



ANTWERP MEDICAL STUDENTS' CONGRESS

ABSTRACTBOOK

11th Edition, 13 - 17 September 2017
UNDER PRESSURE



Universiteit
Antwerpen



Inhoud

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Preface

Dear guests of the Antwerp Medical Students' Conference 2017,

We are honoured to welcome you to Antwerp for the eleventh edition of the AMSC. This beautiful city is the perfect location to host such an international event with an enthusiastic, engaging and mostly a very talented audience.

Amazed and excited by the enormous attention for this edition, we are looking forward to starting this congress with great pleasure.

Antwerp features the most beautiful spots for our social program and of course the perfect venue for a medical conference. The University Hospital of Antwerp is a centre of top clinical and patient oriented caretaking, combined with high quality scientific research and education.

We are hoping that this congress will not only attribute to your academic skills, but also to broaden your horizons and of course make valuable connections with your colleagues in the field of medicine.

Marion Suenart and Marloes Tholhuijsen
President and Vice-president AMSC 2017

On behalf of the Organizing Committee AMSC 2017

In case of problems during the congress, please contact
+31636434970 (vice-president) or +316 46 18 26 50 (logistics).

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Senior Staff Member & Medical Director Stem

Cell Collection Unit UZA

Guest Lecturer UA

Co-organisier Dissection Drawing Days BIOMAB

Academic Program

Wednesday 13/09/2017

Time	Activity	Location
09:00 – 10:30	Registrations Breakfast	Foyer Kinsbergen UZA
10:00 – 10:30	Opening Ceremony	Aula F. Nedée UA
10:30 – 12:15	Poster Presentations	Aula F. Nedée UA Kinsbergen Community Hall UZA
12:15 – 13:15	Lunch	Foyer Kinsbergen UZA
13:15 – 18:00	Poster Presentations	Aula F. Nedée UA Kinsbergen Community Hall UZA

Thursday 14/09/2017

Time	Activity	Location
08:30 – 09:30	Registrations Breakfast	Foyer Kinsbergen UZA
09:15 – 10:30	Oral Presentations	Aula Kinsbergen UZA Blue Hall UZA
10:30 – 10:45	Break	
10:45 – 12:15	Oral presentations	Aula Kinsbergen UZA Blue Hall UZA
12:15 – 13:15	Lunch	Foyer Kinsbergen UZA
13:15 – 14:45	Oral presentations	Aula Kinsbergen UZA Blue Hall UZA
14:45 – 15:00	Break	
15:00 – 16:30	Oral presentations	Aula Kinsbergen UZA Blue Hall UZA
16:30 – 17:00	Award Ceremony	Aula Kinsbergen UZA

Friday 15/09/2017

Time	Activity	Location
08:00 – 09:00	Registrations Breakfast	Foyer Kinsbergen UZA
09:00 – 10:30	Common lecture GDA – Infections	Aula F. Nedée UA
10:30 – 11:00	Break	
11:00 – 12:15	Keynote Lecture – Tumour resection surgery <i>Prof. Dr. Somville</i>	Aula F. Nedée UA
12:15 – 13:15	Lunch	Foyer Kinsbergen UZA
13:15 – 17:00	Workshops Da Vinci Infusion ACLS Suturing	Operation Theatre UZA S0.20 UA S0.37 UA Community hall UZA
Series A	Suturing -> Infusion/Da Vinci -> ACLS	
Series B	Infusion/Da Vinci -> ACLS -> Suturing	
Series C	ACLS -> Suturing -> Infusion/Da Vinci	

Saturday 16/09/2017

Time	Activity	Location
08:00 – 09:00	Registrations Breakfast	Foyer Kinsbergen UZA
09:00 – 10:00	Lecture – Emergencies after natural catastrophes <i>MSF</i>	Aula F. Nedée UA
10:00 – 11:00	Keynote lecture – Treatment of shock <i>Dr. Mirza</i>	Aula F. Nedée UA
11:10 – 12:15	Keynote lecture – The Janus face of plastic <i>Prof. Dr. Jorens</i>	Aula F. Nedée UA
12:15 – 13:15	Lunch	Foyer Kinsbergen UZA
13:15 – 17:00	Workshops Intubation Treatment of Shock Ebola	S0.20 Community Hall UZA S0.037
Series A	Shock -> Intubation -> Ebola	
Series B	Ebola -> Shock -> Intubation	
Series C	Intubation -> Ebola -> Shock	

Sunday 17/09/2017

Time	Activity	Location
09:30 – 10:30	Registrations Breakfast	Foyer Kinsbergen UZA
10:30 – 12:00	Keynote lecture – Terror, what you need to know Prof. Dr. Nijs	Aula Kinsbergen UZA
12:00 – 13:00	Lunch	Foyer Kinsbergen UZA
13:00 – 14:30		
14:30 – 15:30	Closing Ceremony	Aula kinsbergen UZA

Social Program

12/09 Pre-conference City tour

Given as an AMSC tradition, you will be guided through the city by a former professor of the University in a free of charge Tour like no other. Learn the secrets of Antwerp and see the highlights and hotspots. We will finish the day with some drinks in a traditional Belgian café, a perfect opportunity to learn more about your fellow delegates before the start of the conference.

13/09 Pub crawl

Starting near the cathedral at the first lovely bar, we will head towards the city hall for our second location. Finally, we will end the night at the karaoke bar 'Bonaparte'. You will also be able to see the hotspots of Antwerp by night while getting to know your fellow participant better. Feeling hungry? Food is available near the bars.

14/09 Dinner

A dinner at the "Groote Witte Arend", which will be at your own cost. Information has been sent via email, be sure to bring cash money.

15/09 Beer tasting

Belgians are fond of their beers and proud the variety that a few hundred years of brewing has brought with it. At the "Beer central" you can choose from 300+ different special beers. We will make sure to help you select the best beers you must have tasted before leaving Belgium. Non- alcoholic beverages are available.

16/09 Bowling night.

More information will follow.

17/09 Visit to Red Star Line museum.

It is a shipping site used for transporting migrants in pursuit of the American dream or fleeing from the axis of evil. Hear amazing stories and join us at the final event of our congress.

Travel guide

University of Antwerp

First thing to know: The University of Antwerp consists of four campuses:

1. City Campus: located in the center of Antwerp, houses the faculties of Applied Economics/Arts and Philosophy/Law/Political and Social Sciences.
2. Campus Groenenborger: houses the first year students of the faculties of Medicine / pharmaceutical, Biomedical and Veterinary Sciences / Sciences.
3. Campus Middelheim: houses the faculty of Sciences.
4. Campus Drie Eiken: located in Wilrijk, home of the faculties of Medicine and Pharmaceutical, Biomedical and Veterinary Sciences. It is located next to the University Hospital.

A lot of our activities will take place at the University Hospital of Antwerp and the Campus Drie Eiken of the University of Antwerp. The aula can be reached from the main entrance of the hospital by following **ROUTE 12** in the hospital. The aula can also be reached by walking from campus Drie Eiken to the backside entrance of the hospital.

How to get to University of Antwerp-Campus Drie Eiken/ University Hospital of Antwerp (UZA)

Public transport in Flanders (except for the train) is organized by 'De Lijn'. De Lijn offers a route planner online (www.delijn.be/en).

We suggest you take one of the following busses:

- Bus 17 from the Central Station (every 15 minutes): Direction 'UZA', get off at the terminal stop UZA.
Duration: +/- 35 minutes (can be longer in rush hour)
- Bus 22 from Groenplaats (every 15 minutes).
Direction 'Valaar - UZA', get off at the terminal stop 'UZA'.
Duration: +/- 45 minutes (can be longer in rush hour)

- Bus 21 from the railway station of Antwerpen - Berchem (every 20 minutes) and Antwerpen - Central station.
Direction 'Neerland', get off at 'Wilrijk Bist', take bus 17 from there.

Duration: +/- 45 minutes (can be longer in rush hour)

If you're staying at the Kabas Hostel, you can take these two busses:

- Bus 17 from the bus station 'Provinciehuys' (\pm every 10 minutes)
This bus station is at a nine-minute walk from the Kabas Hostel
Direction 'Brouwersvliet – Central station – UZA', get off at the terminal stop 'UZA'.

Duration: +/- 35 minutes (can be longer in rush hour)

- Bus 22 from the busstation 'Antwerpen Van Schoonbekestraat' (\pm every 15 minutes). This bus station is a three-minute walk from the Kabas Hostel. Direction 'Groenplaats – Valaar – UZA', get off at the terminal stop 'UZA'.

Duration: +/- 30 minutes (can be longer in rush hour)

For more information, have a look at the website of our university:
<https://www.uantwerpen.be/en/campus-life/on-your-way-to-campus/>

You can also call De Lijn Info (070 220 200-0.30 EUR/min) for more information about public transport.

On weekdays, De Lijn Info is manned from 7 am to 7 pm, during weekends and on holidays from 10 pm to 6 pm.

Transport in the city of Antwerp

General info

Most of the things in the city center are within walking distance, but of course there are a lot of different lines in the city. To get from the Central Station to the city center (Groenplaats) you can walk on the 'Meir' (shopping boulevard) or take the tram (line 2, 3, 15 or 6).

Bus tickets

You can buy tickets on the bus or tram, but it is cheaper to buy them in advance. Look for vending machines in bus/metro stations. You can also buy tickets in most newspaper shops and some supermarkets.

- Single ticket: €3
- Day Pass
 - 1 day: €6 in presale, €8 on bus/tram
 - 3 days: €12 in presale
 - 5 days: €17 in presale
- 10-trip card €15

The tickets are valid on all ways of public transport: bus, tram and subway.

The AMSC will offer a few 'Day Pass' and '10-trip' tickets for our delegates. You can order these while registering. If you forgot to do this, please send an email to info@amsc.be. Your transportation ticket will be handed to you at the registration desk.

Partners



The Federation for Internationally Recognised (Bio)Medical Student Congresses webpage gives you an overview of different (bio)medical congresses and gives the opportunity to evaluate the congresses you have attended!

FIRM Student Congresses is an organisation which aims to enhance (bio)medical science student congresses in Europe, aid students in choosing which congresses to attend, promote (bio)medical sciences in Europe and enhance the integration of medical science researchers and students.

For more information please check out the website: <http://firmstudentcongresses.com/>

PHOENIX 2017

INTERNATIONAL MEDICAL STUDENTS' CONFERENCE
MARCH 22ND - 26TH 2017
AJIMS & RC
MANGALORE, INDIA
www.phoeniximsc.com

22-26 March 2017

info@phoeniximsc.com

www.phoeniximsc.com



14 – 17 May 2017

www.icmsbg.org

info@icmsbg.org



27 – 30 September 2017

www.esc-berlin.com

info@esc-berlin.com



31st of May 2018 – 2nd of June 2018.

www.medunigraz.at/kongresse/international-student-congress

isc@medunigraz.at

ICHAMS

International Conference for Healthcare and Medical Students



15 – 17 February 2018

www.ichams.org

ichams@rcsi.ie



Indonesia International (Bio)Medical Students' Congress



MEDICS
2017



27 - 29th 2017

www.imsc-krakow.pl

9 - 14 October 2017

www.mdsc.mu-pleven.bg

mdscpleven@gmail.com

ligamedika.com/inamsc

ligamedika.com/symposium-register

25 – 29 October 2017

info@imedconference.org

www.imedconference.org

31st of March – 2nd of April 2017

<http://www.soms-medics.com/contact/>

www.soms-medics.com

11 – 14 May 2017

wimc@wum.edu.pl

www.wimc.wum.edu.pl

15 – 19 March 2017

limsc@lumsc.nl

www.limsc.nl

contact@bim.co.ua

<http://bim.co.ua/eng/>

Abstracts – Oral presentations

Clinical Fundamental studies

Title	Factors affecting the appearance of Simon's sign and haemorrhage in attachment of neck muscle at autopsy in hanging cases.
Presenter	Aidid Ghazali
Author	Aidid Ghazali
Co-authors	-

This study is to determine factors affecting the appearance of particular signs of ante mortem hanging at autopsy: Simon's sign (SS) and hemorrhages in attachments of sternocleidomastoid (SCM) muscles. These signs are important to differentiate real suicidal hanging from an act of feigning a hanging.

Retrospective study on 152 autopsy reports of hanging cases referred to the Department of Forensic Medicine, Medical University of Warsaw (Poland) in 2009. Factors involved: position of hanging, age, gender, height.

In a total of 152 cases, SS was present in 25% (n: 38) of cases: aged from 16 to 78 (mode: 19, 38, 45; median: 38.5), male: 25.5% (n:35), females: 20% (n: 3). SCM hemorrhage was noted in 61.2% (n:93) of cases: aged from 16 to 78 (mode: 47; median: 42.5), male: 61.3% (n: 84), female: 60% (n: 9). In the age group ≤ 20 , the frequency of SS was about 60%, in $21 \leq$ it was about 30% and frequency gradually decreased. The frequency of SCM hemorrhage in all age groups was about 50-60%, except in elderly ≥ 80 years old which was at 0%. In cases of known hanging position (n: 69), SS and SCM hemorrhage was present at 51.9% (n: 27) and 94.2% (n: 49) respectively in high-point hanging and at 11.8% (n: 2) and 88.2% (n: 15) respectively in low-point hanging. The SS wasn't observed in individuals of height ≤ 165 cm, while in ≥ 176 cm, it was noted at 40%.

No correlation between both SS and SCM with gender. SS and SCM bleeding decreased with age. The SS appearance increased with height. High-point hanging shows higher incidence of both SS and hemorrhage of SCM.

Title	Prognostic value of pericardial effusions for patients operated for breast cancer
Presenter	Dr. M. A. Serradj
Author	Dr. M. A. Serradj Pr A.BOUZID
Co-authors	Pr A.BOUZID

Introduction:

Tumor pathology is the second cause of pericardial effusions in pre-tamponade, often recurrent effusions and associated with other complications. In this retrospective study, we illustrated the relation between pericardial effusions & breast cancer observed in our cardiovascular surgery department.

Aim of study:

The objective of this study is to evaluate the prognostic value of these effusions in the patients operated for breast cancer.

Methods and results:

From January 2011 to March 2013, 43 patients were treated for pericardial effusions in pre-tamponade at the cardiac surgery department at the ORAN EHU. 06 patients presented with operable breast cancer. The average age was 50 years (45 years - 66 years). Effusion appeared on average 2.5 years (1-7 years) after mastectomy. 04 patients had left mastectomy, 01 patient had right mastectomy, 01 patient had a double mastectomy. All the patients had benefited from chemotherapy & radiotherapy. The cytological study of the puncture fluid revealed the presence of carcinomatous cells in half of the cases, while in the other half the presence of inflammatory cells. 4 patients had died in the month following their puncture, the 5th patient after 8 months and the 6th patient had been lost to follow-up.

Discussion and results:

In breast cancer the appearance of a pleural effusion is seen on average after 45 months and the average survival is 15.7 months after the appearance of this effusion. The mean survival of patients with pericardial effusion on breast cancer varies according to the series between 6.5 and 9 months with a 1 year survival rate not exceeding 33%. The use of intra-pericardial sclerosing or anti-mitotic treatment improves the prognosis.

Conclusion:

The appearance of a pericardial effusion in patients who have been operated on for breast cancer is a sign of poor prognosis, especially if accompanied by other metastatic sites. Early and complete management of these patients would improve their prognosis.

Title	Severe thrombocytopenia occurred in absence of disseminated intravascular coagulation – a possible surrogate marker for pseudomonas aeruginosa sepsis
Presenter	Ana-Raluca Mihalcea
Author	Ana-Raluca Mihalcea
Co-authors	T.C. Munteanu, C. Tiliscan, C. Calota, O. Dorobat, V. Gheorghita, R.M. Hrisca, C.M. Niculae, A. Hristea, R.V. Moroti

Introduction:

Pseudomonas aeruginosa is an opportunistic pathogen that typically infects the airway, urinary tract, burns or wounds of immunocompromised individuals. Its ability to invade tissues depends upon production of phospholipase C (PLC), lecithinase and cytotoxin. PLC can aggregate platelets independent of prostaglandin synthesis or other known pathways of platelet aggregation, which may lead to severe thrombocytopenia (ST). Our study aimed to evaluate the correlation between ST and Gram-negative bacteremia.

Materials and methods:

We performed a retrospective study between 2012 – 2016 among patients with Gram-negative positive blood cultures: *Pseudomonas aeruginosa*, *Escherichia Coli*, *Klebsiella pneumoniae* and *Acinetobacter baumannii*, admitted to National Institute for Infectious Diseases “Matei Bals”, Bucharest. We assessed the presence of ST, defined as platelet number below 50000/mmc and we correlated the risk of ST with the presence of specific Gram-negative bacteria. Statistical analysis was performed using IBM SPSS Statistics v. 23.0.

Results:

We included 186 patients, with a mean age of 63.7 (\pm 17.6) years, with a balanced sex distribution (90 males and 96 females). The distribution of specific Gram-negative positive blood cultures was as follows: *P. aeruginosa* - 23.1%, *E. Coli* – 50.5% , *K. pneumoniae* – 18.8% and *A. baumannii* – 7.5%. The prevalence of ST was 15.6% (*P. aeruginosa* – 25.6%, *E. Coli* – 10.6% , *K. pneumoniae* – 11.4% and *A. baumannii* – 28.6%). The frequency of ST was similar in *P. aeruginosa* and *A. baumannii* groups, but only *P. aeruginosa* was significantly associated with severe thrombocytopenia ($p=0.039$ vs 0.164, respectively). This association was persistent even after adjusting for other causes of thrombocytopenia, such as intravascular disseminated coagulation and cirrhosis ($p=0.001$).

Conclusion:

We found a significantly higher prevalence of severe thrombocytopenia in patients with *P. aeruginosa* bacteremia, compared to other Gram-negative bacteria.

Title	Evaluation of capsular contracture: Software-based objective analysis
Presenter	Dr. Alessandro Mangiabene
Author	Dr. Alessandro Mangiabene
Co-authors	Prof. Carmine Alfano

Adverse capsular contracture (ACC) is the most frequent and problematical complication after breast implanting surgery. Its aetiopathogenesis remains unclear, as well as its evolution unpredictable and its treatment difficult.

Evaluation of such condition has long been performed only via clinical palpation, whose results sum up by Baker's well-known four classes.

Nonetheless, newer objective methods are nowadays available to assess its grade, albeit not routinely used yet.

This work essentially aims to submit and support one of these breaking techniques, irrespective of palpation's intrinsic subjective limit, therefore more suitable for scientific purpose: mammary compliance measurement and its further software-based analysis.

A prospective study was conducted in 48 patients who underwent mammary reconstruction by breast implanting over the last 4 years in our Department of Plastic and Reconstructive Surgery at the University of Perugia. Follow-up visits were scheduled at 1, 4, and 12 months. Capsular contracture was evaluated using concurrently the traditional palpatory method, applanation tonometry (another objective technique), and measurement of mammary compliance with the innovative software-backed device Tonometer Compliance System 1.1.

Data from our series reveal a good match between mammary compliance values, and those for applanation tonometry and Baker's clinical grading.

Mammary compliance measurement represents an absolutely effective objective method of ACC rate evaluation. Due to its high sensitivity it's well-suited to both long-term follow-up studies and close monitoring of therapeutic interventions.

Tonometer Compliance System 1.1 revealed to be an excellent computerized system for calculating and working through compliance itself: it allows elimination of the traditional clinical and subjective evaluation of capsular contracture; it is easy to use, with readily reproducible results and graphs simple to interpret; all the work is done by a software, therefore results may be digitally recorded and filed for future comparisons.

Title	Cervical cancer screening in women younger than age 25 – a different view for nowadays
Presenter	Ana-Raluca Mihalcea and Delia Iona Cudalba
Author	Ana-Raluca Mihalcea and Delia Iona Cudalba
Co-authors	Ionescu Doris Marilena, MD

Introduction:

In the United States, cervical cancer screening is recommended to start at age 21, whereas most European countries suggest that screening begin at age 25. Moreover, some studies suggest that women aged under 21 years should not be screened regardless of the age of sexual initiation or other risk factors. Despite current guidelines, ongoing medical practice certifies cases of young women under 25 years old who were found to have low- grade squamous intraepithelial lesions (LSIL) or even high-grade squamous intraepithelial lesions (HSIL). These diagnoses reported throughout our study and in the literature raise an issue of controversy.

Material and methods:

In this retrospective study, we analyzed, throughout 6 months, the results of Babes-Papanicolaou tests performed as a routine screening on 500 young women aged 18 to 25, sexually active. The results were confirmed by colposcopy. Database research on review articles and meta-analysis on internet searching engines and cervical cytology related books was performed.

