47 of them were located on the eyelids. On the eyelids there were 24 xanthelasmas, 4 papillomas, 13 syringomas, 6 acrochordons and on the nose there were 8 dermal nevus. After manipulation, the healing process was 7 to 10 days. After 2 months of tissue sublimation sites, it had no visible scars and pigmentation disorders. Repeated procedures were performed only in 2 (0,54%) cases.

CONCLUSION
The results convincingly demonstrate the new treatment methods of benign skin tumors by using the device Plexr® is effective, the maximum controllable and safe handling even making eye area and on the eyelids. The advantages are fewer pain sensations, fast healing process, not traumatized surrounding tissue and prognostic fewer repeat treatments.

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ENTHESITIS AS A PREDISPPOSING FACTOR OF PSORIATIC ARTHRITIS IN PATIENTS WITH NAIL PSORIASIS?

Tatjana Sidorcika, Latvian University, Dermatovenerology department, Riga, Latvia
Viktors Linovs, Pauls Stradins Clinical University Hospital, Institute of Radiology, Riga, Latvia
Maija Radzina, Pauls Stradins Clinical University Hospital, Institute of Radiology, Riga, Latvia
Andris Rubins, Latvian University, Dermatovenerology department, Riga, Latvia
Silvestrs Rubins, Latvian University, Dermatovenerology department, Riga, Latvia

BACKGROUND AND AIMS
It has already been proved, that inflammation of the enthesis (“enthesis organ”) is the primary lesion of psoriatic arthritis. In clinical practice, nail psoriasis is more frequent in patients with psoriatic arthritis than in patients with psoriatic involvement of the skin. Nail psoriasis is an important independent predicting factor of psoriatic arthritis apart from clinical or laboratory findings. Over the last ten years, ultrasonography has become an important imaging modality in rheumatology and dermatology for the early detection of psoriatic arthritis, because of its ability to reveal subclinical enthesitis, long before the appearance of radiographic anomalies in the joints and patient complaints.

PURPOSE
Find correlation between psoriatic onychopathy and psoriatic arthritis subclinical manifestations.

MATERIALS AND METHODS
The pilot prospective study included 32 patients: 7 patients with nail psoriasis (clinically and laboratory confirmed) with no history of previous rheumatological disease, 15 patients with psoriasis without onychopathy with no history of previous rheumatological disease and 10 control (healthy) persons. Sonographic evaluation of plantar aponeurosis, Achilles tendon, proximal and distal patellar ligament, quadriceps tendon, triceps tendon entheses on both extremities was performed. Twelve entheses were scored according to the Madrid Sonographic Enthesis Index (MASEI) in all groups using ultrasound. Laboratory rheumatology tests involved: CRO, RF, HLA-B27. Clinically, all patients were evaluated using psoriatic arthritis assessment survey.

RESULTS
Median age of patients were 32 years (Range=18, IQR=6). Two entheses were diagnosed in two patients in psoriatic onychopathy group, both in the Achilles tendon with hypoechoic and thickened enthesis. Fisher’s exact test show correlation between psoriatic onychopathy and enthesitis (p<0.05), although there is no correlation between psoriasis and enthesitis (p=1). No correlation between laboratory tests and enthesitis, as well as between clinical evaluation and enthesitis was observed (p>0.05).

CONCLUSION
Ultrasound could be a valuable diagnostic tool for detection of subclinical enthesitis in patients with psoriatic onychopathy, which is proved to be predisposing factor of psoriatic arthritis.
ABSTRACT NO 125 (ORAL)  EUROPEAN GUIDELINES FOR HIDRADENITIS SUPPURATIVA (HS) MANAGEMENT. ROLE OF BIOLOGICS AND EVIDENCE-BASED DATA

Christos C. Zouboulis, Departments of Dermatology, Venereology, Allergology and Immunology, Dessau Medical Center, Brandenburg Medical School Theodore Fontane, Dessau, Germany

According to a former empirical analysis of traditional conservative treatment measures only topical 1% clindamycin solution, the oral systemic combination of clindamycin and rifampicin and a hormonal antiandrogen combination of ethinyl estradiol and high dose cyproterone acetate reached an evidence level 2 and a grade B recommendation (1). In more recent studies, the biologics adalimumab and infliximab also reached a grade A and B recommendation, respectively (2-4), other biologic agents are still under investigation (5). The European guidelines recommend that HS should be treated based on the subjective impact and objective severity of the disease (6). Locally recurring lesions can be treated by classical surgery or LASER techniques, whereas medical treatment either as monotherapy or in combination with radical surgery is more appropriate for widely spread lesions. Medical therapy may include antibiotics and immunosuppressants. A Hurley severity grade-relevant treatment of HS has been recommended by the expert group following a treatment algorithm (7). Since the field is developing rapidly, a systematic literature search in the Medline database was conducted since 2013 under the term „hidradenitis“ in order to evaluate the current validity of the guideline. No change seems to be required on the basic aspects. New aspects represent: First line medical therapy may include a combination of systemic antibiotics (clindamycin plus rifampicin) or single systemic antibiotics (tetracycline) and acitretin. As second line, medical treatment with biologics can be administered. The anti-TNF agent adalimumab represents the only approved treatment for moderate to severe HS in adults with an inadequate response to conventional systemic HS treatment (2, 8). Hurley severity grading is no more sufficient for treatment decision and a new dynamic HS severity score (mild/moderate/severe disease), the IHS4, has been suggested (9). Weight loss and tobacco abstinence are adjuvant measurements, proven to improve the severity of HS as independent factors. In conclusion, research in HS increases rapidly. Since the publication of the European S1 guideline for the treatment of HS (6) new important findings have emerged, which have led to a partial guideline actualization (10).

ABSTRACT NO 126 (ORAL)  WHAT’S NEW IN THE MANAGEMENT OF ACNE

Christos C. Zouboulis, Departments of Dermatology, Venereology, Allergology and Immunology, Dessau Medical Center, Brandenburg Medical School Theodore Fontane, Dessau, Germany

Despite the fact that acne is the most common dermatological disease, innovative therapeutic regimens cannot be found among the ones registered in the last two decades (1, 2). On the other hand, the development of widely accepted guidelines using the long known compounds has at least simplified the former complex acne treatment (2). Combination therapies are the predominant regimens. The selection of the exact regimen depends on the classification of acne type and severity. The development of scars is the main criterion for the choice of systemic therapy. Retinoids for mild comedonal acne and the combination of retinoids with antibiotics and/or benzoyl peroxide for mild to moderate papulopustular acne are the drugs of first choice for topical treatment (3). Topical antibiotics as single agents tend to be abandoned mostly because of the danger for the development of resistant bacterial strains (4). Systemic antibiotics, in combination with topical retinoids and/or benzoyl peroxide, for moderate papular/nodular acne and isotretinoin for severe nodular/conglobate acne are the columns of systemic acne treatment (5-7). Systemic anti-androgens are used in women from moderate to severe acne (7, 8). In contrast to the registered regimens for acne treatment, the huge advances in the understanding of acne pathomechanisms in recent years (9-12) has lately motivated the pharmaceutical industry to introduce new interesting compounds in phase I and II clinical studies of mostly topical agents that may act via sebosuppressive effects, antimicrobial properties or anti-inflammatory effects (13). The compounds under investigation include olumacostat glasareti, corticosterone 17α-propionate, stearyol-CoA desaturase 1 inhibitors, agents affecting the melanocortin system, omeprazole, and minocycline. Systemic studied anti-acne drugs include finasteride, biologics, low dose anti-inflammatory antibiotics, and leukotriene B4 inhibitors (13, 14). Therefore, the development of new therapeutic agents with good efficacy and better side effect profile should be expected in the future.
ABSTRACT NO 127 (ORAL) BIOLOGIC THERAPY IN PATIENTS WITH PSORIASIS AND VIRAL HEPATITIS

Viktorija Vilkickaite, Ruta Paulina Zarankiene, Vesta Kucinskiene, Skaidra Valiukeviiciene,
Department of Skin and Venereal Diseases, Medical Academy, Lithuanian University of Health Sciences, Hospital of Lithuanian University of Health Sciences Kauno klinikos, Kaunas, Lithuania

INTRODUCTION & OBJECTIVES

Our aim is to present an evidence based practice review and our case experience of the safety and effectiveness of biologics in patients with psoriasis and concomitant viral hepatitis. Reactivation of HBV or HCV infections due to biologic therapy is uncommon but potentially serious and life threatening condition [1,2]. Active chronic HBV infection is listed as an absolute contraindication for the use of infliximab and adalimumab, but chronic HCV infection is a relative contraindication for the usage of these biologic agents in the European guidelines of systemic treatment of psoriasis. Etanercept is relatively contraindicated TNF-alpha inhibitor in patients with active chronic HBV and HCV infections [1].

CASE REPORT.

A 42 years old male suffered from long lasting severe plaque psoriasis (PASI score 34). Temporal efficacy of topical medications, narrow-band ultraviolet-B (UVB) and bath psoralen ultraviolet-A (PUVA) therapies were applied. Chronic HCV infection was diagnosed in accordance with three times increased serum levels of liver transaminases and positive serological tests (anti-HCV and HCV RNR genotype 1 b). The primary treatment of hepatitis with peginterferon alpha-2a and ribavirin was ineffective. The patient received a combined antiviral treatment with ombitasvir, peritoprevir, ritonavir and dasabuvir with viral negativization. When the remission of HCV infection was reached, treatment with etanercept 50 mg/weekly was started. After the treatment of 1 month PASI score decreased to 9, liver enzymes and liver sonography findings were in normal range and HCV viral load was negative.

CONCLUSION

We advise to consult a gastroenterologist and consider the risk-benefit ratio and anti-viral drugs requirement prior to treatment with biologic therapy, when positive serologic markers of HBV or HCV are found. The newest data suggest that etanercept and ustekinumab are relatively safe in most of patients with chronic HCV or HBV infections [3]. We recommend close monitoring of the patients with chronic/resolved HBV or chronic HCV infections by means of periodic serum liver tests (alanine and aspartate aminotransferases) and HBV/HCV viral load to identify hepatitis reactivation or seroconversion during treatment.

REFERENCES

CONCOMITANT LEPROSY AND HIV INFECTION – IMMUNOLOGICAL RESPONSE

Pandya Krishnakant, THEREJUVENECLINIC, India

INTRODUCTION
So far there has been no conclusive evidence of any adverse impact of HIV infection on Leprosy. Here are two cases of Leprosy having concomitant HIV infection.

AIM
To study the immunological response of the patient with two diseases with immunocompromised state.

CASE PRESENTATION
CASE 1 - A 36 years old female presented with multiple erythematous lesions with raised scaly borders with hypo-esthesia on the right buttock, abdomen and left forearm. Skin smear for ABF and Histopathology was consistent with Borderline Lepromatous Leprosy. History revealed promiscuous behaviour and genital ulcerations in the past. Investigations showed positive for HIV I infection. The CD4 count was very low and Viral Load was very high. In spite of continuous Multi Drug Therapy (MDT) treatment the patient deteriorated and went into Type II Lepra Reaction. Anti Retro Viral (HAART) treatment and MDT for Leprosy was given. After 8 weeks of therapy the improvement was seen. The patient showed marked improvement in leprosy after 1 year of treatment in leprosy.

CASE 2 - A 28 year old male patient presented with an ill defined hypopigmented, hypoesthetic macule on the left forearm. AFB smear was negative and Histopathology proved it to be Tuberculoid Leprosy. He also had multiple genital warts and on investigations he was found to be HIV I positive. The CD4 count and Viral Load were normal. Patient was given Syndromic Approach Treatment and Podowart application treatment for venereal diseases. He was also given full course of MDT. Slow improvement was observed. The venereal warts resolved in 3 weeks and a slow improvement was noticed in leprosy.

DISCUSSION
Immune status deteriorates with both the diseases. In Case 1, the severely immunocompromised state with high viral load and low CD4 count lead to worsening in leprosy. Response was noticed only after HAART treatment was instituted.

in Case 2, good immune status resulted in slow but definitive improvement with MDT with out the use of HAART.

CONCLUSION
Immune status does play a role in the course, prognosis and therapeutic response of the underlying disease state.

HOW TO BE HAPPY BEING A DOCTOR

Evelina Buinauskaite, Lithuania

INTRODUCTION
According to wikipedia: â€œin psychology, happiness is a mental or emotional state of well-being which can be defined by, among others, positive or pleasant emotions ranging from contentment to intense joy.â€in The same wikipedia says that: â€œin physician, medical practitioner, medical doctor, or simply doctor is a professional who practises medicine, which is concerned with promoting, maintaining, or restoring health through the study, diagnosis, and treatment of disease, injury, and other physical and mental impairments. â€œin Nowadays it can be a little bit hard to be happy for yourself as a doctor and trying to make your patients happy. Conclusion. During the talk personal insights and world wide known techniques on how to feel happy will be shared with you.

GENDER DIFFERENCE AND HIV PROTECTIVE BEHAVIOR AMONG INTERNAL MIGRANTS IN BANGKOK, THAILAND

Thepthien Bang-on, TASEAN institute for Health Development, Thailand

INTRODUCTION
With nearly 520,000 people (ages 15-49) living with HIV and AIDS, Thailand has the highest adult HIV prevalence in the South East Asia region.1 Using the AIDS epidemic model (AEM) for adults (aged 15+ year) and Spectrum for children (aged less than 15 year), there were estimated 7,816 new HIV infections, 20,492 AIDS related deaths, and 445,504 persons living with HIV (PLHIV) at the end of 2014 in Thailand. Females account for 39% of total adult PLHIV and 47% of children living with HIV.2 Thailand has achieved many accomplishments in confronting the HIV epidemic since the mid- to late 1980s.3 HIV prevalence peaked in the general population in 1993 and has been gradually declining ever since. However, in some of the higher-risk groups, there are still unacceptable levels of new HIV infection each year.2 Thailand’s National AIDS
Plan (NAP) for 2015-19 has declared the goal of being the first country in Southeast Asia and among the first countries in the world to end AIDS by 2030. 4 The Ministry of Public Health (MOPH) has increased the HIV/AIDS budget to move toward this goal, but there will also need to be new strategies to maximize coverage of those at risk of contracting/transmitting HIV, especially youth and the higher-risk groups.5 In 2012, Thailand passed a regulation to allow persons under age 18 to seek HIV VCT without the need for parental/guardian consent.6 In addition, various programs were intensified to provide sex education in the school and community settings. Nevertheless, caseloads of STIs did not decline to the desired level.5 The NAP for 2015-19 does not designate migrant workers as a key affected population for HIV prevention. Nevertheless, numerous studies in Thailand and around the world have shown that mobility is associated with higher risk of HIV transmission.6,7,8,9,10 What is more, migrants generally have less access to health and clinical care than non-migrants.11,12 In this paper, ‘internal migrant’ refers to Thais who traveled from place of origin to their destination (within Thailand) to seek employment. The frequency and pattern of movement of internal migrants vary: it can be seasonal, temporary or permanent.13,14 Thai data on migrants for 2016 show that nearly 800,000 persons were migrants in that year (or 1% of Thailand’s estimated 68 million). Most of the migrants were in the Central Region. One-third (34.7%) of the migrants cited the reason for changing residence as work-related (seeking a new job, employer requirement, etc.); another third (33.2%) cited family reasons for changing residence or returning to the place of origin for a visit. Other reasons for mobility include tending for another person. Movement of migrants is usually within the same region rather than cross-regional. 15 Migrants age 15 years or older who had completed upper high school had the highest rates of internal movement, followed by those with lower high school education, and those with only primary or no education.16 In general, migration can be classified as permanent or temporary, and there were no distinct differences between rural-to-urban or rural-to-rural migrants or between male and female migrants. However, more females moved from rural to urban areas in Thailand.17 Seasonal migrants were more likely to be male. During the dry season, migrant movement tends toward Bangkok and the Central Region from the Northeast and North Regions. The flow reverses when the rainy season resumes.18 Long-term migration is highly selective of young adults, females and the more highly educated. It is most likely to occur between urban areas or from rural to urban areas. Temporary migration mainly involves movement back and forth between urban and rural places and is most likely to be engaged in by those with a medium level of education.19,20,21 The objective of this study was to identify determinants of HIV prevention behavior of Thai internal migrants. Methods Data for this study came from the 2016 HIV Behavioral Surveillance in Bangkok (sample size of 1,500). 22 The data were collected by self-administered questionnaires, and the study was approved by the Mahidol University ethical review board. In 2016, Bangkok had nearly 300,000 factories or worksites. Most are retail outlets, followed by factories, hotels/hospitality outlets, and food & beverage services. By size of work force, 276,838 worksites had 1 – 15 workers; 7,778 had 16 – 25 workers; 2,314 had 26 – 50 workers, while 4,194 worksites had 31 – 200 workers, and 1,173 worksites had over 200 workers. The survey focused on worksites with over 3 – 200 workers. 23 The 50 districts of Bangkok were sub-divided into six groups: Central Bangkok (9 districts); Southern Bangkok (10); Northern Bangkok (7); Eastern Bangkok (9); Northern Thonburi (8) and Southern Thonburi (7). Three factories were sampled from each of the six zones. The sample consists of persons age 18 to 49 years who had been working in a factory for at least six months, had been born outside of Bangkok, and had lived in Bangkok from 1 to 10 years. The dependent variables include going for HIV VCT within the past 12 months, use of condoms at last sex, AIDS knowledge score based on the UNGASS five knowledge items, HIV self-risk assessment, male circumcision, and HIV prevention behavior score. Independent variables include age, sex, marital status, education, monthly income, consumption of alcohol in the prior three months, negative stigma toward persons living with HIV (PLHIV), and participation in prevention education activities/receipt of condom distribution in the past year. For sex behavior, the questionnaire asked about history of sex, age at first sex, type of first sex partner, and use of condoms at first and last sex. Most of the basic variables are defined as below. Basic variables in the analysis Value or Categories HIV VCT within the past 12 months 1= Yes, 0= No Condoms use at last sex 1= Yes, 0= No Knowledge of HIV and AIDS UNGASS five knowledge items, in each item, 1=correct answer 0= incorrect answer. Total scores 0 to 5 if correct 5 scores =1, 0-4 score =0 HIV self-risk assessment 1= risk, 0= No risk Male circumcision 1= Yes, 0= No HIV prevention behavior score Total score 0-5, if score >1 score =1 , 0 = 0 (no preventive behavior) Age Single year of age Sex Male or female Marital status Single, separate, divorced, widowed, married living with spouse. Education Primary school, secondary school and college or university Monthly income (in Baht) 35 Baht = 1 US$ Consumption of alcohol in the prior three months Yes, No Negative stigma toward persons living with HIV (PLHIV) Three negative stigma items, in each item, 1=negative 0= positive. Total scores 0 to 3 if negative 3 scores =1, 0-2 score =0 Participation in prevention education activities/receipt of condom distribution in the past year Yes, No Sexual experience Yes, No Age at first sex Single year Type of first sex partner Lover, other or sex worker Condoms use at first Yes, No Gender of sex partner at the first sex Difference sex, Same sex Type of sex partner at the first sex Lover, sex worker or other The researchers applied the Pearson Chi-square test to examine differences between groups for demographic variables and sexual behavior with binary distributions, and logistic regression was used to estimate the odds ratios (OR) for the bivariate relationships between outcome and independent variables of interest. Statistical significance was set at P < .05. RESULTS Over half the sample were age under 35 years, two-thirds were living with their partner, one-third had bachelor’s or higher education, over three-fourths had monthly income of less than 20,000 baht, two-fifths drank alcohol in the past three months, one-fifth of those who had ever had sex were age under 18 years at their sexual debut, one out of 16 had their first sex with a same-sex partner, one-tenth had their first sex with a non-lover, one-third used a condom at first sex, one-third expressed attitudes of negative stigma toward PLHIV, and one-third had participated in HIV education and received condom distribution in the past year. There were differences between gender for age, drinking, sexual experience, age at first sex, type of first sex partner, and participating in HIV education/receiving condom distribution in the past year (Table 1). Male respondents had a higher percentage of HIV VCT in the past year, use of condoms at last sex, and self-assessment
Syphilis was imported to Europe from America in the late 15th century. From then on and up to the mid-20th century it was as dangerous as HIV/AIDS before the anti-retroviral therapy. After the break-up of the former USSR major epidemics of syphilis were seen in many of its former states. The unification of Europe, free travel (especially of CSW) and immigration to West facilitated the re-emergence of syphilis in the New World and the Pacific region. Knowing the peculiarities of syphilis biology, and especially the antigenic shift and latency – the global spread of T. pallidum to new organisms is an important aspect for syphilis infection to persist and transform. The rise of syphilis morbidity in countries where it was previously non-existent or with very low morbidity as well as many international reports of atypical or late clinical forms, speaks in favour of such theory. The presentation will analyse the past and present trends of syphilis morbidity, touching the most important aspects of its clinical and biological profile.
IMPLEMENTATION OF ROUTINE OPT-OUT HIV SCREENING PROGRAM IN VILNIUS UNIVERSITY INFECTIOUS DISEASES CENTRE

Dovile Ramanauskaite, Faculty of Medicine Vilnius University, Lithuania
Brigita Polozovaite, Faculty of Medicine Vilnius University, Lithuania
Raimonda Matulionyte, Faculty of Medicine Vilnius University, Lithuania
Gabriele Gaizutyte, Faculty of Medicine Vilnius University, Lithuania

BACKGROUND
The Centres for Disease Control and Prevention recommend routine HIV testing in healthcare settings. Routine HIV testing is an essential approach to identify undiagnosed HIV infections. Early diagnosis of HIV can improve treatment and care of those infected with HIV, prolong survival, and reduce the spread of infections. Routine testing strategy is considered to be economically advantageous, when HIV prevalence is above the cost-effectiveness threshold of 0.1%. The aim of this study was to evaluate the feasibility and yield of integrated opt-out HIV screening program in Vilnius University Infectious Diseases Centre (VU IDC) and to compare it to physician-directed HIV testing.

