

Session:

# PUBLIC HEALTH II

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**TITLE: PRINCIPLES OF HEALTH PREVENTION: THE IMPACT OF KNOWLEDGE ON ITS COMPLIANCE.**

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**Introduction:** Prophylaxis consists of measures taken for disease prevention and plays a crucial role in increasing the level of public health. In young people, it is recommended to perform regularly basic tests, such as breast or testis self-examination once a month, cervical smear tests in sexually active women every three years, as well as regular assessment of total blood counts and serum glucose level.

**Aim of study:** The aim of the study was to assess compliance with the principles of prevention and the frequency of recommended laboratory tests performed among students of medical faculties in comparison to non-medical students.

**Material and methods:** The study was conducted from April to October 2016 using a standardized interview. It involved 518 students between 18 and 38 years of age, median age 21. The study group consisted of 351 women and 167 men, of whom 435 were medical students (medicine, dentistry, physiotherapy and others) and 83 were students of different non-medical faculties. The research tool was the author's questionnaire. The obtained results were analyzed and statistical significance was calculated with the use of Chi-squared test and statistical significance was defined as  $P < 0.05$ .

**Results:** As many as 129 of 351 (36.8%) responding women admitted that they have a cervical smear performed every 3 years or often. Regularly, a smear test is performed in 34.5% of medical students and 48.3% women from non-medical faculties. The difference is statistically significant ( $p=0.046$ ). About 24.9% of medical students and 13.8% non-medical students performs regular breast self-examination ( $p=0.066$ ), while among men 34.5% from medical faculties performs testis self-examination in contrast to 16.0% of student from non-medical faculties ( $p=0.067$ ). Almost half of respondents (50.4% vs 49.4%) have a total blood count performed regularly, however as many as 8.4% respondents of non-medical faculties have it had never performed. Among medical students this group accounted for 2.8% ( $p=0.057$ ).

**Conclusions:** Students of medical faculties more often comply with the principles prevention and perform recommended laboratory tests. However, a cervical smear test is more regularly performed in group of respondents from non-medical faculties.

## **TITLE: STUDENTS ATTITUDE AND RESPONSE TO MEDICAL CANNABIS.**

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**Introduction:** The topic of medical use of marijuana is recently widely presented in Polish media. For many people the rules and purpose of use this substance remains unclear, causing resistance based on cultural conditions. We have managed to collect information about marijuana in the young group, consisting of students.

**Aim of study:** The aim of the study is the analysis of knowledge and attitude towards the medical marijuana among students of various Polish universities.

**Material and methods:** The study was conducted in March 2017 using a standardized interview. It involved 132 students between 19 and 29 years of age interviewed with the author's questionnaire. The obtained results were statistically analyzed.

**Results:** The results show that almost every (92%) respondent is sympathetic to use of marijuana in medical treatment. The similar percentage of students (90%) would undergo this therapy if it's needed. Unfortunately level of the knowledge about diseases which can be treated with marijuana is questionable. The most of respondents (70%) know about a possibility of curing a drug resistant epilepsy; however no more than half are aware of using cannabis in cases of persistent pain and chemotherapy-related nausea and vomiting. Moreover, more students think that cannabis can be used in treatment of psychotic disorders (where marijuana is rather an aggravating factor) than in curing glaucoma in which it can be helpful.

**Conclusions:** In opinion of the vast majority of respondents marijuana should be available to use in medical treatment in Poland. There is a need for running more researches about possible uses of medical cannabis. The knowledge of this subject should be popularized among society and it should be based on scientific reports.

**TITLE: ANALYSIS OF THE STOOL TEST RESULTS FOR THE PRESENCE OF CLOSTRIDIUM DIFFICILE TOXINS IN PATIENTS WITH SYMPTOMS OF ENTERITIS.**

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**Introduction:** Clostridium difficile is a species of Gram-positive anaerobic spore forming bacteria which produces toxins – nosogenic factors. Symptomatic infections caused by C. difficile manifest as profuse, watery diarrhea or toxic megacolon, without the other cause and with the presence of one of the three criterion at least: 1) detection of the presence of toxins A and/or B in stool or demonstration the presence C. difficile, which produces toxins, 2) the pseudomembranous enterocolitis detection in the endoscopy or in intervention 3) detection typical changes in a histopathology. Morbidity rate increased in the last years both in Europe and in North America.

**Aim of study:** Analysis of the occurrence of toxins C. difficile in stool in people with symptoms inflammation of intestines.

**Material and methods:** Informations were collected from people with symptoms of enteritis in Chair and Department of Medical Microbiology, Medical University of Lublin.

**Results:** Feces were researched from 100 people with symptoms of enteritis to check the presence toxins produced by C. difficile. In a research group there were 53 women and 47 men. The average age was 62 years old: 61 for women and 63 for men. Positive results were confirmed in 41 persons: 22 were among women (43,14% positive among researched women) and 16 among men (36,16%). The average age of people with high toxin concentration was 75 years old. Among researched people were 18 children and only one child had a result, which permitted to diagnose an infection. Between 18 and 65 years of life the positive result was 46,15%. 63 people in old age were researched and the high toxin concentrations were received in 33 cases – 52,38% of all researched people after their 65. The result of the research confirm that elderly people are in a risk group of symptomatic infections C. difficile.