Results:

There were 24 diagnoses of squamous intraepithelial lesions of which 22 were LSIL and 2 HSIL. Our results are in agreement with the hypothesis which states the necessity of a reevaluation of the guidelines. Researchers have put forward their concerns regarding the increased age at which women will start having Babes- Papanicolaou tests. It was highlighted that the results of Pap smears performed on young women aged 25 to 29 were positive for cervical cancer, when the age of onset rose from 21 to 25 in Europe.

Conclusion:

Positive test results of women younger than the age of onset of cervical cancer screening enter into a polemic against current guidelines. While there are still many questions left unanswered, there is a need for further research on the utility of cervical cancer screening in younger women and on other risk factors which are believed to contribute to developing cervical cancer alongside HPV infection or individually.

Title Stem cells transplantation as disease modifying therapy(dmt) for multiple sclerosis

Presenter Umenta Braithwaite

Author Umenta Braithwaite

Co-authors Professor Fedulov A.S

Introduction:

Based on the mechanisms of MULTIPLE SCLEROSIS(MS), "ideal" pathogenetic therapy should influence the autoimmune-Inflammatory and neurodegenerative components and promote structural and functional repair mechanisms→regeneration and remyelination.

Aim: evaluate on the basis of Optical Coherence Tomography(OCT) neuroprotective effect of transplantation of autologous MSCs and the concentration of the selected biomarker Platelet Derived Growth Factor(PDGF) in MS patients's blood serum.

Method and material:

Material: main group consisted of 8 patients with RRMS –Received Autologous MSCT Control group consisted of 10 people with RRMS—Received no transplant Groups were comparable in terms of clinical and demographic variables (age, sex, disease duration, disability degree)

Methods: analysis of thickness of retinal nerve fibers, peripapillary zone diameter of 3.4 mm concentric circle of the optic nerve; Mapping macula thickness and retina volume, using radial scans 6 mm; PDGF

Concentration of PDGF-ββ, in serum of MS patients measured by ELISA using kits Quantikine Human PDGF-BB. The optical density of samples were measured with spectrophotometer BRIO-SIRIO (SEAC, Italy λ = 450 nm and λ = 620 nm).

STEP1.HARVEST (MSCs) →STEP2.CULTIVATION-PHENOTYPING & MSC CERTIFICATION→STEP3REINFUSION (TRANSPLANTATION)

Results:

AVERAGE THICKNESS OF Retina Nerve Fiber Layer(RNFL) BEFORE AND AFTER MSCT:

Group	Before MSCT	After 6 month	After 1 year
Main	83.48μm	83.99μm	86.14μm
Control	84.46μm	81.88μm	78.78μm

Conclusion:

1. Appearance of regenerative and neuroprotective effects in treatments with transplantation of autologous MSCs for 12 months post-transplantation
2. Identified changes in concentration of PDGF & immune-globulins(After MSCT) compared to the change in thickness of RNFL signify the possibility of using PDGF and IgM as biological markers that characterize the processes of remyelination after cell therapy.

Title	Long-term results of surgical treatment of epilepsy related to cerebral cavernous malformations
Presenter	Kacper Koczyk
Author	Kacper Koczyk
Co-authors	Tomasz Dziedzic MD PhD, Prof. Andrzej Marchel MD PhD

Cerebral cavernous malformations (CCM) are benign vascular lesions with a high risk of developing cavernoma related epilepsy (CRE). Surgery is not curative in terms of seizure control in all patients with CRE. Effectiveness predictors are not fully established. The aim of the study was to report on the results of surgical treatment of CRE and identify the predictors of post-surgical seizure freedom.

In the 2001-2015 period 51 patients were treated surgically due to CRE and in 38 (75%) cases it was possible to conduct a long-term follow-up, its average time was 51 months (15-113 months). The postoperative epilepsy status was classified in Engel Scale with class I results as favourable outcome. The analyses were performed using SAS University Edition software.

The study included 20 women and 18 men, the average age was 34 (17-70). Among 38 patients included in the study 25 were classified as Engel I (65,8%) while 13 were classified as Engel II-III (34,2%). Predictors of postoperative seizure freedom included single seizures [$p=0,01$; OR 7,13 (1,60-31,72)], cavernoma location in the frontal lobe [$p=0,04$; OR 5,96 (1,09-32,57)]. Patients with cavernoma in temporal lobe or insula most commonly were classified as Engel II [$p=0,035$; OR 12 (11,76-12,24)]. Other factors that may become statistically significant in a larger study group comprise change in seizure semiology ($p=0,11$), length of epilepsy history ($p=0,26$) and patient age <30 yo ($p=0,29$). The size of the cavernoma had no effect on results.

Surgical treatment of CRE proves more effective when patient experienced only single preoperative seizures and the CCM was located in the frontal lobe. The group size was the main limitation to the study, therefore further investigation of this problem is required.

Title	Time since death estimation by the method of laser polarimetry of polycrystalline cerebro-spinal fluid films images
Presenter	Marta Garazdiuk
Author	Marta Garazdiuk
Co-authors	O.Garazdiuk, O.Vanchuliak, Yu. Sarkisova

Introduction:

Time since death (TSD) estimation is an important and controversial issue in forensic practice. In our opinion, laser polarimetric methods are very perspective for its solving.

Purpose: to develop and to test two-dimensional Stokes-polarimetric mapping of biological layers own fluorescence to evaluate accuracy of the TSD assessment using statistical analysis of postmortem changes dynamics of coordinate distributions values of polycrystalline films of liquor (PFL) images laser-induced fluorescence polarization azimuth (LIFPA).

Materials and methods:

Objects of investigation are PFL, taken in 37 corpses with accurately known time of death and 10 healthy volunteers. Coordinate distributions of LIFPA image values were determined for each sample of PFL in the optical arrangement of the Stokes polarimeter in different spectral bands of optical radiation. The value of statistical points 1 - 4 th order was performed for each two-dimensional distribution of PFL images LIFPA values. Statistical processing of the calculated values of set of points that characterize the LIFPA distributions within representative sampling was carry out. The depending on the time change of the most sensitive points of statistical values were built to achieve values stabilization.

Results and conclusions:

Two-dimensional Stokes-polarimetric mapping distributions LIFPE of PFL images may be used in determination of the TSD. Statistical points of the 3rd and 4th order are the most sensitive PFL optical values to evaluate postmortem changes by short-range fluorescence. Statistical points of the 2nd and 4th order are the most sensitive PFL optical values in case of using media- and long-wavelength range of fluorescence They characterize PFL images PE values variance and kurtosis distribution. Dynamic changes of PFL laser have demonstrated the effectiveness of this method to estimate TSD.

Title	Detecting chronic pain patterns in fMRI data.
Presenter	Lukas Piliponis
Author	Lukas Piliponis
Co-authors	J. Ušinskienė, G. Terbetas

Introduction:

Failed Back Surgery Syndrome (FBSS) is a condition of persisting low back pain with or without lumbosacral radiculopathy after 1 or more spine surgeries. Main preoperative risk factors are depression, > than 6 months continuous pain and preexisting neuropathic pain. Spine surgery in chronic low back pain has poor results because of the central sensitization at the level of spinal cord and the „pain matrix“ of the central nervous system. The main clinical application of pain fMRI would be to contraindicate surgery as a treatment method for patients with altered pain perception and functional brain activity.

Materials and methods:

To investigate the pain functional consequences, we recorded resting state fMRI followed by block design pain stimulation in FBSS patient with chronic low back pain and neurotypical control who matched in age and sex. Pain stimulus was given via clip compressing distal phalanx of right-hand index finger. The fMRI was performed with GE Optima 450w 1.5T scanner. fMRI images were analysed with SPM12.

Results:

We studied the difference in pain activations and resting state between both participants. The threshold for functional activity was selected as 30 voxels ($p=0.001$). Pain activations showed differences in FBSS patient: anterior and posterior right insular cortices (IC), both supplementary motor areas (SMA), left primary visual cortex (V1) and both sides of the occipital middle-inferior gyri.

Conclusion:

The diagnostic approach of chronic pain patterns using fMRI could help preventing FBSS. With further larger case-control study research we seek to develop an evident model of chronic pain activation for diagnostic purposes.

Title	Monotherapy with angiotensin-converting enzyme inhibitors and combined antihypertensive therapy in patients with diabetic nephropathy: retrospective study
Presenter	Oleksandr Garazdiuk
Author	Oleksandr Garazdiuk
Co-authors	Garazdiuk M.S., Vanchuliak O.Ya.

Introduction:

Diabetes and hypertension are affect heart, kidneys, brain and blood vessels of the retina. End-stage renal disease with a combination of these pathologies is the commonest cause of disability and mortality.

The aim was to compare the efficacy of monotherapy with ACE inhibitors at high doses and combination therapy (ACE inhibitor and moxonidine or ACE inhibitor and indapamide) in patients with hypertension on the background of diabetic nephropathy.

Materials and methods:

We analyzed 68 cards inpatients and 34 blood pressure diaries. The first group of patients represented by 16 patients who received only ACE inhibitor (enalapril or lisinopril) at a dose of 20-60 mg/day, the second group - 27 patients treated with the combination of enalapril or lisinopril (10-20 mg/day) with moxonidine (3-4 mg / day), III group - 25 patients treated with the combination of ACE inhibitors (as in the second group) and inadapamid at a dose of 1.5 mg/day.

Results:

It was proved more pronounced effect in the second group (blood pressure after treatment was 130 ± 4 (systolic) and 85 ± 3 mm Hg (diastolic) vs. 136 ± 4 and 88 ± 2 in the first group and 133 ± 3 and 80 ± 2 in the second group ($P < 0,05$), respectively, and found a positive effect in the second group on heart rate (70 ± 3 beats/min in the second group vs 80 ± 6 in the first group and 83 ± 4 beats/minute in the third group ($P < 0,05$)), which positively changed quality of patients' life.

Conclusion:

Usage of combined therapy with ACE inhibitors and moxonidine in patients with diabetic nephropathy demonstrates higher clinical efficacy and a favorable safety profile.

Title	Rejection of the renal transplant: the histological diagnosis evaluated
Presenter	Yasin Güller
Author	Yasin Güller
Co-authors	Michiel Lembrechts, dr. Amélie Dendooven, dr. Kristien Ledeganck, dr. Els Gielis, prof. dr. Martin Lammens, prof. dr. Jean-Louis Bosmans

Introduction:

In 1991, the idea for a histologic classification system of renal allograft biopsies was introduced as there was a great need for standardization of diagnosis and treatment of acute rejection. The proposal for harmonization became the Banff-classification, a system that has been continuously adapted over the years based on scientific and clinical research. In this retrospective blinded study, we aim to investigate if the diagnosis based on the Banff '13 classification (considered as gold standard) is comparable to the previous diagnostic evaluation methods including descriptive biopsy analysis and previous versions of the Banff classification.

Method:

We selected 151 allograft biopsies that were sampled between 2001 and 2013 and stored at the Antwerp University Hospital. All biopsies were re-evaluated according to the Banff '13- classification and compared to the histologic diagnosis as recorded in the patient files by a previous Banff-classification or a descriptive method (PSS: meaning previous scoring system; descriptive method or previous version of Banff-classification).

Results:

Of the 151 biopsies, only 37 received the same diagnosis by Banff '13 compared to PSS while 116 biopsies were differently diagnosed, either more or less severe. Moreover, results by Banff '13 showed a more equal distribution between the different categories compared to PSS, where most of the biopsies were found to have a 'normal' histology (n=108) and little biopsies showed 'borderline' (n=9) or 'chronic' (n=10) changes. Of the same population PSS only diagnosed 24 with acute rejection, while this number increased to 35 using the Banff '13-classification. Meanwhile the 'normal' group was reduced to 29 biopsies after re-evaluation.

Conclusion:

The results showed significant discrepancies between the old and the new histologic diagnosis, most likely leading to different therapy choices with a potentially different graft outcome and different side effects by overtreatment or undertreatment.

Title	Post-inflammatory visceral hypersensitivity: a role for serine proteases
Presenter	Jelena Heirbaut and Nikita Hanning
Author	Jelena Heirbaut and Nikita Hanning
Co-authors	Ceuleers H, Goolaerts I, Francque S, De Schepper H, De Man J, De Winter B

Introduction:

Serine proteases are hypothesized to contribute to visceral hypersensitivity in irritable bowel syndrome (IBS), but their exact role is still unknown. The aim of this study was to investigate the effect of the serine protease inhibitor nafamostat mesylate (NM) on visceral hypersensitivity in a post-inflammatory rat model for IBS.

Material and methods:

Colitis was induced in male Sprague-Dawley rats with a trinitrobenzene sulphonic-acid (TNBS) enema, while controls received 0,9% NaCl. Colonoscopy was performed on day 3 to confirm the presence of colitis, and repeated every 4 days from day 10 until endoscopic healing of the mucosa was observed. Visceral sensitivity was assessed by quantifying the visceromotor responses (VMRs) to colorectal distension. NM (0,1-1-10 mg/kg) or its vehicle was injected intraperitoneally 30 min prior to VMR measurements. Inflammatory parameters (colonoscopy, macroscopy, microscopy and myeloperoxidase activity) were used to confirm the post-inflammatory status of the colon. VMR data were analysed by the generalized estimating equation model, followed by LSD post-hoc test when appropriate. Inflammatory parameters were analysed by two-way ANOVA, followed by SNK post-hoc test when appropriate.

Results:

All TNBS-rats developed colitis by day 3. Their post-inflammatory status was confirmed at the day of the VMR (day 13-21). Visceral hypersensitivity was present in vehicle-treated post-colitis rats, demonstrated by significantly higher VMRs compared to controls. NM significantly reduced visceral hypersensitivity, showing the best results at the lowest dose used (0.1 mg/kg) with an inverse dose- relation profile. NM did not modify visceral sensitivity in controls.

Conclusions:

Our findings indicate that the serine protease inhibitor NM decreases post-inflammatory hypersensitivity in a rat model for IBS. Thus, serine proteases encompass a new potential target in the treatment of visceral pain in IBS patients.

Title	Autoimmune thyroiditis in patients with diabetes mellitus type 1 -observations from pediatric center in middle europe
Presenter	Alicja Pietraszek
Author	Alicja Pietraszek
Co-authors	-

Introduction:

Autoimmune thyroid diseases (AITDs) are diseases which, near the celiac disease, are the most frequent associated with type 1 diabetes mellitus (T1DM).

Materials and methods:

880 patients with T1DM (48.75% females, mean age 12.1 ± 4.0 y) were included. Data were retrospectively collected from hospital records. We considered patients' sex, time of onset of AITD after T1DM diagnosis, initial signs and symptoms of AITD, level of serum antibodies against thyroid, TSH level and HbA1c rate at the time of AITDs diagnosis.

Results:

AITDs were diagnosed in 73 patients with T1DM (8.30%); 59 girls(13.75%) and 14 boys(3.25%). There were 69 patients (94.52%) with Hashimoto disease and 4 patients with Graves' disease. AITDs occurred mean 23.63 ± 36.89 months after the onset of T1DM. In 35 patients (47.94%) T1DM and AITD were diagnosed at the same moment. Only three pts had AITD diagnosed before T1DM. The mean level of HbA1 at the moment of AITDs diagnosis was $9.3 \pm 3.0\%$ and was statistically lower ($p=0.008$) when AITD was diagnosed not at the moment of DM diagnosis ($7.5 \pm 2.0\%$). Most AITDs were asymptomatic and were diagnosed occasionally during routine follow up (42 patients, 57.5%). 3 patients (4,11%) had goiter and 5 (6,85%) presented with growth inhibition. Mean level of TPOAb, TgAb and TSHAb at AITDs diagnosis were respectively 1750.5 ± 2479.6 IU/l, 129.3 ± 176.2 IU/ml and 2.07 ± 0.7 IU/ml.

Conclusions:

AITD, mainly Hashimoto disease, occurs in 8.3% children with T1DM, more often in girls (80.8%), mean 2 years after T1DM diagnosis. There is a need to every year screening towards AITDs, because most patients are asymptomatic.

Title	Cystoid Macular Edema After the 'bag-in-the-lens' implantation technique
Presenter	Dorothee Scheers (MD)
Author	Dorothee Scheers (MD)
Co-authors	Luc Van Os (MD, FEBO), Danny Mathysen (PhD, Msc), Marie-Josée Tassignon (MD, PhD, FEBO)

Introduction:

Purpose: To define the incidence of pseudophakic cystoid macular edema (PCME) and the Irvine-Gass syndrome and the associated risk factors following phacoemulsification and the bag-in-the-lens intraocular (BIL IOL) implantation.

Materials and methods:

Setting: Unicentric Study, University Hospital of Antwerp

Study design: Retrospective Observatory Cohort Study of Electronic Medical Reports (EMRs)

Methods: 1081 first-operated eyes of 1081 patients undergoing cataract surgery, according to BIL IOL implantation technique at the University Hospital Antwerp (UZA) between January 2013 and December 2015, were included in the research database. A multiple logistic regression and a multiple cox regression were performed to identify risk factors for developing PCME.¹

Results:

After implantation of BIL IOL in 737 eyes with a minimal follow-up duration of 3 months, 19 eyes developed (2.58%, CI: 1.60, 4.07) PCME. Then patients with known risk factors for developing PCME, were excluded. 2 of the 431 eyes developed Irvine-Gass syndrome (0.64%; CI: 0.08, 1.85). This study shows that PCME is independently associated with renal insufficiency, vitreomacular traction, history of intravitreal injection(s) ipsilateral, history of ipsilateral CME, diabetic retinopathy and a history of uveitis.

Conclusion:

The Irvine-Gass incidence after the BIL IOL, namely 0.64%; CI: 0.08, 1.85, is similar to the reported one after the lens-in-the-bag (LIB) IOL implantation technique, namely 0.1-2, 35%. This shows that the BIL IOL implantation technique is a safe procedure and not inferior to the LIB IOL implantation technique for developing cystoid macular edema and is the preferred technique, especially in patients at high risk of secondary cataracts. Patients with risk factors for developing PCME, demonstrated by this study, benefit from additional prophylaxis and controls.

¹ Prof. Dr Tassignon has a financial or ownership interest in a named material or method.

Title	How popular are dietary supplements and over the counter drugs among hypertensive patients?
Presenter	Karolina Rutkowska
Author	Karolina Rutkowska
Co-authors	Marek Stopa, Mateusz Łobacz, Agata Radko, Magdalena Niemczyk

Introduction:

Dietary supplements(DS) and over-the-counter drugs(OTC) are frequently advertised as a natural treatment of many disorders. DS/OTC can interfere with biotherapeutic action of prescribed medication and this is of particular concern in patients with cardiovascular disease, many of whom are on long term treatment. The aim of the study was to analyze the frequency of use of DS/OTC among hypertensive patients as well as factors determining its use and patients' knowledge about possible interactions with conventional medication.

Materials and methods:

The study was conducted in the Outpatient Hypertensive Clinic. Self-prepared questionnaire was administered among 151 hypertensive patients(58% females, 18-80years). Regular DS/OTC use was defined as taking them at least 3 times per week.

Results:

In the examined population of hypertensive patients regular use of DS/OTC was declared by 67% subjects(n=101). The most commonly, regularly used substances were minerals and microelements(n=61, 60,4%), vitamins(n=49, 48,5%) and analgesics(n=19, 18,8%). There were no differences in the frequency of DS/OTC use in relation to number of antihypertensive drugs, educational level, age and income. Women are more frequent regular users of DS/OTC than men(n=65 vs n= 36 p=0.03). Only 38% of responders always consulted the use of DS/OTC with a doctor. The majority of responders(52%) is not aware of possible influence of DS/OTC on antihypertensive medication or blood pressure control. Cost of DS/OTC in 23% of responders is equal or higher than cost of prescribed drugs.

Conclusion:

Two thirds of hypertensive patients are regularly using DS/OTC. Half of them are not aware of possible interactions with antihypertensive therapy and influence of blood pressure control. The perception that nonprescription therapies are unnecessary to report during medication history taking should be changed. DS/OTC are the important position in the responders budget.

Title	Do energy drinks boost our hearts?- student experimental study.
Presenter	Karolina Rutkowska
Author	Karolina Rutkowska
Co-authors	-

Introduction:

An energy drink(ED) is a type of beverage containing stimulant substances which is marketed as providing mental and physical stimulation. The popularity of product is increasing especially among young adults. Some research suggest that its consumption may have negative effect on cardiovascular system. The aim of the study was to assess the influence of single dose of ED on blood pressure, heart rate, ECG, cardiac output and vascular compliance in healthy volunteers.

Materials and methods:

A randomized double-blind placebo controlled cross-over study was conducted on 18 healthy volunteers. Subjects received: 500ml of ED containing 160mg of caffeine, 2g of taurine and 50mg of guarana or 500ml of placebo. Participants drank beverages in random order during two different meetings. Drinks did not differ in taste, smell and color. In all participants before and after consumption, in the same sequence and time intervals following procedures were performed: peripheral and central systolic and diastolic blood pressure(SBP and DBP)measurement, ECG recording, echocardiography and pulse wave velocity(PWV)analysis.