METHODS
A cross-sectional study was conducted in VU IDC during 2015 - 2016. The study consisted of routine HIV screening of hospitalised patients aged 18-65. Patients either diagnosed with HIV or hospitalised to clarify the diagnosis were ineligible. The comparative group consisted of physician-directed tested patients in the outpatient department.

RESULTS
Out of 5288 hospitalised patients, 3878 (73.3%) were eligible for HIV screening, 3696 (95.3%) were tested. Routine testing yielded 6 (0.16%) new HIV cases and HIV prevalence in this group was above the cost-effectiveness threshold of 0.1%. Out of 6 new HIV cases, 4 established HIV care, and their mean CD4 count was 181 cells/μL (range, 15-459 cells/μL). All of these patients experienced one or more HIV indicator conditions: 2 - constitutional symptoms, 1 - persistent fever and lymphadenopathy, 1 - oral candidiasis, 1 - disseminated herpes zoster, 1 - chicken pox, multiple furuncles and seborrheic dermatitis. Out of 13496 patients consulted in the outpatient department, 1783 (13.2%) were tested. HIV was diagnosed to 3 (0.17%) patients. All of them experienced persistent fever and lymphadenopathy.

CONCLUSION
HIV infection is too often discovered at an advanced stage. Identifying persons more timely in infection and providing them with the appropriate counseling, education, and opportunities for linkage to care are the next necessary steps to controlling the HIV epidemic. Our study shows that routine opt-out HIV screening is feasible, acceptable and cost-effective. It revealed more new HIV cases. The yield of this strategy was similar to physician-directed testing.

REAL-LIFE EXPERIENCE WITH DIRECT-ACTING ANTIVIRALS OMBITASVIR / PARITAPREVIR / RITONAVIR / DASABUVIR WITH OR WITHOUT RIBAVIRIN IN CHRONIC HEPATITIS C VIRUS GENOTYPE 1 INFECTION TREATMENT

Brigita Polozovaite, Faculty of Medicine Vilnius University, Lithuania
Indre Radaviciute, Faculty of Medicine Vilnius University, Lithuania
Ligita Jancoriene, Faculty of Medicine Vilnius University, Lithuania

BACKGROUND
The aim of this open label, non-randomised, real-life study was to evaluate the safety and efficacy of the 3D therapy with ombitasvir/paritaprevir/ritonavir/dasabuvir ± ribavirin in genotype 1 (GT1) chronic hepatitis C (CHC) treatment.

MATERIALS AND METHODS
60 naïve or experienced GT1 CHC patients with or without cirrhosis from Vilnius University Hospital Santaros klinikos Centre of Infectious Diseases were included in this retrospective single centre study. Non cirrhotic patients with GT1b and GT1a CHC were treated for 12 weeks. The 3D therapy for patients with GT1a infection and liver cirrhosis was prolonged until week 24. For patients with GT1a CHC ribavirin additionally was administered to the body weight. ALT, AST, Alpha-Fetoprotein (AFP), PLT, HCV RNA and liver stiffness by FibroScan were evaluated before and after treatment, and at 12 week of follow-up. Patients’ complaints and adverse events were analyzed at treatment week 4, 8, 12 and 24 and at week 12 of follow-up. Sustained viral response was defined as undetectable HCV RNA at week 12 of follow-up.

RESULTS
The mean patients age was 50.2±13.1 years (range, 23-74 years), 31 (51.7%) were female. Mean value of body mass index (BMI) was 26.5±4.5. A total of 49 (81.7%) patients had HCV GT1b, 11 (18.3%) were infected with GT1a. 24 (40.0%) patients were treatment-experienced. At baseline mean value of liver stiffness by FibroScan – 11.7±10.2 kPa. Among all patients, 33 (55.0%) had moderate fibrosis (F2), 15 (25.0%) - severe (F3) and 12 (20.0%) - cirrhosis. Overall 58 (96.7%) patients were treated for 12 weeks, 4 (6.7%) additionally received ribavirin. At the end of 12 week of treatment mean level
ABSTRACT NO 57  REAL LIFE EXPERIENCE WITH GENERIC SOFOSBUVIR AND DACLATASVIR FOR GENOTYPE 2 AND 3 CHRONIC HEPATITIS C TREATMENT

Brigita Polozovaite, Faculty of Medicine Vilnius University, Lithuania
Indre Radaviciute, Faculty of Medicine Vilnius University, Lithuania
Ligita Jancoriene, Faculty of Medicine Vilnius University, Lithuania

BACKGROUND
The aim of this open label, non-randomised, real-life study was to evaluate the safety and efficacy of generic sofosbuvir and daclatasvir combination for genotype 2 and 3 chronic hepatitis C (CHC) treatment-naïve and treatment-experienced patients with and without liver cirrhosis.

MATERIALS AND METHODS
26 naïve or experienced genotype 2 (GT2) or 3 (GT3) CHC patients with or without cirrhosis from Vilnius University Hospital Centre of Infectious Diseases and Latvian Centre of Infectious Diseases were included in this retrospective study. Patients were treated with sofosbuvir and daclatasvir combination with or without ribavirin for 12 or 24 weeks between October 2015 and January 2017, the medications were purchased by themselves from India and Egypt. Patients’ characteristics, including demographics, laboratory values (HCV RNA, ALT, Alpha-Fetoprotein (AFP)), liver stiffness by FibroScan and adverse effects were analysed at baseline, week 4, 8, 12, 24 on treatment and at week 12 of follow-up. Sustained viral response was defined as undetectable HCV RNA at week 12 of follow-up.

RESULTS
The mean patients age was 42.9±12.0 years (range, 24 - 72), 13 (65%) were male. Mean body mass index (BMI) was 27.6±5.4. GT3a HCV infection was defined in 25 (96.1%) patients. 7 (26.9%) patients were treatment-experienced and liver cirrhosis was present only in 3 patients. At baseline median HCV RNA level was 3816181±644291 IU/ml, ALT - 140.2±110.8 U/L, AFP - 3.9±2.8 kIU/L, liver stiffness by FibroScan – 11.6±16.1 kPa. For 23 (88.5%) patients treatment duration was 12 weeks, 3 patients were treated for 24 weeks and additionally received ribavirin. At week 12 of treatment mean AFP level was 2.7±1.2 kIU/L. During treatment 11 (42.3%) patients experienced various adverse effects: the most common were weakness (19.2%), sleep disorders (11.5%), and pain (15.3%). At the end of treatment all patients had undetectable HCV RNA. At week 12 of follow-up mean value of AFP was 7.1 versus 2.0 kIU/L (p<0.05), mean value of liver stiffness by FibroScan was 9.9±8.2 kPa. At the end of treatment HCV RNA was undetectable in all 60 patients. During treatment 16 (26.7%) patients experienced weakness and fatigue, 7 (11.7%) - sleep disorders, 5 (8.3%) - mood changes. At week 12 of follow-up mean value of AFP – 2.3 kIU/L, liver stiffness by FibroScan – 9.5 kPa. A sustained viral response was achieved for 59 (98.3%) patients, one naïve patient with GT1b and F2 fibrosis experienced CHC relapse.

CONCLUSION
Our study showed that the 3D therapy is a safe and highly effective treatment for genotype 1 CHC treatment-naïve and treatment-experienced patients with and without liver cirrhosis. At the end of treatment all patients had undetectable HCV RNA, and after 12 weeks of follow-up only one patient experienced CHC relapse. More than half of patients experienced mild adverse reactions with the spontaneous resolution at the end of treatment.

ABSTRACT NO 65  COMPARATIVE ANALYSIS OF THE 2016 AND 2015 TUBERCULIN SKIN TEST

Joana Korablioviene, Centre for Communicable Diseases and AIDS, State Research Institute Centre for Innovative Medicine, Lithuania
Saulius Caplinskas, Centre for Communicable Diseases and AIDS, Mykolas Romeris University Educology and Social Work Institute, Lithuania
Galina Zagrebneviene, Centre for Communicable Diseases and AIDS, Lithuania
Ieva Sebeliauskaite, Centre for Communicable Diseases and AIDS, Lithuania

BACKGROUND
In order to ensure effective tuberculosis (TB) prevention and control, in accordance with the 2013 December 27 Lithuanian Minister of Health Order No. V – 1249, tuberculin skin test (TST) every year must be carried out for all 7 years children’s and 0 – 17 years children’s in the risk groups: unvaccinated children’s (Bacillus Calmette-Guerin (BCG) vaccine), in close contact with someone who has TB, that often suffer from upper respiratory tract infections, children’s with chronic
ABSTRACT NO 66  
HISTORY OF ANTI-TUBERCULOSIS ACTIONS IN LITHUANIA

Joana Korablioviene, Centre for Communicable Diseases and AIDS, State Research Institute Centre for Innovative Medicine, Lithuania
Saulius Caplinskas, Centre for Communicable Diseases and AIDS, Mykolas Romeris University Educology and Social Work Institute, Lithuania
Galina Zagrebneviene, Centre for Communicable Diseases and AIDS, Lithuania
Greta Petkeviciute, Lithuanian University of Health Sciences, Lithuania

BACKGROUND
Despite considerable efforts and quite early initiated anti-tuberculosis (TB) actions, Lithuania still remains one of the EU countries with the highest tuberculosis rates. According to the European Centre for Disease Prevention and Control, an estimated number of 323,000 new TB cases and relapses occurred in countries of the World Health Organization European Region in 2015, equivalent to 35.5 cases per 100,000 population. About 85% of incident TB cases in 2015 occurred in the 18 high-priority countries including Lithuania.

METHODS
Data analysis was performed with: Ibm lotus notes, Ibm db2, Ibm websphere portal, Microsoft excel.

RESULTS
In 2016 (68.1%) TST coverage among 7 y children’s and children’s in the risk groups was 15.7% higher than in 2015 (52.4%). In 2016 (11.8%) was diagnosed less positive TST out of carried out TST than in 2015 (13.1%). In 2016 TB (A15-19 ICD-10) was confirmed in 0.9% of the positive TST cases, it was less than in 2015 (1.1%). In 2016 open form of TB (A15.0-15.2, 15.5 ICD-10) was confirmed in 6.3% of all TB (A15-19 ICD-10) cases diagnosed out of positive TST. In 2015 open form of TB was confirmed in 6.7% of all TB cases.

CONCLUSION
1. In 2016 TST coverage among 7 y children’s and children’s in the risk groups was 15.7% higher than in 2015.
2. In 2016 was diagnosed 1.3% less positive TST out of carried out TST than in 2015.
3. In 2016 TB was confirmed in 0.9% of the positive TST cases.
4. In 2016 open form of TB was confirmed in 6.3% of all TB cases diagnosed out of positive TST.

HIV and Associated Infections (TB, VH, STI)

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Joana Korablioviene, Centre for Communicable Diseases and AIDS, State Research Institute Centre for Innovative Medicine, Lithuania
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ABSTRACT NO 75 (ORAL) TWO PATIENTS WITH SYPHILIS HAD A LICHEN PLANUS LIKE LESIONS

Melkioğlu Mehmet, Turkey
Ozdemir Sevki, Turkey

CASE REPORT
Two female patients with secondary syphilis had a lichen planus-like cutaneous eruption. Both of them oral mucosa were not involved. Blood cell count, biochemical tests, serum electrolyte levels, urinalysis, antinuclear antibodies, and serological examinations for human hepatitis viruses and HIV were within normal limits or negative. But syphilis tests were positive. First case: A 32-year-old woman presented with a 3-month history of a pruritic cutaneous eruption on his hands and face. Physical examination revealed multiple bright violaceous papules and all lesions look-like liken planus (Fig.1). On the other hand on her hands lesions shows koebners positive sign. No mucosal lesions, genital ulcers, alopecia or drug use was found.

Second case: A 27 year old woman presented with asymptomatic, symmetric, gray-brown macules located on the legs and arms of one year duration (Fig-2). No mucosal lesions, genital ulcers, alopecia or drug use was found.

RESULTS
Two patients with secondary syphilis had a lichen planus-like cutaneous eruption that one of them cleared after penicillin G benzathine therapy. Second one follow up after theraphy.

CONCLUSION
Syphilis should be considered in the differential diagnosis of lichenoid lesions.

ABSTRACT NO 80 DETERMINATION AND CLINICAL VALUE OF THE FAS/APO-1(CD95) ANTIGEN AND THE SOLUBLE FORM SFAS / APO-1 ANTIGEN IN HIV INFECTION

S. V. Zhavoronok, The Belarusian State Medical, Republic of Belarus
O. L. Tumash, Minsk The Gomel State Medical University, Republic of Belarus
N. V., Moskaliova, GomelThe Health care institution «City polyclinic №11, Republic of Belarus

OBJECTIVE
To study the regularities and clinical and prognostic significance of Fas / Apo-1 antigen (CD95) expression on CD4+ and CD8+ T-lymphocytes and its soluble form sFas / Apo-1 (CD95) in HIV-infected patients serum in natural course and in patients, receiving antiretroviral therapy.

MATERIALS AND METHODS
We examined HIV-infected patients (n = 137), living in Gomel and the Gomel region. Serum level of sFas/Apo-1(CD95) was measured by ELISA (we developed a test system, using monoclonal antibodies (clone ICO-160) for the sFas/Apo-1(CD95) qualitative detection. The results are expressed in optical density units (OD) (o.d.u.). The number of CD3 +, CD4 + and CD8 + T-lymphocytes (+ 106 cells / L) in the blood and the expression of CD95+ antigen on T-lymphocytes was performed by flow cytometry on the Beckman Coulter flow cytometer (USA).

RESULTS
An increase in CD95+ antigen expression on T-lymphocytes is associated with the progression of immunodeficiency and an increase in the viral load of HIV. Patients in the AIDS stage have a higher level of CD95+ expression on CD4+ T-lymphocytes compared to patients without clinical manifestations of opportunistic diseases (91.7% (CI95%: 80.0-100.0%) and 63.3% (CI95% 49.4-72.8%)). Against the background of taking antiretroviral therapy, there is a decrease in the number of CD4+ T-lymphocytes and CD3+ T-lymphocytes expressing on their surface CD95+ antigen. An inverse correlation was established between the sFas/Apo-1(CD95) serum level and the CD4+ T-lymphocytes number in the blood (Spearman R = - 0.47, p <0.001). In patients with AIDS-marker diseases sFas/Apo-1 (CD95) serum level is significantly higher in comparison with patients without AIDS-marker diseases (0.34 (CI95%: 0.24 - 0.45) o.d.u.). In patients with AIDS-marker disease the sFas/Apo-1 (CD95) serum level is significantly higher (0.34 (CI 95%: 0.24-0.45) o.d.u.) compared with patients without clinical manifestations of opportunistic diseases (0.10 (CI 95%: 0.03-0.18) e.p.) (U=100.5 , p=0.03). The frequency of elevated serum sFas/Apo-1 (CD95) levels detection in patients with opportunistic diseases is 2.3 times, it is higher than in patients without clinical manifestations (38,9% v.v. 16,7% (12=1,17, p=0.28)).

Taking into account the accepted CD4+ T-lymphocytes threshold count of 350 cells/µL for starting antiretroviral therapy, all patients were divided into two groups according to the count of CD4+ T-lymphocytes: above and below this value. The majority of patients deaths occurred at a CD4+ T-lymphocytes count less than 350 cells/µL and was 93.6% (CI95%: 88.2-96.8). The incidence of lethal outcomes in patients with a CD4 + lymphocyte count of more than 350 cells/µL is 3 times higher than for patients with a CD4 + cell count of more than 350 cells/µL, respectively 33.8% (CI95%: 29.3-38.7) And 10.5% (CI95%: 5.4 to 18.9) (\( \chi^2 = 18.49, p <0.001 \)). The cumulative 5-year survival of patients with a CD4+ T-lymphocytes count of more than 350 cells/µL exceeds the survival rate of patients with a CD4+ T-lymphocytes count less than 350 cells/µL in natural course (Log-rank test = 4.83, p <0.001) Rank test = 2.93, p=0.003). The elevated serum level of sFas/Apo-1 (CD95) was significantly more frequently detected in patients with a CD4+ T-lymphocytes count less than 350 cells/µL (0.35 (CI95%: 0.22-0.47) o.d.u.) (U = 8.0, p = 0.02).
CONCLUSION
Based on the analysis of the lethal outcomes incidence from HIV-associated diseases, cumulative survival, data of sFas/ APO-1(CD95) level changes in the serum of HIV-infected patients, depending on the level of CD4+ T-lymphocytes, the CD4+ T-lymphocytes count of at least 350 cells/μL should be considered optimal for initiation of antiretroviral therapy.