**Conclusions:** C. Difficile infection can cause life-threatening enterocolitis with ileus. The incidences of C. Difficile infection increase with patient's age, so the prevention is extremely important in this group of people.

**TITLE: KNOWLEDGE ABOUT ISCHEMIC STROKE AND ITS TREATMENT AMONG MEDICAL UNIVERISTIES STUDENTS IN POLAND.**

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**Introduction:** Ischemic stroke is an important and frequent cause of death or disability. Standard treatment for ischemic stroke is nowadays pharmacological fibrinolysis. Not so long ago it was joined by a second promising method – the thrombectomy.

**Aim of study:** The aim of the study was examining the level of medical students' knowledge concerning the ischemic stroke and its treatment.

**Material and methods:** The study was based on a self-prepared online survey, posted via Facebook groups of various medical students faculties. As a result 470 answers were gathered. 71.28% of respondents were females, the average age of a student was  $22.83 \pm 2.58$  years. The majority of students were from Nicolaus Copernicus University Collegium Medicum in Bydgoszcz (20.21%), Warsaw Medical University (18.30%) and Medical University of Łódź (16.81%). Almost a half of them (42.77%, n=201) were medical-degree undergraduates. Statistical analysis was performed with Statistica 12 (StatSoft®, USA).

**Results:** About two thirds (65.74%) have never heard about thrombectomy. Those who have heard about it (34.26%) answered detailed questions about thrombectomy and ischemic stroke. Most of them (65.22%) knew the therapeutic window while about a half (44.72%) chose the correct contraindications for this procedure. The second part of the survey verified knowledge about the strokes. 46.81% of respondents choose the proper frequency of ischemic cases in the total number of strokes. About one sixth (13.41%) knew how long after the stroke episode its first signs can be noted in CT. More than one forth (28.72%) knew the INR value which excludes patient from getting IV thrombolysis.

**Conclusions:** Ischemic stroke is still a big therapeutic problem as in many cases even properly administered thrombolytic treatment turns out to be insufficient. For some patients thrombectomy is a good option. Due to high mortality and disability burden related to the ischemic stroke, basic knowledge about it should be possessed by every medical student, irrespective of the chosen faculty. Our study shows that unfortunately students' knowledge in this topic is still less than satisfactory

**TITLE: ANALYSIS OF GOOD SEXUAL PERFORMANCE IMPORTANCE IN GROUP OF PATIENTS WITH ISCHEMIC HEART DISEASE WHO UNDERWENT CARDIAC REHABILITATION.**

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**Introduction:** 80% of patients with ischemic heart disease (IHD) suffer from erectile dysfunction (ED). Unfortunately only some of them are treated. It is often related with false conviction that ED medication is harmful and dangerous and also with lack of specialists' involvement in treatment of ED. Since 2016 in Poland PDE5 inhibitors are OTC medication and there has been intensification of sexual performance enhancement drugs advertising. Aim: Analysis of good sexual performance importance in group of IHD patients and assessment the changes in years before and after introducing PDE5 inhibitors as over the counter medication.

**Aim of study:** Analysis of good sexual performance importance in group of IHD patients and assessment the changes in years before and after introducing PDE5 inhibitors as over the counter medication.

**Material and methods:** Group of 1800 male with mean age (62,56±9,037) undergoing cardiac rehabilitation in 5 medical facilities. 1557 out of them surveyed in years 2011-2015 and 223 in year 2016. Analysis conducted with the use of own questionnaire estimating importance of sexual performance and IIEF-5 questionnaire for assessment of the presence of ED.

**Results:** In years 2011-2015 69 (4,38%) of patients state that sexual performance is not important for them, 182 (11,54%) did not have an opinion, for 657 (41,66%) and 669 (42,42%) sexual performance was important and very important. In year 2016 3 (1,35%) of patients state that sexual performance is not important for them, 4 (1,79%) did not have an opinion, for 118 (52,91%) and 98 (43,95%) sexual performance was important and very important. Analysis shows statistically significant ( $p=0,023909$ ) increase of importance of good sexual performance for patients surveyed in 2016.

**Conclusions:** In 2016 importance of sexual performance significantly increased, which could be connected with easily accessible information in media about ED medication.

**TITLE: General knowledge about vaccines among medical and non-medical students.**

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**Introduction:** Vaccines proved to be efficient mean in prolonging human lifespan and enhancing life quality. Despite numerous and certain successes of vaccination like eradication of poliomyelitis a growing number of vaccine-opposers can be noted in most Western countries.

**Aim of study:** Aim of the study was a quantitative assessment of students' knowledge about vaccines.

**Material and methods:** A self-prepared online questionnaire was presented to students of various Polish state universities. As a results 1413 fulfilled forms were gathered. The form consisted of numerous questions including 4-question-long knowledge part. Each question in that part was encoded with 1 point for correct answer and 0 for incorrect. In case of the question on the duration of immunity after vaccines and disease 2 points were granted for answer “definitely no” and 1 for “rather no”. In total each respondent was able to gain 5 points. U Mann Whitney test was used for calculation of statistical significance with  $p < 0.05$  as the level of significance.