Results:

ED consumption was related with significant increase of SBP in 75min of observation compared to placebo(Δ SBP for ED $5,7 \pm 10,2$ mmHg vs - $0,3 \pm 7,2$ mmHg for P $p=0,03$). ED caused also increase in central SBP($107,8 \pm 13,2$ mmHg vs $115,6 \pm 12,1$ mmHg $p=0,0005$) and central DBP($73,9 \pm 11,9$ mmHg vs $78,1 \pm 10,2$ mmHg $p=0,02$). However comparison between placebo and ED revealed no significant differences in these parameters. Tendency for increase of PWV in ED group was observed(Δ PWV for ED $0,6 \pm 0,7$ m/s vs $0,2 \pm 0,6$ m/s for P $p=0,10$). The ECG parameters did not reveal statistical differences between groups. There were no differences in echocardiographically determined cardiac output and LVEF.

Conclusion:

Single dose ED consumption increases peripheral and central SBP. This effect is probably mediated by vascular wall properties, not by cardiac performance. Further studies on the influence of chronic ED consumption on central and peripheral hemodynamic parameters are needed.

Title	Results of providing angiosurgical care to people with great vessels injuries of lower limbs and brachiocephalic area in conditions of war in ATO.
Presenter	Y. Krul
Author	Y. Krul
Co-authors	A. Bondarevskyi, MD, PhD, V.Rogovskyi, MD, N. Shchepetov, MD

Relevance: Vascular injuries of upper and lower limbs account for 70-80% of all vessel injuries, while the latest of neck make up 10-15%, of trunk — 5-10%.

Mortality caused by thigh hemorrhage which used to be 75 %, nowadays has dropped to 10 % due to TCCC. Amputation rate among those with popliteal artery injuries was up to 45%, now is more than 25%. disabilities 60-65 %. Uraz

Objective: To study the effectiveness of angiosurgical care for people with major vascular injuries of lower limbs and brachiocephalic territory area as a result of gunshot wounds at Level II and III of medical care in ATO (Ukraine) according to NATO standards.

Source and methods used: From year 2014 to 2017 149 of ATO soldiers with great vessel injuries of lower limbs and brachiocephalic territory underwent treatment in Clinic of Vascular Surgery of Main military medical clinical centre .The injured were delivered by ambulance services during the first hours after injury for Level II of medical care. Out of 141 of injured we outlined cases with the most frequent injuries: among them there are 6 patients with vessel injuries of head and neck (4.3%), 37 patients with upper limb injuries (26.2%), 98 cases of lower limb injuries (69.5%) with 2 of them accompanied by iliac artery injuries (2%), 64 people had arterial injuries in femoral-popliteal segment (65.3%), 20 - in tibial segment (20.4%). The following typical clinical diagnosis were: Mine-explosive wounds. Multiple blind gunshot splinter wounds. Blind gunshot splinter wound to the upper third of left thigh with superficial femoral artery and vein injuries. Subcompensated ischemia of lower left limb in stage IIa. The other group are people with typical blind gunshot wounds to the neck and chest with following subclavian and axillary artery injuries, right subclavian vein injuries and jugular vein injuries, right clavicle fractures, first rib fractures, scapular body fractures on the right with foreign bodies (bullets) projected over the top tip of right lung and scapula.

Conclusion: Traumatic injury of great vessels is complicated and dangerous pathology, followed by high mortality rate, complications and disabilities of its victims. Satisfactory results were achieved by providing quick evacuation of the wounded and specialized angiosurgical care and obtaining medical care at all the previous stages.

Title	Knowledge of the prevention methods of urinary tract infections among young women
Presenter	Olivia Cyran
Author	Olivia Cyran
Co-authors	-

Introduction:

Urinary tract infection (UTI) is the most common infection among young women. The aim of study was to evaluate the knowledge of the methods of UTI prevention and awareness of UTI risk factors in women.

Materials and Methods:

The study involved 150 women age ≥ 16 years (mean 23.3 ± 4.9 years) interviewed with web-based survey: <https://profilaktykazum.webankieta.pl/>. Women were asked about the prevention of UTI and its risk factors. The survey was disseminated through social media, discussion groups for women and the blog "DoktorB". Most popular polish websites for women refused to add a link to our survey into their websites.

Results:

Women identified mostly the following methods of UTI prevention: wipe in the correct direction after urination (89.3%), wearing cotton underwear (77.3%), increased water consumption (76.0%). Women routinely used mostly the same methods that they listed, but the percentages were smaller. The respondents were also asked to choose the right prevention methods out of 12 answers that were correct and 5 that were incorrect. 30.7% of all women chose at least one incorrect answer. The knowledge of the UTI prevention methods was significantly more prevalent ($p=0.02$) among the women with a positive history of UTI event.

Close relatives (44%), general practitioners (40%) and medical specialists (33.3%) were the main source of the knowledge about UTI prevention and management. 63% of women reported having at least one diagnosed episode of UTI in their lifetime, 63% of them sought help of a general practitioner. Only 45.3% of them reported taking an antibiotic to treat UTI.

Conclusion:

UTI is highly prevalent among young women. Most females are able to identify the proper methods of UTI prevention, but the utilisation of these methods is insufficient.

Title	Assessment of knowledge about venous thromboembolism among medical students and interns
Presenter	Agnieszka Cyran
Author	Agnieszka Cyran
Co-authors	Joanna Kwaśniak, Elżbieta Szczepanek

Introduction:

Venous thromboembolism (VTE) is a major cause of morbidity and mortality. We aimed to assess the knowledge of VTE risk factors and prophylaxis among medical students and interns.

Materials and methods:

The web-based questionnaire was conducted among interns and medical students. To assess knowledge of VTE we included 7 closed-ended questions with one correct answer (1 point per each) and 3 closed-ended questions with multiple correct answers (maximum of 3 points per each). The second part consisted of two medical cases regarding VTE prophylaxis (1 point per each). The maximum final score was 18 points.

Results:

We enrolled 90 participants (26[29%] males), 72(80%) students (1-2year: 5[6%]; 3-4year: 30[33%]; 5-6year: 37[41%]) and 18(20%) interns. The average final score was 67% (12±2.5 points). All participants suggested they knew the risk factors of VTE. They correctly chose immobilization (89[98%]), oral contraceptives (87[96%]) and cancer (72[80%]) as a VTE risk factors. Among the methods of VTE prophylaxis participants selected early mobilization after injury (87[96%]), compression therapy (85[93%]) and anticoagulation (84[92%]). Forty (44%) participants chose incorrectly antiplatelet drugs. On multivariable logistic analysis ($p<0.01$) male sex (OR=3.93[1.49–10.48]), being an intern or 5th - or 6th- year student (OR=6.68[2.34–18.91]) and prior experience with VTE (OR=3.78[1.15–12.42]) determined final score.

Conclusions:

The knowledge of VTE is better in males as compared to females and it corresponds to advanced level of medical education and prior experience with VTE.

Title	Evolution of ecg signs of right ventricular hypertrophy in pulmonary hypertension patients treated with prostacyclin analogues.
Presenter	Agnieszka Cyran
Author	Agnieszka Cyran
Co-authors	-

Introduction:

Parenteral prostacyclin therapy significantly improves hemodynamic overload of the right ventricle in patients with pulmonary hypertension.

Aim: we aimed to assess whether this hemodynamic improvement is reflected by the changes of electrocardiographic criteria of right ventricular hypertrophy (RVH) .

Materials and Methods:

Patients diagnosed with pulmonary arterial hypertension (PAH) or inoperable chronic thromboembolic pulmonary hypertension (CTEPH) in a single pulmonary hypertension center treated with parenteral prostacyclin were eligible to the analysis. Clinical data was obtained from a cohort registry of patients treated in the center between 2011 and 2017. Each patient had standard 12-lead ECG performed and analysed for criteria of RVH before and after of at least 6-months therapy with prostacyclin analogues. Similarly, each patient had performed right heart catheterization(RHC).

Results:

We included 26 patients diagnosed with PAH (n=15, 57.7%) and CTEPH(n=11, 42.3%). The mean age was $59,8 \pm 16.6$ years. We found a significant decrease in R wave amplitude in V1 (5.41 ± 4.1 vs 4.93 ± 3.6 mm, $p=0.02$), S wave amplitude in V5 (11.0 ± 4.3 vs 8.3 ± 4.8 mm, $p=0.002$), S wave amplitude in V6 (7.5 ± 3.8 vs 5.9 ± 4.0 mm, $p=0.02$), increased R:S ratio in V5 (0.81 ± 0.5 vs 1.32 ± 1.15 , $p=0.006$) as well as decrease in sum of R wave V1 + S wave in V5 or V6 (16.4 ± 6.9 vs 12.3 ± 5.6 mm, $p<0.0001$). These changes were accompanied by improved hemodynamics measured in RHC: decrease of mean pulmonary arterial pressure (50.4 ± 11.7 vs 45.3 ± 9.1 mmHg, $p=0,007$) and pulmonary vascular resistance (1224 ± 647 vs 948 ± 521 dyn·s/cm⁵, $p=0,002$) followed by increase of cardiac output (3.1 ± 0.7 vs 3.8 ± 1.4 l/min, $p=0,007$) and cardiac index (1.8 ± 0.4 vs 2.2 ± 0.7 l/m²/min, $p=0.009$).

Conclusion:

Improvement in hemodynamic status of PAH and CTREPH patients is reflected by reduction of several ECG signs of RVH.

Title	The influence of cigarette smoking on selected parameters of innate and adaptive immunity in cord blood.
Presenter	Natalia Dobrek
Author	Natalia Dobrek
Co-authors	-

Introduction:

The aim of the study was to assess whether and to what extent maternal smoking reflected by cigarette smoke-conditioned media (CSCM) influence innate immunity (expressed as intracellular Toll-like receptors [TLR2 and TLR4] activation on the human cord blood neutrophils and monocytes) and adaptive immunity (expressed as HLA-DR expression on T-cell and monocytes).

Materials and Methods:

28 cord blood samples obtained from term, healthy newborn born from non-smokers mothers were used. Each sample was divided into: Control group (C) - standard media, Smoke 1 - standard concentration of CSCM (S1), Smoke 2 - half of CSCM concentration (S2). To assess changes in TLR2 and TLR4 and HLA-DR expression we used T cells, neutrophils and monocytes grown for 24 h in standard or CSCM media. HLA-DR, TLR2/TLR4 expressions were assessed using flow cytometry.

Results:

TLR 2 neutrophil expressions in C group in comparison with S1 and S2 group were respectively: $1,7 \pm 0,8\%$ vs. $8,4 \pm 4,5\%$ vs. $11,0 \pm 6,3\%$; monocyte expressions were $1,1 \pm 0,8\%$ vs. $5,6 \pm 2,6\%$ vs. $6,5 \pm 3,7\%$.

TLR4 neutrophil expressions were $1,8 \pm 0,9\%$ in C group vs. $12,3 \pm 9,4\%$ in S1 group vs. $10,9 \pm 7,9\%$ in S2 group. Monocytes TLR4 expressions were $1,3 \pm 1,0\%$ vs. $7,1 \pm 3,1\%$ vs. $11,6 \pm 7,0\%$. CD3+

HLADR+ T cells expression in C group comparing to S1 and S2 group were as follows: $0,5 \pm 0,2\%$ vs. $1,0 \pm 0,5\%$ vs. $1,1 \pm 0,7\%$. Monocyte expression of CD14+ HLADR+ were $15,2 \pm 7,3\%$ in C group vs. $78,0 \pm 11,5\%$ in S1 vs. $79,5 \pm 9,1\%$ in S2 group. In all cases C vs. CSCM p was $<0,05$.

Conclusion:

CSCM is responsible for innate monocytes/neutrophils pro-inflammatory signaling, this process is dose-dependent. Higher concentration of CSCM reduces monocytes/neutrophils TLR2 and TLR4 expression.

Moreover, CSCM stimulates both T cells and monocytes HLADR+ expression and thereby affects adaptive immunity. Our findings show that maternal smoking might have significant immunological effect on both toll-like-receptor-mediated innate response pathways and adaptive immunity.

Title	Kidney donor profile index in the case of repeated transplantation
Presenter	Klinta Gritāne
Author	Klinta Gritāne
Co-authors	M.D., PhD Ieva Ziediņa, M.D., PhD Jānis Jušinskis

Introduction:

Several scoring systems have been proposed to evaluate the quality of deceased donor kidneys and to predict the risk of graft failure. In 2014, new scoring system – kidney donor profile index (KDPI) was introduced, however it has not been analysed in repeated transplantation situations. Our aim was to determine the usefulness of KDPI as a risk marker of graft failure in repeated transplantations.

Materials and methods:

In retrospective study were included patients who underwent repeated kidney transplantation from deceased donors between 2005. and 2013. Data about risk factors were collected and KDPI calculated for all donors. Recipients were divided in groups according to determined KDPI. Transplantation outcomes were evaluated after one and three years. Kaplan-Meier analysis was applied for determining patient and graft survival. eGFR was assessed by MDRD study equation.

Results:

Total of 72 recipients were included. 88.9% underwent second transplantation, 8.3% - third and 2.8% fourth transplantation. In the first group (KDPI <35%) there were 17 patients, in the second group (KDPI 36% - 69%) - 38 recipients, in the third group (KDPI >70%) – 17 patients.

One year graft survival rates were similar – 88.2%, 86.8%, 82.4%, respectively. While three- year graft survival was statistically significantly different between study groups ($p = 0.027$). Patient survival rate variance showed trend towards significance $p = 0.076$. Graft function also differed significantly after one ($p = 0.001$) and three- year ($p = 0.04$) follow up.

Conclusion:

KDPI present relevance with repeated transplantation outcomes and therefore could be used as parameter to predict the risk of kidney graft failure.

Title	Postoperative complications due to different incision types for apicoectomy in aesthetic region
Presenter	Jovana Bakalovic
Author	Jovana Bakalovic
Co-authors	Prof. Dr Bojan Gacic

Introduction:

The aim of this research was to determine the most suitable incision for apicoectomy in aesthetic region, comparing vertical (Eskici)¹ and gingival angular (Reinmuller) incision.

Material and methods:

Five patients with bilateral periapical lesions in maxillary front region were included. Using split-mouth study design, every patient had two separate surgical interventions, performed in the same visit. Concerning indications for each incision, on one side we used Eskici, and on contra lateral side, Reinmuller incision. Patients were followed up to 30 days after intervention. The healing process was evaluated clinically, on the 1st, 2nd, 7th, and 30th postoperative day. Parameters for evaluation were pain, swelling, aesthetic acceptance, suture dehiscence and bleeding. All data was statistically processed using Student's t-test (p-value 0.05).

Results:

Pain was almost negligible, and approximately equal on both sides. Postoperative bleeding was not recorded. Vertical incision showed slightly smaller swelling (0.355) comparing to gingival angular (0.479), although statistical analysis showed no significant difference ($p=0.51$). Concerning aesthetic acceptance, patients evaluated vertical incision as more acceptable (average grade: 8.05) than the gingival angular (4.74). In one case Reinmuller flap was indicated for revision of the intervention, due to dehiscence of sutures. Other patients had no complications during the healing process.

Conclusion:

Due to the short period of time and complex inclusion criteria, this was a pilot study. The results so far are consistent with our starting hypothesis. Vertical incision proved to be slightly better. We believe that, on the larger sample, statistically significant difference will be reached, which will prove that vertical incision is more suitable for apicoectomy in aesthetic region.

Title	Occurrence of of acute kidney injury in term neonates with severe perinatal pathology: role of therapeutic procedures
Presenter	Mashkur Abdulhamid Isa
Author	Mashkur Abdulhamid Isa
Co-authors	-

Introduction:

Term newborns with perinatal pathologies (asphyxia, hypoxic encephalopathy or hemolytic disease) have the kidneys as the most damaged organ. Hence, they are prime candidates for the development of acute kidney injury (AKI). With AKI affecting about 30% of hospitalized neonates, we aim to determine the association of therapeutic procedures with its occurrence

Materials and methods:

A comprehensive clinical-paraclinical examination of 95 term newborns with clinical signs of severe perinatal pathology was carried out; 65 of them having disorders of renal function, and 30 – with AKI. The connection between the character of therapeutic procedures and development of AKI was investigated using a logistic regression analysis by calculating the chance correlation (CC) and 95% confidence interval (95% CI).

Results:

Postnatal factors increasing the risk of AKI formation and aggravating renal dysfunction in critically ill term babies have been found to be: the use of oxygen therapy with free flow (CC 3,13; 95% CI 1,059-9,225, $p<0,05$), loop diuretics (CC 15,8; 95% CI 4,035-61,901, $p<0,05$), medications with inotropic effect (CC 9,0; 95% CI 3,187-25,41, $p<0,05$), antispasmodic drugs (CC 17,38; 95% CI 3,818-79,117, $p<0,05$), fresh frozen plasma (CC 5,14; 95% CI 1,548-17,09) against a background of combined antibiotic therapy and application of ventilation support.

Conclusion:

The use of therapeutic procedures aggravates unfavourable effects of hypoxic renal lesion and increases the risk of AKI formation in term newborns with severe perinatal pathology, which is associated with oxidative stress, disorders of central and peripheral hemodynamic mechanisms, direct cellular lesions of the glomerular membrane and canalicular nephrothelium.

Title	Postoperative bleeding after brain tumors' surgery
Presenter	Aiste Visockyte
Author	Aiste Visockyte
Co-authors	-

Introduction:

Our aim was to evaluate patients' after brain tumor surgeries with postoperative hematomas and determine which factors influence the outcome. Materials and methods: retrospective study was performed in Republican Vilnius University Hospital and Vilnius University Hospital Santaros Clinics. Patients who underwent brain tumor's surgery during 2014 – 2015 and had postoperative hematomas diagnosed with head computed tomography were included. Simplified Acute Physiology Score (SAPS II) during 24 hours after surgery, Glasgow coma scale (GCS) score 7 days after surgery, admission type (extra or scheduled), surgical data, postoperative follow up and demographical data were evaluated. Statistical analysis was performed with Microsoft Excel 2010 and SPSS 21 programs. Results were considered statistically significant when $p < 0.05$.

Results:

81 patients (31 males, 50 females) were included. Mean age – 63.25 ± 3 years. 19 (23%) patients were re-operated due to postoperative bleeding. 5 out of 81 patients died, 76 – survived. SAPS II minimal value was 6, maximal – 55. Higher the systolic ($p=0.00$) and median ($p=0.02$) arterial blood pressure during surgery, higher SAPS II after. Higher blood loss ($p=0.00$) during surgery, SAPS II ($p=0.00$), abnormal APTT ($p=0.01$) and fibrinogen ($p=0.00$) values after it were associated with lower values of GCS. There was tendency towards higher SAPS II and risk of re-operation ($p=0.06$). Intracerebral and epidural hematomas significantly influence the need of re-operation ($p=0.00$). Gender, surgery duration, hematoma type do not influence outcome and SAPS II. Surgical technique does not significantly influence outcome, hematoma type, SAPS II, and need of re-operation.

Conclusion:

Blood pressure, blood loss during surgery, SAPS II, APTT and fibrinogen values' deviation after surgery, admission type are related with worse outcome of postoperative hematomas' patients and should be controlled precisely. High SAPS II scores, intracerebral and epidural hematomas may lead to re-operation.

Title	Triple negative karyotype in high grade gliomas
Presenter	Aiste Visockyte
Author	Aiste Visockyte
Co-authors	Goda Sudaryte, Jelena Scerbak, Robertas Kvascevicius

Introduction:

The aim was to evaluate presence of IDH1/2, ATRX, TERT mutations, 1p/19q co-deletion, 7 trisomy, 10 monosomy in patients diagnosed with glioblastoma and determine their influence on survival.

Materials and methods:

Prospective study was performed in Vilnius University Hospital Santaros Clinics during 2015-2017. 20 patients of primary glioblastoma were included, 11 (55%) males, 9 (45%) females. Average age was 57 years. Selection criteria: patients who had surgery during 2015-2017 in Neurosurgery department, whose head magnetic resonance imaging (MRI) allowed suspecting glial tumor, and who were histologically and genetically diagnosed with primary glioblastoma. Glioblastomas' genetics, histological findings, progression free and survival periods were evaluated. Volumes of tumors were calculated before and after surgery with "Vitreia 3D" program. Statistical analysis was performed with SPSS 16 and Microsoft Excel 2010. Results were statistically significant when $p < 0.05$.

Results:

median of tumors' volume before surgery was 41.08 cm³ (min. 2.18, max. 100.75), after – 0 cm³ (min. 0, max. 32.17). 11 patients went radical removal of tumor, 4 patients were not evaluated due to absence of postoperative MRI. Median of survival was 296 days (min. 125, max. 429). Progression free time's median – 219 days (min. 32, max. 430). 5 patients had triple negative karyotype (no TERT mutation, no 1p/19q co-deletion, no IDH1/2 mutation). 13 patients had TERT mutation, 1 – 1p/19 co-deletion, 1 – IDH1/2 mutation, 14 – 7 trisomy, 12 – 10 monosomy, 11 – ATRX mutation.