ABSTRACT NO 81  INCREASING HIV EPIDEMY IN SLOVAKIA - CHALLENGE TO REACH UNAIDS GOALS „90-90-90“

Danica Staneková, NRC for HIV/AIDS prevention, Slovak Medical University, Bratislava, Slovakia

Slovak Republic belongs to the countries with the lowest HIV prevalence in EU. From 1.1.1985 to 31.12.2016 there were 898 HIV-positive cases /756 Slovaks and 142 foreigners/ registered in Slovakia, 97 Slovaks suffered from AIDS, from them 62 already died. According to the risk behavior/groups most of 756 HIV-positive Slovaks /64,7%/ belong to MSM, 23,6% heterosexuals, 2,1% IVDUs, 0,1% blood recipients and 9,5% are unknown. Prevalence of CCR5 32 delta polymorphism in Slovakia is similar to other countries in EU. From the beginning of 21th century increasing trend of HIV-infection is observed in Slovakia, with the highest incidence in 2016 /87, 1,60/100000 cases/. New cases of HIV infection were found also during targeted surveillance studies provided in different groups with high-risk behavior, e.g. in 1996 5,6% in MSM and r. 2001 0,82% in CSWs. Additionally, EU project SIALON I /2008-2009/ revealed 6,1% HIV cases in MSM, from them 75% of persons were not aware of their infection. Results of EU project SIALON II /2011-2015/ provided in 13 EU countries including SR are still being evaluated. Changes in the epidemiological situation in the SR reflect changes in presence of HIV subtypes and CRFs. While from 2004 to 2008 HIV-1 B was the most widespread subtype, predominantly in MSM (93.0%), in 2009-2012 and 2015-2016 its incidence decreased to 86.1% and 80,3%, respectively. Due to the mobility and migration new non-B subtypes, including circulating CRFs appeared in Slovakia. Similarly, the incidence of HIV resistance to ART in newly diagnosed patients in the Slovak Republic correlates with the results of other EU studies. With an increasing number of patients the number of clinics offering ART is increasing in Slovakia, too. HIV treatment is provided according to EACS recommendations. Early diagnosis of HIV infection, follow-up therapy including testing of prognostic markers / VL, resistance, tropism/ has become a standard part of ART monitoring performed centrally in NRC for HIV/AIDS. In order to meet UNAIDS „90-90-90“, goals in Slovakia there is also a need to increase HIV testing, tighten testing of pregnant women, to improve education of both professional and lay public, support the work of NGOs working in groups with high risk of HIV infection and also to eliminate the brakes of successful HIV / AIDS prevention, especially social exclusion and hidden discrimination of patients.

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ABSTRACT NO 83 (ORAL)  STI TRENDS IN EUROPE

Airi Põder, MD, FRCP, Tartu University Clinics, Estonia

STI trends in Europe in the 21st century differ markedly from those in the 20th century. Also, there are considerable differences between the West and Centre of the Europe, on the one hand, and the East of Europe, on the other. The 21st century in general is characterised by a steep rise in viral STIs as against bacterial STIs. However, while, e.g., HIV prevalence in the West and Centre of Europe is only 0.2%, it is as high as 0.9% in the East of Europe. Transmission modes also differ regionally: while in the West and Centre MSM account for 43.1% and 30.1% of cases, in the East the percentage is only 0.8 (though probably under-reported), with a correspondingly higher percentage for unsafe drug injection. In the West of Europe new methods are being studied and implemented: therapy as prevention (TasP) and pre-exposure prophylaxis (PreP). The latter, unfortunately, has become one of the factors leading to an increase in bacterial STIs, particularly among MSM. Increase in bacterial STIs is accompanied by another new trend: the emergence of and increase in cases of untreatable, drug-resistant bacterial STIs. For viral STIs, vaccination against Hepatitis A and B and HPV has become common, especially in the West and Centre of Europe. The 21st century is seeing a rise in new STI technologies: new tests (e.g., Mycoplasma Genitalium testing), rapid tests, self-sampling, walk-in-services; and a rapid increase in the role of social networks. The future is likely to bring normalisation of sexual health into medicine, looking for and finding asymptomatic STIs, wide use of TasP and PreP, vaccination for viral STIs. Also, the future looks much less medical - self-testing, most patients will see only the nurse.
ABSTRACT NO 84 (ORAL)  CLINICAL MANIFESTATIONS OF CONGENITAL SYPHILIS

Vesta Kucinskienė, Lithuanian University of Health Sciences, Hospital of Lithuanian University of Health Sciences Kauno Klinikos, Kaunas, Lithuania

Over the period of the last 5 years (2012-2016) there were registered 7 cases of early congenital syphilis in Lithuania [http://www.ulac.lt/ataskaitos]. It is an obligatory to register infection when diagnosed by using epidemiological, objective, and the mother’s and the newborn’s serological criteria. Although only laboratory criteria can confirm a case of congenital syphilis, knowing the clinical symptoms of it could help to diagnose and treat this congenital infection in time, especially when the maternal serologic status is unknown. The aim of the presentation is to overview the clinical symptoms of congenital syphilis in publications over the last 10 years. We found that the most common manifestations of the congenital syphilis were the maculopapular and bullous rash on the trunk and extremities with spread to the entire body including palmar and plantar sites, hepatosplenomegaly, periostitis in long bones. Many of the newborns were premature. Ultrasound is the important tool to identify severe cases of congenital syphilis in the antenatal period [Tsimis ME et al., 2017].

ABSTRACT NO 98 (ORAL)  STI MANAGEMENT – EVIDENCE BASED INTERNATIONAL APPROACHES AND INTERNATIONAL COLLABORATIVE PROJECTS

Marius Domeika, Forum Health MD, Sweden

INTRODUCTION

During the last decades, the Eastern European countries have undergone substantial changes, which have had a large impact on the development of health care as well. The aim of the current paper was to present a short review describing the activities, products and implementations at national levels performed by the international collaboration group, namely Eastern European Network of Sexual and Reproductive Health (EE SRH).

RESULTS

We have previously reported the establishment of the multinational EE SRH Network, which includes representatives from 15 participating countries. The main objective of this network has been to facilitate improvements in reproductive health care in Eastern Europe, via the improvement, harmonization and assurance of the quality of diagnostic testing and management of sexually transmitted and other reproductive tract infections (STIs/RTIs). This is initially being achieved by (i) development of evidence-based protocols for the diagnosis of STIs/RTIs and (ii) subsequent formal recognition of these protocols by individual countries; (iii) evaluation of performance characteristics of diagnostic test systems used in these countries; (iv) introduction and formal legal adoption of quality control, e.g. ISO standards in the practice of clinical microbiology; and (iv) introduction of computer-based systems for surveillance of communicable diseases. The aim of the present report is to provide concise information regarding the achievements of the EE SRH Network.

Countries represented in the EE SRH Network have completed a comprehensive inventory regarding national management principles and surveillance of STIs/RTIs. These results were presented during the 23rd International Union against STI (IUSTI)-Europe Conference in Cavtat, Croatia, in October 2007, and during the 24th IUSTI-Europe Conference in Milan, Italy, in September 2008. Azerbaijan, Kazakhstan, Tajikistan and Uzbekistan presented national data regarding STIs/RTIs for the first time at an international forum during those meetings. In collaboration with international experts, efforts have been made to harmonize methods used for the laboratory diagnosis of STIs/RTIs with those of international organizations such as IUSTI, World Health Organization (WHO) and the United States Centers for Disease Control and Prevention. A number of participating countries have adopted consensus EE SRH guidelines on the laboratory diagnosis of gonorrhea, and published nationally adapted versions, namely Armenia, Azerbaijan, Belarus, Estonia, Georgia, Hungary, Lithuania, Russia, Tajikistan and Ukraine; as well as for the diagnosis of syphilis, namely Armenia, Azerbaijan, Belarus, Estonia, Georgia, Russia, Tajikistan and Ukraine. In addition, consensus guidelines for the laboratory diagnosis of infections caused by Chlamydia trachomatis were finalized during the 24th IUSTI-Europe Conference in Milan. Guidelines for the diagnosis of Mycoplasma genitalium, Trichomonas vaginalis and genital herpes virus infections had also been elaborated and presented for national adaptations. Many countries represented in the network depend on commercial test systems for the laboratory diagnosis of STIs produced by local or Russian manufacturers. Appropriate evaluations of these reagents and tests are crucial for further developments of STI diagnostics for these countries, which commonly cannot afford the majority of tests approved by Federal Drug Administration. Demonstration of the performance characteristics of regionally produced tests for the diagnosis of C. trachomatis and Neisseria gonorrhoeae, and Mycoplasma genitalium infections has already been conducted with encouraging results.

In addition to laboratory guidelines, guidelines for STI patient management have been developed within the framework of the EE SRH Network, namely in Lithuania, Bulgaria, Russia and Belarus, respectively. Novel approaches to facilitate screening for STIs in EE countries have also been investigated, e.g. the possibility of using vaginal samples for detection of C. trachomatis, advertising services in local newspapers to publicize screening for these infections and improving screening coverage among military recruits and university students. Significant cost savings...
were demonstrated when sample pooling approaches were introduced for the screening of C. trachomatis infections. Only a minority of the EE SRH Network countries have previously adopted international standards for quality management systems, e.g. ISO 15189. The network is encouraging these standards to be adopted in all the remaining network countries. A standard protocol for accreditation of laboratories has been developed, adopted and published in both Russia and Belarus. In order to standardize and integrate data collection and analysis, an electronic system for communicable disease surveillance has been devised and implemented in Lithuania. Implementation of an identical system is currently in progress in Belarus.

CONCLUSION
In conclusion, Eastern Europe and its health-care systems are experiencing significant change. Modern technologies, sophisticated assays and diagnostic strategies are being introduced. Therefore collaboration with countries with well-functioning health-care structures is crucial. Adoption of internationally acknowledged, evidence-based standards and technologies will allow countries improvement of local medical care standards. Since its formation, the EE SRH Network has been effective in facilitating this process.

ABSTRACT NO 99 (ORAL) HIV, HEPATITIS B AND C IN BELARUS

Vladimir Eremin, Republican Research & Practical Center for Epidemiology & Microbiology, Minsk, Belarus
Gomel Regional Center for Hygiene, Epidemiology & Public Health, Gomel, Belarus

Elena Gasich, Republican Research & Practical Center for Epidemiology & Microbiology, Minsk, Belarus
Gomel Regional Center for Hygiene, Epidemiology & Public Health, Gomel, Belarus

Sviatoslav Sasinovich, Republican Research & Practical Center for Epidemiology & Microbiology, Minsk, Belarus
Gomel Regional Center for Hygiene, Epidemiology & Public Health, Gomel, Belarus

Alina Nemira, Republican Research & Practical Center for Epidemiology & Microbiology, Minsk, Belarus
Gomel Regional Center for Hygiene, Epidemiology & Public Health, Gomel, Belarus

Oleg Suetnov, Republican Research & Practical Center for Epidemiology & Microbiology, Minsk, Belarus
Gomel Regional Center for Hygiene, Epidemiology & Public Health, Gomel, Belarus

INTRODUCTION
Annually in the Republic of Belarus more than 2300 new cases of HIV infection, about 3000 hepatitis C and about 1000 hepatitis B are registered. The dominant subtypes/genotypes are A1 for HIV, D2-hepatitis B and 1b-hepatitis C.

MATERIALS AND METHODS
During the period 2014-2016, 606 serum/plasma samples from HIV-infected patients, 389 from patients with viral hepatitis C and 342 from patients with viral hepatitis B were collected. PCR, RT-PCR, sequencing, Sequencing Analysis, BioEdit, SeqScape, MEGA6, Geneious software.

RESULTS
Of the 606 samples obtained from HIV-infected patients, 573 (94.6%) belonged to the A1 subtype, 18 (3.0%) - B, 3 (0.5%) - G, 1 (0.2%) - C, 7 (1.2%) - CRF03_AB, 6 (1.0%) - CRF02_AG and 1 (1.2%) - URF.

Of the 389 specimens with hepatitis C 158 (40.6%) - 1b, 88 (22.6%) - 3a, 19 (4.9%) - 1a, 9 (2.3%) - 2k, 5 (1.3%) - RF2k/1b and 2k, 1 (0.3%) - 4d.

Of the 342 specimens with hepatitis B 136 (39.8%) - D2, 79 (23.1%) - D3, 51 (14.9%) - D3, 73 (21.3%) - A2, and 1 (0.3%) - C2 and RF_A / D.

Subtypes/genotype A1 of HIV-1, D2-hepatitis B virus and hepatitis C virus 1b dominated in all patient groups, with different transmission routes. At the same time, it should be noted that in IDUs patients, 1a and 3a hepatitis C virus genotypes revealed more often than in other patient groups. Among the MSM patients infected with HIV-1, only the B subtype of the virus was detected. Cluster analysis has shown that the epidemic processes for HIV, hepatitis B and C are mainly supported by the circulation of local variants of viruses. At the same time, periodic virus drifts from abroad are noted.

Conclusion. A molecular genetic characteristic is given and the dominant variants of HIV-1, hepatitis B and C viruses detected on the territory of the Republic of Belarus are determined.
ABSTRACT NO 109 BUILDING A REPOSITORY TO SUPPORT HIV RESEARCH, THE EXPERIENCE OF THE CENTRE FOR AIDS REAGENTS

Yann Le Duff, National Institute for Biological Standards and Control, Division of Virology, United Kingdom

INTRODUCTION

The Centre for AIDS Reagents (CFAR) is a non-profit HIV repository based at the National Institute for Biological Standards and Control (NIBSC) in the UK (www.nibsc.org/cfar). CFAR was established in 1989 to facilitate the exchange of reagents between scientists in order to accelerate the progress of HIV research. The CFAR catalogue is continuously growing and currently contains more than 6000 reagents including monoclonal antibodies, peptides, cell lines, viruses, plasmas/sera, recombinant proteins, plasmids, cytokines and antiretroviral drugs. These reagents are available upon request for a small handling charge and the cost of shipping. In the last 10 years, more than 35,000 reagents have been distributed by CFAR to scientists worldwide.
MATERIALS AND METHODS
Since its inception, CFAR has continuously established new collaborations with scientists and actively participated in HIV consortia, allowing the repository to remain at the forefront of HIV research and acquire new reagents to best meet the needs of the research community. CFAR is therefore a key resource in the fight against HIV, ensuring access to state of the art products for scientists worldwide. The majority of our reagents are obtained through donations by scientists. Reagents are also acquired through participation in EU-funded consortia (e.g. AVIP, NeutNet, EUROPREISE, NGIN, GHRC-CAVID), partnerships with private companies such as Polymun, ImmunoDX, JPT and MedChemExpress and a long-lasting collaboration with the NIH AIDS Reagent Program. The Intellectual Property of the donor is protected by a Material Transfer Agreement which stipulates the terms and conditions for the use of the reagents. To ensure the validity of the materials, CFAR performs various quality control tests, including ELISA, western blot, SDS-PAGE, sequencing and mycoplasma testing. CFAR distributes the reagents for a small handling charge varying from £25 to £100 per vial depending on the type of material. Bespoke requests are also considered based on scientific merit (e.g. production of large volumes of antibodies, viruses or obtaining new material outside of our catalogue).

Since November 2013, CFAR and NIBSC have coordinated the EURIPRED project, a 4-year EU FP7 project designed to integrate and coordinate European research resources towards the development of vaccines, drugs and microbiocides against the poverty related diseases HIV, Tuberculosis, Malaria and HBV, HCV. Through EURIPRED, currently circulating strains of HIV have been collected in Spain, Russia, UK, Kenya, India and China and sample characterisation is ongoing. Research reagents are being derived from these new clinical samples through 4 companies (Polymun, Iosagen, Lionex and JPT) and academic partners. All EURIPRED reagents are distributed by CFAR.

RESULTS
During the past 10 years CFAR has received 5,861 reagent requests and dispatched 35,394 vials to researchers in 39 countries. More recently, during the EURIPRED project, clinical samples including plasma, sera, Peripheral Blood Mononuclear Cells and whole blood cells have been collected from more than 700 patients who are infected or co-infected with HIV. This worldwide collection allows epidemiological studies and access to a high genetic diversity range (including HIV-1 subtype A, B, C, D, F1, G, CRF01_AE, CRF02_AG, CRF07_BC, CRF08_BC, CRF14_BG+, CRF19-cpx, CRF20_BG, CRF26_AU, CRF43_02BG, URFBF1, URF02_AG/A/09/F2, URF02_AG/B). Clinical data has been collected and analysis such as near-full length genome sequencing, prediction of co-receptor usage, identification of drug resistance mutations and genotyping are under finalisation which allows provision of well characterised clinical samples. Research reagents derived from this collection include peptide mixes (HIV, HBV, HCV, M.tb), peptide microarrays (HIV, HBV, HCV, Malaria, M.tb) and molecular clones (HIV envelope, protease, integrase, reverse transcriptase). In addition, various other research reagents such as HIV broadly neutralising monoclonal antibodies, recombinant proteins and primary isolates as well as M.tb antigens and lipoglycans have also been produced by our partners. Under the EURIPRED project, CFAR has distributed so far 407 reagents to 22 institutions.

CONCLUSION
The Centre for AIDS Reagents is an efficient platform for storage, archive and onward dissemination of high quality HIV research reagents. CFAR has a major role in the fight against HIV by facilitating the research through improved access to materials and networks. Under EURIPRED, CFAR is collecting and distributing new relevant research reagents and is expanding its remit to provide the same benefit for research on other pathogens such as Malaria, M.tb, HBV and HCV.

ABSTRACT NO 110 QUALITY ASSESSMENT OF HIV PREVENTIVE ACTIVITIES IN KLAIPĖDA CITY
Brigita Kairienė, National Public Health Centre under the Ministry of Health Klaipeda Department

BACKGROUND AND AIMS
Rates of HIV diagnoses remain high among key populations in Klaipeda. Many factors influence the effectiveness of HIV prevention. Two important factors are: the chosen approaches, interventions and methods must be appropriate to the situation they address, and they must be carried out at a high level of quality. Lithuania, as a partner, had a possibility to participate in the Joint Action on Improving Quality in HIV Prevention. The aim of HIV prevention quality improvement is to ensure that the chosen HIV prevention interventions are planned, implemented, monitored and evaluated as well as possible to maximise their effectiveness.

METHODS
During trainings, there was decided to choose one of the five practical tools (SCHIFF) and evaluate HIV prevention activities in Klaipeda city. Six stakeholders took part in applying SCHIFF tool. The main actions were preparation (translating and adopting) of the tool, selection and description of stakeholders, meeting with stakeholders and presenting them the tool and benefits of using it, completing the questionnaires and preparing the report.

RESULTS
Most of stakeholders mentioned that there is a lack of the newest statistical information about HIV epidemiological situation, data about risk group’s behavior. There is a lack of human and financial resources. There are not so many institutions working in HIV prevention and every of them works in one specific direction. Stakeholders also mentioned that most of the HIV prevention activities are short term and there is a need of activities continuity.

CONCLUSION
There is a need of permanent monitoring and evaluation of HIV prevention activities, continuous review of priorities. The presentation of results to stakeholders and other responsible authorities will help to identify the most important issues in planning and implementing health promotion programs.
ABSTRACT NO 115 (ORAL) CHALLENGES IN TUBERCULOSIS CONTROL IN ESTONIA

Manfred Danilovits, Tartu University Hospital, Lung Clinic

BACKGROUND
Estonia represents a model in terms of epidemiological progress in TB control in the context of high MDR-TB prevalence. During last fifteen years overall TB incidence has been decreasing continuously and by 2016, country reached to the notification rate 15.0/100,000. This epidemiological achievement was supported by a centralized programmatic environment and with strong political and financial commitment to TB control.

CURRENT SITUATION
The prevalence of MDR TB among new TB cases was 18.3% in 2010 and 12.8% in 2016. Between 2003 and 2009, the number of new X/MDR-TB cases remained stable at about 50 cases annually. Since then, there was continuous decrease and by 2016 it dropped to 17 cases. In same time the country’s TB incidence rate has declined from 47 cases per 100 000 in 2000 to 12.6 cases per 100 000 in 2016. The absolute numbers of all notified cases in 2016 was 192. The corresponding number for 2000 was 800. Since 2000, Estonia has been experiencing one of the most severe HIV epidemics in Europe and HIV/AIDS is still one of major health problem. Co-infection of HIV/TB has increased to 15% in 2006, being a real epidemiological threat to the country. During last years numbers of TB/HIV cases remain stable at 20-23 patients annually (12%). However, Estonia has one of the highest HIV-testing coverage of TB patients in the EU, which gives a reliable overview of the level TB/HIV co-infection in the country. Country has good examples of multidisciplinary approaches in the TB and TB/HIV case management as well services oriented to the clients with alcohol abuse. Over more than ten years the TB control activities are increasingly integrated to whole health system as well have linkages to social support and other medical and nonmedical specialities.

In addition, there are already successful start-ups of combined therapy programmes for TB, HIV and opioid substitution treatment.

To improve treatment of X/MDR- TB patients, the new drugs Bedaquiline and Delamanid have been made available in Estonia since 2013. The government approved funding for the procurement of these drugs from 2015 for the treatment of 35 patients. From 2006, all patients have access to rapid molecular tests.