Conclusion:

Triple negative karyotype leads to longer survival and progression free time. It is more important factor than tumors' residual volume. We did not find statistically significant correlation between other genes and prognosis; nevertheless, there was tendency towards it. It might be due to small number of patients and short investigation period. Further research should be performed.

Title	A correlation between increased body mass index(BMI) and decreased heart rate recovery
Presenter	Mashkur Abdulhamid Isa
Author	Mashkur Abdulhamid Isa
Co-authors	A. Babintseva

Introduction:

A dramatic increase in physical inactivity and obesity has necessitated more research into their effects on the cardiovascular system. Hence, we aim to assess the relationship between body mass index(BMI) and Heart Rate(HR) recovery after exercise. Impaired HR recovery after exercise is considered a predictor of cardiovascular mortality as it reflects vagal dysfunction.

Materials/Methods:

Analysis of 143 patients' records was carried out. These patients were of both sexes, aged between 26 and 59 years, having sinus rhythm, without use of negative chronotropic agents and no myocardial ischemic response to exercise. BMI was categorized as normal, overweight or obese, according to BMI classification. All patients underwent cardiac stress test according to the traditional protocol.

Results:

The value of the termination load and quantitative indicators of ischemia were analysed, as was the recovery time and amount of recovery after physical exertion. Different BMI groups were compared based on HR recovery after exercise, calculated as the difference between maximum HR during exercise and in the first minute of recovery. Recovery was considered impaired when the difference was less than 12bpm. 4.1% of the patients had impaired recovery. This was three times more prevalent in the obese group and twice as prevalent in the overweight group, compared with the normal group($p<0.001$). The obese patients were seen to have a higher basal HR, a lower maximum HR, and a reduced chronotropic reserve($p<0.001$). In multivariate analysis, impaired HR recovery was associated with overweight($p<0.05$), obesity($p<0.05$) and resting HR($p<0.05$).

Conclusion:

Heart rate recovery decreases with increase in BMI, showing a correlation between them. Reduced HR recovery demonstrates the presence of vagal dysfunction in obese individuals. Obesity is hence connected with vagal dysfunction and should be actively prevented

Title	What do the side effects tell us about angiotensin converting enzyme inhibitors?
Presenter	Laura Cristina Zaharie
Author	Laura Cristina Zaharie
Co-authors	Corina Bocsan, Minodora Varga, Barbanta Cristina, Anca Buzoianu

Introduction:

ACEIs are extensively used in cardiac diseases and among the main side effects are dry cough and angioedema. The aim of this study is to evaluate the patients that are presenting to an allergologist for a suspicion of side effects induced by ACEi.

Material and methods:

42 patients with arterial hypertension treated with ACEi, who have presented dry cough and/or angioedema as side effects were included. The patients were evaluated between 2013 and 2016 in one Allergology department from Cluj Napoca. The data were collected from the files and were statistically analyzed using SPSS v.21.

Results:

Female were more likely than men to have side effects (64.3% vs 35.7%). Half of the patients were treated with perindopril. Most of the patients (59.5%) were referred to allergology department for dry cough. Angioedema was more commonly observed in men, while cough was a frequent side effect in women, with no statistical significance ($p=0.150$). There is no correlation between the used ACEi and the type of side effect ($p=0.45$) or the number of angioedema episodes ($p=0.51$). The persistence of the symptoms in spite of treatment cessation was observed in case of perindopril and enalapril ($p=0.05$) and in case of atopy presence ($p=0.03$).

Conclusions:

Cough and angioedema are common side effects of the whole class of ACEi. The type of adverse events might be correlated with the sex of the patients. The presence of atopy may increase the risk of symptoms persistence.

Title	Students' attitudes toward cheating behaviours in one of school of medical sciences university in tehran, year 2016
Presenter	Simin Taavoni
Author	Simin Taavoni
Co-authors	Marzieh Joghataee

Introduction:

Medical sciences schools are expected to comply with ethical norms more than other institutions but some studies showed some degree of cheating and academic dishonesty and need more attention. Aim of this study was to investigate students' attitudes toward cheating in one of schools of Medical Sciences University in Tehran.

Methods and Materials:

This descriptive study had done in one of schools of Medical Sciences in Tehran (Year 2015). 223 volunteer under graduate students (4groups) involved after signing informed consent. Questioner had two main parts of attitudes toward cheating (14 Questions, 1open question) and personal characteristics (12). Finally 205 student's questioners were analyzed.

Results: Average of highest group were: high school GPA (19.21 ± 0.82), lowest age (18.80 ± 0.94), female students (63.27%), anesthesia technology group. 62.12% in radiology, 55.74% in anesthesia technology and 48.28% in laboratory sciences were female. 53.65% had experience of cheating during high school, 15.1% juniors, 34.04% of seniors had experience in university. Just 18.04% hate to do cheating. Lowest rates of answers belonged to: they will report if they will see, will advice, hate this person, feel remorse because of previous cheating.

Conclusion: There were some warning responds such as: to do cheating for helping others (39.02%), and will do it again (20%), there for it is necessary faculties pay more attention and preparing and designing high standard exams with high level for protection of cheating. Referring to high respond to "Want to help other peers", it is necessary to provide some advising, and counseling program for involving them in suitable methods of helping skills.

Title	Long-term success of ablation treatment of ventricular tachycardia with ischemic and non-ischemic origin
Presenter	Akos Berczi
Author	Akos Berczi
Co-authors	Dr. Zoltan Sallo

Introduction:

Catheter ablation (CA) of ventricular tachycardia (VT) is an effective treatment. Depending on the medical history of coronary disease, ischemic and non-ischemic groups of VT can be distinguished. Our aim was to determine and compare the long-term success of VT ablation in the ischemic and non-ischemic groups.

Materials and Methods:

In our retrospective study patients with VT undergoing CA in 2014-2015 were involved. Left ventricular activation and voltage mapping were performed, followed by extensive substrate ablation in the arrhythmogenic zone of VT. Medical history, ablation and follow-up data were collected for analysis. Two groups were distinguished: ischemic and non-ischemic groups. Definition of successful ablation was the lack of recurrence of >30 sec ventricular arrhythmia. Statistical significance level was set at $p < 0.05$.

Results:

65 patients (49 men, mean age 69 years [range: 61-86], EF 34% [range: 27-43%]) were included. Median follow-up time was 13 months (range: 5-27 months). Arrhythmia was of ischemic origin in 66% of the patients. Baseline data between the two groups were not significantly different with the exception of age. One-year success rate of all patients, ischemic and non-ischemic patients were 70, 72 and 64%, respectively, with no significant difference between the two defined groups ($p = 0.57$). There were 4 complications: 1 death due to late ventricular wall rupture, 2 thromboembolic and 1 puncture site complication.

Conclusion:

One of the definitive treatments for VT – a potentially life-threatening arrhythmia – is CA. Substrate causing VT were usually identifiable with mapping technique during CA in both groups. Success rate and safety of extensive substrate ablation was comparable with literature data according to our results. Our results suggest that CA is an effective and long-lasting treatment for both ischemic and non-ischemic VT.

Title	The diagnostic performance of a novel on-site CT-FFR algorithm
Presenter	Judit Simon
Author	Judit Simon
Co-authors	Márton Kolossvary, Bálint Szilveszter, Júlia Karady, Patrick M Donnelly, Béla Merkely, Pál Maurovich-Horvat

Introduction:

Aim: fractional flow reserve derived from coronary CT angiography (FFR-CT) is a novel tool for the diagnosis of ischemic coronary lesions. The primary aim of this prospective feasibility study was to evaluate the diagnostic performance of a novel on-site rapid FFR-CT algorithm as compared to invasive FFR as the gold standard. Our secondary aim was to determine whether the diagnostic performance of FFR-CT is affected by inter-observer variations in lumen segmentation.

Methods and results:

We enrolled 44 consecutive patients (mean age 64.6 ± 8.9 years, 34% female) who underwent coronary computed tomography angiography (CTA) and invasive coronary angiography (ICA) in two centers. ICA examinations with FFR measurements were performed within 60 days after coronary CTA. A FFR value ≤ 0.8 was considered hemodynamically significant. All coronary CTA scans were evaluated by two expert readers, who manually adjusted the semi-automated coronary lumen segmentations. FFR-CT was calculated with a rapid, on-site simulator. Overall, we analyzed 60 coronary atherosclerotic lesions. Average quantitative coronary CT diameter stenosis was $43.6 \pm 16.9\%$. Average FFR-CT was 0.77 ± 0.15 . Sensitivity of FFR-CT was 90.5%, specificity 71.8%, positive predictive value 63.3%, negative predictive value 93.3% and accuracy 78.3%. Area under the receiver operating curve of the two expert readers did not show any significant difference (0.89 versus 0.88; $p=0.74$).

Conclusion:

Rapid on-site FFR-CT simulation is feasible and has very good diagnostic performance. Importantly, the diagnostic performance of the FFR-CT simulation algorithm does not depend on the readers who adjust the semi-automated lumen segmentation.

Title	The effect of the gluten-free diet on the remission of juvenile type 1 diabetes.
Presenter	Vivien Herczeg
Author	Vivien Herczeg
Co-authors	Dr. Péter Tóth-Heyn

Introduction:

The frequent association of type 1 diabetes mellitus (T1DM) with celiac disease (CD) is well known. Our aim was to assess whether gluten-free diet (GFD) started at the diagnosis of T1DM has any impact on increasing insulin need in the remission phase of T1DM as compared to later diagnosed or non-GFD CD patients.

Patients and Methods:

Patients treated with T1DM and CD at the 1st Department of Pediatrics, Budapest, Hungary were enrolled in the study (31 girls, 15 boys, age at the time of T1DM diagnosis was 6.9 ± 3.9 years), and 4 patients who were on GFD without the diagnosis of CD. Patients were divided in two groups: I. GFD started at the diagnosis of T1DM (GFD+) and II. GFD started later or not kept (GFD-). Insulin requirements were evaluated retrospectively during the first three years after the diagnosis of T1DM, and the difference between the two study groups was compared every six months. Data were analyzed by parametric statistical tests and repeated measures analysis of variance.

Results:

The rise in insulin requirements was significant after 1 year in the GFD- group, after 2 years in the GFD+ group. Insulin requirements were different after 1 and 1.5 years following the diagnosis of T1DM in GFD+ and GFD- group (0.43 ± 0.04 U/kg vs. 0.64 ± 0.07 U / kg, $p < 0.01$; and 0.5 ± 0.04 U/kg versus 0.7 ± 0.06 U / kg, $p < 0.01$, respectively).

Conclusions:

The increase of insulin requirements is slower with GFD in the first two years after the diagnosis of T1DM, and insulin requirements are lower after 1 and 1.5 years as compared to gluten consumption. The possible longer remission phase is of clinical relevance having impact on the long-term metabolic control.

Title	Pilot comparative study on coblation-assisted and conventional tonsillectomy in northern bulgarian patients
Presenter	Iliya Duhlshenki
Author	Aleksandar Valkov
Co-authors	Boris Duhlenski, Diana Pendicheva, Iliya Duhlenski

Introduction:

Coblation is a surgical method which generates bipolar current at a lower frequency than standard diathermy and the thermal effect on nearby tissues is milder. It is applicable to children, adolescents and adults indicated for tonsillectomy. Coblation has been reported to minimize pain, speed up recovery and spare immunological functions. Our study aimed to compare coblation-assisted and conventional tonsillectomy in terms of bleeding, pain, medication and recovery.

Materials and methods:

The study was performed in 2016-2017 in Otorhinolaryngology Department at University Hospital-Pleven, Bulgaria. It was supported by Medical University-Pleven grant No19/2016 and approved by the Research Ethic Committee. A total of 52 participants who signed informed consent were enrolled on the basis of established criteria. Patients were divided into 2 groups regarding the method: Conventional tonsillectomy (n=25) and Tonsillectomy with ArthroCare Coblator™ II surgery system (n=27). Assessment of perioperative status, adverse events and healing was performed for 10 days; recovery was followed-up for 1 month. The Visual-Analogue Scale and Wong-Baker scale were applied for pain assessment on day 1, 2 and 7. Statistical analysis was performed by Statgraphics Plus for Windows.

Results:

All 52 patients completed the study. The mean age was 25 ± 17 (1) and 26 ± 14 (2); males to females 12/13 and 14/13, respectively. The average pain was 7.12 ± 0.78 and 5.81 ± 1.39 on day 1 ($p=0.0001$); 5.68 ± 0.95 and 3.34 ± 1.04 ($p=2.80584E-11$) on day 2; 3.48 ± 0.82 and 1.93 ± 0.92 ($p=4.93786E-8$) on day 7. Analgesics were additionally prescribed to 86% of patients in group 1 versus 42% in group 2.

Conclusion:

This study investigated a new for our region method of coblation tonsillectomy. We found significantly less pain, less medication and faster recovery after coblation compared to cold dissection. Our results support the effectiveness and safety of coblation as alternative to traditional tonsillectomy.

Title	Decreased serum paraoxonase activity (pon1) in acute coronary syndrome patients
Presenter	Sanjila Marasinghe
Author	Sanjila Marasinghe
Co-authors	-

Acute coronary syndrome (ACS) is the foremost cause of cardiovascular disability and sudden death worldwide. Acute coronary syndrome ranges from unstable angina, non ST-segment elevation myocardial infarction (NSTEMI) to ST-segment elevation myocardial infarction (STEMI). Symptoms of acute coronary syndrome include chest pain, referred pain, nausea, vomiting, dyspnea, diaphoresis, and lightheadedness. ACS develops when an atherosclerotic plaque undergoes disruption. Disruption of the plaque leads to formation of a thrombus. The thrombus results in a reduction of blood flow through affected coronary artery. As a result, the patient experiences ischemic pain. Low density lipoprotein (LDL) and oxidation of LDL plays important roles in developing atherosclerosis plaques. High density lipoprotein renders a protective effect against atherogenesis. PON1, an antioxidant enzyme associated with HDL is partially responsible for this protective effect. Moreover, PON1 has the ability to protect LDL from oxidation by the hydrolysis of biologically active lipoperoxides formed due to free radical damage to lipids. Previous studies conducted in various countries have revealed a decreased PON1 activity in ACS patients compared to healthy volunteers. In Sri Lankan context, data is lacking about PON 1 activity in ACS patients and relationship between PON 1 activity in ACS patients and healthy individuals. The aim of this study was to assess whether there is a significant difference in paraoxonase activity in ACS patients compared to healthy volunteers. Serum samples collected from 29 ACS patients and 137 apparently healthy individuals were assayed in this study. Paraoxonase activity was measured spectrophotometrically using paraoxon as the substrate. PON 1 activity was found to be 138.8 ± 81.3 U/l in ACS patients and 205.27 ± 115.00 U/l in healthy individuals. PON1 activity was significantly lower ($p= 0.001$) in ACS patients compared to healthy volunteers. The decreased PON1 activity in ACS patients is in agreement with previous studies. Future research needs to be carried out to find out whether there's a relationship between PON1 polymorphisms and prevalence of ACS.

Title	Evaluating the outcomes of surgical treatment for acromegaly including the effects of somatostatin pre-treatment
Presenter	Kotryna Tulabaite
Author	Kotryna Tulabaite
Co-authors	-

Introduction:

Surgery is the standard first line treatment of new presenting acromegaly. Some patients are pre-treated for 3-6 months somatostatin analogue medication with the aim of both controlling symptoms and shrinking pituitary tumours. A retrospective single centre service evaluation of the hospital's clinical experience was conducted.

Method:

A retrospective single centre service evaluation of data from 2010 to 2016 assessing newly presenting acromegaly patients was conducted. Recurrent presentations were excluded. Tumour size and clinical severity of acromegaly were evaluated. The outcome of octreotide test dose if performed was recorded. It was noted whether the patient was pre-treated with somatostatin analogue and if so the indication, duration and dose. Biochemical and radiological response to pre-treatment are recorded. The biochemical outcome of surgery after somatostatin wash out was recorded (including IGF-1 and GH from OGTT). Surgical complications were recorded. Extent of tumour residual was documented. Patients who did not have surgery were excluded.

Results:

A total 46 cases were included and 22 patients were pre-treated with somatostatin analogue 3-6 months before the surgery. There was no significant difference in patients' remission after 4-6 months of surgery. The remission was achieved in 27% of cases in Pre-SA group and in 42 % of cases in No-SA group.

Conclusion:

Pre-treatment with somatostatin does not increase the chance of biochemical control of acromegaly after transsphenoidal surgery in patients harbouring GH-secreting adenomas.

Title	Patterns of tissue transglutaminase expression in colorectal cancer
Presenter	Iryna Zherka
Author	Iryna Zherka
Co-authors	Ruksha Ksenia, Portyanko Anna

Introduction:

Tissue transglutaminase (tTG) is known to be up-regulated in tissue during stress conditions such as wound-healing or cancer. There are some contraversal data about tTG role in cancer pathogenesis and it is still unknown how it's expression level influences the prognosis of the colorectal cancer (CRC). The aim of the study was to evaluate the changes of tTG expression in the epithelial cells and in the stroma in CRC and to assess its relation to disease prognosis.

Methods:

The study was performed on the surgical material of 125 colorectal adenocarcinomas from 124 patients (55 male, 69 female, $64,6 \pm 11,1$ years old). Expression was assessed by morphometric analysis on histological slides stained by immunohistochemistry with antibodies to tTG. Statistical differences between groups were assessed by Mann-Whitney analysis with Bonferroni adjustment (pmu) and by Kaplan-Meier curves with the log-rank test (plr).

Results:

The normalized level of tTG was significantly higher in tumor tissue than in normal colonic mucosa (pmu<0,001). The higher tTG expression level in cytoplasm of cancer cells in central region was associated with higher clinical stage of the disease. Patients with stage I-II of CRC with the higher level of tTG in the stroma of the central region showed better progression-free survival (plr<0,001). In stage III-IV CRC better prognosis was observed in patients with the elevated level of tTG in the cytoplasm of cancer cells of the tumor center (plr<0,001).

Conclusion:

Extracellular tTG could play a role in preventing metastasis of cancer cells in patients with early stages of CRC by cross-linking the extracellular matrix proteins. Furthermore, the higher level of intracellular tTG in the tumor center is a marker of good prognosis in patients with advanced stages of CRC.

Case reports

Title	Drug-induced brugada type 1 ECG pattern in a patient with hypothyroidism
Presenter	Mudassar Amin
Author	Mudassar Amin
Co-authors	Azuh Price Chuckwuma

Introduction:

Brugada type 1 ECG pattern was previously described in patients after the use of various drugs, particularly, sodium channel blockers (class IA and IC antiarrhythmic agents). On the other hand, Brugada-type ECG was observed in thyroid disease, but only when thyroid function was low.

Case description:

A 39-year-old female was undergoing treatment with 25 mcg of L-thyroxine qd for previously diagnosed hypothyroidism. During the course of treatment she presented with complaints of irregular heart beats. An ECG revealed ventricular bigeminy. An echocardiogram was normal. Her TSH level was 6.4 mIU/L (N:0.27-4.2 mIU/L), free T4 0.83 ng/dL (M: 0.93-1.7 ng/dL). A class IC antiarrhythmic agent (ethacizine 50 mg bid) was prescribed and L-thyroxine dosage was increased to 50 mcg qd. A follow-up ECG revealed a Brugada type 1 pattern on the 6th day after modification of treatment. Ethacizine was discontinued and the control ECG performed a day after was resulted normal. After a month, the patient's TSH level decreased to 1.6 mIU/L. Neither arrhythmia nor Brugada-type ECG was observed during further follow up.

Discussion:

The case shows the importance of a careful follow-up examination with the introduction of some therapeutic regimens and also the possibility of unmasking certain hidden pathologies whilst trying to treat another. Brugada type 1 pattern may be associated with an increased risk of sudden cardiac death and so shouldn't be taken lightly when observed. All drugs that may induce a Brugada type 1 ECG pattern should probably be avoided or used with extreme care in patients with hypothyroidism.

Title	Acute Coronary Syndrome at a Young Age: a Case and Literature Review
Presenter	Hares Madadi
Author	Hares Madadi
Co-authors	Michiel Lembrechts, Ferdous Madadi,

Introduction:

Myocardial infarctions are a well known entity in the world of cardiology, mainly seen in the elderly, often with high cardiovascular risk. However, when a younger patient without cardiovascular risk presents with symptoms fitting an acute coronary syndrome, one must be aware of another possibility: a spontaneous coronary artery dissection, also known as SCAD, a rare cause of infarction in a younger population.