CHALLENGES
1. Estonia is at a turning point in term of TB control as it now appears to be the low incidence country. This however implies a number of strategic and epidemiological issues: Strategic: there is a need to ensure that political and financial commitment is maintained despite the declining incidence. In particular the challenge of recognising that cost-effectiveness rationale might become difficult to apply in a low incidence setting. Epidemiological: despite the overall decline of TB, Estonia remains one of the challenging X/MDR-TB countries in the EU. Furthermore sustained transmission of TB among certain vulnerable populations (i.e. alcohol abusers and IDUs as well as TB-HIV co-infected patients) may hamper progress towards elimination.

2. Introduction of short X/MDR-TB treatment regimens based on new drugs will be one of the key issues in treatment of drug-resistant TB

3. Early detection of TB diagnosis among vulnerable groups including among migrants. Together with countrywide training for doctors and providing information to vulnerable groups, these activities will improve the early detection on both TB disease and HIV infection and increase the awareness among people living with HIV and IDUs.

4. Estonia has expert capacity to deliver technical assistance to countries aimed at improving their communications on TB, MDR-TB and XDR-TB.

ABSTRACT NO 119 NEW STANDARDS OF HIV TREATMENT BY ART OPTIMIZATION BASED ON THE PUBLIC HEALTHCARE PRINCIPLES IN UKRAINE

Natalia Nizova, Public Health Center of the MoH of Ukraine, Kyiv
Larysa Hetman, Public Health Center of the MoH of Ukraine, Kyiv
Tetiana Starychenko, Public Health Center of the MoH of Ukraine, Kyiv
Liudmyla Nychyporenko, Public Health Center of the MoH of Ukraine, Kyiv
Olena Bidovanets, Public Health Center of the MoH of Ukraine, Kyiv

BACKGROUND
297 422 cases of HIV were officially registered in Ukraine over the period 1987 -2016. 1300 patients were provided with ART in 2004. HIV treatment and care services extension has led to sudden access extension to ART. At the end of 2016 the total number of adults and children receiving ART have been approximately 75 000. ART coverage no less than 90% of indigents crucially affects the HIV infection rate, mortality rate of AIDS related diseases, and directly affects the decrease of HIV transmission. 196 000 patients have to get ART by 2020 in Ukraine due to National targets recommended to confirmation. It is important to arrange active detection of undiagnosed HIV infection, intensive HIV extension and effective treatment due to “Fast Track” strategy to end the epidemic by 2030 and to afford
healthy life and well-being. I affords the opportunity for HIV-positive people to live a full-fledged life, to stop HIV/AIDS epidemic, to prevent new cases of HIV and to decrease the mortality rate of AIDS related diseases.

PURPOSE
To prove the strategy of ART optimization treatment, the extension of HIV-positive patients treatment due to the new approaches and standards.

Materials and methods:
We have analyzed by the desk study method 1) the documents of international politics in the healthcare and public health service 2) the last updates of the documents of the state politics in the Healthcare service of Ukraine, 3) international strategies and approaches to overcome HIV epidemic, 4) WHO strategies on public health approaches to overcome HIV epidemic.

RESULTS
Over the last 10 years ART has expanded by more than 20 times, over the last 4 years it extended to 60%.

Distribution of patients by funding sources: State Budget 61.86%, Global Fund 33.74%, President’s Emergency Plan for AIDS Relief (PEPFAR) 4.4%. State funding of ART increased from 254 mln. UAH to 684 mln UAH over 2017. From 2014 onwards decentralization has continued. The number of ART sites has grown by 1.5 times to provide HIV-positive patients with treatment. Virologic failure of ART does not exceed 10%, the percentage of PLWH who continue ART beyond 12 months post treatment initiation is 85%-87%. There are 93.6% of patients receiving the first-line regimen, 6.0% - the second-line, 0.4% - the third-line.

CONCLUSIONS:
Consequently the national standards updates due to the best global practices in HIV facilitates effective planning needs ARV agents to ensure sustainable response to the HIV epidemic in Ukraine, approach (“treat all”) using effective and safe ART. The optimization is based on the effective and preferred public health principle in comparison with an individual approach to prevention, treatment and support people with chronic diseases. The principle of respecting the balance of treatment regimens makes it possible to reduce dependence on donor funding in the face of limited resources in Ukraine and to ensure the achievement of the Fast track goals and the UNAIDS strategy.

ABSTRACT NO 120 (ORAL) THE PUBLIC HEALTH DIMENSION IN A SUSTAINABLE DRUG POLICY – PURPOSE AND MEASURE

Inga Juozapavičienė, Director of the Drug, Tobacco and Alcohol Control Department, Vilnius, Lithuania

Drug use – primarily a public health issue. There is a need to develop effective drug policy oriented towards human rights and public health and based on scientific evidence and best practice.

While addressing common challenges related to drug use, last year during the UN General Assembly Special Session on World Drug Problem, countries unanimously agreed an outcome document „Our joint commitment to effectively addressing and countering the world drug problem“. World countries have agreed on over 100 recommendations and guidelines for responding to drug use issues, while highlighting public health as a way and a tool to counter World Drug problems.

The new EU Action Plan on Drugs 2017-2020 has been recently adopted and contains five-pillar system (reduction of drug demand and supply, coordination, international cooperation and research, information, monitoring and evaluation) to address drug problems in comprehensive manner.

The international community obliges countries to use an opportunity for all of us to develop and implement science- and evidence-based drug policies, promoting evidence-based prevention, public health interventions, including treatment, risk and harm reduction measures, recovery, rehabilitation and reintegration, proportionate sentencing, as well as strengthening operational cooperation against organized crime etc.

The presentation will discuss the need of actions and directions for balanced drug policies, the role of the public health dimension, the application of evidence-based measures and the importance of ensuring human rights.
PURPOSE AND OBJECTIVES OF THE PROGRAMME

Globally, new HIV infections are on decline, yet the WHO European Region registers the growth, which mostly falls on countries of eastern Europe and central Asia. According to many epidemiologists, the HIV epidemic in Russia has acquired distinct features of the generalized process. Low testing coverage, late diagnosis, HIV-associated risky behaviors, and inadequate access to effective treatment and care, especially for key populations, are some of the causes for the increasing spread of the disease in the population. Russia’s government has developed and adopted a national HIV strategy to escalate response towards the epidemic situation.

The Programme is built in line with the Russian national HIV policies and aims to support its implementation.

Objective 1: To enhance the role of PHC in prevention, diagnosis and counseling for HIV and associated infections

Objective 2: To scale up innovation-based HIV prevention among young people and promote their volunteerism

As political cooperation, networking, mutually beneficial expertise exchange and capacity building is important for both the Nordic Countries and Northwest Russia, the Programme will emphasize such activities as trainings and workshops, conferences and seminars, study tours, testing and documentation of best practices. Establishing cooperation and synergies with other networks, programmes and projects operating in the geographic area of the Programme is welcomed.

The Programme’s expected results are to enhance the role of primary healthcare providers, community-led organisations and educational institutions in HIV response, to increase the HIV testing coverage and to contribute to improved lifestyles in the population, particularly young people.

GEOGRAPHIC AREA

The NCM’s cooperation with Northwest Russia focuses on the seven regions closest to the Nordic and Baltic countries: City of St Petersburg, Arkhangelsk Oblast, Kaliningrad Oblast, Leningrad Oblast, Murmansk Oblast, Pskov Oblast, and Republic of Karelia.

The Nordic countries are: Denmark, Finland, Iceland, Norway and Sweden, including the three self-governing areas: Faroe Islands, Greenland and Aland Islands. The National Institute for Health and Welfare (THL), Finland, is in charge of the administrator tasks.

The Programme is financially supported by the NCM. The total value of the 2-year Programme is 6 million Danish crowns, and the Russian partners should co-finance minimum 30% of the Programme expenses. Co-financing might be provided as in-kind financing such as working hours, venues, per diems, transportation, etc.

Further info is available from Mr. Dmitry Titkov, Programme Manager, at dmitry.titkov@thl.fi
Khoren Epremian, Centro Nacional de Microbiología, Instituto de Salud Carlos III, Spain
Andrei Siniavin, Centro Nacional de Microbiología, Instituto de Salud Carlos III, Spain
Yuri Zhernov, Centro Nacional de Microbiología, Instituto de Salud Carlos III, Spain
María Teresa Cuevas, Centro Nacional de Microbiología, Instituto de Salud Carlos III, Spain
Mónica Sánchez, Centro Nacional de Microbiología, Instituto de Salud Carlos III, Spain
Miguel Thomson, Centro Nacional de Microbiología, Instituto de Salud Carlos III, Spain

ABSTRACT NO 122 (ORAL) HIV-1 MOLECULAR EPIDEMIOLOGY IN MOSCOW

BACKGROUND AND AIMS
Russia is one of the non-African countries with the greatest number of people living with HIV, with around one million infected people and a rapidly increasing trend in recent years. HIV-1 is characterized by its great genetic diversity, with nine recognized subtypes and numerous recombinant forms. The HIV-1 epidemic in Russia and other former Soviet Union (FSU) countries is dominated by a subtype A strain, designated AFSU, or A6 subtype according to some authors, which began spreading in 1994 in the Ukrainian city of Odessa among injecting drug users (IDU) and has propagated to all FSU countries, initially among IDUs, but subsequently also via heterosexual contact. Another HIV-1 strain, of subtype B, designated IDU-B, also began to spread among IDUs around the same time as AFSU in the Ukrainian city of Nikolaev, but has had a much more limited spread. More recently, recombinant forms CRF02_AG and CRF63_02A1 have spread in Central Asia and Siberia. Although in Russia AFSU is prevalent among IDUs and heterosexually-infected individuals, the predominant clade among men who have sex with men (MSM) is subtype B. Here we aim at analyzing HIV-1 variants found among recently HIV-1-diagnosed individuals in Moscow.

MATERIALS AND METHODS
For this study, 66 plasma samples from HIV-1-infected individuals attended in Moscow and diagnosed in 2010-2016 (62 of them in 2015 or 2016) were used. All samples were collected in 2015 or 2016. Transmission routes were heterosexual in 29 (46.8%), MSM in 27 (40.9%), IDU in 9 (13.6%) and not available in 1. An HIV-1 protease-reverse transcriptase (PR-RT) segment was RT-PCR-amplified from RNA extracted from plasma and sequenced. In selected samples, the near full-length viral genome was amplified in four overlapping fragments and sequenced. Phylogenetic analyses were performed via maximum likelihood with RAxML. Similar sequences were searched in the Los Alamos HIV Sequence Database using the BLAST algorithm, with subsequent phylogenetic analyses. Recombination was analyzed by bootscanning using Simplot. The geographic and temporal origin of a newly identified subtype G cluster was estimated using a Bayesian method implemented in BEAST.

RESULTS
In PR-RT, subtype distribution was as follows: AFSU, 41 (66.1%); B, 15 (24.2%); G, 4 (6.5%); A1B, 4 (6.5%), CRF01_AE, 1 (1.5%); CRF02_AG/A1, 1 (1.5%). Among heterosexuals and IDUs, AFSU was largely predominant (79.3% and 77.8%, respectively), and among MSM subtype B was the most prevalent genetic form (48.1%), followed by AFSU (33.3%). Seven subtype B viruses were of the IDU-B variant (4 in MSM, 2 in heterosexuals, and 1 in IDUs). Four subtype B viruses from MSM and one AFSU virus from an IDU branched within clusters comprising viruses from Central or Western Europe. The four subtype G viruses, 2 found in heterosexuals and 2 in MSM, together with one from databases collected in Russia, grouped in a monophyletic cluster closely related to a cluster from Denmark, and belonged to the subtype G variant circulating in Spain and Portugal. The time of the most recent common ancestor of the Russian subtype G cluster was estimated around 1996 and its most probable ancestry was in Denmark. Near full-length genome sequences (>8 kb) were obtained for 20 viruses, 9 of AFSU, 9 of subtype B, and 2 A1B recombinants (one of which was of subtype B in PR-RT).

CONCLUSION
A_{FSU} was predominant among recent HIV-1 diagnoses in Moscow, although a third of the infections were with other genetic forms, most notably subtype B. Among MSM, as expected, subtype B was more prevalent than other genetic forms, with 4 viruses belonging to the IDU-B variant, but more than half infections were with non-subtype B variants, mainly AFSU, which represented a third of HIV-1 infections in this group. Another notable finding was that 9 viruses, 6 of them from MSM, were in clusters comprising viruses from Central or Western Europe, including 4 subtype G viruses of the Spanish-Portuguese variant grouping in a Russian cluster, which probably originated in Denmark. These results point to the relationship of the HIV-1 epidemic among MSM in Moscow to the epidemic among IDUs and heterosexuals in FSU and to epidemics in Central and Western Europe.
ABSTRACT BOOK 2017

ABSTRACT NO 123 (ORAL) CHALLENGES OF TB CONTROL IN EASTERN EUROPE
Timo Ulrichs, Akkon University for Human Sciences and Koch-Mechnikov-Forum

In May 2017, the G20 health ministers met in Berlin to discuss joint actions to fight multidrug resistant pathogens. In parallel, the executive board of the Stop TB Partnership also convened in Berlin to underline the necessity to also involve tuberculosis in the activities of fighting antimicrobial resistances. In July 2017, the presidents and prime ministers of the G20 states adopted the joint declaration stating the willingness to fight AMR, especially in multidrug resistant (MDR-)tuberculosis. This was a great success in advocacy of TB research and control and points at the same time to the situation of global TB containment and its current challenges and problems. No other WHO world region is more affected by MDR-TB than the WHO European Region. The percentage of MDR-TB among all new notified cases is constantly growing, especially in Eastern Europe and the successor states of the former Soviet Union. Furthermore, the number of resistances per clinical isolate is also growing, and more and more strains turn out to be extensively multidrug-resistant (XDR). In 2014, two new anti-TB drugs were introduced into TB drug therapy, delamanid (Otsuka) and bedaquiline (Janssen). Their implementation into current drug regimes needs to be organized with great caution to avoid first resistances against these two new drugs. Thus, the Koch-Mechnikov-Forum developed a TB Academy to combine both microbiological/immunological and public health/political expertise to accompany such drug therapy implementations.

In addition, besides the development of new drugs, more efforts in developing and applying reasonable public health interventions in preventing, monitoring and fighting TB in the high-burden countries of the WHO-European Region are urgently needed. For this, the WHO European Office in Copenhagen together with various non-governmental organizations combined their forces in the regional collaborating committee on tuberculosis (RCC-TB) is working on different concepts and strategies for our region. The G20 momentum should be used to stress the need for more political commitment in the fight against TB – and for a region-wide joint effort to contain the disease, despite any political turbulences.

ABSTRACT NO 129 (ORAL) HIV/TB-COINFECTIONS IN RUSSIA
Eduard Karamov, Gamaleya National Research Center for Epidemiology and Microbiology, Moscow, Russian Federation

In spite of the recent trend towards a decrease in TB prevalence (53.18 cases per 100000 people in 2016, as opposed to 84.45 cases per 100000 people in 2008), TB, as well as HIV, remains a socially significant disease in the Russian Federation. With HIV, however, the epidemiological situation keeps worsening, and the total number of HIV-infected individuals as of September 2017 has exceeded 1.2 million. The epidemic is no longer confined to vulnerable groups and spreads within the general population. In recent years, the number of new HIV cases recorded annually has exceeded 100000; about 30% of them are represented by an HIV/TB-coinfection. The report focuses on new data derived from molecular-epidemiological studies of HIV infection in Russia. It is argued that new treatment regimens for HIV/TB-coinfection need to be sought. Of particular interest in this regard would be identification of drugs suppressing both M. tuberculosis propagation and HIV replication. There is evidence to believe that the use of such drugs may decrease the risk of IRIS development.

ABSTRACT NO 131 (ORAL) TB CONTROL IN THE RUSSIAN FEDERATION: MODERN TECHNOLOGIES IN DIAGNOSIS AND TREATMENT OF TUBERCULOSIS
A. Starshinova, Saint-Petersburg Scientific Research Institute of Phthisiopulmonology, St. Petersburg State University.
P. Yablonskiy, Saint-Petersburg Scientific Research Institute of Phthisiopulmonology, St. Petersburg State University.

INTRODUCTION
Nowadays diagnosis and treatment of tuberculosis represent priority direction in strategy of struggle with tuberculosis. In line with WHO recommendations (2015) tuberculosis should be defeated to 2035. TB is one of the most dangerous infections being caused by TB mycobacteria. It is still one of the most common diseases in the world despite long term studies and world community programs (like DOTS program, “Stop TB” partnership, etc.) directed on its eradication. According to latest WHO’s estimation, spread of XDR and MDR TB is significant. Its rate is 9% among treatment naive patients with tuberculosis and 20% in previously treated patients. Among all MDR TB cases worldwide around 60% are registered in India, China, Russia, and South Africa.
OBJECTIVE
To determine modern technologies in diagnosis and treatment of tuberculosis.

Nowadays in Russia performs treatment of children and adults with tuberculosis of different localizations, differentiated diagnosis of tuberculosis and other diseases, including oncology, granulomatous, and infectious processes, as well as scientific research of etiologic agents, development of new drugs and vaccines for treatment. Main diagnostic methods are radiologic (CT, MRI, scintigraphy, ultrasound) and methods of etiologic verification (bacteriologic, molecular-genetic, and morphologic). Available collection contains more than 5,000 strains of Mycobacterium tuberculosis from patients in 57 different regions of Russia. Whole genome sequencing was performed on clinical isolates of Mycobacterium tuberculosis from 31 regions of Russia. Currently clinical facilities are based on 4 hospitals with potential to hospitalize around 900 patients. Treatment of drug resistant TB is an actual problem for modern phthisiatriy and healthcare as a whole, while phthisiatricians haven’t received any new anti-TB drugs within a long period of time. Only drugs from “reserved” line are an option for treatment of TB caused by drug resistant mycobacteria.

With the goal of increasing treatment efficacy considering drug resistance of mycobacterium investigation of new anti-tuberculosis drugs (Thioureidoinominomethylpyridinii perchlorate (Tpp), Bedaquiline and other) and different ways of drugs’ delivery is ongoing. Also for treatment of tuberculosis different treatment surgery technologies are used: blockade of bronchus, video-thoracoscopy, collapse therapy, robot-assisted interventions by “da Vinci” device. Within differentiated diagnosis of lung diseases are in use: methods of transbronchial lung biopsy (including ultrasound control modification), confocal endomicroscopy, different types of punctures, laparoscopy, hysteroscopy, aspiration biopsy.

CONCLUSION
Currently improving diagnostic, developing and implements innovative technologies in treatment and diagnosis of tuberculosis with different localizations, and other diseases help to reduce the spread of tuberculosis in Russia.

ABSTRACT NO 133  PREVALENCE AND DISTRIBUTION OF GARDNERELLA VAGINALIS SUBGROUPS IN WOMEN WITH AND WITHOUT BACTERIAL VAGINOSIS

Migle Janulaitiene, Institute of Biotechnology, Vilnius University, Sauletekio al. 7, 1025, National Public Health Surveillance Laboratory, Zolyno g. 36, 10210 Vilnius, Lithuania.

Virginija PaliulYTE, Clinic of Obstetrics & Gynaecology, Faculty of Medicine, Vilnius University, Ciurlionio g. 21/27, 03101, Centre of Obstetrics & Gynaecology, Vilnius University Hospital Santaros Klinikos, Santariskiu g. 2, 08661, Antiaging Clinic, Sakalu g. 22, 08108 Vilnius, Lithuania.

Svitrigale GrinceviCiene, Institute of Biotechnology, Vilnius University, Sauletekio al. 7, 10257, Ona Gurevieciene Family Clinic, Gedimino g. 17, 68307 Marijampole, Lithuania.