Case report:

We present a case of a 44-year old female, who presented herself at the ER with sudden severe chest pain. A non-STEMI was withheld after which a coronarography was performed and a long stenosis of the left anterior descending was shown. With further investigations a long pseudo-lumen was revealed, leading to the diagnosis of SCAD.

Discussion:

Spontaneous coronary artery dissection is a rare cause of infarction, predominantly seen in a younger, female dominated, population. We will discuss the epidemiology, predisposing factors, pathogenesis, diagnostics and treatment based on an extensive literature review.

Title	Pott's puffy tumor following chronic sinusitis: a case report
Presenter	Ibrahim Ocak
Author	Ibrahim Ocak
Co-authors	Vincent Van Rompaey, Olivier Vanderveken

A 60-year old British man presented with a painful forehead swelling and mild headache. The swelling was present in the past two months and increased in size the last 10 days, during his stay in Belgium. Physical exam revealed a fluctuating forehead swelling without erythema. The patient was known a history of chronic sinusitis, treated twice with surgery. Computed tomography revealed a chronic pansinusitis with reactive sclerosis, an erosive lesion of the both frontal sinuses posterior to intracranial and an anterior erosive lesion of the left frontal sinus to extracranial.

The patient underwent urgent endoscopic surgery at the department of otorhinolaryngology. The frontal sinus cavities could not be reached due to hard, sclerotic bone, consequently an external approach, with a bicoronal incision, was realized. Both sinuses were drained and flushed with diluted hydrogen peroxide. Intravenous antibiotics were given for one week. Afterwards, the patient was discharged. Antibiotic therapy should be continued for at least five weeks. Further follow-up was foreseen in the UK.

Pott's puffy tumor (PPT) was first described by sir Percivall Pott in 1760 and refers to a subperiosteal abscess and osteomyelitis of the frontal bone. Tumor refers to swelling, one of the cardinal signs of inflammation. PPT can be caused by (chronic) frontal sinusitis or trauma. It can be life-threatening since intracranial complications may accompany PPT.

Hematoma, infections and soft tissue tumors should be included in the differential diagnosis. Management of PTT consist of surgical drainage and antibiotics for 6-8 weeks. An external approach is still the most common choice of the surgical treatment. With the advancement of surgical equipment, an endoscopic approach could also be considered.

Other

Title	The prevalence of stroke risk factors and mortality in Northwestern Iran
Presenter	Mohammed Aboutalebi
Author	Mohammed Aboutalebi
Co-authors	-

Background:

Stroke is the second leading cause of death globally killing 5.5 million people each year and it is the third leading cause of death in Iran. Studying the local pattern of disease and the risk factors for countries and regions is necessary for knowledge about diseases and their management and the mortality statistics are very valuable at this area. This study is a descriptive study about stroke mortality in Tabriz university tertiary hospitals which are referral centers for north-west of Iran.

Methods:

Data of the current study is obtained from the available information of 5355 patients documents admitted in the two university tertiary hospitals of Tabriz from 2008 to 2013. The gathered data includes demographic information, clinical information and risk factors such as hypertension, smoking, diabetes, hyperlipidemia, etc.

Results:

The analysis shows that the highest number of the patients belongs to the age range of 60 to 80 which also involves the highest number of the mortality compared to other age groups. Furthermore, mortality in women is more than men. On the other hand the analysis demonstrates that there are significant differences in mortality when groups of patients are divided based upon hyperlipidemia, TIA, headache, snoring and renal failure history.

Conclusion:

Mortality may be lower in patients with some risk factors compared to the patients without them due to medical care. More consideration about snoring which is the blind spot among risk factors in this region is recommended. However, serious care about other risk factors shouldn't be missed.

Title	Usage of Internet of things (IoT) in healthcare system , A literature review
Presenter	Siavash Mahdigholizadesheshkalani
Author	Siavash Mahdigholizadesheshkalani
Co-authors	Pournik O, Farokhzadi A

The Internet of Things (IoT) is a concept reflecting a connected set of anyone, anything, anytime, anyplace, any service, and any network. The IoT is a megatrend in next-generation technologies that can impact the whole business spectrum and can be thought of as the interconnection of uniquely identifiable smart objects and devices within today's internet infrastructure with extended benefits .

Telecare is the term for offering remote care of elderly and physically less able people, providing the care and reassurance needed to allow them to remain living in their own homes. The use of sensors may be part of a package which can provide support for people with illnesses such as dementia , or people at risk of falling.

Medical care and health care represent one of the most attractive application areas for the IoT .

The IoT has the potential to give rise to many medical applications such as remote health monitoring, fitness programs, chronic diseases, and elderly care. In this Paper we have addressed the use of IoT in Healthcare system, challenges of IoT in Healthcare System and review on various works carried out on this research area with which a proposed methodology is been discussed.

Title	Lower extremity reconstruction: an overview
Presenter	Coskun Arkaz
Author	Coskun Arkaz
Co-authors	Marianne Mertens

Lower extremity reconstruction is an important part of plastic surgery and focuses on the treatment of open wounds and soft tissue defects caused by trauma, tumor resection, or chronic illness. The purpose of lower extremity reconstruction is the coverage of soft tissue defects and open wounds of the leg to give patients a healed wound. This will let them resume their life, have the ability to walk again, and go back to work. Advances in plastic surgical techniques such as free-tissue transfer and improved wound care technologies has fundamentally changed the reconstruction opportunities, allowing the salvage of limbs that would have otherwise been amputated.

The following article will review the field of lower extremity reconstruction focusing on the repair of soft tissue defects and open wounds sustained after trauma, the resection of tumors, or due to chronic illness. The various treatment options will be presented according to the reconstructive ladder. We will concentrate on soft tissue defects of the lower leg, from the knee to the foot.

Title	Mixed of tribulus terrestris, zingiber officinales, Corcus sativus and cinnamomum verum effect on post menopausal womens' psychological symptoms: a triple blind placebo randomized control trial
Presenter	Simin Taavoni
Author	Simin Taavoni
Co-authors	Neda Nazem Ekbatani, Seid Ashrafodin Gooshegir, Hamid Haghani

Introduction:

Menopause is natural phase of life and associate with various symptoms such as Psychological, which could effect on women's quality of life. It must be mange with safe methods of pharmacologic or non pharmacologic such as Herbal Remedies. Aim of study was to assess the effect of Tribulus Terrestris, Zingiber Officinales, Crocus Sativus and Cinnamomum Verum on postmenopausal psychological symptoms.

Methods and Materials:

In this randomized triple blind trial, 80 volunteer healthy menopausal women, whom visited in clinics of west of Tehran, after signed informed consent were randomly divided into intervention (Capsule B) and control group (Capsule A). Intervention group received 40 mg of Tribulus terrestris dried fruits powder, 12.27 mg Zingiber Officinales powder, 33 mg Crocus Sativus (Saffron) and 11 mg of Cinnamon, and placebo group received 40 mg Starch (two times in day for four weeks). Tool have two main parts of personal characteristics and psychological symptoms, as obtained through the psychological sub scale of Menopause Rating Scale (MRS) All ethical points were considered in this study and approved by University and Research Institutes Ethics committee.

Results:

Equality of demographic characteristics and menopause psychological symptoms scale had been checked before intervention. Average score of psychological symptoms scale before intervention was 9.31 ± 1.75 , and after one month intervention was 4.54 ± 1.52 . There was 2 significant difference between intervention and placebo group, (P-value:0.008) also there were significant decrease after one month. (P-value:0.001)

Conclusions:

Mixed of 4 mentioned herbs were effective on menopause psychological symptoms. There were no complication during intervention and 3 months follow up after it's used.

Title	Pocket – sized ultrasounds in critical care: a review
Presenter	Laura Cristina Zaharie
Author	Laura Cristina Zaharie
Co-authors	-

Introduction:

The use of ultrasounds in emergency care units has become indispensable these days and with the advances in technology, we have come to meet pocket-sized devices for rapid and proper diagnosis.

The aim of this review is to bring in our attention the newest pocket-sized systems and to define their potential benefit to medical care.

Materials and Methods:

Following a PMC search using the keywords “pocket sized” and “ultrasound”, we based our review on a result of 18 relevant articles for the present subject. We have also researched the latest types of ultrasounds and their impact on medical care.

Results:

Pocket sized devices were often used in emergency cardiac pathology as well as a new and improving method of teaching imaging to the medical students and residents. Ultrasounds gain ground in assessing abdominal trauma, pleural effusion, musculoskeletal injuries and fractures. This type of devices is proven to lessen the time of diagnosis, the trouble with differential diagnosis and the start of treatment, by their mobility in the field, ease of use and capability to guide procedures. In matters of teaching, students can learn the basic transthoracic echocardiography views and FAST procedure more efficient and can assess more successfully cardiac anomalies and traumatic consequences, but this cannot fully substitute the doctor in patient’s management.

Conclusions:

In the actual context of emergency care and the continuous development of the technology, the pocket-sized ultrasounds come as support to a rapid assessment of a critical patient and to the usual physical exam. Moreover, considering students and residents’ feedback, they represent an excellent way for teaching imaging. There is extensive space and potential for the development in order to improve and to aid the in-field and in-transport care for the patients.

Abstracts - Poster presentation

Clinical fundamental studies

Title	Inflammation relation to erythropoietin hyporesponsiveness in hemodialysis patients
Presenter	Ringailė Kernagytė
Author	Ringailė Kernagytė
Co-authors	-

Introduction:

Our study aim was to analyze connection between the inflammatory blood parameters and the resistance to EPO(erythropoietin) treatment among the HD (hemodialysis) patients.

Materials and Methods:

A retrospective one single centre study was conducted. The data of 30 patients who were on dialysis 3 times/week for >4 moths and received EPO treatment in Vilnius University Hospital Santara Clinics from 2016-09 to 2016-11 were collected. Concentrations of C-reactive protein (CRP), lymphocytes, platelets, EPO dose per kilo and hemoglobin (Hgb) concentration (measured at the beginning of the EPO therapy and one month after the treatment) were analyzed. The data were processed with Microsoft Excel and SPSS V23 software. Level of significance was $p < 0,05$.

Results:

Platelets concentration among patients with Hgb level of $>100\text{g/l}$ ($n=17$) after one month of treatment were higher ($231,06 \pm 56,41$; $p=0,012$) compared to those patients with hemoglobin level of $<100\text{g/l}$ ($n=13$) ($160,08 \pm 78,17$). After one month of EPO treatment concentration of Hgb increased ($n=14$) and average concentration of thrombocytes were higher ($230,2 \pm 73,70$; $p=0,039$) Hgb concentration decreased ($n=16$), platelets concentration ($174,1 \pm 66,96$). Patients with Hgb levels after treatment $100-125\text{ g/l}$ ($n=15$) were separated into two groups based on CRP level: >5 (1st group) and <5 (2nd group). Average concentration of erythropoietin was higher in 1 group ($n=9$) ($223,82 \pm 69,15\text{ VV/kg}$; $p=0,002$) than in 2 group ($n=6$) ($116,68 \pm 59,68\text{ VV/kg}$).

Conclusion:

The increase of lymphocyte concentration in the blood results in a less expressed Hgb concentration difference. Patients with a higher concentration of platelets respond to EPO therapy better than those with a lower concentration. In order to achieve the target Hgb change, the increase of CRP above the normal range may result in double the dose of EPO needed.

Title	Influence of varicocele on sperm DNA fragmentation
Presenter	Sarah Stuer
Author	Sarah Stuer
Co-authors	Eline Coeck

Introduction:

Varicocele is an abnormal enlargement of the venous plexus in the scrotum concerning 15-20% of the male population. The 20/38-harbinger criterium, a combination of $\geq 20\%$ TAI (testicular atrophy index) and ≥ 38 cm/sec PRF (peak retrograde flow), has been suggested as an indication for treatment, but so far, no correlation with sperm parameters and sperm DNA fragmentation has been found.

Materials and methods:

Participants were recruited throughout the region of Antwerp. A questionnaire was used to exclude participants with previous inguinoscrotal surgery and other relevant diseases affecting fertility. Clinical examination, ultrasound and doppler determined the presence of varicocele, TAI and PRF. Testicular volumes were calculated using the Lambert formula. Participants had a standard semen analysis according the WHO guideline and DNA- agmentation TUNEL assay adapted by the Antwerp University Hospital. DNA fragmentation results were categorized in 3 grades, low ($< 15\%$), moderate (between 15% and 30%) and high ($> 30\%$).

Results:

21 participants were included, of which 7 had a varicocele (33,33%). A statistical significant difference was found in DNA fragmentation grade and the presence of varicocele ($p = 0.049$). More varicocele patients ($N=3$, 18 ± 4.359) had a moderate grade of sperm DNA fragmentation compared to the nonvaricocele group ($N=1$, 17% sperm DNA fragmentation). No statistically significant differences were found within the varicocele group between the patients with a PRF < 38 cm/sec and the patients with a PRF ≥ 38 cm/sec, between the patients with a TAI $< 20\%$ and the patients with a TAI $\geq 20\%$ or between patients who met the 20/38-harbinger criterium and those who didn't.

Conclusion:

Adolescents with varicocele showed a higher sperm DNA fragmentation percentage. Further recruitment and analysis might show differences between varicocele patients with different characteristics.

Title	Factors influencing increased lactate levels after elective brain surgery
Presenter	Goda Sudaryté
Author	Goda Sudaryté
Co-authors	Marius Polianskis, Eugenijus Lesinskas, Aistė Paškonienė, Rasa Kizlaitienė

Introduction:

To determine which factors have influence for increased lactate concentration after elective brain surgery.

Materials and methods:

A retrospective analysis was completed in Vilnius University Santaros Clinics ICU from 2015 September to 2016 January. All patients who underwent elective brain tumor removal during observation period were included in the analysis. Position during surgery, operation duration were taken into account. Infusions, electrolyte balance, sodium and chloride concentrations in urine were measured. Lactate concentration was evaluated before, during and after the surgery.

Results:

A total of 45 patients were included (men – 22, female – 23), mean age - 51 (21-79). Increased lactate concentration ($\geq 2\text{mmol/l}$) upon arrival to the ICU was found in 3 patients, morning after surgery – in 9 patients. The change in lactate concentration correlated with fluid balance during first postoperative day ($r=0,393$, $p<0,05$). Positive correlation was found between morning lactate concentration and amount of fluid received during operation ($r=0,637$, $p=0,000$) and fluid lost during operation (diuresis and bleeding) ($r=0,394$, $p<0,05$). Duration of surgery significantly correlated with postoperative lactate concentration ($r=0,449$, $p<0,05$), morning lactate concentration ($r=0,334$, $p<0,05$), lactate concentration fluctuations during surgery ($r=0,353$, $p<0,05$). Positive correlation was found between chloride concentration in urine and lactate concentration in serum ($r=0,494$, $p<0,001$). Patients age negatively correlated with lactate concentration ($r=-0,443$, $p<0,05$). Fluid balance, baseline lactate concentration, BMI, position and amount of propofol infused did not have influence on postoperative lactate concentration.

Conclusion:

The analysis determined lactate concentration dependency on received/lost fluids during surgery, duration of operation/anesthesia, age and urine chloride concentration. BMI, position during surgery, baseline lactate concentration, fluid balance and amount of propofol did not have influence on lactate concentration.

Title	Outcome and size of post-operative hematoma after traumatic brain injury
Presenter	Raimundas Stasiunaitis
Author	Raimundas Stasiunaitis
Co-authors	-

Introduction:

Our aim was to evaluate patients with post-operative hematomas after traumatic hematoma removal, what had an impact on its size and to find out what was associated with better outcomes.

Materials and methods:

A retrospective study was conducted in Republican Vilnius University Hospital and Vilnius University Santaros Klinikos. All patients, diagnosed with post-operative hematomas as a result of traumatic brain injury surgery in 2014-2015 were included. Demographic parameters, status on arrival, data on surgery, post-surgery follow up were collected. Statistical tests were performed using SPSS 21.0 and Microsoft Excel 2013. Statistically significant $p < 0,05$.

Results:

A total of 73 patients were included (50 – male). Mean age – $60,11 \pm 1,89$ yrs. In-hospital mortality rate was associated with higher SAPS II score on arrival ($p = 0,001$, $54,74 \pm 3,42$ and $39,93 \pm 1,77$), higher midline shift of post-operative hematoma ($p < 0,01$, $13,16 \pm 1,45$ mm and $8,59 \pm 0,68$ mm). Fibrinogen after the surgery negatively correlated with size of post-operative hematoma ($r = -0,49$, $p < 0,05$). Highest systolic and mean arterial pressure in the first 24 hours after surgery positively correlated with size of post-operative hematoma ($r = 0,397$, $p < 0,05$ and $r = 0,38$, $p < 0,05$, respectively). Highest systolic and mean arterial pressure values of the first surgery positively correlated with Glasgow Coma scale (GCS) score after 7 days ($r = 0,333$, $p < 0,05$ and $r = 0,361$, $p < 0,05$, respectively), while the size of post-operative subdural and epidural hematomas negatively correlated with GCS score 7 days after surgery ($r = -0,392$, $p < 0,01$).

Conclusion:

Fibrinogen is the only coagulation marker to have an impact on the size of post-operative hematoma. While higher blood pressure values during the surgery are associated with larger post-operative hematomas, higher values during the first 24 hours after the surgery correlate with better 1 week GCS scores.

Title	Two-year outcome of intravitreal anti-vascular endothelial growth factor therapy for neovascular age-related macular degeneration
Presenter	Andrius Bojarun
Author	Andrius Bojarun
Co-authors	Živilė Vieversytė

Introduction:

The aim is to evaluate two-year outcome of intravitreal anti-vascular endothelial growth factor (anti-VEGF) therapy in eyes with neovascular age-related macular degeneration (nAMD).

Materials and methods:

Retrospective study included 788 patients with nAMD who were on treatment with anti-VEGF therapy (ranibizumab Lucentis®, bevacizumab Avastin® and aflibercept Eylea®). 585 patients who were treated and followed-up for two years were involved in final analysis. The following data were recorded for each patient: age during the first injection, gender, the number of performed intravitreal injections during two years and visual acuity (VA) before treatment and after 3, 6, 12, 24 months. Statistical analysis was performed using SPSS program, significance level was set at $p < 0,05$.

Results:

585 eyes were examined. Male to female ratio was 2,1:1. The mean age during the first injection was $73,4 \pm 7,9$ (from 50 to 90 years). The mean VA before the treatment (baseline) was $0,38 \pm 0,22$ by Snellen chart, after 3 months - $0,46 \pm 0,24$ ($+0,08 \pm 0,16$ in comparison with baseline), after 6 - $0,44 \pm 0,24$ ($+0,06 \pm 0,18$), after 12 - $0,40 \pm 0,24$ ($+0,02 \pm 0,20$), after 24 - $0,36 \pm 0,24$ ($-0,03 \pm 0,21$). Mean VA statistically significantly differed ($p = 0,00$) and did not depend on gender and age ($p > 0,05$). The percentage of patients, who had no decline of VA in more than 2 rows after 3, 6, 12 and 24 months was 96,6%, 92,8%, 86,5% and 80,0%, respectively. The mean number of injections in two years was $12,5 \pm 4,7$. A total number of injections did not depend on VA before the treatment ($p = 0,64$) and did not correlate with variation of VA after two years ($r = 0,152$; $p = 0,107$).

Conclusion:

Two-year anti-VEGF therapy effectively improves VA after initial injections. The best results were after 3 months. After 2 years the baseline VA is achieved.

Title	Acute kidney injury after orthotopic liver transplantation: risk factors
Presenter	Dainius Trybė
Author	Dainius Trybė
Co-authors	Gabrielė Kučinskaitė

Introduction:

Acute renal failure is one of the most common complications after liver transplantation. Aim of the study to determine risk factors of acute renal failure after orthotopic liver transplantation in the case of preoperative, intraoperative and postoperative factors.

Materials and methods:

A retrospective study of 59 patients who underwent orthotopic liver transplantation in 2005-2015 in Vilnius University Hospital Santaros Klinikos. Patients were divided into two different groups: with kidney insufficiency and without. Kidney injury was considered when serum creatinine (SCr) increased ≥ 1.5 baseline (according to KDIGO recommendation). Preoperative, intraoperative and postoperative factors were evaluated. The data was analyzed using Microsoft Excel, SPSS V. 21 and considered statistically significant if $p < 0.05$.

Results:

Renal injury developed in 31 patients (52.5%), mean age 46.3 ± 10.1 , 24 males and 7 females ($p = 0.014$). On the first day after transplantation, acute renal failure was evolved in 17 patients. MELD score average before transplantation was 21.41 ± 8.3 in kidney injury group and 17.04 ± 7.5 without, $p = 0.046$. Intraoperative factors: SCr was significantly higher (108.2 ± 53.5 vs 101.18 ± 51.1) and arterial blood pH levels significantly lower (7.273 ± 0.131 vs 7.312 ± 0.143) in kidney insufficiency group. Postoperative parameters: first day after liver transplantation SOFA score (7.58 ± 1.4 vs 5.89 ± 2.0) and APACHE II score (11.35 ± 2.3 vs 9.75 ± 2.6) were significantly higher in renal failure group. Patients age, diabetes, arterial hypertension, preoperative pH, creatinine, albumin, bilirubin, sodium, urea concentrations in the blood did not affect on onset of renal failure.