Jolita Zakareviciene, Clinic of Obstetrics & Gynaecology, Faculty of Medicine, Vilnius University, Ciurlionio g. 21/27, 03101, Centre of Obstetrics & Gynaecology, Vilnius University Hospital Santaros Klinikos, Santariskiu g. 2, 08661, Antiaging Clinic, Sakalu g. 22, 08108 Vilnius, Lithuania.

Alma VladisauskieniE, Centre of Obstetrics & Gynaecology, Vilnius University Hospital Santaros Klinikos, Santariskiu g. 2, 08661, Antiaging Clinic, Sakalu g. 22, 08108 Vilnius, Lithuania.

AgNe Marcinkute, Antiaging Clinic, Sakalu g. 22, 08108, Department of Gynaecology, Vilnius City Clinical Hospital, Antakalnio g. 57, 10207 Vilnius, Lithuania.

Milda Pleckaityte, Institute of Biotechnology, Vilnius University, Sauletekio al. 7, 10257, National Public Health Surveillance Laboratory, Zolyno g. 36, 10210 Vilnius, Lithuania.

Bacterial vaginosis (BV) is one of the leading causes of vaginal complaints among women of childbearing age. The role of Gardnerella vaginalis remains controversial due to its presence in healthy and BV type vaginal microflora. The phenotypic and genotypic heterogeneity of G. vaginalis suggested the existence of strain variants linked with different health conditions. We sought to analyze prevalence and distribution of G. vaginalis subgroups (clades) in BV-positive (n = 29), partial BV (n = 27), and BV-negative (n = 53) vaginal samples from Lithuanian women.

Vaginal samples were characterized by Amsel criteria and the Nugent method. Bacterial signatures characteristic of BV and concomitant infections were identified by culture and PCR. Using singleplex PCR assays, G. vaginalis subgroups were identified in 109 uncultured vaginal specimens by targeting clade-specific genes. Isolated G. vaginalis strains were subtyped and the presence of the sialidase coding gene was detected by PCR. G. vaginalis was found in 87% of women without BV.

Clade 4 was most frequently detected (79.4%), followed by clade 1 (63.7%), clade 2 (42.2%), and clade 3 (15.7%). Multi-clade G. vaginalis communities showed a positive association with Nugent score (NS) ≤ 4 (OR 3.64; 95% CI 1.48–8.91; p = 0.005). Clade 1 and clade 2 were statistically significantly more common in samples with NS 7–10 (OR 4.69; 95% CI 1.38–15.88; p = 0.01 and OR 6.26; 95% CI 1.48–8.91; p = 0.005). Clade 1 and clade 2 showed no association with high NS (OR 0.88; 95% CI 0.26–3.04; p = 1.00 and OR 1.31; 95% CI 0.39–4.41; p = 0.767, respectively). The gene coding for sialidase was detected in all isolates of clade 1 and clade 2, but not in clade 4 isolates. We showed an association between the microbial state of vaginal microflora and specific subgroups of G. vaginalis, the distribution of which may determine the clinical manifestation of BV. The frequent detection of clade 4 in the BV-negative samples might be due its lack of the gene coding for sialidase.
TUBERCULOSIS EPIDEMIOLOGICAL SITUATION IN LITHUANIA 2016

Saulius Caplinskas, Centre for Communicable Diseases and AIDS, Mykolas Romeris University Educology and Social Work Institute
Galina Zagrebneviene, Centre for Communicable Diseases and AIDS
Joana Korablioviene, Centre for Communicable Diseases and AIDS, State Research Institute Centre for Innovative Medicine

INTRODUCTION
According to the European Centre for Disease Prevention and Control, the epidemiological situation of tuberculosis (TB) in Lithuania still serious in terms of TB prevalence and incidence. Lithuania remains the leading country in Europe. In 2015, the TB prevalence rate in Lithuania, compared to other EU countries, was one of the highest (51.6 cases per 100 000 population), exceeded only by Romania (76.5 cases per 100 000 population) whereas the average EU rate was 11.7 cases per 100 000 population.

OBJECTIVE
The aim of this study was to review the tuberculosis epidemiological situation in Lithuania.

METHODS
Data analysis was performed using descriptive epidemiological study design. The data was obtained from the Vilnius University Hospital Santaros Clinics, Lithuanian Tuberculosis Register.

RESULTS
In Lithuania the number of TB cases in all registration categories from 1998 to 2016 decreased by nearly 54 %. In 2016, the prevalence of TB in Lithuania was 49.9 cases per 100 000 population. 1036 new cases of pulmonary TB (or 35.9 cases per 100 000 population) were reported. The incidence rate of children TB increased by 15% compared to the previous year. In 2015, 69 TB cases were registered in children (13.3 cases per 100 000 children) in 2015 – 56 cases (11.6 cases per 100 000 children). The number of multidrug resistant TB cases decreased during the period 2008 - 2016 by almost 11.5% (from 276 cases to 244 cases), but the ratio for previously treated TB patients who were diagnosed with multidrug-resistant (MDR) TB remains about 51.6% of all MDR TB cases diagnosed in 2016. In 2016, 165 TB related deaths were reported in Lithuania which is by almost 10 % more than in the 2015.

CONCLUSIONS
1. From 1998 to 2016 the number of TB cases in all registration categories decreased by nearly 54 %.
2. In 2016 the incidence rate of children TB increased by 15% compared to the 2015.
3. The ratio for previously treated TB patients who were diagnosed with MDR TB remains about 51.6% of all MDR TB cases diagnosed in 2016.
4. In 2016 the TB related deaths increased by 10% compared to the 2015.

VACCINES AGAINST HUMAN PAPILLOMA VIRUSES, AN OVERVIEW

Isaguliants M., Riga Stradins University, Riga, Latvia; Karolinska Institutet, Stockholm, Sweden and Gamaleya Research Center for Epidemiology and Microbiology, Moscow, Russia.

There are over 170 genotypes of HPV, about 20 involved in cancers of the vulva, vagina, anus, penis, and oropharynx. HPV genotypes HPV16 and HPV18 are responsible for more than 400,000 yearly cases of cancer worldwide. HPV16, the most prevalent among both healthy women and cervical cancer cases, was detected in more than 50% of cervical cancer cases. Other high-risk types commonly found worldwide are 31, 33, 35, 45, 52, and 58. Prevalence of a particular HPV genotype and its association with cervical cancer varies greatly with geography. HPV16 has been detected in >70% cases in Europe and South America, in >50% in the United States, up to 40% in Japan. HPV 18 has a global frequency of about 8%. HPV 52 and 58 are more prevalent in Asia, and HPV33, in Europe. More than 90 percent and 80 percent, respectively, of sexually active men and women will be infected with at least one type of HPV at some point in their lives, one-half of the infections would occur with a high-risk HPV type (Chesson HW et al, 2014). Two vaccines, Cervarix® and Gardasil®, are approved by FDA to prevent several HPV-associated diseases. Cervarix® prevents infections by HPV16, HPV18; Gardasil® also infections with HPV6 and HPV11. The newer version Gardasil® protects against 9 HPV genotypes. These vaccines demonstrated 98% efficacy in protecting females against the specified HPV types, eliminating the risk of grade 2 of 3 cervical intraepithelial neoplasia, adenocarcinoma in situ, and other HPV-type specific complications. Australia became the first nation to HPV-vaccinate the male population. Relative reduction in the incidence of genital warts was predicted to reach 70% in the female, and 65% in the male population in six, and 90% in both populations in 20 years. Controversies exist on whether vaccination of males would improve overall cancer prevention, or it could be increased by better coverage of women through herd immunity. Prophylactic HPV vaccines have no therapeutic potential, and can neither eliminate HPV, nor prevent cancer development. HPV-related cancers may be preventable only if epithelial lesions are treated and removed prior to progression. Therapeutic HPV vaccination is a promising new approach. Past attempts to treat HPV-lesions and HPV-associated cancer with therapeutic HPV vaccines have been only partially successful, however, recent improvements have been reported. Cancer mortality rates in Russia greatly exceed those in Europe and USA, a quarter of patients with HPV-related cancer would die within a year of their diagnosis (Goss PE et al, 2014). High incidence of cervical cancer in Russia points at the necessity of local and national screening programs, introduction of state programs of HPV vaccination, and development of immunotherapeutic options for treatment of patients with HPV-related cancer.
BACKGROUND
The continuum of HIV care is a conceptual framework that enables countries to monitor the effectiveness of key areas of HIV response. The sequential nature of the stages in the continuum can clearly indicate where countries need to focus their efforts and which activities require improvement. The continuum of care is also a useful framework for assessing progress against the UNAIDS Fast-Track targets 90-90-90 for 2020: 90% of all PLHIV know their status; 90% of those diagnosed are receiving ART; and 90% of those on ART are virally suppressed. When these targets have been achieved, at least 73% of all PLHIV in a given population will be virally suppressed.

METHODS
ECDC experts recommended monitoring a four-stage continuum that is directly relevant in European region: Stage 1 - the estimated number of all PLHIV; Stage 2 - the number of all PLHIV who have been diagnosed; Stage 3 - the number of PLHIV who have been diagnosed and who are on ART; Stage 4 - the number of PLHIV on ART who are virally suppressed. Retrospective analysis of data from national HIV/AIDS data base maintained by the Centre for Communicable diseases and AIDS and the data from the National Health Insurance Fund under MoH. Estimated number of PLHIV is based on an empirical modelling approach using ECDC HIV Modelling Tool. Data about viral loads suppression were available from 5 ART facilities (coverage of 80 % of all treated patients). Data from prison treatment facilities were not available.

RESULTS
For the first cascade stage in 2016, the ECDC HIV Modelling Tool was applied to estimate the number of PLHIV in Lithuania: 3100 (up to 01/01/2016). The number of all diagnosed PLHIV was calculated by using the National HIV/AIDS surveillance data base: 2535. Number of PLHIV who have been diagnosed and who are on ART was 647 and the number of PLHIV who were on ART and who were virally (≤1000 copies/mL) suppressed was 530 (up to 01/01/2016). Percentage of all PLHIV who know their status in Lithuania amounted to 81.7% (average regional percentage in Europe and Central Asia reached 75%); Proportion of people diagnosed with HIV receiving ART in Lithuania was 29.8% (average regional in Europe and Central Asia 77%); Percentage of people on treatment with viral suppression in Lithuania was 81.9% (average regional in Europe and Central Asia 88%).

CONCLUSIONS
The high proportion of people who have been diagnosed but who are not on treatment reflect health system resource challenges and social and cultural factors. The percentage patients with diagnosed HIV who were on ART in Lithuania was one of the lowest in Europe. There are several reasons: national treatment guidelines have not been updated and ART initiation based on CD4 counts (≤350); limited availability of treatment facilities; co-existing conditions including substance use; inadequate referral mechanisms; concerns about confidentiality; lack of integration with other health and social support services. Priority areas for action: 1. Reduce missed opportunities for HIV diagnosis in health services, particularly in primary care and other clinical settings, including through routine or opt-out testing where appropriate and implementation of indicator condition guided testing. 2. Eliminate treatment protocols based on CD4 counts and adopt ‘test and treat’ policies in line with the last EACS and WHO guidelines and to reduce the length of time from infection to linkage to care. 3. Reduce barriers to accessing treatment, including insufficient treatment facilities, weak referral mechanisms or links to other health and support services. 4. Increase attention to the quality of HIV treatment and care and issues that influence patient achievement of viral suppression, including retention and adherence. Action is needed to improve the availability of continuum data, to use the continuum of HIV care to monitor progress and to identify areas for improvement, and to take country-specific measures to strengthen HIV response, in order to accelerate progress towards the UNAIDS Fast-Track targets.
The First Epidemiological Transition occurred 100 centuries ago when man moved towards the agricultural society. By eschewing the nomadic lifestyle, people stayed in one place and increased their contact with human (and animal) waste, and contaminated their water supplies. And even the cultivation of soil, and the clearing of land, exposed people to insect bites, bacteria, and parasites. As cities grew, and exploration of the surrounding world increased, man spread deadly diseases in ever-greater numbers. Epidemic, famines and wars caused huge numbers of deaths. Infectious diseases were dominant, causing high mortality rates, especially among children. The domestication of animals brought other disease vectors in close contact with humans. Fever, anthrax, tuberculosis gained access to human hosts. While increasing food security and nutrition, this transition also introduced several significant disease factors. Smallpox, cholera plague, influenza and typhus all became major scourges for humanity. In this stage, women of childbearing age also faced considerable risks due to the complications associated with pregnancy and childbirth on a background of high birth and mortality rates. Some developing countries are still in this stage.

The Second Epidemiological Transition began roughly 200 years ago, with the industrial revolution. While many of the existing diseases brought forth during the first transition certainly did not go away, new - chronic, non-infectious, degenerative diseases – were added to the mix. This phase involved a reduction in the prevalence of infectious diseases, and a fall in mortality rates. Increased economic growth led to a sharp fall in deaths from infectious diseases, and from malnutrition. This improvement was due to advances in medicine and sanitation which enabled the control and elimination of group of infectious diseases such as diphtheria, polio and smallpox. With technology in this second transition we have seen rises in allergies, asthma, autoimmune disorders, and sexually transmitted diseases as well.

Third Epidemiological Transition began in the late 20th century. In the 1970s many experts thought that the fight against infectious diseases was over. Indeed, complacency about the threat of communicable diseases in the 1970s led to less priority for communicable disease surveillance systems. During the last two decades, this opinion has been reversed, and there is now a renewed appreciation of the importance of communicable disease.

The phenomenon of emerging infectious diseases indicates a third epidemiologic transition characterized by three major trends. First, an unprecedented number of new diseases have been detected over the last 25 years that are becoming significant contributors to adult mortality. Second, there is an increased incidence and prevalence of preexisting infectious diseases that were previously thought to have been under better control. Third, many of these reemerging pathogens are generating antimicrobial-resistant strains at a faster rate than safe new drugs can be developed. Increasingly, health patterns depend on social and cultural behaviours, such as patterns of food consumption and drinking behaviours. In this stage, the emergence of new infectious disease or the re-emergence of ‘old’ ones has a significant impact on health. The overuse of antibiotics and insecticides, combined with inadequate or deteriorating public health infrastructures hampers or delays responses to increasing diseases threats.

As a result, infectious diseases could increase drastically, and life expectancy could fall. Emerging and re-emerging diseases such as the “big three” (HIV/AIDS, malaria and tuberculosis) are accompanied by new problems such as bioterrorism threats, increase of hospital-acquired infections and pandemic outbreaks. The fact that HIV spread primarily among highly marginalized, stigmatized or discriminated-against subpopulations, often perceived as “guilty” of illegal, immoral or unnatural behaviour, caused a false impression that the population at large had no particular cause for concern. Many of infectious diseases have become marginalized and stigmatized as a result of a disease outbreak may cause people to deny early clinical symptoms and may contribute to their failure to seek timely medical care. AIDS pandemic has changed many things in medicine, attitudes towards work with marginalized groups, anonymity or confidentiality in medicine. In the history of public health, HIV/AIDS is unique; it has widespread and long-lasting demographic, social, economic and political impacts. The global response has been unprecedented. AIDS exceptionalism - the idea that the disease requires a response above and beyond „normal“ health interventions - began as a Western response to the originally terrifying and lethal nature of the virus. More recently, AIDS exceptionalism came to refer to the disease-specific global response and the resources dedicated to addressing the epidemic. There has been a backlash against this exceptionalism, with critics claiming that HIV/AIDS receives a disproportionate amount of international aid and health funding. But the connotation of the term has changed, the epidemic has maintained its course, and therefore some of the justifications for exceptionalism remain.

The latest influenza pandemic brought to light the importance of two key elements, both of which are indispensable to the effective combat against infectious disease on a global scale. Firstly, a reasonably good understanding of the mechanisms underlying viral transmission and contagion is imperative. Secondly, and perhaps more importantly, the public’s adherence to control and preventive measures is of the utmost importance. Though these two elements should ideally go hand in hand, they are not always both present at the same time. A population’s perception of risk is essential when seeking compliance with a given protective measure. One of the most surprising observations made during the recent pandemic was that in numerous countries, only a small minority of the population was willing to get vaccinated. However, we know that parents who oppose vaccinations have strong beliefs about the side effects of vaccines - presumably, these beliefs are the reason that they do not vaccinate their children. Effective educational messages are needed to overcome parents’ misplaced skepticism toward vaccines and convince them to vaccinate their children. Failure to overcome this skepticism places the lives of thousands of children at risk. Rather than attempting to dispel myths about the dangers of vaccinations, we recommend that the very real dangers posed by serious diseases, like measles, mumps, and rubella, be emphasized. This approach would allow media reports and health professionals to improve vaccine attitudes by communicating accurate information about disease risks without repeating inaccurate information that may further fuel anti vaccination attitudes.
BACKGROUND
Sexually transmitted infections (STI) remain one of the major public health problems in EU/EEA countries. Since 2002, one of the main barriers of accessibility to STI service in Lithuania was reduced by allowing patients to apply to dermatovenerologist directly, without GP’s referral. Generally, young people have higher rates of STI than older adults. There are many social, behavioural and biological reasons for this. Increasing trends among young people most often show continuing risky behavior. Men tend to have more sexual partners than women and thus more opportunity to acquire and spread STI. Men also more likely to have symptoms when they have STI and may seek treatment at clinics, from private doctors or directly from pharmacies. Decreasing trends of infections among men can suggest about barriers to acceptability of STI service and reporting.

METHODS
STI epidemic review is based on retrospective analysis of the national STI surveillance database. Objective was to analyze the previous five years (2011–2015) STI trends in Lithuania.

RESULTS
Between 2011 and 2015, more than four thousand (N=4102) sexually transmitted infections were reported in Lithuania (figure 1). Males accounted for 61.7% (N=2532) of all reported cases, while females presented only 38.3% (N=1570) of patients diagnosed with STI. The male-to-female ratio during the period has decreased more than a third from 2 to 1.4 (figure 2). Young persons (15–29 aged) accounted for a half of all reported cases in 2011 and 2015 (figure 3). During observation period, totally 1314 cases of syphilis (included seven cases of congenital syphilis), 1016 cases of gonorrhea and 1772 cases of chlamydia were registered in the national STI surveillance database. Between 2011 and 2015, the rate of gonorrhea decreased from 8.2 to 6.7 cases, syphilis remained stable, respectively 9 and 9.7 cases and the rate of chlamydia increased from 11.3 to 14.1 cases per 100 000 population. The incident rate of gonorrhea among men decreased from 16.1 to 12.9 cases per 100 000 population (figure 4). The incident rate of chlamydia among women increased from 8.9 to 14.4 per 100 000. The highest increase (from 27.5 to 41.4 per 100 000) in rates was observed among young people diagnosed with chlamydia.

CONCLUSIONS
Young people between 15 and 29 years of age accounted for a half of all reported STI cases. Chlamydia is the most frequently reported STI. The incident rate of chlamydia increased, gonorrhea – decreased, syphilis remained relative stable. Increasing trends in rates of chlamydia, especially among women, can indicate improved access to diagnostic service as well as raised awareness about outcomes of STI. Decreasing trends in rates of gonorrhea among men may suggest that high proportion of infection are still undiagnosed or underreported and this should be considered as a challenge in improving testing policy as well as surveillance to prevent further STI.
ABSTRACT NO 60  IN VITRO EFFECTIVENESS OF VARIOUS ANTIBIOTICS ALONE AND COMBINED WITH CLARITHROMYCIN OR ESOMEPRAZOLE AS LOCK SOLUTIONS AGAINST EMBEDDED ENTEROBACTERIACEAE STRAINS

Ozbek celik Berna, Istanbul University Faculty of Pharmacy, Turkey
Mataraci-Kara Emel, Istanbul University Faculty of Pharmacy, Turkey

BACKGROUND
Catheter-related infections occur with the establishment of microbial biofilms on the catheter surface. Owing to frequent failure of treatment of these infections based on conventional antibiotic therapy testing, it has become more complex and difficult to treat such infections. In general, more than 100 times the antimicrobial concentrations are needed to kill biofilm-forming bacteria than to kill bacteria in solution. It is known that the most effective treatment is the removal and replacement of the infected device. However, this process is accompanied by significant technical problems and costs. Instead of the removal of the device, the antibiotic lock technique is recommended by the guidelines of the Infectious Diseases Society of America (IDSA) and the Centers for Disease Control and Prevention (CDC) as an effective therapeutic option for catheter-related infection. In the ALT, a concentrated antibiotic solution is instilled into the central venous catheter (CVC) lumen and allowed to dwell for several hours or days. Antimicrobial choices for antibiotic lock technique depend on biofilm-forming bacterial pathogens, characteristics of infected bacteria and the pharmacodynamics of antimicrobial agents used in the antibiotic lock technique.

MATERIAL/METHODS
The aims of our study is, to determine the in-vitro efficacy of colistin, ciprofloxacin, tobramycin, doripenem and tigecycline alone or in combination with clarithromycin or esomeprazole as 24 hour lock solutions against biofilm-embedded Escherichia coli and Enterobacter cloacae strains. The efficacy of antibiotic lock solutions was tested in an in-vitro catheter biofilm model against E.coli and E.cloacae isolated from catheter tip.
RESULTS
In our study, we observed that the use of doripenem and tobramycin as a lock solution had potent bactericidal effects (>3 log10 reduction). Although, colistin alone showed bactericidal effect against E. coli strains, it was not effective against E. cloacae (<2 log10) as much as E. coli. When colistin was used in combination with clarithromycin, the combination showed 1 log10 reduction on all tested strains. Tobramycin, doripenem, tigecycline and ciprofloxacin were used in combination with clarithromycin or esomeprazole, the combinations had same effect on all strains comparatively with these antibiotics alone. No antagonistic effect was observed.

CONCLUSION
Consequently, the findings of our study have important informations for effectiveness of tested antibiotic lock solution with these antibiotics alone or in combination in the catheter related infections with Enterobacteriaceae strains.

ABSTRACT NO 62
UNVACCINATED CHILDREN SITUATION IN LITHUANIA IN 2003-2016

Ieva Sebeliauskaite, Centre for Communicable Diseases and AIDS, Lithuania
Saulius Caplinskas, Centre for Communicable Diseases and AIDS, Mykolas Romeris University Eduology and Social Work Institute, Lithuania
Joana Korablioviene, Centre for Communicable Diseases and AIDS, Lithuania
Asta Skrickiene, Centre for Communicable Diseases and AIDS, Lithuania
Egle Savickiene, Centre for Communicable Diseases and AIDS, Lithuania

BACKGROUND
According World Health Organization and UNICEF immunization estimates worldwide, 12.9 million infants, nearly 1 in 10, did not receive any vaccinations in 2016. In Lithuania children are vaccinated according to the National Immunisation Programme 2014-2018 approved by Minister of Health of the Republic of Lithuania in 3rd of January 2014 Order No V-8 „On Approval of the National Immunisation Programme 2014-2018”; and in accordance of the Order No. V-757 of the Republic of Lithuania of Health Care 12th of June 2015 „On the Approval of the Schedule of Preventive Vaccines for Children of the Republic of Lithuania” against tuberculosis, hepatitis B, diphtheria, pertussis, tetanus, polio, Haemophilus influenzae type B (Hib), measles, mumps, rubella, pneumococcal disease and human papillomavirus (HPV) infection. In Lithuania by 2009 was reached high vaccination coverage above 94.0% of all infections, but since 2009 significant decrease of vaccination coverage is observed.
The aim of this study is to review unvaccinated children situation in Lithuania in 2003-2016.

METHODS
In Lithuania registration of vaccination coverage and unvaccinated children is performed in accordance with 14th of March 2016 Order No. V-361 of the Minister of Health of the Republic of Lithuania „On the approval of communicable diseases and statistical reporting and accounting forms”. Data were collected using National Information System for Communicable Diseases and their Agents. Data analysis was performed with Microsoft Office Excel (2007 version).

RESULTS
In Lithuania from 2003 to 2016 against tuberculosis left unvaccinated 5 287 children in total, 8 386 newborns in total left unvaccinated against hepatitis B. 24 210 children in total were unvaccinated against diphtheria, pertussis and tetanus. 19 952 children in total left unvaccinated against polio and 18 626 children in total left unvaccinated against measles, mumps and rubella in 2003-2016. In 2016 (612 newborns were unvaccinated) were less unvaccinated children than in 2015 (764 newborns were unvaccinated) against tuberculosis. In 2016 (1 739 children were unvaccinated) were less unvaccinated children than in 2015 (1 887 children were unvaccinated) against diphtheria, pertussis, tetanus and polio. Against hepatitis B in 2016 (776 children were unvaccinated) were more unvaccinated children than in 2015 (722 children were unvaccinated). Against measles, mumps and rubella in 2016 (1 823 children were unvaccinated) were more unvaccinated children than in 2015 (1 679 children were unvaccinated).

CONCLUSION
1. From 2003 to 2016 mostly children were unvaccinated against diphtheria, pertussis and tetanus.
2. In 2016 were left less unvaccinated children against tuberculosis, diphtheria, pertussis, tetanus and polio than in 2015.
3. In 2016 were left more unvaccinated children against measles, mumps and rubella than in 2015.
ABSTRACT NO 63
BCG VACCINATION COVERAGE BY WHO REGION IN BALTIC STATES AND LITHUANIA

Joana Korablioviene, Centre for Communicable Diseases and AIDS, State Research Institute Centre for Innovative Medicine, Lithuania
Saulius Caplinskas, Centre for Communicable Diseases and AIDS, Mykolas Romeris University Eduology and Social Work Institute, Lithuania
Egle Savickiene, Centre for Communicable Diseases and AIDS, Lithuania
Galina Zagrebneviene, Centre for Communicable Diseases and AIDS, Lithuania
Asta Skrickiene, Centre for Communicable Diseases and AIDS, Lithuania

BACKGROUND
The Global Vaccine Action Plan (GVAP) is a roadmap to prevent millions of deaths through more equitable access to vaccines. Countries are aiming to achieve vaccination coverage of ≥90% nationally and ≥80% in every district by 2020. By 2015, 2 WHO regions had reached at least 90% coverage of Bacillus Calmette-Guerin (BCG) vaccine: Western Pacific (96%) and Americas (95%). Among the Baltic States highest vaccination coverage was in Lithuania (98%). Over the past 14 years the lowest BCG vaccination coverage registered in Lithuania in 2015 (97.2%). The aim of this study was to review the BCG vaccination coverage by WHO region in Baltic states and Lithuania.

METHODS
Data analysis was performed with: Ibm lotus notes, Ibm db2, Ibm websphere portal, Microsoft excel.

RESULTS
In 2015 highest BCG vaccination coverage was in Western Pacific region (96%), lowest in African region (80%). Among the Baltic States highest vaccination coverage was in Lithuania (98%), lowest in Estonia (95%). In 2016 Lithuanian BCG vaccination coverage (97.7%) was 0.5% higher than in 2015 (97.2%). Over the past 14 years the lowest BCG vaccination coverage registered in Lithuania in 2015 (97.2%). The aim of this study was to review the BCG vaccination coverage by WHO region in Baltic states and Lithuania.

CONCLUSION
1. In 2015 highest BCG vaccination coverage was in Western Pacific region (96%).
2. Among the Baltic States highest vaccination coverage was in Lithuania (98%).
3. Over the past 14 years the lowest BCG vaccination coverage registered in Lithuania in 2015 (97.2%).
4. Lower than the national BCG vaccination coverage (97.7%) was in 3 Lithuanian districts: Klaipeda (97.1%), Vilnius (97.1%) and Taurage (97.5%).

ABSTRACT NO 64
EPIDEMIOLOGICAL SITUATION OF VARICELLA (CHICKENPOX) IN LITHUANIA

Egle Savickiene, Centre for Communicable Diseases and AIDS, Lithuania
Saulius Caplinskas, Centre for Communicable Diseases and AIDS, Mykolas Romeris University Eduology and Social Work Institute, Lithuania
Asta Skrickiene, Centre for Communicable Diseases and AIDS, Lithuania
Ieva Sebeliauskaite, Centre for Communicable Diseases and AIDS, Lithuania
Joana Korablioviene, Centre for Communicable Diseases and AIDS, State Research Institute Centre for Innovative Medicine, Lithuania

INTRODUCTION
Varicella zoster virus (VZV) causes varicella (chickenpox) and later reactivation of VZV causes herpes zoster (shingles). Varicella – is an acute, highly infectious, typically mild and self-limited childhood illness. Varicella is widespread in the world and most commonly to be infected in children aged up to 9 years. Disease is highly contagious infecting up to 90% of exposed people without immunity. Varicella is the one of the most common reportable airborne disease after acute upper respiratory tract infections in Lithuania.

MATERIALS AND METHODS
The epidemiological surveillance and compulsory registration of varicella cases are performed in Lithuania in accordance with Order No. 673 of the Minister of Health of the Republic of Lithuania approved on 24th of December 2002 “On the approval of the order of obligatory epidemiologic registration, obligatory content of epidemiologic registration object and obligatory transfer of information” (Official Gazette, 2003, No. 12-444; 2004, No. 82-296; 2008, No. 89-3585; 2011, No. 14-604). Data were obtained from the Centre for Communicable Diseases and AIDS National Information System for Communicable Diseases and their Agents.

OBJECTIVE
To review of epidemiological varicella situation in Lithuania 2016.

REVIEW
Varicella morbidity trend remains increasing in 2007-2016. This corresponds to a mean annual incidence of 482.2 cases per 100 000. In 2016 varicella incidence was 474.4 cases per 100 000 – it is lower than in 2015 (526.5 cases per 100 000) and is the lowest registered incidence over the last five years. In 2007-2016 the highest incidence was observed in 2014 (760.8 cases per 100 000). The lowest incidence was 331.7 cases per 100 000 reported in 2010.

In 2015 the age range of reported cases was from 1 month of age to 79 years, and 84.4 per cent (n=11545) of all reported cases were children aged up to nine years. The highest morbidity distribution (51.4% (n=6993)) of children aged up to four years old and lower morbidity distribution (33.5% (n=4552)) was
of children from five to nine years old. Only 1.6 % (n=222) of all cases were people older than 30 years old. The incidence was higher among males (526.5 cases per 100 000) than females (423.6 cases per 100 000). 1.49 % (n=202) patients were hospitalized of all reported cases. 8.2% (n=378) of all cases in the same age group were hospitalized children under 1-year old and 4.4% (n=338) of young adults (20-29 years old). 53.8 % (n=7312) of all cases vaccination status was unknown or not vaccinated (46.1% (n=6274)).

CONCLUSION
The incidence of varicella decreased in 2016 but morbidity trend remains emerging.
The most affected population is children aged up to nine years old.
The hospitalization was higher among children aged up to year.
There was a dominance of male incidence rate.
The majority of registered cases were not vaccinated or vaccination status was unknown.

ABSTRACT NO 67  OVERVIEW OF SIDE REACTIONS TO VACCINES IN LITHUANIA 2016

Kristina Zukauskaite, Centre for Communicable Diseases and AIDS, Lithuania
Saulius Caplinskas, Centre for Communicable Diseases and AIDS, Mykolas Romeris University Edcology and Social Work Institute, Lithuania
Asta Skrickiene, Centre for Communicable Diseases and AIDS, Lithuania

BACKGROUND
A side reaction to vaccine (SRV) is temporary or persistent impairment of health status, leading to changes in the physical signs, symptoms and/or laboratory parameters beginning after immunoprophylaxis and it is believed to be for this reason (Official Gazette, 2003, No. 12-444). The World Health Organization classifies SRVs as easy, severe or severe-manifesting together with easy reactions. Severe SRVs are the following ones: fatal; life threatening; requiring treatment, hospitalization or prolongation of hospital treatment; causing constant or significant disability, working inability or innate abnormality, innate defect. In Lithuania in 2016 were registered 73 SRVs and 65 SRVs – in 2015. The aim of this overview is to review the situation of side reactions to vaccines in Lithuania 2016.

MATERIALS AND METHODS
The registration of side reactions to vaccines is performed in Lithuania in accordance with Order No. 673 of the Minister of Health Care of the Republic of Lithuania approved on 24th of December 2002 “On the approval of the order of obligatory epidemiologic registration, obligatory content of epidemiologic registration objects and obligatory transfer of information” and Order No. V-185 of the Minister of Health Care approved on 20th of February 2013 “On the description of the order of submission of a notification of a health care or pharmacy specialist about a suspected side reaction (SSR), form of a notification of a health care or pharmacy specialist about a suspected side reaction (SSR), and form of a notification of a patient about a suspected side reaction (SSR).”

RESULTS
20 severe SRVs and 53 easy SRVs were registered in 2016 and 54 severe SRVs and 11 easy SRVs – in 2015. Most registered SRVs (22.0%; 16 cases) were related with a BCG vaccine that caused lymphadenitis. The second frequent SRV (17.8%; 13 cases) were related with a Bexsero vaccine that caused fever. Also were registated SVRs caused by Priorix, Tetraxim, Adacel, Prevenar 13, Pentaxim, Synflorix, Varilrix, TicoVac, Encepur Adult, Engerix-B 10, Imovax, Influvac vaccines. In 2016 most SRVs were registered among children aged 1-5 years (37.0%; 27 cases). More than a quarter of SRVs were determined in infants under one year of age (26.0%; 19 cases) and for 6-17 year-old children (28.8%; 21 cases) and the lowest number of SRVs – for over 18 year old of person in the group (5.5%; 4 cases). The ages of two persons was unknown (2.7%). In 2016 most SRVs (39.7%; 29 cases) reported healthcare professionals/pharmacists. More than one third of SRVs were reported by parents (37.0%; 27 cases) and the lowest number of SRVs reported healthcare professionals/pharmacists and parents (20.5%; 15 cases) and patients (2.8%; 2 cases).

CONCLUSION
1. The registered number of SRVs was higher in 2016 than in 2015. In 2016 the major part of SRVs were caused by a BCG vaccine, like in 2015.
2. The registered number of severe SRVs was more than twice less in 2016 than in 2015.
3. Most side reactions to vaccines were reported among children aged 1-5 years in 2016.
4. Most of all SRVs were reported by healthcare professionals/pharmacists in 2016.
ABSTRACT NO 68  CAMPYLOBACTERIOSIS EPIDEMIOLOGICAL SITUATION IN LITHUANIA

Simona Zukauskaite-Sarapajeviene, Centre for Communicable Diseases and AIDS, Lithuania
Saulius Caplinskas, Centre for Communicable Diseases and AIDS, Mykolas Romeris University Educolgy and Social Work Institute, Lithuania
Galina Zagrebneviene, Centre for Communicable Diseases and AIDS, Lithuania

BACKGROUND
According to the European Centre for Disease Prevention and Control (ECDC) and the European Food Safety Authority (EFSA), since 2005 campylobacteriosis is the most commonly reported bacterial intestinal infection in the European Union (EU). Campylobacteriosis is one of the most commonly registered bacterial intestinal infections in Lithuania also. C. jejuni and C. coli are the main gastroenteritis agents in humans. Gastroenteritis is a major clinical condition caused by Campylobacter, but is also associated with other diseases: inflammatory bowel disease, oesophageal disease, cholecystitis, functional digestive tract disorders, Guillain-Barré syndrome, etc. The aim of this study was to review the epidemiological situation of campylobacteriosis in Lithuania.

METHODS
Descriptive study. An analysis of the data collected in the State Information System on Communicable Diseases and their causative agents has been carried out and the official information published by the European Food Safety Authority and European Centre for Disease Prevention and Control has been reviewed.

RESULTS
According to EFSA and ECDC, a statistically significant increasing trend in campylobacteriosis case numbers at the EU/EEA level is observed between 2008 and 2015. Every year more than 200,000 cases are registered in the EU. In the past 5 years the notification rate of campylobacteriosis was stable. Notification rates range from 56.58 per 100,000 population in 2008 to 65.5 per 10000 population in 2015. The tendency of increasing incidence of campylobacteriosis is also observed in Lithuania. Notification rates of campylobacteriosis from 2008 and 2016 respectively increased from 18.8 per 100,000 population to 42.7 per 100000 population. In the last 4 years the incidence of campylobacteriosis in Lithuania is quite stable, with about 1000 cases registered annually. Most cases of campylobacteriosis are sporadic. In 2016 there were 14 (13 among family members and 1 extended) Campylobacter-related outbreaks in Lithuania in which 33 people were ill (total 1225 cases of campylobacteriosis were registered in 2016). In 2015 5 family-related outbreaks of campylobacteriosis were reported in which 10 people were ill. The highest incidence of campylobacteriosis in Lithuania between 2014 and 2016 were registered among children under 6 years of age. Campylobacteriosis in Lithuania has a characteristic seasonality with a sharp increase of cases in summer and early autumn. Similar campylobacteriosis seasonality characteristics are observed at EU level. In some EU countries a smaller but distinct winter peak is observed in January.

CONCLUSION
The increasing trend of incidence of campylobacteriosis in Lithuania has been observed between 2008 and 2016 as well as at EU level. Campylobacteriosis is more common among children under 6 years of age. The disease shows a marked seasonality with most cases in June – September.

ABSTRACT NO 69  TICK-BORNE ENCEPHALITIS EPIDEMIOLOGY IN LITHUANIA, 2002-2016

Milda Zygutiene, Centre for Communicable Diseases and AIDS, Lithuania
Saulius Caplinskas, Centre for Communicable Diseases and AIDS, Mykolas Romeris University Educolgy and Social Work Institute, Lithuania

BACKGROUND
Tick-borne encephalitis (TBE) is a vector-borne disease caused by the TBE virus. Ticks are generally considered to be the only arthropod vectors of TBE virus (TBEV) to human. The tick Ixodes ricinus is the principal vector of TBEV causing a growing Public Health issue over the past decades. In recent decades this tick species has become very abundant in Europe. Lithuania is one of the countries with the highest notified incidence in Europe, ranging from 4.8 to 22.1 per 100,000 in the period from 2002 to 2016, with cases occurring throughout the Country.

An analysis of notified TBE cases in the 15-year period from 2002 to 2016 confirms Lithuania as one of the countries, together with the other Baltic States and Slovenia, where reported incidence per 100,000 is the highest in Europe.

METHODS
In Lithuania, notification of TBE is mandatory and based on the European Union standardised case definition.

RESULTS
According to EFSA and ECDC, a statistically significant increasing trend in the number of TBE cases reported in Europe occurred last year, 2016. The majority of cases reported during this period were recorded between July and October. The age distribution of TBE incidence in Lithuania emphasised older people and reveals a peak in the age groups 45 to 74. The largest abundance of ticks (52-129 ticks per 1 km of the

Documentation of TBE cases: data on TBE were documented by a National Information System on Communicable diseases and infectious agents (case based data). Confirmation was based on TBEV IgM and IgG ELISA results. Ixodes ricinus ticks were sampled from woodlands by dragging flannel over the vegetation in 1 km of route.

RESULTS
In the period from 2002 until 2016 a total of 6415 cases of TBE were reported in Lithuania. 117 (1.8%) cases were food-borne. In the majority of these cases, TBE virus was transmitted by unpasteurized goats’ milk and caused family outbreaks. The highest annual incidence (22.1 per 100,000) of human TBE in Lithuania ever recorded by Centre for Communicable Diseases and AIDS occurred last year, 2016. The majority of cases reported during this period were recorded between July and October. The age distribution of TBE incidence in Lithuania emphasised older people and reveals a peak in the age groups 45 to 74. The largest abundance of ticks (52-129 ticks per 1 km of the
Other infections

Other infections

road) was observed in the central part of Lithuania. Active ticks were found from March to December. TBEV was detected above 1% in Ixodes ricinus ticks. The sequence analysis shows that TBEV belong to western TBE lineage. TBE vaccination remains a self-paid expense for the majority of the population. The costs are by the employer only in case of occupational exposure or exposure during education or training. Despite increasing awareness of TBE, a greater understanding about benefit of vaccination is needed.