Conclusion:

According to our study significant risk factors of acute renal failure after liver transplantation are higher MELD score before transplantation, higher creatinine concentration and lower pH levels during surgery, SOFA and APACHE II higher scores on the first day after surgery.

Title	Cardiogenic shock role in inferior myocardial infarction
Presenter	Gintarė Neverauskaitė-Piliponiene
Author	Gintarė Neverauskaitė-Piliponiene
Co-authors	Dr. Rasa Kūgienė, Prof. Dr. Žaneta Petrulionienė, Prof. Dr. Pranas Šerpytis

Introduction:

To investigate Killip IV influence on prognosis after acute inferior myocardial infarction.

Methods:

A retrospective study was conducted in Vilnius University Hospital Santaros Clinics. We examined 894 patients who were hospitalized with inferior myocardial infarction diagnosis between October 2013 and December 2015. We separated patients in two groups: with RVMI involvement and no RVMI involvement. Epidemiological and clinical data was collected: gender, age, Killip class, in-hospital mortality. All data were analyzed with SPSS 23.00, using Mann-Whitney, Student t-test and chi square test.

Results:

Total number of patients involved in the study were 894 (men—621 (69.5%); women 273 (30.5%)), the mean age of patients were 66.15 ± 12.24 . There were 818 (91.6%) patients with ST segment elevation and 75 (8.4%) without ST elevation, Killip I was assigned to 628 (70.2%) patients, II-III—168 (18.8%), IV—98 (11%). Out of 894 patients 612 (68.4%) had inferior myocardial infarction without RV involvement and 282 (31.5%) with RV involvement. Comparing these groups we found that there is significantly higher rate of IV Killip class patients with RV involvement vs no RV involvement (17.7% vs 7.8%, $p < 0.001$), in cases with I and II-III Killip class—no difference was found. In-hospital mortality rate was not significant between groups, however, in-hospital mortality rate in IV Killip cases was significantly lower within patients with RV involvement vs with no RV involvement (30% vs 50%, $p = 0.043$), in other Killip cases in-hospital mortality rate difference was not significant.

Conclusions:

Cardiogenic shock is responsible for higher in-hospital mortality but its role in inferior myocardial infarction differs depending on RVMI involvement. Right ventricular myocardial infarction is involved in more IV Killip cases, although is not responsible for higher in-hospital mortality rate for patients with cardiogenic shock.

Title	To resect or not: unexpected early adenocarcinoma in a colonic polyp
Presenter	Ugne Ringeleviciute
Author	Ugne Ringeleviciute
Co-authors	Nikas Samuolis, Ugnius Mickys, Narimantas Evaldas Samalavicius

Introduction:

The aim of this retrospective study was to assess the benefit-risk balance to patients who underwent colectomy after endoscopic polypectomy of an early adenocarcinoma with unfavorable histological factors.

Materials and methods:

This study included thirty six patients (16 men and 20 women; median age 66 years) who underwent colectomy after endoscopic resection of polyps with T1 adenocarcinoma within the period of January 1st 2004 to January 1st 2016. Specimens submitted to histological analysis were tested for the following unfavorable factors: positive resection margin, lymphovascular invasion, Haggitt 2-3 levels involvement, tumor budding, desmoplastic response, resection type (piecemeal or en-block resection). The benefit was considered as lymph node involvement and residual adenocarcinoma. The risk was measured by the occurrence of severe complications or death (Clavien-Dindo score III-V). To estimate the risk factors for adverse outcomes statistical analysis was performed using SPSS 15.0. p values of < 0.05 were considered significant.

Results:

The benefit of colectomy was reached for six patients (16.7%). Polyp size \geq 18mm ($p=0.02$), female sex ($p=0.02$), desmoplastic response ($p=0.02$) and \geq 2 other unfavorable histological criteria ($p=0.004$) were significant risk factors for adverse outcomes of endoscopically resected adenocarcinoma. Six patients (16.7%) presented postoperative complications (Clavien-Dindo score I-II). There were no deaths.

Conclusions:

16.7% of patients who underwent colectomy after endoscopic polypectomy of unexpected T1 adenocarcinoma had benefited from the colectomy. No patients experienced severe complications or death. Polyp size \geq 18mm, female sex, desmoplastic response and \geq 2 other unfavorable histological criteria were significant risk factors for adverse outcomes of endoscopically resected early adenocarcinoma. Considering low benefit rate (16.7%), we recommend to assess the risk factors before choosing colectomy.

Title	Use of echocardiographic left atrial volume index Improves screening for heart failure with preserved ejection fraction
Presenter	Yorick Fonteyn
Author	Fonteyn Y and Ramsdonck D
Co-authors	Gevaert AB, Lemmens K, Van Craenenbroeck EM

Introduction:

Heart failure with preserved ejection fraction (HFpEF) is a condition with increasing prevalence and high mortality. Unlike heart failure with reduced ejection fraction, there is no effective medical treatment currently available for HFpEF. Recent randomized clinical trials in HFpEF had neutral or negative results. Frequently cited problems with major HFpEF trials are heterogeneity of inclusion criteria (and thus patient populations) and slow enrollment. We evaluated non-invasive parameters frequently used in inclusion criteria of major HFpEF trials.

Methods:

Consecutive patients (n=107) with a clinical diagnosis of HFpEF according to European Society of Cardiology guidelines were evaluated for inclusion in a randomized multicenter HFpEF trial (OptimEx-CLIN, NCT02078947).

Echocardiographic left atrial volume index (LAVI), mitral early peak wave over tissue Doppler early relaxation wave ratio (E/e') and plasma B-type natriuretic peptide (BNP) were obtained. Area under the receiver-operator curve (AUC) and Phi score was determined for each parameter separately and for possible combinations, using SPSS and R software.

Results:

Mean age was 70.5 ± 9.3 years and patients were predominantly female (64,4%). E/e' was available in 102, LAVI in 87, and BNP in 69 patients. Mean E/e' was 18.5 ± 7.5 , mean LAVI was 39.2 ± 12.7 mL/m², and mean BNP was 202.6 ± 179.6 pg/mL. For E/e', LAVI and BNP, Phi scores were -0,017, 0,171 and 0,296 and AUC was 0.52, 0.63 and 0.60 respectively. The combination used for inclusion in OptimEx-CLIN, BNP or E/e', had a Phi score of 0,274 and an AUC of 0.50. LAVI + BNP had the best Phi score (0.30) and an AUC of 0.67. LAVI + BNP + E/e' had a Phi score of 0,232 and the best AUC of 0.72.

Conclusion:

Inclusion of patients with a clinical diagnosis of HFpEF in clinical trials can be improved by adding LAVI to the inclusion criteria.

Title	How important are tumor margins of the ductal carcinoma in situ, an early form of Breast cancer? Fine-tuning of the van nuys prognostic index
Presenter	Astrid Van Cleef
Author	A. Van Cleef
Co-authors	S. AltintAS, M. Huizing, W. Tjalma

Introduction:

We investigated whether the Van Nuys Prognostic Index (VNPI), prospectively applied, is a reliable guideline for the treatment of patients with ductal carcinoma in situ (DCIS) in our hospital. Furthermore, we are going to try to refine the VNPI and thus also our policy. We will do this by using the combination of the obtained VNPI and the more specific score of the tumor margins. Our goal is to keep local recurrence rate less than 20% at 12 years.

Methods:

From 2004 to 2014, 142 patients diagnosed, treated and followed at the University Hospital of Antwerp are included in our analysis. Exclusion criteria are male gender, treatment with chemo- or endocrine therapy and invasive cancer. Kaplan-Meier plots were used to estimate the probability of remaining free of local recurrences. The statistical significance between the survival curves was determined by the log-rank test.

Results:

108 patients were treated according to the VNPI. The local recurrences were 6%, 4% and 4% for group 1, 2 and 3, respectively. The local recurrences in the subgroup of patients who score 9, have margins < 1 mm and were treated with excision and radiotherapy was 20%.

Conclusion:

With low numbers of local recurrences we can conclude that the VNPI is a reliable guideline for the treatment of patients with pure DCIS. Mastectomy is required for patients who score 9 and have margins < 1 mm and for all patients who score 10, 11, or 12 to keep the local recurrence rate less than 20% at 12 years.

Title	Effect of monoammonium glycyrrhizinate in streptozotocin-induced diabetes in rats
Presenter	Aygulya Akisheva and Silvia Dimitrova
Author	Aygulya Akisheva and Silvia Dimitrova
Co-authors	Ilia Duhlenki, Galya Stavreva, Plamen Krastev

INTRODUCTION:

Diabetes mellitus known as a chronic metabolic disease that is characterized by a relative or absolute insulin deficiency, resulting in hyperglycemia.

Monoammonium glycyrrhizinate (MAG) is a bioactive plant component isolated from licorice root. MAG possess many pharmacological effects: anti-inflammatory, antioxidant, antiallergic, antiulcer, etc. Our aim was to evaluate the effect of MAG on the progress of streptozotocin-induced diabetes and diabetic hyperalgesia in rats.

Material and methods:

Diabetes was induced by a single intraperitoneal injection of streptozotocin (60 mg/kg) in Wistar rats. Animals received MAG (75 mg/kg daily, dissolved in double-distilled water, using Tween 60) orally for 4 weeks, starting 3 days after diabetes induction (plasma glucose concentrations >16 mmol/l).

Glucose was measured in blood samples obtained by tail-prick technique using the colorimetric Accu-Chek blood glucose monitoring system. Body weight gain and food tolerance were measured.

Mechanical hyperalgesia was measured by paw-pressure test, using an analgesimeter (Ugo Basile, Italy). We measured the threshold of response to increasing pressure.

Results:

Diabetic rats' body weight was significantly reduced by 110.86 ± 15.04 g compared to controls of the same age; in MAG-treated group – by 76.35 ± 8.75 g. Mortality rate in diabetic animals was 40% compared to no mortality in MAG-treated and control groups. Plasma glucose concentration in MAG-treated rats was lower than in diabetic animals (21.77 ± 1.73 vs. 29.22 mmol/l; 6.47 in controls).

Mechanical hyperalgesia testing showed significant beneficial effect of MAG – the threshold in diabetic rats was 164.4 ± 20.3 g, MAG-treated group – 211.72 ± 18.8 g, control group – 232.5 ± 29.0 g.

Conclusion:

Protective effects of MAG were proved in diabetic rats concerning mortality rate, body weight, blood glucose and neuropathy.

Title	The role of magnesium in pain management in patients with knee osteoarthritis
Presenter	Marija Drakul
Author	Marija Drakul
Co-authors	-

Introduction:

Osteoarthritis (OA) is the most common chronic condition of the joints and the most common cause of pain and disability in the elderly. Currently available pharmacological therapies of OA mainly target palliation of pain and include analgesics, intra-articular therapy and topical treatment. Magnesium is an old substance, used as a pharmacological agent in a variety of clinical situations. Although magnesium is not a primary analgesic in itself, it enhances the analgesic actions of more established analgesics as an adjuvant agent. The aim of this study was to examine if it can reduce pain in patients with knee osteoarthritis.

Materials and methods:

This study included 31 patients of both sexes with an average age of 70. They were divided into 2 groups, Group A (4 male and 12 female) and Group B (5 male and 10 female). All patients, in both groups, were treated with zaldiar tbl (paracetamol 325 mg+tramadol 37.5 mg) and topical NSAID (diklofen gel), but Group A was also treated with magnesium a 375 mg and vitamin B complex p.o. After two weeks and one month after first examination, pain intensity was measured using visual analogue scale (VAS).

Results:

According to VAS average pain intensity after two weeks was in Group A : 4.3 ; Group B: 4.6 . After one month pain intensity was in Group A: 3.6 VAS; Group B: 4.1 VAS. The results of the study show that the pain intensity in the Group A was significantly lower after one month.

Conclusion:

Our results matched with the results of other authors. Magnesium, added to tramadol and paracetamol, is effective in reducing pain in patients with knee osteoarthritis.

Title	Asymptomatic hyperuricemia and gout seen as risk factors for cardiovascular diseases
Presenter	Iona-Irina Rezus
Author	Iona-Irina Rezus
Co-authors	Professor Elena Rezuş

Introduction:

Cardiovascular diseases are among the leading causes of mortality and morbidity nowadays. Patients at risk of developing cardiovascular diseases and their complications can be identified by assessing risk factors (age, sex, hypertension, dyslipidemia, diabetes, obesity). Gout was also proposed as an indicator of cardiovascular risk. Our study has aimed to evaluate the association of asymptomatic hyperuricemia and gout with cardiovascular risk factors.

Materials and methods:

We conducted a retrospective study that included 153 patients with gout and asymptomatic hyperuricemia from the Rheumatology Department. The risk factors taken into account were: age, gender, family history, high blood pressure, diabetes, dyslipidemia (cholesterol, triglycerides), inflammatory syndrome (erythrocyte sedimentation rate-ESR, C-reactive protein-CRP) and obesity.

Results:

We included 60 women (39.2%) and 93 men (60.8%) aged between 20 and 89 years (mean 60.01). Of these 74 had gout (48.4%) and 79 asymptomatic hyperuricemia (51.6%). Hypertension was present in 93 of them, with a higher frequency in the group with gout. Family history of cardiovascular disease was present in 55 patients (23 of those with gout and 32 of those with hyperuricemia). Dyslipidemia was present in 77 cases (hypercholesterolemia and hypertriglyceridemia in ratio 33:44 and 36:41), but obesity in 27 (6 to 21 with gout and hyperuricemia). Elevated ESR values were found in 97 patients (47:50) and those of CRP at 40 (25:17).

Conclusions:

All patients gained an average of four of the risk factors considered. The results of this study support the association of asymptomatic hyperuricemia and gout with cardiovascular risk factors. Therefore, patients suffering an attack of gout need to undergo an evaluation protocol for cardiovascular risk profile.

Title	Clinical effectiveness of telmisartan in patients with metabolic syndrome
Presenter	Nataliia Pavliukovych
Author	Nataliia Pavliukovych
Co-authors	Oleksandr Pavliukovich

Introduction:

Despite modern achievements in diagnosis and treatment of patients with metabolic syndrome (MS), its incidence and unfavorable outcomes have been increased recently. The research aimed at the investigation of the possible clinical effectiveness of telmisartan in patients with MS

Materials and methods:

75 patients with MS were under investigation. They were randomized into 2 groups according to the prescribed treatment: I group – 40 patients who received statins, metformin and enalapril; II group – 35 patients for whom substitution of ACE inhibitor by telmisartan in daily dose of 40 mg was conducted. Clinical effectiveness of the prescribed treatment was estimated in 3 months by level of blood pressure (BP), fasting glucose (FG) and blood lipid spectrum (total cholesterol (TC), triacylglycerols (TG), HDL-cholesterol (HDL-C), LDL-cholesterol (LDL-C)). Statistical methods for parametric distributions were applied for the analysis.

Results:

Comparison of BP in patients of both groups revealed no statistical difference in 3 months of the treatment. Valid decreasing of FG level for 33% was detected in I group ($5,8 \pm 0,11$ comparing with $8,6 \pm 0,23$ mmol/L, $p < 0,001$). In II group statistically lower level of FG ($4,6 \pm 0,18$ comparing with $8,5 \pm 0,82$ mmol/L, $p < 0,001$) was observed while the absolute results of it tended to the correspondent figures of control group. Patients of II group were also characterized by more pronounced changes in blood lipid spectrum, such as decreasing of TC in 1,89 times ($p < 0,001$), TG – by 12,5% ($p < 0,05$), LDL-C – approximately twice ($p < 0,001$), increasing of HDL-C in 2,66 times ($p < 0,001$). Revealed changes are caused by fact that telmisartan is partial agonist of nuclear PPAR γ -receptors, activation of which results in glucose-lowering and anti-atherogenous effects.

Conclusion:

Advisability of telmisartan prescription in treatment of patients with MS opens new perspectives for its application in this category of patients.

Title	Heart failure and diabetes mellitus: focus on changes of erythrocyte membrane morphology
Presenter	Oleksandr Pavliukovich
Author	Oleksandr Pavliukovich
Co-authors	Nataliia Pavliukovych

Introduction:

Blood rheological properties changes are one of the crucial points in the pathogenesis of most diseases, especially in case of comorbidity. Research aimed at investigation of possible structural changes of erythrocytes membranes (EM) in patients with chronic heart failure (CHF) and diabetes mellitus type 2 (DM). Methods of the optical physics reveal and objectify structural changes of EM, which can expand the arsenal of diagnostic methods of rheological disorders detection due to various pathological conditions.

Materials and methods:

60 patients with CHF (I group) and 55 patients with CHF with comorbid DM (II group) were included in the study. For objective assessment of functional state of EM laser polarimetry of the red cell suspension smear was applied.

Results:

Intensity distribution of histogram of Fourier spectrum of erythrocytes suspension smear had symmetrical “bell-like” appearance. Unlike this, intensity distribution of Fourier spectrum of erythrocytes suspension smear of patients of II group was uneven, and histogram transformed into asymmetric dependence. Revealed fact indicates growth of anisotropic component of EM, conditioned primarily by conformational changes of the protein structure of EM due to chronic hyperglycemia (activation of the peroxic oxidation of the biopolymers and lipids, protein molecules glycolization, and, as a result, change of the conformational and spatial orientation of the protein fibrils, including integrated, of the erythrocyte membrane), accompanied by worsening of morphological features of EM. Correlation analysis showed statistically significant direct relationship between level of fasting glucose and anisotropy degree of the red blood cells suspension of patients of CHF and DM.

Conclusion:

Methods of the laser polarimetry of the EM may be used for early diagnosis of structural changes of erythrocytes in patients with CHF and DM.

Title	Ombitasvir / paritaprevir / ritonavir / dasabuvir ± ribavirin combination treatment for chronic hepatitis c virus genotype 1-infected patients with moderate liver fibrosis
Presenter	Brigita Polozovaite
Author	Brigita Polozovaite
Co-authors	-

Introduction:

The aim of this open label, 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 treatment (CHC) for patients with moderate liver fibrosis.

Materials and methods:

33 naïve or experienced GT1 CHC patients' outpatient medical records from Vilnius University Hospital were analyzed in this retrospective study. All included patients were treated in 2016 and had moderate liver fibrosis determined by the transient elastography FibroScan. The 3D therapy for 12 weeks was 100% reimbursed. ALT, Alpha-Fetoprotein (AFP), HCV RNA, liver stiffness by FibroScan, patients' complaints were evaluated at treatment week 4, 8, 12 and 24 and at week 12 of follow-up.

Results:

The mean patients age was 44.8±13.2 years, 18 (54.5%) were female. A total of 26 (77.8%) patients had HCV GT1b, 11 (21.2%) had GT1a. Eight (24.2%) patients were treatment experienced. At baseline mean value of HCV RNA was 4674774.1±7115721.9 IU/ml, liver stiffness – 6.2±1.5 kPa. Two patients additionally for treatment received ribavirin. At the end of treatment mean level of ALT significantly decreased 4 times (70.7 v. 17.7 U/L, p<0.001), as well as AFP (2.9 v. 0.8 kIU/L, p<0.05), liver stiffness was 5.9±1.6 kPa. At the end of treatment HCV RNA was undetectable in all 33 patients. During treatment, 6 patients experienced weakness and fatigue, 2 - sleep disorders. At week 12 of follow-up ALT - 17.4 U/L, AFP – 0.8 kIU/L, liver stiffness – 5.8 kPa. Sustained viral response was achieved for 32 (96.7%) patients, one naïve patient with GT1b experienced CHC relapse.

Conclusions:

Our study showed that the 3D therapy is a safe and effective treatment for genotype 1 CHC patients with moderate liver fibrosis. All adverse reactions were reported as mild and with the spontaneous resolution.

Title	Sexually transmitted infection screening in adolescents and young adults in Lithuania.
Presenter	Brigita Polozovaite
Author	Brigita Polozovaite
Co-authors	Tomas Bruzgelevicius, Rasa Aurelija Vankeviciute, Tadas Raudonis, Tatjana Karmaziene

Background:

Globally, people aged under 25 have the highest rates of sexually transmitted infections (STIs). Previous studies have been limited to analyzing barriers to STI screening. The aim of our study was to evaluate frequency of STI screening among high school students and their reasons for not seeking a STI test.