CONCLUSION
Lithuania is one of the countries with the highest TBE incidence in Europe. TBE cases are occurring throughout the country. Distribution of Ixodes ricinus ticks in area are determined by favorable climate, landscape, vegetation and hosts, and available ecological environment.

ABSTRACT NO 70
HUMAN ECHINOCOCCOSIS EPIDEMIOLOGICAL SITUATION IN LITHUANIA 2007-2016
Ausra Bartulienė, Centre for Communicable Diseases and AIDS, Lithuania
Saulius Caplinskas, Centre for Communicable Diseases and AIDS, Mykolas Romeris University Eduscology and Social Work Institute, Lithuania
Galina Zagrebeviene, Centre for Communicable Diseases and AIDS, Lithuania

BACKGROUND
Echinococcosis is a zoonotic disease caused by infection with tiny tapeworms of the genus Echinococcus. Species of Echinococcus granulosus and Echinococcus multilocularis are common in Lithuania, causing cystic echinococcosis (CE) and alveococcal echinococcosis (AE) to humans. Echinococcus granulosus tapeworm is found in dogs (definitive host) and pigs (intermediate hosts), Echinococcus multilocularis is found in foxes, coyotes and dogs (definitive hosts) and small rodents (intermediate hosts). Humans become infected by ingesting eggs, with resulting release of oncospheres in the intestine and the development of cysts in various organs. Echinococcosis is a chronic disease. The incubation period lasts from 5 to 15 years. The tinea larval stage (cyst) most often damages liver. AE poses a much greater health threat to people than CE. If left untreated, AE can be fatal. In comparison with other European Union (EU) countries Lithuania had the highest incidence of echinococcosis during this period. The aim of this study was to review epidemiological situation and trends of human echinococcosis in Lithuania.

METHODS
Data analysis was performed using descriptive epidemiological study design. The data was obtained from the information system of Centre for Communicable Diseases and AIDS.

RESULTS
According to the data of the Centre for Communicable Diseases and AIDS, 258 cases of human echinococcosis were reported in Lithuania during 2007–2016. The incidence of echinococcosis increased from 0.35 to 0.90 cases per 100,000 population. The highest morbidity rate was recorded in 2009 and 2015 (1.05 and 1.12 cases per 100,000 population). 2007–2009 most of the echinococcosis was CE, since 2010 more cases of AE were detected. The incidence rate of AE increased from 0.09 to 0.34 cases per 100,000 population. 2007–2016 the highest incidence of induration was in the group of 65–74 year olds (2.23 cases per 100,000 population). The incidence rate of human echinococcosis was 1.1 cases per 100,000 in rural population and 0.6 cases per 100,000 in urban population. The male incidence of echinococcosis rate was 0.6 cases per 100,000 population, female – 1 person per 100,000 population. Human echinococcosis infections cases were mostly reported from western and eastern regions of Lithuania. During 2007-2016, the highest number of echinococcosis cases were registered in Vilnius region (34.5% of all cases in Lithuania).

CONCLUSION
1. The incidence rate of echinococcosis is increasing, with an increased incidence of alveoococcal echinococcosis.
2. Higher incidence rate of human echinococcosis has been registered among adults.
3. Incidence rate of human echinococcosis is higher in rural than in urban population.
4. Incidence rate of human echinococcosis is higher in female than in male.
5. Human echinococcosis cases were often recorded in western and eastern regions of Lithuania.

ABSTRACT NO 76
OVERVIEW OF THE 2016-2017 INFLUENZA SEASON IN LITHUANIA
Asta Skrickienė, Centre for Communicable Diseases and AIDS, Lithuania
Saulius Caplinskas, Centre for Communicable Diseases and AIDS, Mykolas Romeris University Eduscology and Social Work Institute, Lithuania
Kristina Zukauskaitė, Centre for Communicable Diseases and AIDS, Lithuania
Ieva Sebeliauskaite, Centre for Communicable Diseases and AIDS, Lithuania
Egle Savickienė, Centre for Communicable Diseases and AIDS, Lithuania
Joana Korablioviene, Centre for Communicable Diseases and AIDS, Lithuania

BACKGROUND
Seasonal influenza is an acute respiratory tract infection caused by influenza viruses which circulate in all parts of the world. The official influenza surveillance season starts with the 40th week of the year (typically around the beginning of October) and ends on the 20th week of the following year (in
The disease can range from mild to severe and even death. Hospitalization and death occur mainly among high-risk groups. It is estimated that annual epidemics worldwide causes from 3 to 5 million cases of severe illness, and from 250,000 to 500,000 deaths. The most effective way to prevent the disease is vaccination. World Health Organization recommends annual vaccination for: pregnant women at any stage of pregnancy; children aged between 6 months to 5 years elderly individuals (aged more than 65 years); individuals with chronic medical conditions; health-care workers. The aim of this study is to review 2016-2017 influenza season in Lithuania.

RESULTS
In 2016-2017 season influenza activity started during the first weeks in 2017. The incidence peak of influenza-like illness (ILI) and ARI in 2016-2017 season occurred one week earlier (on week 04-2017) comparing with 2015-2016 season (on week 05-2016). In 2016-2017 influenza season has been reported less (n = 30958) influenza cases compared to 2015-2016 season (n=32003). In 2016-2017 seasonal influenza epidemic has been declared in 24 municipalities of 60 like in previous season. In 2016-2017 influenza season was only 3 deaths from influenza while last season were 22 deaths. Influenza A (H3N2) virus had dominated whole 2016-2017 season (80%). During 2016-2017 season hospitalisation of patients was less (n=1234) than in previous season (n=1843). In 2016-2017 season had been vaccinated more Lithuanian population (8.4%) than previous season (7.3%).

CONCLUSION
1. In 2016-2017 less influenza cases and less hospitalised patients were reported than in the previous season.
2. In 2016-2017 season influenza epidemic had been declared in 24 of 60 municipalities like in previous season.
3. Influenza A (H3N2) virus had dominated the whole 2016-2017 season.
4. In 2016-2017 season were less deaths of influenza than in the last season.
5. In 2016-2017 season had been vaccinated more Lithuanian population than in previous season.

INTRODUCTION
Annual influenza epidemics result in high morbidity and significant mortality rates worldwide (1). The most effective way to prevent potentially severe influenza complications is vaccination (2). Seasonal influenza vaccine effectiveness (SIVE) is well documented in outpatient settings, however there is a lack of data in hospitalized population. Extremely low influenza vaccination coverage of risk groups observed in Lithuania calls for more evidence of protection to help promoting vaccination among risk groups. Due to a lack of knowledge about SIVE against laboratory-confirmed influenza a study to measure SIVE against influenza in patients admitted to hospital due to severe acute respiratory infection (SARI) in Lithuania during the 2015-2017 influenza season was performed. The co-circulation of other respiratory pathogens was also described.

METHODS
A test-negative case-control study was conducted in four departments of two university hospitals during two influenza seasons: 2015/2016 and 2016/2017. Data on demographic and clinical characteristics were collected from patients’ reports and their clinical records. Cases were defined as those testing positive, and controls as those testing negative for influenza. Nasopharyngeal swabs were tested for influenza and other respiratory viruses by multiplex RT-PCR. SIVE and its 95% confidence intervals (95% CI) were calculated as (1-OR)*100%.

RESULTS
Of the 356 included patients 41 (11.5%) were vaccinated against influenza at least two weeks before the onset of influenza symptoms, of which 35 were 65 years old or older. One-hundred-sixty-one (45.2%) tested positive for influenza, 195 (54.8%) were influenza negative. One-hundred-forty-eight (41.6%) patients tested positive for influenza A (50 (33.8%) of which A(H1N1)pdm09, 83 (56.1%) A(H3N2), 15 (10.1%) unsubtyped), 14 (3.9%) for influenza B (7 B/Victoria, 6 B/Yamagata, 1 unsubtyped) and 1 (0.3%) had a coinfection.
Influenza A(H1N1)pdm09 was predominant in 2015/2016 influenza season, while influenza A(H3N2) dominated in 2016/2017 influenza season. The unadjusted SIVE in the total sample during 2015/2016 influenza season was 57% (95%CI: -42% to 87%), and 70% (95%CI: -43% to 94%) against any influenza and influenza A(H1N1)pdm09 respectively. The unadjusted SIVE in the total sample during 2016/2017 influenza season was 42% (95%CI: -37% to 76%), and 38% (95%CI: -48% to 74%) against any influenza and influenza A(H3N2) respectively. Other respiratory pathogens found were respiratory syncytial virus 19 (5.4%), rhinovirus 10 (2.8%), metapneumovirus 10 (2.8%), adenovirus 7 (2.0%), coronavirus 6 (1.7%) and parainfluenza 1 (0.3%).

DISCUSSION

Lower than usual SIVE might be explained by vaccine mismatch. The mutation emergence of new genetic subclusters of viruses within the 6B clade of the A(H1N1)pdm09 was reported (3). Secondly, the majority of A(H3N2) viruses clustered with the newly emerging clade 3C.2a1, defined by N171K +/− N121K mutations in site D (4). Thirdly, in 2015/2016, the circulating influenza B Victoria lineage was distinct from the Yamagata vaccine component and in 2016/2017 the circulating influenza B Yamagata lineage was distinct from the Victoria vaccine component. Moreover, waning immunity should be considered, because usually vaccination campaign starts in early Autumn, but in most seasons influenza activity peak occurs in February and early March. Additionally, some immunogenicity studies propose that the antibody levels decline progressively, beginning in the first months after vaccine administration (5). Also, people with higher risk of complications due to influenza may have a weaker immune response due to the immunodepression associated with some chronic diseases or to the immunosenescence associated with aging (6).

CONCLUSION

Nearly half of SARI cases had laboratory confirmed influenza, which demonstrates high influenza disease burden. Although SIVE estimates confidence intervals are broad and results can serve only as indicatory, but point estimates are in line with other studies (7,8). Co-infection with other respiratory pathogens was low.

REFERENCES

8. Kissling E, Rondy M. Early 2016 / 17 vaccine effectiveness estimates against influenza A (H3N2) and B among elderly people in Europe: results from the I-MOVE multicentre case control studies at primary care and hospital levels in Europe. 2017;III:1–9.

MOLecular characterization of environmental Legionella pneumophila strains isolated in Lithuania: a 4-year epidemiological survey

Povlias Kavaliauskas, Institute for infectious diseases and pathogenic microbiology, Lithuania
leva Dežicaite, National Public Health Surveillance Laboratory, Lithuania
Rita Plančiūnienė, National Public Health Surveillance Laboratory, Lithuania
Daiva Staradumskytė, National Public Health Surveillance Laboratory, Lithuania
Ieva Dežicaitė, National Public Health Surveillance Laboratory, Lithuania
Vidmantas Petraitis, Institute for infectious diseases and pathogenic microbiology, National Public Health Surveillance Laboratory, Lithuania
Rūta Prakapaitė, Institute for infectious diseases and pathogenic microbiology, Joint life science centre, Vilnius University, Lithuania
Vidmantas Petraitis, Institute for infectious diseases and pathogenic microbiology, National Public Health Surveillance Laboratory, Lithuania

BACKGROUND

Legionella pneumophila is an intracellular human pathogen that causes an often-fatal pneumonia called Legionnaires’ disease. High risk groups include patients with chronic lung disease, transplantation, hematological malignancies, and renal failure. L. pneumophila is divided into 15 serogroups (SG) however only SGs 1, 4, 6, 7, 10 and 13 are pathogenic to humans. Serogroup 1 is associated with almost 85–90% of the cases worldwide. High genome plasticity and virulence-associated genes ensure that the pathogenicity and antimicrobial susceptibility of L. pneumophila vary among isolates in different geographical locations. The aim of this work was to investigate the frequency of pathogenic L. pneumophila serogroups, major virulence genes, and antimicrobial susceptibility among environmental L. pneumophila strains collected in Lithuania.

METHODS

Environmental strains of L. pneumophila were collected from different cities located in Lithuania during the time of 2012–2015, under a standard water-testing program. Genomic DNA was isolated using standard methods by
manufacturer recommendations. Virulence genes (mip, rtxA, hsp60) and species-specific genes (lpq 0774, wzm) were detected using PCR. Preliminary serogrouping into two groups (SG 1 and SG 2-14) was performed using latex agglutination kits. Pathogenic L. pneumophila serogroups were detected using multiplex PCR. β-lactamase activity was assed using nitrocefine test.

RESULTS
A total 415 L. pneumophila environmental strains were analyzed. The most prevalent L. pneumophila serogroup (80%; n=332) was SG 2-14. Pathogenic SGs 1, 4, 6, 7, 10 and 13 represented 20% (n=83) of all isolated strains. The prevalence rate of the pathogenic SG 1 was 13% (n=54). All L. pneumophila strains exhibited moderate to strong β-lactamase activity.

ABSTRACT NO 111 (ORAL) EPIDEMIOLOGICAL PATTERNS OF ROTAVIRUS INFECTION IN LITHUANIA 2006–2016
Ginrėtė Valińčiūtė, National Public Health Centre under the Ministry of Health, Lithuania
Giedrė Aleksiienė, National Public Health Centre under the Ministry of Health, Lithuania
Robertas Petraitis, National Public Health Centre under the Ministry of Health, Lithuania

BACKGROUND
Rotavirus gastroenteritis is an acute infection caused by viruses. The main symptoms: fever, vomiting and watery diarrhoea. Rotavirus disease is most common in infants and young children. In Lithuania laboratory diagnostics of rotavirus started in 1994. Each year, rotavirus causes approximately 3000 episodes of gastroenteritis for infants and children in Lithuania. 38 620 cases (morbidity rate – 112.52 cases per 100 000) of rotavirus infection were registered in Lithuania during the 2006-2016 period, out of which 27 555 (71.35 percent) – children under 18 years old. During the analysed period, hospitalised rotavirus infection cases constituted 97.3 percent in Lithuania. According to World Health Organization (WHO), rotavirus causes about 25 percent of all diarrhoeal illnesses in children under 5, and it is a major cause of morbidity and mortality globally. Rotavirus spreads through unclean hands, objects of the environment, water.

Rotavirus vaccine is the best protection against rotavirus illness. There are two available vaccines in Europe – both of them are given orally. WHO recommends the use of rotavirus vaccines in all national immunization programmes. According to European Centre of Disease Prevention and Control, the effectiveness of rotavirus vaccine was established in randomised controlled trials. The results have shown that vaccines protect against G1P[8], G2P[4], G3P[8], G4P[8] ir G9P[8] rotavirus strains. These strains are the main cause of rotavirus infection in Europe and compile 90-95 percent of all circulated rotavirus that cause rotavirus gastroenteritis.

METHODS
A descriptive epidemiological analysis was conducted. The data of reports (form No. 4 „Communicable diseases morbidity“), National System of Communicable Diseases and Agents have been used. Vaccination volumes were appreciated by Preventive Vaccination Report No. 8 (2013-2016 years). Morbidity rates were calculated using official Statistics Department of Lithuania data. An average, median and standard deviation were calculated for the general characteristics of continuous data. Linear regression and Mantel’s chi-square test for trend was used to determine the significance of incidence trends. Chi-square test was used to compare crude rates. Fisher’s test was used then the number of members assigned to a particular group was low. The significance level chosen for hypothesis testing was α = 0.05. Seasonality was assessed by Edward’s, Rachet and Hewitt’s tests. Limitations of survey – all rotavirus cases were assessed to analysis, outbreak cases were not excluded from the general morbidity (both sporadic cases and cases registered in outbreaks were assessed).

Microsoft Office Excel (2010), WinPepi (J. H. Abramson. Version 11.62, 2016-04-06) programs were used for statistical analysis.

RESULTS
38 620 rotavirus infection cases were registered in Lithuania during the period of 2006-2016. In the overall structure of viral etiology intestinal infections, rotavirus infection was on average 42.8 percent of cases. During the analysed period, the highest morbidity rate was registered in 2011 (146.4 cases per 100 000), lowest – in 2007 (54.5 cases per 100 000). An increasing trend of incidence of rotavirus infection in Lithuania was determined (Mantel test: x²=3.29, p=0.095), but it was not statistically significant, the periodic fluctuations were observed (Figure 1).
The biggest part of rotavirus infection cases were hospitalised (97.3 percent). During the analysed period 2 cases of death were registered in Lithuania – in 2010 and 2015. The highest incidence of rotavirus infection was in children under 3 years old (21.3 cases per 1000 of this age group). During the analysed period 72.5 percent of all cases were registered in this age group. The morbidity structure in terms of age differs: children under 3 years old were at a higher risk to contract rotavirus infection than other children age groups ($\chi^2=745,123; p<0,001$). Risk ratio (14.27) and its confidence intervals (95 percent C.I. 13.92; 14.63) show that children under 3 years old are more likely to be infected with rotavirus than older children.

The distribution of rotavirus infection cases in residential areas was analysed. The highest morbidity rate was registered in Panevezys County (145.2 cases per 100 000), the lowest rate – in Taurage County (24.5 cases per 100 000). In Marijampole, Klaipeda and Telsiai County morbidity rates were mostly recorded less than average. Periodic fluctuations of incidence were observed in Vilnius County in the period of 2006-2016. The highest morbidity rate was registered in 2006 (195.6 cases per 100 000). In Taurage County the incidence was decreasing, in other counties morbidity rate was increasing. The highest incidence of rotavirus infection was in children under 3 years old, their morbidity rates were statistically significantly higher than other children age groups. Increase of rotavirus infection incidence was observed during January-May.

The incidence of rotavirus gastroenteritis in the period of 2006-2016 in Lithuania according to the place of residence (i.e. whether people live in urban or rural areas) was different – the majority of registered cases lived in urban areas (77.1 percent of all rotavirus infection cases). During the analysed period 22 771 cases of rotavirus infection were registered in the group of people who live in urban areas. The morbidity rates in the group of people who live in urban areas were statistically significantly higher than those who live in rural areas ($\chi^2=1824.4; p<0.001$). Risk ratio (1.67) and its confidence intervals (95 percent C.I. 1.63; 1.71) show that people, who live in urban areas are more likely to be infected with rotavirus infection than people who live in rural areas. Differences in morbidity rates in different counties and areas can be monitored due to a different laboratory diagnostic opportunities, different availability of health care institutions or lifestyle habits (not all individuals who have symptoms of rotavirus infection apply to health care institutions).

In the period of 2006-2016 increase of rotavirus infection incidence was observed during January-May (during these months the incidence was higher than average). The highest incidence was registered in April (18.7 percent), the lowest – in September (2.0 percent). Part of the cases were caused by seasonal factors – 72.0 percent. Seasonality was assessed by Edward’s, Rachet and Hewitt’s tests. According to Edward’s test there is a statistically significant sinusoidal 6-month seasonal curve ($p<0.001$), seasonal peak date - April 1 ($\chi^2 = 551.31; p <0.001$). Hewitt’s test has shown that all peaks of incidence were statistically significant (4 months peak: February-May ($p=0.02$), 5 months peak: January-May ($p=0.02$), 6 months peak: January-June ($p=0.01$). The best way to protect children from rotavirus is with rotavirus vaccines. The vaccination rates in Lithuania are low – in the period of 2013-2016, 3.0 percent of infants under 1 year old were vaccinated with the first dose of rotavirus vaccine (RV1), 2.75 percent were vaccinated with RV2 vaccine and 0.07 percent – with RV3 vaccine. The proportion of newborns and infants who were vaccinated (RV1 and RV2 vaccine) has been increasing recently – 2205 (3.56 percent) children vaccinated with RV1 and 1985 (3.21%) with RV2 vaccine in 2016.