Materials and methods:

An anonymous online survey was conducted in high schools in Vilnius (capital city) and Alytus (rural city) in Lithuania. The original survey consisted of 29 questions that high school students answered using smartphones or computers in classrooms. 453 students were surveyed, 401 were included in the final analysis: 55.9% (224) Capital and 44.1% (177) Rural students.

Results:

The Capital and Rural student groups had a similar mean age (17.9 ± 0.8 v. 17.9 ± 1.1). 43.3% (97) Capital and 43.5% (77) Rural students were sexually active ($p=0.886$). 53.6% (52) Capital and 55.8% (43) Rural sexually active students at least once experienced urogenital symptoms. However, only 19.2% (10) and 16.3% (7) students, respectively, sought STI screening ($p=0.425$). Among all sexually active respondents, 63.8% (111) did not seek screening because they believed they had no risk for STIs ($p=0.025$). If the consultation were anonymous, 49.6% (111) Capital and 65.5% (116) Rural students would be more likely to set up an appointment ($p=0.006$). If STI screening were free of charge, 55.4% (124) and 67.8% (120) students, respectively, would seek screening ($p=0.04$).

Conclusions:

More than half of sexually active respondents have experienced urogenital symptoms, but only one out of five got screened for STIs. The main reason for not getting screened was the ignorance of being at risk for STIs. High school students from the rural city would seek screening more often than from the capital if it were anonymous and free of charge.

Title	Smoking onset and relation to other cardiovascular disease risk factors.
Presenter	Ringailė Kernagytė
Author	Ringailė Kernagytė
Co-authors	Supervisor Dr. Viktorija Andrejevaitė

Introduction:

The aim of this study was to evaluate the cardiovascular risk connection among smoking individuals in a relation to the age of smoking onset.

Materials and Methods:

A retrospective one single centre study was conducted. Medical records of 40-54 years old smoking men who were examined by cardiology programme at Vilnius University Santara Clinics 2012-2014 were collected. Total cholesterol, low-density lipoprotein cholesterol (LDLC), High-density lipoprotein cholesterol (HDLC), triglycerides concentration, blood pressure and body mass index were analysed. The data were processed with Microsoft Excel and SPSS V23 software. Level of significance was $p < 0,05$.

Results:

257 smoking men data was collected. Average age of smoking onset was $17,17 \pm 3,91$ years. Investigated individuals were split into 2 groups, 1st group started smoking < 17 years - 48% (N=124) and 2nd group started smoking after 17 years - 52% (N=133). Total cholesterol concentration mean in 1st group ($6,43 \pm 2,46$ mmol/l $p = 0,116$) was lower than in 2nd group ($6,69 \pm 2,84$ mmol/l). Blood LDLC concentration in the 1st group was lower ($4,15 \pm 1,85$ mmol/l $p = 0,476$) than in the 2nd group ($4,25 \pm 1,64$ mmol/l). HDLC in earlier smoking onset group was significantly lower ($1,05 \pm 0,24$ mmol/l $p = 0,045$) than in 2nd group ($1,24 \pm 0,18$ mmol/l). Triglycerides concentration is lower in 1st group ($2,83 \pm 0,84$ mmol/l $p = 0,874$) than in 2nd group ($2,88 \pm 1,03$ mmol/l). 64% (n=80) patients in 1st group were obese and in 2nd group 52% (n=70 $p = 0,786$).

Conclusions:

Men with an earlier age onset of smoking had lower blood HDLC concentration. Total cholesterol, LDLC, triglycerides concentrations, obesity, primary artery hypertension records are not significantly different.

Title	Acute stress gastrointestinal ulcers of Cushing and its' prophylaxis in patients with combined cranoabdominal trauma.
Presenter	Olga Smorodska
Author	Olga Smorodska
Co-authors	-

Introduction:

Unlike isolated abdominal trauma (IAT), combined cranoabdominal trauma (CCAT) is characterized by more severe course and possibility of development of acute stress gastrointestinal ulcers of Cushing (ASU), which can cause severe gastrointestinal bleeding (SGIB). Despite big number of publications dedicated to ASU in craniocerebral trauma (CCT) and other emergency cases, researches in complications of combination of CCT and IAT are absent.

The aim of this work was to explore peculiarities of development of ASU in patients with CCAT and opportunities of its' prevention.

Materials and methods:

For the period 2010 – 2016, 154 patients with CCAT were hospitalized. Main causes of CCAT were: road accidents – 57.7%, catatrauma – 20.7%, household injury – 21.6%. All patients with CCAT were divided into 2 groups: control (68), who got standard scheme of therapy and experimental (86), who additionally got prophylactic anti-ulcer treatment. To assess severity of injuries Injury Severity Score was used.

Results:

SGIB were observed in 21 (12.9%) patients with CCAT, light bleeding - in 28(18.2%) patients. Out of 67 patients, after endoscopy erosive gastroduodenitis was observed in 33 patients, acute gastric ulcers in 26 patients, acute duodenum ulcers in 8 patients. In order to prevent above-mentioned conditions famotidinum in dose of 40 mg twice a day was given. In control group SGIB were observed in 17 (25%) patients, while in experimental group SGIB were observed statistically more rare - in 4 (4.4%) patients ($p<0.05$).

Conclusion:

In 97% patients with CCAT erosive and ulcerative lesions of the mucous were observed, which is higher than the frequency of such complications in patients with CCT. Using famotidinum for prophylaxis of acute erosive and ulcerative lesions reduced frequency of their development and mortality associated with SGIB.

Title	A Comparison between Routine HIV Screening Program and Physician-directed HIV Testing in University Infectious Diseases Center
Presenter	Dovilė Ramanauskaitė
Author	Dovilė Ramanauskaitė
Co-authors	-

Introduction:

The Centres for Disease Control and Prevention recommend routine HIV testing in health care settings. This 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.

Materials and 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-directly 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/ μ L (range, 15-459 cells/ μ L). 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:

Routine opt-out HIV screening was feasible, acceptable and cost-effective. It revealed more new HIV cases. The yield of this strategy was similar to physician-directed testing.

Title	Generic Sofosbuvir and Daclatasvir for patients with chronic hepatitis C.
Presenter	Indre Radaviciute
Author	Indre Radaviciute
Co-authors	-

Introduction:

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 (GT2) and 3 (GT3) chronic hepatitis C (CHC) treatment-naïve and treatment-experienced patients with and without liver cirrhosis.

Material/methods:

20 patients' medical records from Vilnius University Hospital were analysed in this retrospective study. Patients were treated with sofosbuvir and daclatasvir combination with or without ribavirin for 12 or 24 weeks, the medications were purchased by themselves. ALT, Alpha-Fetoprotein (AFP), HCV RNA, liver stiffness by FibroScan and adverse effects were analyzed 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 42.2 ± 13.3 years, 13 (65%) were male. Nineteen (95%) patients were infected by GT3a HCV, 4 (20%) were treatment-experienced and liver cirrhosis was present in 2 patients. At baseline mean HCV RNA level was 4132300 ± 6687405 IU/ml, ALT - 140.7 ± 125.7 U/L, AFP - 4.08 ± 3.09 kIU/L, liver stiffness by FibroScan – 12.2 ± 16.8 kPa. Eighteen (90%) patients were treated for 12 weeks, 2 (10%) patients additionally received ribavirin. At week 12 of treatment mean level of ALT decreased significantly 5.6 times (140.7 v. 24.6 U/L, $p=0.002$), AFP was 2.5 ± 1.04 kIU/L. During treatment 10 (50%) patients experienced various adverse effects: weakness (25%), sleep disorders (10%), and discomfort on the right side of abdomen (10%). At the end of 12-week follow-up sustained viral response was achieved for 19 patients.

Conclusions:

The combination of generic sofosbuvir and daclatasvir with or without ribavirin is a safe and effective treatment for treatment-naïve or treatment-experienced genotype 2 and 3 CHC patients. A half of patients experienced mild adverse reactions with the spontaneous resolution.

Title	The anatomical and morphometric study of the cerebral aqueduct
Presenter	Iancu Ionut-Daniel, Roca Eduard
Author	Iancu Ionut-Daniel, Roca Eduard
Co-authors	Dr. Nedelcu Alin Horatiu

Introduction:

The cerebral aqueduct, also known as the aqueductus mesencephali, mesencephalic duct, Sylvian aqueduct or the aqueduct of Sylvius is within the mesencephalon (or midbrain), contains cerebrospinal fluid (CSF), and connects the third ventricle in the diencephalon to the fourth ventricle within the region of the mesencephalon and metencephalon, located dorsal to the pons and ventral to the cerebellum.

Aim: Our study had as goal the quantitative and qualitative evaluation of the cerebral aqueduct, on anatomical pieces.

Material and methods:

The anatomical material studied consists of 100 adult brains, from non-neurological patients. The brains, fixed in formalin solution for 10-16 weeks, were cut medio-sagittal, and the images of the diencephalic-mesencephalic region, calibrated with the millimeter band, were acquired with the microscope operator Zeiss and recorded on a Sony video line and digital camera Sony F717. The images were computer processed by a technique of classical linear morphometry.

Results and discussion:

The qualitative analysis of the cerebral aqueduct allowed us to create an original regionalization in three distinct segments, the longest being the intermediate segment of passage. The aqueduct extremities were labeled as apertures, rostral and caudal, and their relationship described in detail. The quantitative study, enabled us to establish an anatomical morphometrical standard, and deviations from the standard in were determined in dolicho-aqueductal sense and respectively brachy-aqueductal. The comparative study of the anatomical pieces enabled us to provide a basic material useful for imagistical data interpretation.

Conclusions: The qualitative and quantitative analysis of the cerebral aqueduct in adult, on anatomical pieces enabled us to create a practical regionalization in assessing the location and the extent of certain diencephalon-mesencephalic pathological processes.

Title	The fate of the radial artery conduit in coronary artery bypass grafting surgery
Presenter	Celina Luca
Author	Celina Luca
Co-authors	Andreea Ciolacu, Irina Rezuș, Doina Butcovan, Cristina Luca, Grigore Tinică

Introduction:

Radial artery is used as a coronary graft particularly in patients with a high-grade target vessel stenosis. The aim of the present study is to determine the patency rate of the radial artery as a coronary graft by using a modern non-invasive imaging modality, the coronary computed tomography angiography (CCTA).

Material and methods:

We performed CCTA using a Somatom Definition Flash scanner on fifty patients who underwent a coronary artery bypass graft intervention in order to evaluate their grafts patency. All interventions were performed at the Institute for Cardiovascular Diseases, Iași, Romania, by a single surgeon. All patients benefited by total arterial revascularization by using the radial artery as a second or tertiary arterial conduit and all of them had a radial graft on right coronary (RCA). We appointed each graft as patent, occluded or string graft.

Results:

The mean age of patients was 63.7 ± 8.07 years and the mean time after coronary artery bypass grafting was 8.0 ± 2.5 years. A better patency rate for radial graft anastomosed on the left coronary territory than the right one (86.67% vs. 78.43%) was present, but no difference between radial graft patency used for distal RCA (78.95%) than those used for posterior descending artery revascularization (78.43%). For radial artery graft anastomosed on RCA, the patency rate was lower in females than in males (55.56% vs. 83.33%). String radial graft was present in 3 cases.

Conclusion:

In our study, the radial graft patency rate was comparable to that found in other angiographic studies.

Title	Exploratory research of pupils of vilnius: variation of height in 1985-2016
Presenter	Valentina Koselap and Zivile Vieversyte
Author	Valentina Koselap and Zivile Vieversyte
Co-authors	-

Introduction:

The aim was to evaluate the variation of height of pupils in Lithuania between 1985, 2000 and 2016 and assess parents' anthropometric measurements to their children's.

Materials and methods:

Anthropometric study in 2016 in one Vilnius elementary school was performed. All pupils in school years 1 to 4 were included. Current children's heights and weights were found in healthcare cards. A questionnaire was filled by parents regarding their anthropometric measurements. Rates of children's height were standardized by age and gender, using findings of Lithuanian children research in period 1985 to 2000 (J. Tutkuvienė, 2010) and compared. Statistical analysis was performed using MS Excel and SPSS 21.0 programs.

Results:

114 children were examined: 61 boys and 53 girls. Average age was 9,7 years (7-12 years). The mean standardized height by 1985 researches data was 0,31 (± 1.24); by 2000 data - 0,18 (± 1.04). Assessing children by Lithuanian growth standards, 58,8% of children had medium height, 9,6% were shorter than the average height, 5,2% were short/very short, 21% - higher than the average height and 7% were tall/very tall. The average height of fathers was 181,7 ($\pm 6,41$)cm, mothers - 168,12 ($\pm 6,07$)cm. The average height of fathers and mothers of short children were respectively 185cm and 170cm, BMI - 25,08kg/m² and 22,56 kg/m², while the average height of fathers of tall children were 182,5cm and mothers - 169,25cm, BMI – 29,3kg/m² ir 25,6kg/m².

Conclusion:

Height of pupils significantly increases from the year 1985 and 2000. It was also estimated that BMI of parents of tall children were higher than parents of short children. Probably, it is related to early onset to puberty that leads to growth spurt.

Title	Modulation of neuroinflammation by in situ production of interleukin 13 by transplanted mesenchymal stem cells
Presenter	Elisabeth Hens
Author	Elisabeth Hens
Co-authors	Leen Verbeeck, Debbie Le Blon, Idrish Ali, Stefanie Dedeurwaerdere, Peter Ponsaerts

Introduction:

In neuroinflammation, activated microglia and macrophages can be classified into 2 types: M1 pro-inflammatory and M2 anti-inflammatory microglia/macrophages. It is hypothesized that neuroprotection can be achieved by altering inflammatory responses from an M1 into an M2 type. Interleukin 13 (IL13) is a typical pro-M2 cytokine. Previous studies in the cuprizone mouse model of demonstrated that IL13-producing mesenchymal stem cells (IL13-MSCs) can alter neuroinflammatory responses, when implanted in the central nervous system at the onset of inflammation. We investigated whether the IL13-MSCs could also initiate neuroprotection when administered during peak inflammatory responses. Secondly, we looked at the clinical effect of IL13-MSCs grafting in the kainic acid-induced status epilepticus (KASE) model.

Material and methods:

In the CPZ model, IL13-MSCs were grafted within the splenium of the corpus callosum of mice three weeks after the start of the CPZ-diet. One week after implantation, histological analysis for inflammatory markers was performed. In the KASE model, mice received an intra-hippocampal injection of PBS or IL13-MSCs one week prior to KASE. Mice were clinically evaluated by video electroencephalography.

Results:

In the CPZ model, despite polarisation of macrophages into an M2 phenotype, IL13 was not capable of inhibiting advanced inflammatory responses. This result is in striking contrast with experiments administering IL13 at an earlier stage of inflammation. In the KASE-model, we observed significantly fewer seizures following IL13-MSCs grafting. The difference was mainly attributed to a significant decrease of non-behavioural hippocampal paroxysmal discharges.

Discussion:

We here demonstrate the ability of IL13-MSCs-grafting to alter inflammatory responses in vivo. However, based on the data obtained, we suggest that such intervention to be clinically effective should occur at an early stage during the development of inflammatory responses.

Case reports

Title	A devious lesion: Myositis Ossificans
Presenter	Martha Gismondi
Author	Martha Gismondi
Co-authors	-

A 7 years old female, A.B, presented at Giannini Gaslini Hospital for a painful swelling on the medial side of the right calf, which started to develop 7 months earlier without any trauma history. The lesion was 3 cm in diameter, mobile on light palpation and the surrounding skin was edematous and hyperemic. The ultrasound examination displayed, an ovalar, hypervascular and non-homogenous swelling at the medial aspect of the gastrocnemius muscle. An incisional biopsy was performed and the histopathological examination revealed a proliferation consisting of epithelioid and spindle cells with scattered mitosis, associating a stroma with chondroid and myxoid features. The initial diagnosis was sarcoma not specified otherwise, without the possibility of differentiation between epithelioid sarcoma, synovial sarcoma and neoplasia with myoepithelial differentiation. The MRI performed one month later showed a significant volumetric increase of the lesion with invasion into the adjacent muscles. Two cycles of chemotherapy with Iphosphamide and Doxorubicin were initiated. After two months, a total resection of the lesion was performed; the histopathological examination identified a proliferation of fusiform cells with osteoid formation diagnosed as myositis ossificans. Myositis ossificans is a reactive pseudomalignant fibrous lesion which can be easily misdiagnosed for a sarcoma (osteosarcoma, synovial sarcoma, epithelioid sarcoma) or for benign lesions (nodular fasciitis, fibro-osseous dysplasia) because they share several clinical and histopathological features. In order to have a correct diagnosis of myositis ossificans, clinical, radiological and histopathological correlations should be performed.

Title	Pure laparoscopic fistulojejunostomy for the management of external pancreatic fistula. Case report.
Presenter	Ana-Maria Petrica and Nicolae-Ovidiu Gravidovici
Author	Ana-Maria Petrica and Nicolae-Ovidiu Gravidovici
Co-authors	Cîmpean Claudiu, Cicortaș Beatrice

Introduction:

We present a case of an obese 54 year-old female patient with severe acute biliary pancreatitis, Balthazar E, severity score 10/10.

Case History:

After one month of conservative and endoscopic management, the patient underwent a laparoscopic intervention for a complicated pseudocyst including cholecystectomy, sequestrectomy and multiple drainage. However, an EPF developed with a daily drainage fluid of 250-300 ml.

Treatment and results:

A mature scar tract formed around the percutaneous drain and after a period of 6 months a laparoscopic Roux en Y fistulojejunostomy was performed. The patient's condition improved and was discharged 14 days later. Post-operative evaluation showed no complications after one year.

Discussion:

The evolution of the acute necrotizing pancreatitis is initially characterized by ductal epithelium necrosis, followed by the spread in the pancreatic parenchyma. When the necrosis reached a variable proportion of the gland, there are higher chances of the Wirsung duct to break.

This condition is known as disconnected pancreatic duct syndrome (DPDS). One of the complications after DPDS is external pancreatic fistula (EPF). While open Roux-en-Y fistulojejunostomy is the usual surgical treatment for EPF, the laparoscopic approach is rare. Because nowadays laparoscopic approach is competing with open surgery, several studies tried to depict a comparison between the two interventions in order to reveal the advantages and disadvantages of the methods with regard to the outcome of the patient. A study carried in Germany tried to present such a comparison by performing pancreatectomy both laparo and open. The result was that even laparo interventions require more time to be performed, the blood loss, hospital stay and mortality are radically reduced and the patient experiences faster recovery.

Title	Surgical myocardial revascularization in a patient with syphilitic aortitis and ostial coronaritis
Presenter	Celina Luca
Author	Celina Luca
Co-authors	Celina Luca, Andreea Ciolacu, Irina Rezuș, Doina Butcovan, Cristina Luca, Grigore Tinică

Introduction:

Syphilitic aortitis and ostial coronaritis are cardiovascular complications of tertiary syphilis that occurs after several years from the initial untreated infection. Just one third of infected people will reach the tertiary stage.

Materials and methods:

We present the case of a 39-years old patient with acute myocardial infarction complicated with early post-infarction angina. Classical coronarography revealed 95% stenosis of left main artery and ostial occlusion of the right coronary artery (RCA). These changes were accompanied by a major aortic insufficiency. Preoperative evaluation revealed a tertiary luetic infection complicated with syphilitic aortitis and ostial coronaritis. Benzathine penicillin G 3 million units twice a day for 2 weeks was administrated. Aortocoronary bypass grafting of right coronary artery, enlargement of the left main and ascending aorta with autologous venous patch and resuspended aortic commissures were performed at Institute for Cardiovascular Diseases Iași, Romania.

Results:

Early postoperative evolution was favorable and angina pectoris remitted completely. The patient was asymptomatic one month postoperatively. To evaluate the late postoperative settings of surgical intervention, we performed a coronary computed tomography angiography (CCTA) nine years after myocardial revascularization. At age of 48, CCTA revealed that the venous graft on RCA was permeable and an aortic pseudoaneurysm developed at the level of the autologous venous patch.

Conclusion:

The surgical intervention for syphilitic aortitis and coronaritis requires to be temporized in order to administrate the specific treatment for lues. In this case the surgeon's experience was capital in choosing the ideal conduit for surgical myocardial revascularization.

Title	Extracorporeal life support as a bridge-to-treatment in a patient with a ventricular septal rupture: a case report
Presenter	Vadim Zozoelja,
Author	Vadim Zozoelja,
Co-authors	Yassine Laghrib, Michiel Lembrechts

Introduction:

Ventricular septal rupture is a rare complication of a myocardial infarction with an urgent need for treatment. Often a septal rupture leads to fatal consequences due to cardiogenic shock. Yet because of tissue necrosis a quick solution is not evident and a supporting system for the patient is necessary until closure of the septal defect is feasible.