Rotavirus spreads through unclean hands, objects of the environment, water. That is why outbreaks of rotavirus infection were often registered – 1085 outbreaks were registered in the period of 2005-2015 in Lithuania. An increasing number of outbreaks of rotavirus infection have been registered in recent years (205 outbreaks registered in Lithuania in 2015).

CONCLUSION

1. Rotavirus causes about half of all viral etiology intestinal infections. Periodic variations of incidence have been observed but an increasing trend of incidence of rotavirus infection was determined in recent years. The highest incidence of rotavirus infection was in children under 3 years old, their morbidity rates were statistically significantly higher than other children. Increase of rotavirus infection incidence was observed during January-May.

2. The highest incidence was registered in Panevezys County, in Taurage County the least number of cases were registered (the morbidity rate in this county was decreasing, in other counties morbidity rate was increasing). The incidence in the the group of people who live in urban areas were statistically significantly higher than those who live in rural areas.

3. The best way to protect children from rotavirus is with rotavirus vaccine. The vaccination rates in Lithuania are low, that is one of the reason why rotavirus vaccine has to be included into the national immunization programme. This may have a significant impact on the increase in vaccination coverage and the reduction of the burden of the disease in society.
ABSTRACT NO 112 (ORAL) NĖŠČIŲJŲ MOTERŲ SKIEPIJIMO NUO GRIPO SKATINIMO PROGRAMA

Kristina Rudžinskaitė, Nacionalinio visuomenės sveikatos centro prie Sveikatos apsaugos ministerijos Kauno departamentas

TIKLAS
Projekto tikslas – pritaikyti, įgyvendinti ir įvertinti įrodymais grystą nėščiųjų moterų skiepijimo nuo gripo skatinimo programą.

ĮVADAS


IŠVADOS

LITERATŪROS ŠARASAS (INFORMACIJOS ŠALTINIAI):
ABSTRACT NO 113 ERKIŲ PLATINAMŲ LIGŲ EPIDEMIOLOGINĖ SITUACIJA VILNIAUS APSKRITYJE 2010–16 M.

Kristina Rudžinskaite, Nacionalinio visuomenės sveikatos centro prie Sveikatos apsaugos ministerijos Vilniaus departamentas

ABSTRACT NO 114 KAUNO APSKRITIES ANTIMIKROBINIO ATSPARUMO VALDYMO GRUPĖS VEIKLA

Kristina Rudžinskaite, Nacionalinio visuomenės sveikatos centro prie Sveikatos apsaugos ministerijos Vilniaus departamentas

TIKSLAS

Eeglė Orechovienė, Nacionalinio visuomenės sveikatos centro prie Sveikatos apsaugos ministerijos Vilniaus departamentas

Natalija Abramova, Nacionalinio visuomenės sveikatos centro prie Sveikatos apsaugos ministerijos Vilniaus departamentas

Birutė Zdanevičienė, Nacionalinio visuomenės sveikatos centro prie Sveikatos apsaugos ministerijos Vilniaus departamentas

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Kristina Rudžinskaitė, Nacionalinio visuomenės sveikatos centro prie Sveikatos apsaugos ministerijos Vilniaus departamentas

ABSTRACT BOOK 2017

75

OTHER INFECTIONS
aktyviai įsijungė Kauno apskrities AMR valdymo grupės nariai. Kauno apskrie-

treskas sprendžia iškilusias problemas, kurių metu sprendžia racionalaus antibiotikų vartojimo problemas regione, teikia slūdimą ir rekomendacijas vietiniams ir nacionaliniams lygmenyje antimi-

koordinuojant įstaigą nacionaliniu lygmeniu. Kauno apskrities AMR valdymo grupė organizuoja posėdžius, kuriais metu sprendžia antimikrobinių atsparumo ir antibiotikų suvartojimo problemas regione, teikia slūdimą ir rekomendacijas vietiniams ir nacionaliniams lygmenyje antimi-


dalyvauta Higienos instituto organizuotoje antimikrobinių atsparumo ir antibiotikų suvartojimo problemas regione, teikia slūdimą ir rekomendacijas vietiniams ir nacionaliniams lygmenyje antimi-

Coagulase-negative staphylococci (CoNS) are normal in-

habitants of human and animals. Staphylococcus haemoly-

ticus is a member of the coagulase-negative staphylococci (CoNS). Among CoNS, S. haemolyticus is a common spe-

cies encountered in the clinical samples, usually isolated from the axillae and glabrous skin of arms, legs and trunk of humans. Like other CoNS, S. haemolyticus does not usually cause disease, but it is increasingly recognized as a potentially opportunist and nosocomial pathogen and may occasionally cause infection in patients with abnormally weak immune systems.

THE AIM OF THIS STUDY

was to determine antimicrobial susceptibility and antimicro-
bacterial resistance profile of Staphylococcus haemolyticus isolated from hospital patient.

METHODS

During 2014-2015 years 125 specimens were collected from patients with urinary tract infection. Isolation of staphylococci was performed using Mannitol Salt Agar and Plasmacogulase test was performed as well. Species iden-
tification was performed using Microgen Staph ID (Microgen Bioproducts). Antimicrobial susceptibility was performed using "Sensititre" (Trek Diagnostical Systems) plates. Genes encoding resistance to separate classes of antimicrobials were detected by PCR. Interpretation of results was perfor-

MEDICINE. 

RESULTS

57 (43.8%) samples from 130 tested were S. haemolyticus. 47 (84.2%) of 57 (43.8%) samples from 130 tested were S. haemolyticus. The resistance
Other infections

ABSTRACT NO 130 LEGIONELLOSIS IN LITHUANIA – MYTH OR REALITY?
Kazanova T., National Public Health Surveillance Laboratory, Vilnius University. Life Sciences Center, Bioscience Institution, Vilnius, Lithuania.
Kalėdienė L., Vilnius University. Life Sciences Center, Bioscience Institution, Vilnius, Lithuania.

Legionella pneumophila, the causative microorganism of Legionnaire’s disease (LD), is an aquatic bacterium that can be found in numerous water. Legionnaires’ disease remains an uncommon, mainly sporadic respiratory infection with low notification rates in EU countries. In Lithuania despite the disinfection strategies the incidence of LD has steadily increased. The first case of LD was recorded in 1985. In 2012, 4 cases were reported, in 2013 – 1 case, in 2014 – 8 cases, in 2015 – 7 cases. In 2016, 10 case numbers of LD in Lithuania were the highest ever observed. Legionellosis outbreaks occurred in January 2017, when 3 from 5 people died, there were contaminated with legionella apartment building water system. Identifying the genetic factors that influence the pathogenicity of bacteria is the greatest importance in trying to gain better control of infectious diseases. The genetic basis for virulence differences in the serogroup strains have been shown to be related to the presence or absence of certain virulence genes among the strains. The distribution of 7 major virulence genes (lvh, mip, pilB, pilD, rtxA, dotA, hsp60) were surveyed in 22 strains belonged to serogroups 1, 6, and 2-14, were selected randomly from 239 Legionella isolates. The results showed unexpected similarity of PGR and PFGE patterns of unrelated isolates of Legionella from different water supply. The results showed that environmental Legionella isolates have a very high virulence. The virulence genes lvh and rtxA have a strong association with legionellosis. The strains from water had a significantly high frequency of lvh and rtxA. Virulence lvh gene expression in all water samples were higher than 72 %; rtx - higher than 86 %; dotA –higher than 82 %; pilB and pilD - higher than 90 %; mip, hsp60 genes were found in all environmental isolates. The results of our study provide data of the possible associations between virulent clinical isolates and strains detected in various water sources.

S. haemolyticus strains. Resistance to trimethoprim in S. haemolyticus strains was encoded by dfrG (36.7%).

CONCLUSIONS
The results suggest that clinical S. haemolyticus strains are resistant to antibiotics. In spite that S. haemolyticus is known as a human pathogen, the variety of the genes encoding resistance to different classes of antimicrobials was more expressed. It should take protective measures to prevent antibiotic-resistant and methicillin-resistant spread in hospitals.

ACKNOWLEDGEMENTS
This research was funded by a grant MIP-075/2013 from the Research Council of Lithuania.
ABSTRACT NO 132  INACTIVATION OF LEUCOCYTES IN BUFFY COAT PLATELET UNITS IN 100% PLASMA WITH THE INTERCEPT BLOOD SYSTEM

Anželika Slavinska, Regina Ostrouch, joana Bikulčienė, National Blood Centre, Zolyno str. 34, 10210 Vilnius, Lithuania

INTRODUCTION
Pooled platelet concentrates from whole blood prepared with the buffy coat method contain up to 10^9 leucocytes and platelet concentrates from apheresis up to 3x10^8 leucocytes per therapeutic dose, after leucofiltration up to 10^6 leuco- cytes per therapeutic dose. Cytokines generated in platelet units by contaminating leucocytes during storage have been identified as mediators of febrile non-hemolytic transfusion reactions, and T-cells as mediators of transfusion-associated graft-versus-host disease (TA-GvHD). To mitigate the risk of leucocyte-associated transfusion reactions in specific patient populations like allogeneic and autologous hematopoietic stem cell transplant recipients, patients with hematologic malignancies or solid organ transplant recipients, irradiation of blood products has been introduced. However, the gamma-irradiation of platelets is not very effective in preventing other types of immune responses like allogeneic autoantibodies and impacts the quality of blood components. The INTERCEPT Blood System (IBS), a pathogen inactivation technology, was developed to mitigate the risk of transfusion-transmitted infectious agents and residual white blood cells of the donor are inactivated as well, it has been shown to be effective in modifying the nucleic acid of leukocytes to a greater extent than irradiation.

MATERIAL & METHODS
Pools of 10 AB0 compatible buffy coat platelet units were split into 2 units (test and control). The test unit was treated with the IBS. Both units were stored up to day 7 post donation, samples were taken to assess the platelet quality (platelet count, pH, RBC count, WBC count), the cytokine level in the platelet storage medium as surrogate marker for white blood cell viability and activity (IL-1-beta, IL-6, TNF-alpha) and indices of platelet retention of cytoplasmic and granular content (P-selectin surface expression and αIIbβ3 activation).

RESULTS
201 ekspertai mamo gripo priemones.

IŠVADOS
The PH of both units was between 7.2 and 7.4 during the whole period of storage, well above the required minimum of 6.4 (Fig. 1). The percentage of P-selectin-expressing platelets was 1.7 to 1.9-fold (20%-89%) higher in IBS platelet units during the course of storage compared to control units (5%-81%), which is in line with previous reports of platelets in 100% plasma (high variability). The percentage of P-selectin/activated GP Ib/IIia positive platelets was to 1.5 to 2.8-fold higher in IBS platelet units during the course of storage (0%-16%) compared to control units (0%-6.3%), also with high variation. The average IL-1-beta concentration in the storage medium was at day 7 1.2-fold below the level of day 1 in IBS platelets, while it was 1.4-fold above the level of day 1 in control platelets. The average TNF-alpha concentration in the storage medium was at day 7 1.7-fold below the level of day 1 in IBS platelets (0-29.6 pg/mL), while it was 1.06-fold below the level of day 1 in control platelets (0-48.0 pg/mL). The average IL-6 concentration in the storage medium was at day 7 1.2-fold below the level of day 3 in IBS platelets (0-6.6 pg/mL), while it was 1.1-fold below the level of day 3 in control platelets (0-6.6 pg/mL). The very high variability of the cytokine data makes an analysis of the mean difficult, the charts show a clear trend towards a growing cytokine concentration between day 5 and 7 in control units compared to IBS units. Due to high variability of results and low sample numbers as well as the LOD of the assays statistical significance cannot be shown for the cytokine data. However, a clear trend towards enhanced cytokine expression in untreated cells is visible at the end of storage.

CONCLUSION
The pathogen-inactivation treatment with the IBS showed a clear trend towards reduced levels of T-cell and macrophage secreted cytokines in whole blood derived platelet units, pointing towards inactivation of contaminating white blood cells. Since residual white blood cells could cause TA-GvHD and transfusion reactions, inactivation provides an additional layer of safety for sensitive patient groups.

Fig 1: pH of IBS and control platelet storage medium during the course of storage (n=4). The pH was assessed with blood gas analyzer.

Fig 2: percentage of surface P-Selectin expressing platelets during the course of storage (n=4). The analysis was done by flow cytometry with an anti-P-Selectin-PE antibody.
Other infections

**Fig 3:** percentage of P-Selectin and activated gpIIb/IIIa, αIIbβ3 complex on the surface of platelets during the course of storage (n=4). The analysis was done by flow cytometry with an anti-P-Selectin-PE and a PAC-1-.FITC antibody.

**Fig 4:** concentration of TNF-alpha in the supernatant of platelet concentrates during the course of storage (n=4). The concentration was determined with a TNF-apha ELISA.

**Fig 5:** concentration of IL-1-beta in the supernatant of platelet concentrates during the course of storage (n=4). The concentration was determined with an IL-1 beta ELISA.

**Fig 6:** concentration of IL-8 in the supernatant of platelet concentrates during the course of storage (n=4). The concentration was determined with an IL-8 ELISA.
Abolins A. .......................... 31
Abramova N. ........................ 77
Akulova E. .......................... 54
Aleksiene G. ........................ 74
Ambrozaitis A. ........................ 72
Andrekute K. .......................... 34
Bagdonas A. .......................... 72
Bang-on T. .............................. 44
Bartuliene A. .......................... 71
Balcer A. ................................. 31, 36, 40
Berna O.C. .............................. 66
Bidovanets O. ........................... 56
Bizin I. .................................... 54
Bikulciene J. ............................. 80
Bolte M. .................................. 26
Buinauskaite E. .......................... 24, 25, 44
Bulinska A. .............................. 39
Cagla E. .................................. 28
Caplinskiene I. ............................. 63, 65
Caplinskas S. ............................. 48, 49, 62, 64, 65, 66, 67, 68, 69, 70, 71
Carrera C. ................................. 59
Cuevas M.T. ............................... 59
Damuleviciene G. ........................ 72
Danilovits M. ............................. 56
Daugelavicius R. ........................... 35
Dauksiene J. ............................... 24
Delgado E. ................................. 59
Dezicaite I. ................................. 73
Domeika M. ............................... 52
Donina S. ................................. 30
Duecker P. ................................. 26
Duff Y. L. ................................. 54
Demina O. M. ............................. 29
Drulyte I. ................................. 34
Dukhovlinova E. ........................... 54
Eremin V. ................................. 53
Epremian K. ............................... 59
Ferah H. .................................... 28
Frisman D. ................................. 54
Gasich E. ................................. 53
Gaizutyte G. ............................... 47
Gefenaiete G. .............................. 72
Gerula N. ................................. 31
Grinceviciene S. ............................ 61
Grimalauskaite R. .......................... 72
Haep A. .................................... 26
Haydar A. ................................. 28
Hetman L. ................................. 56
Hoffman I. ................................. 54
Hussey A.J. ................................. 33
Isaguliants M. .............................. 62
Yablonskiy P. ............................... 60
Jancoriene L. ............................... 47, 48, 72
Janulaitiene M. ............................. 61
Jievalaitaute V. .............................. 33,
Joyce K.M. ................................. 33
Juozapaviciene I. ............................ 57
Orechoviene E. .............................. 77
Ostrouch R. ................................. 80
Ozola E. .................................... 30
Karamov E. ................................. 59, 60
Kairiene B. ................................. 55
Kalediene L. ................................. 79
Karciauskiene J. ............................. 35
Kartelishev A.V. ............................. 29
Karls R. ..................................... 36
Karnaukhova J. .............................. 54
Kasparane L. ................................. 24
Kavaliauskaite P. ............................. 73, 78
Kazanova T. ................................. 79
Kelly J.L. .................................... 33
Klimiene I. ................................. 78
Kohl P. K. ................................. 38
Korabilioviene J. ............................ 48, 49, 62, 67, 68, 71
Kornilaeva G. ............................... 59
Kozlov A. .................................... 39, 54
Krumina A. ................................. 36, 40
Kucinskiene V. ............................... 33, 37, 43, 52
Kuliese M. .................................. 72
Kuliesiene N. ............................... 35
Kumar S. A. ................................. 28
Kupfere M.R. ................................. 36, 40
Lesauskaite V. ............................... 72
Levent D. .................................... 28
Linkeviciute G. ............................... 34
Linovs V. .................................... 41
Maksteine J. ................................. 32, 33, 34
Marcinkute A. ............................... 61
Masharsky A. ............................... 54
Matulionyte R. ............................... 47
Mazeliene Z. ................................. 78
<table>
<thead>
<tr>
<th>Author</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mehmet M.</td>
<td>51</td>
</tr>
<tr>
<td>Mickiene A.</td>
<td>72</td>
</tr>
<tr>
<td>Moskaliova N. V.</td>
<td>50</td>
</tr>
<tr>
<td>Nashan D.</td>
<td>26</td>
</tr>
<tr>
<td>Nemira A.</td>
<td>53</td>
</tr>
<tr>
<td>Nizova N.</td>
<td>56</td>
</tr>
<tr>
<td>Nychyporenko L.</td>
<td>56</td>
</tr>
<tr>
<td>Paliuliete V.</td>
<td>61</td>
</tr>
<tr>
<td>Palti O.</td>
<td>30</td>
</tr>
<tr>
<td>Pandya K.</td>
<td>24, 44</td>
</tr>
<tr>
<td>Pavilonis A.</td>
<td>78</td>
</tr>
<tr>
<td>Perez-Alvarez L.</td>
<td>59</td>
</tr>
<tr>
<td>Petraitienė R</td>
<td>73</td>
</tr>
<tr>
<td>Petraitis R.</td>
<td>74</td>
</tr>
<tr>
<td>Petraitis V.</td>
<td>73</td>
</tr>
<tr>
<td>Petkevičiūtė G.</td>
<td>49</td>
</tr>
<tr>
<td>Planciuniene R</td>
<td>73, 78</td>
</tr>
<tr>
<td>Pleckaityte M.</td>
<td>61</td>
</tr>
<tr>
<td>Poder A.</td>
<td>51</td>
</tr>
<tr>
<td>Polozovaite B.</td>
<td>47, 48</td>
</tr>
<tr>
<td>Prakapaitė R.</td>
<td>73</td>
</tr>
<tr>
<td>Radavičiūtė I.</td>
<td>47, 48</td>
</tr>
<tr>
<td>Radzina M.</td>
<td>41</td>
</tr>
<tr>
<td>Raisutis R.</td>
<td>34</td>
</tr>
<tr>
<td>Ramanauskaite D.</td>
<td>47</td>
</tr>
<tr>
<td>Regan P.J.</td>
<td>33</td>
</tr>
<tr>
<td>Ritina I.</td>
<td>40</td>
</tr>
<tr>
<td>Romanova A.</td>
<td>36, 27, 32, 37, 40, 41</td>
</tr>
<tr>
<td>Rubins A.</td>
<td>27, 32, 37, 40, 41</td>
</tr>
<tr>
<td>Rubins S.</td>
<td>27, 28, 32, 40, 41, 46</td>
</tr>
<tr>
<td>Rudzinskaite K.</td>
<td>76, 77</td>
</tr>
<tr>
<td>Rutale M.</td>
<td>24</td>
</tr>
<tr>
<td>Ruzauskas R.</td>
<td>78</td>
</tr>
<tr>
<td>Sakalauskiene I.</td>
<td>35</td>
</tr>
<tr>
<td>Sanchez M.</td>
<td>59</td>
</tr>
<tr>
<td>Sasinauskaitė S.</td>
<td>53</td>
</tr>
<tr>
<td>Savickiene E.</td>
<td>66, 67, 68, 71</td>
</tr>
<tr>
<td>Sebellauskaite I.</td>
<td>48, 66, 67, 68, 71</td>
</tr>
<tr>
<td>Septe M.</td>
<td>36</td>
</tr>
<tr>
<td>Sevki O.</td>
<td>50</td>
</tr>
<tr>
<td>Sidoricka T.</td>
<td>41</td>
</tr>
<tr>
<td>Simkunaite-Zasecke A.</td>
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