Case report:

In this case report we introduce a 74-year old woman, who became hemodynamically unstable due to a ventricular septal rupture after a myocardial infarction. She received an intra-aortic balloon pump and extracorporeal life support (ECLS) as a bridge-to-treatment as the rupture was planned to be closed by a percutaneous SD occluder after the patient was deemed stable and the heart tissue strong enough.

Discussion:

We will discuss the pathological and clinical aspects of ventricular septal ruptures and present possible percutaneous treatment. Also the role of ECLS as possible life saving bridge- to-treatment in this rare and life threatening complication of a myocardial infarction will be reviewed.

Title	From pleuropneumonia to pleuropulmonary blastoma - a case of a boy with rare, malignant mediastinal tumor.
Presenter	Agata Krach
Author	Agata Krach
Co-authors	

Objective:

A 26-months old male patient (R.F.), with no previous medical history, had been admitted to the emergency ward due to increasing cough and dyspnea. The physical examination revealed pallor skin and conjunctiva, peripheral oedema, no vesicular sound above the right lung, wheezes above the left lung. As the conventional X-ray suggested pleuropneumonia right side thoracocentesis was performed, however, there was no significant effusion.

Materials and methods:

First CT scan with iodine contrast was performed. It revealed solid, heterogeneous mass filling the right hemithorax, measuring 11,9 x 10,4 x 12,0 cm and complete compressive right lung atelectasis. The tumor compressed vessels of corona cordis, right border of cardiac silhouette and caused significant mediastinal shift to the left side. That suggested pleuropulmonary blastoma (PPB) and first cycle of systemic oncological treatment (COP) was administered. The treatment was continued with VAC as biopsy result was still pending. The control CT scan revealed tumor size regression in comparison with pretreatment condition (11,6 x 10,7 x 7,9 cm), lung compression and mediastinal shift were still noticeable. The patient receives multidisciplinary care, decisions about following oncological regimen as well as about different treatment options will be considered individually, according to laboratory results, radiological imaging and child's current condition.

Conclusion:

PPB is a rare, malignant neoplasm of infancy and early childhood with poor prognosis that originates from lung or parietal pleura. Rapid tumor growth is very characteristic and it causes the typical symptom - breathing difficulty. The lack of specific treatment remains a major problem. Favourable outcome depends on the early diagnosis. In the differential diagnosis lymphoma, congenital pulmonary airway malformation, intrathoracic sarcoma and neuroectodermal tumor should be considered.

Title	A 4-year-old boy with an adult disease: priapism and fixed joints as the sole presenting signs in pediatric CML
Presenter	Cynthia Smeding
Author	Cynthia Smeding
Co-authors	-

Introduction:

Chronic myeloid leukemia (CML) rarely affects the pediatric population and has an incidence of 0.09/100 000 children. The clinical aspect of pediatric CML takes a more aggressive course compared to that in adults, being further exacerbated by the lack of specialized pediatric prognostic scores, rendering evaluation of severity and management exceedingly challenging.

Case history:

A febrile four-year-old boy (W.K.) without any past medical history presented to the emergency department with both joints in the lower limbs fixed and a painful 2-hour episode of priapism that persisted after admission. Hepatosplenomegaly (+6 and +10 cm respectively) was noted upon palpation.

Investigations:

A full blood count indicated severe leukostasis (639 000/ μ L). A blood smear revealed a decreased number of blasts which does not associate with acute lymphoblastic leukemia. A bone marrow biopsy was obtained and cytogenetics confirmed the diagnosis of CML through the bcr-abl mutation.

Treatment/Results:

After 19 days of treatment with imatinib (500 mg/m²), the leukocyte count normalised and the priapism subsided. The patient was discharged on the 19th day, in a good general status, without fixed joints and a leukocyte count of 10 200/ μ L.

Discussion/Differential Diagnosis: Priapism and fixed joints are exceedingly rare presenting signs of pediatric CML and could be suggestive of sickle cell anemia and cerebral palsy, respectively. However, in this patient the underlying pathophysiologic phenomena refer to venous congestion resulting from increased intra-abdominal pressure secondary to hepatosplenomegaly and the infiltration of leukocytes into the sacral arteries. Uncharacteristic presenting signs further accentuate the already dire prognosis of pediatric CML, delaying diagnosis and treatment initiation. There is an urgent need for the elaboration of standardized diagnostic and management guidelines for pediatric CML.

Title	Acute respiratory distress syndrome associated with hypercalcemia due to hyperparathyroidism
Presenter	Aljaz Levstek en Neza Erzen
Author	Aljaz Levstek en Neza Erzen
Co-authors	-

Introduction:

60 old male F. B. with a history of nephrolithiasis presented with pain and weakness of the limb muscles during the last month and increased sleepiness and constipation for the last week. Examination showed limb muscle atrophy and pronounced muscle weakness.

Case history:

Patient developed acute respiratory distress syndrome (ARDS), acute kidney injury and hemodynamic instability. Mechanical ventilation, hemodialysis and vasopressor support were needed. His respiratory state further deteriorated; a veno-venous extracorporeal membrane oxygenation (vv-ECMO) was introduced.

Investigations:

Laboratory investigations showed increased levels of total serum calcium (up to 4,58 mmol/L) and increased levels of parathormone. Thoracic computed tomography revealed posterior mediastinum parathyroid adenoma.

Treatment:

Patient was treated with calcimimetic and denosumab. Parathyroidectomy with complete resection of the tumor was performed. After the surgery he developed hungry bone syndrome, treated with large amounts of calcium and vitamin D. Due to calcific arteriopathy and high levels of vasopressors he developed extensive distal limbs gangrene and epidermolysis. In two weeks patient status improved, ECMO and vasopressors could be discontinued. Later on he developed signs of sepsis with multiorgan failure. Due to poor overall state, intensive treatment was not reintroduced and the patient died.

Discussion:

Hypercalcemia often presents with nephrolithiasis and in advanced cases with bone and muscle pain and muscular dysfunction (1). In the literature we found one case report, where hypercalcemia due to parathyroid adenoma caused ARDS. (2) Animal experiments revealed a link between hypercalcemia and ARDS through increased production of nitric oxide. (3)

Title	Dextroposition of the aorta
Presenter	Iancu Ionut-Daniel, Roca Eduard
Author	Iancu Ionut-Daniel, Roca Eduard
Co-authors	Dr. Nedelcu Alin Horatiu, Dr. Manuela Ursaru

Introduction:

The patient O.A , 45 years old, female, is urgently hospitalized in UPU in the state of “coma of undetermined etiology”, intubated oro-tracheal and mechanically ventilated.

Investigations:

The patient underwent an examination ANGIO CT THORACO-ABDOMINAL. The analysis was performed using the Radiant DICOM Viewer software and the images were recorded on a Siemens Somatom Emotion 16 - CT scanner.

Results:

The results of the CT exam are the following: dextroposition of the aorta, atheromatosis with calcified parietal plaques, some thrombosed at the thoraco-abdominal aorta's level. The ascending aorta has the caliber 33 mm, the aortic arch 30 mm, thoracic descending aorta 25 mm and the abdominal 30 mm, permeable, without dissection fold. The trunk of the pulmonary artery, right pulmonary artery and left pulmonary artery are permeable. Left pleural fluid blade is 8 mm. Right parietocolic ascetic fluid with a maximum thickness of 43 mm.

Discussions:

The essential feature of the dextroposition of the aorta is that the aortic arch crosses over the right main bronchus instead of over the left one. The right aortic arch is often associated with clinically and radiologically well-defined congenital malformations such as Fallot's tetralogy, isolated dextrocardia or dextrocardia within a complete transposition of all the viscera(situs viscerum inversus totalis), and coarctation of the aorta. In this malformation the aortic hole is located at the level of interventricular communication.

Title	Renal thrombotic microangiopathy caused by interferon beta-1a
Presenter	Ieva Muižniece and Elīza Briede
Author	Ieva Muižniece and Elīza Briede
Co-authors	Linda Kučāne

Introduction:

Thrombotic microangiopathies (TMA) are clinically characterized by hemolytic anemia, renal dysfunction, and thrombocytopenia [2]. Drug induced thrombotic microangiopathy (DITMA) can be divided into drug induced autoantibody formation and direct tissue damage from medication. DITMA is classified as primary TMA and different agents have been reported [1]. Based on similar case reports, we hypothesize that in our case interferon beta-1a is the cause of TMA.

Case report:

34-year-old Caucasian woman with known multiple sclerosis (MS) for 17 years was admitted with acute renal failure. MS was treated with subcutaneous interferon beta-1a injections three times a week. Acute hemodialysis was started and further investigations were performed. Viral, bacterial and immunological tests were negative. Kidney biopsy showed thrombotic microangiopathy. Patient's visual acuity decreased significantly and developed diplopia. MRI was done. It indicated posterior reversible encephalopathy syndrome (PRES). Interferon beta-1a was discontinued and the patient was transferred to intensive care unit. As thrombotic thrombocytopenia could not be excluded plasma exchange (PEX) was started. ADAMTS13 was in normal range. After interferon discontinuation and four PEX patient remained conscious and stable. Patient's renal function did not recover and she remained dialysis dependent. Peritoneal dialysis (PD) catheter was implanted and PD was continued permanently.

Discussion:

There are case reports about interferon associated TMA. Drug related glomerular damage is less common than tubulointerstitial damage but is important as often can cause acute kidney failure [3]. Therefore it is crucial to exclude drug induced renal damage in all patients with acute kidney failure.

Title	A rare case of ochronosis
Presenter	Ciolacu Andreea
Author	Ciolacu Andreea, Rezus Ioana-Irina
Co-authors	Elena Rezus

Background:

Ochronosis is a rare disease with autosomal recessive transmission, due to lack of homogentisic acid oxidase. Homogentisic acid is an amino acid resulting from tyrosine metabolism. As a repercussion of metabolization by liver oxidase, homogentisic acid and its oxide (alkapton), is accumulated in the blood and excreted in the urine massively. Elevated levels of polymerized homogentisic acid form a pigment deposited in connective tissue: the skin, sclera, the cartilage and connective tissue in the spine, large joints and heart valves. Diagnosis is confirmed by quantitative measurement of homogentisic acid in urine. Tyrosine levels are normal.

Case Presentation:

The patient A.I., 52 years old, was hospitalized in the Clinic of Rheumatology for pain in dorsal-lumbar spine, scapular-humeral and knee joints bilaterally, accompanied by morning stiffness and functional impotence, symptoms onset after 5 years. There was no significant family history/pathological and medication was represented by nonsteroidal anti-inflammatory drugs when needed. On examination of the locomotor apparatus was discovered limited mobility of all segments of the spine, scapular-humeral joints and knees. In general clinical examination, we retained the black appearance of urine. Biological, an inflammatory syndrome was detected. Lumbar spine radiography showed normal sacroiliac joints, calcification in vertebral disc, lower dorsal and lumbar spine. Homogentisic acid dosing was found increased. Corroborating clinical and laboratory data, the diagnosis of ochronosis was reached. Treated with anti-inflammatory, vitamin C and chondroprotectors, the evolution was favorable. The patient required a right hip arthroplasty surgery.

Conclusions:

Ochronosis is a chronic disease that leads to pain, stiffness and limited mobility in the affected joints with no etiological treatment, most patients needing surgery.

Title	Spontaneous chronic subdural hematoma in a male under 45 year-old: case report
Presenter	Mokhammad Diana
Author	Mokhammad Diana
Co-authors	Solodovnikova Julia MD, PhD, Professor Assistant

Introduction:

K.O, a 43-year-old male patient, presented common headache, nagging pain and tension of the neck muscles, sleep disorders, muscle contractions of the right limbs. Neurological examination: deep tendon reflexes symmetrical, slightly elevated, unstable in Romberg test, general hyperhidrosis.

Case history:

The patient suffered from this condition for 1 months. He was treated with analgesics without positive effect. Any trauma history or non-traumatic promotive factors were identified.

Investigations:

MRI identified large chronic subdural hematomas (CSH) in both hemispheres, causing 10 mm medial dislocation.

Treatment. He underwent burr hole evacuation of the CSH. Some motor partial seizures in right limb at early postoperative period occurred.

Discussion:

The CSH is life-threatening condition that common in elderly patients, but in young patients is very rare. Predisposing conditions of CSH are a head trauma, a cerebral aneurysm, anticoagulant therapy, intracranial hypertension. Only few isolated cases of spontaneous CSH (sCSH) have been reported in the literature. sCSH can lead to fatal complications. It requires urgent surgical treatment. Sometimes it's very complicated to suggest the presence of sCSH in young patient on primary neurological examination, because of minimal neurological symptoms, which may also occur in healthy people (headache). The patient has no history of any head injury. This is why CT and MRI are obligate urgent diagnostic tests in all patients with headache.

Title	Multiple eye muscle palsy as first sign of sarcoidosis?
Presenter	Isabel Deboutte
Author	Isabel Deboutte
Co-authors	-

Introduction:

I will discuss the 57 years old woman (M.H.), who presented first in April 2014 with binocular horizontal diplopia due to complete right sixth nerve palsy, which resolved spontaneously after 6 months. January 2017, again she was seen with a sixth nerve palsy, this time on the left eye. May 2017 she presents with ptosis, a mydriatic fixed pupil, exotropia and motility disorders of the left eye, accounting for a complete palsy of the left third cranial nerve.

Case History:

Apart from the eye motility disorder, the neurological and ocular exam was completely normal. Medical history consisted of migraine and hypercholesterolemia for which she was taking a statin. No other cardiovascular risk factors could be withheld.

Investigations:

Blood tests and lumbar puncture appeared normal. The first MRI showed a small incidental lesion in the right lateral ventricle (DD astrocytoma, hamartoma, subependymoma), for which follow-up was indicated. Over the years, this lesion remained unchanged. MRI, performed in May 2017, did describe a new meningioma at the left cavernous sinus. However, this cannot explain the former cranial nerve palsies. CT thorax showed enlarged mediastinal and hilar lymph nodes and various nodules in the lung parenchyma as in the upper abdomen, suspicious of sarcoidosis.

Treatment:

As a treatment of sarcoidosis, corticosteroids were started, with complete response within weeks.

Discussion:

In patients presenting with recidivating cranial nerve deficits, main differential diagnosis consists of MS, neuroborreliosis, increased intracranial pressure and neurosarcoidosis. Without other organ involvement however, the diagnosis of neurosarcoidosis is difficult and in ophthalmic disease, its most common presentation is optic neuropathy.

Title	Endometrial cancer: a case report
Presenter	Obote Ufuoma
Author	Obote Ufuoma
Co-authors	-

Introduction:

Mrs. M.N., a 60-year old, presents to the hospital with persistent vaginal bleeding for about two months. On vaginal examination, there was evidence of recent bleeding. The patient was admitted because genital bleeding occurring after menopause must be considered as an indicative for malignant disease until proven otherwise.

Case History:

Gravida 6, Para 5, menarche occurred at 13 years of age and patient is currently 15-years post-menopausal. She has not used Hormone Replacement Therapy (HRT). On past medical history, she has a BMI of 33.5 and a 10-year history of Type 2 Diabetes Mellitus. Family History: No abnormality noted.

Investigations:

Transvaginal Ultrasound: Endometrial thickness of 7mm. Endometrial biopsy: Two Samples of endometrial tissues of about 3mm and 11mm were examined histologically which showed complex atypical hyperplasia interpreted as a well differentiated endometrioid endometrial adenocarcinoma. Pelvic MRI: Direct Invasion of cervical stroma and tumor infiltration of the isthmus. FIGO stage 2 (T2, N0, M0), grade 1.

Treatment and results:

After careful evaluation of the patient's case, Mrs. M.N.'s management plan was to undergo a radical hysterectomy and bilateral salpingo-oophorectomy and pelvic lymphadenectomy. Surgical intervention was successful in her case. Patient is currently one year post hysterectomy and is in remission.

Title	A Family Of Loeys-Dietz Syndrome: a Case Report and Literature Study
Presenter	Jonathan Mertens
Author	Jonathan Mertens
Co-authors	Michiel Lembrechts

Introduction:

Loeys-Dietz syndrome is the latest member of the family of hereditary connective tissue diseases, presenting with defects of the cardiovascular and musculoskeletal system, the internal organs and craniofacial dysmorphism.

Case report:

In this case we introduce a 35-year old male patient with a very complicated medical history including aortic and coronary aneurysms, aortic valve insufficiency, dilatation of the basilar artery, gastric herniations, strabismus, reduced hearing, migraines etc. In addition, two family members showed some of the same symptoms. Because of the broad systemic presentation, different connective tissue diseases, such as Marfan syndrome and Ehler-Danlos syndrome, were investigated for during his life, however these never completely fitted the clinical picture, because the vascular disease was too aggressive. In 2005 a new suspect came into view; Loeys-Dietz Syndrome, which was quickly connected to our patient after finding the TGFBR2 mutation during genetic counseling. TGFBR2 is a transmembrane protein, which fulfills a role in the production of collagen.

Discussion: By reporting this case, we aim not only to highlight the importance of considering inherited connective tissue disorders, when a patient presents with aortic aneurysms or dissections associated with a strong family history of aortic pathology, but also to differentiate between the connective tissue diseases and their inherent and possible presentation. This due to the fact that there is a significant difference in progression of the disease. On one side it is important to keep in mind that 5% of aneurysmal arterial disease emanates from hereditary connective tissue disease. However, in up to 20 % of patients with a positive family history of aneurysmal arterial disease, no known genetic factor is found.

Other

Title	Knowledge and Attitude about Nonalcoholic Fatty Liver Disease in the Medical Students of Shahid Beheshti University of Medical Sciences
Presenter	Bahar
Author	Mohammad Hassan Give chin Qamsary
Co-authors	Ehsan Asadi, Kimia Rahimian, Puria Baghbani Borujeni, Ghazaleh Pourhosseyni Akbariyeh

Background and objective:

Nonalcoholic fatty liver disease (NAFLD) as a challenging health issue affects about 2.9 percent of the Iranian population. As the future role of the medical students is to manage such diseases in the community, we aimed to assess their knowledge about NAFLD at our university.

Materials and Methods:

This cross-sectional descriptive study was carried out on 202 Medical students from 5 different levels of basic medical courses at Shahid Beheshti University of Medical Sciences (SBUMS). Participants were selected by simple sampling and data collection tool was a questionnaire with 56 questions. The questionnaire included questions about participants' demographic information, their knowledge about NAFLD and their attitude about this disease. Data were analyzed using SPSS V21.5 software and ANOVA test.

Results:

The participants included 103 women (51%) and 99 men (49%) aged 15-35 years. In brief, 7.4% of the participants had low knowledge, 71.8% had moderate and 20.8% had a high level of knowledge about NAFLD. The overall level of knowledge about NAFLD was moderate. The knowledge of men was higher than the women ($P=0.027$). In addition, there was a positive correlation between participants' year of study and their level of knowledge ($P=0.002$).

Conclusion:

Although the medical students' knowledge about NAFLD in this study was moderate, we suppose their knowledge needs to be improved due to their future role in clinical practice.

Title	Liver transplantation: a decade review of 64 patients in Lithuania
Presenter	Gabrielė Kucinskaitė
Author	Gabrielė Kucinskaitė
Co-authors	-

Introduction:

Each year more than 4000 orthotopic liver transplantations (LT) are performed in the United States. Cirrhosis is the 12th leading cause of death for adults and it is the main indication for LT. More than 60 people are waiting for a liver transplant in Lithuania every years, though only 12 to 15 recipients are undergoing surgery. Only a few scientific publications on liver transplantation in Lithuania were carried out. An aim of the study is to review the most common indications for LT, LT rate and its complications.

Materials ant methods:

a retrospective study, which included 64 liver-transplant patients during 2005-2015 in Vilnius University Hospital Santaros Klinikos. Statistical analysis was performed using Microsoft Excel, SPSS V.20 software, the data is considered to be statistically significant if $p < 0.05$.

Results:

24 (38%) out of 64 participants were females and 40 (62%) – males. The mean age was 46.5 ± 9.9 years. The most common indications for LT were cirrhosis induced hepatitis C virus (26 cases (43.8%)), cirrhosis induced hepatitis B virus (10 cases (15.6%)), micronodular cirrhosis (8 cases (12.5%)). Average MELD score was 18.1 ± 5.5 . Average creatinine concentration before LT was 86.9 ± 66.5 $\mu\text{mol/l}$. 31 (48.4%) recipients developed acute renal failure after LT. 12 (18.8%) patients were diagnosed with sepsis. Relaparotomy was performed on 34 (53.1%) patients. Average liver transplantation duration was 7.2 ± 1.4 , time in ICU after LT – 12.9 ± 10.8 . 14 patients (21.9%) died after LT. There was no significant difference between MELD score, liver disease etiology and mortality.

Conclusion:

The main indication for LT was hepatitis C virus induced cirrhosis. Half of the patients developed renal insufficiency. Mortality rate was 22 %. There was no significant difference between liver disease etiology and mortality.

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We hope all our participants will enjoy their time in Antwerp!