**Results:** . Scoring of knowledge questions was significantly higher in MUS than NMUS ( $43.73 \pm 19.73\%$  versus  $35.35 \pm 19.24\%$ ,  $p < 0.000001$ ). In both groups the minimal value was 0%, the maximal differed as it was 100% for MUS and 80% for NMUS. We further calculated percentage for those who oppose vaccines ( $22.12 \pm 17.93\%$ ) and those who do not oppose vaccination of children ( $39.84 \pm 19.62\%$ ), the difference is statistically significant with  $p < 0.000001$ ).

**Conclusions:** As the vaccine knowledge was significantly lower among vaccine-opposers wide educations on principles of vaccination, vaccine safety and basics of contagious diseases may be

**TITLE: THE ANALYSIS OF PARENTS ADHERENCE TO ANTIBIOTIC THERAPY FOR INFECTION IN CHILDREN: SURVEY RESEARCH.**

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**Introduction:** Patient adherence affects efficacy and safety of treatment. The proper duration of the therapy as well as adequate drug dose and time of its administration are crucial in antibiotic therapy. Antibiotics are widely used among children population. Parents administer the drug to the children. Thus, their knowledge about rules of antibiotic therapy is especially important.

**Aim of study:** To analyze parents' adherence to antibiotic therapy for infection in children. To define most frequent mistakes in antibiotic therapy and to assess knowledge about administration of antibiotics in children.

**Material and methods:** The type of the research was a survey. An own questionnaire was used. The group of participants consisted of 665 parents. The participation was voluntary. Questions regarded most common mistakes during antibiotic therapy. Obtained data was then mathematically analysed.

**Results:** Female accounted for over 97% of the group. The average age of respondents was 31 (median). 88% of respondents claim that they adhere to antibiotic treatment after physician office visit. However, 36% of parents declare they had at least once not administered prescribed medicament to the child. Furthermore, 37 % of respondents had at least once forgotten to give a dose of antibiotic to their child or they had changed time of drug administration. 96% of parents are aware that the antibiotic therapy must be completed despite the relief of patient's symptoms before the end of therapy. 2% of parents had ever reduced a dose of antibiotic and 7% had finished the therapy earlier because of health improvements among their children. Only 3% of respondents admit they had at least once given to the child antibiotic left after previous therapy without consulting a doctor.

**Conclusions:** Vast majority of parents declare adherence to antibiotic therapy. Majority of respondents has good knowledge about administration of antibiotics to the children and put it into practice. The most frequent mistakes in the antibiotic therapy were not giving prescribed medication, forgetting to give a dose of antibiotic or changing the time of its administration. Vast majority of respondents does not give to their children antibiotics left after previous therapy without consulting a doctor.

**TITLE: THE VIEW OF MEDICAL STUDENTS ON COMMUNICATION WITH PEDIATRIC PATIENT WITH NEOPLASTIC DISEASE.**

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**Introduction:** Communication with patient constitutes very important aspect of doctor's work. Relying diagnosis of neoplastic disease to pediatric patient requires empathy and particular skills, which medical students should acquire during their education. In our study we want to inspect how medical students relate to subject of relying diagnosis to pediatric patient.

**Aim of study:** The aim of the study is to inspect the view of medical students on subject of communication with pediatric patient with neoplastic disease.

**Material and methods:** In our study we used online survey consisting of 25 questions relating to clinical situations of communication with pediatric patient and student's opinion on teaching and learning communication skills. 106 students of Medical University of Lublin participated in our survey.

**Results:** The analysis shows that more than a half of respondents (50,9%) would inform patient about possible complications of treatment regardless of young age (4-6 years old patient), but the quantity of this answer increases to 90,6% in the same question relating to patients at age 14-16 years. 83% of respondents wouldn't use a lie to calm down young (4-6 years old) patient. Less than a half of students (40,6%) presume that both parents should be present during relying diagnosis to a patient. Only 6,6% of interviewees have heard of protocol of giving bad information "EMPATIA". Questions relating to teaching and learning communication skills show that in students' opinion they can't practise communicating with pediatric patient in satisfying them way (17% answered with "rather no" and 45,3% with "definitely no") and they claim that classes with simulated pediatric patient would improve their communication skills (43,4% answered with "rather yes" and 19,8% with "definitely yes")

**Conclusions:** The study showed that most of students follow substantial ethical rules (not lying to patient, not promising positive treatment outcome) in communicating with oncological pediatric patients, although many of them lack knowledge in the field of relaying serious news. The students' approach to giving detailed information about treatment differs depending on the age of the patient. They also see the importance of developing communication skills, but in their opinion they can't practise them properly during studies.

**TITLE: KNOWLEDGE ANALYSIS OF MEDICAL STUDENTS ABOUT THE FIRST CANCER SYMPTOMS AND THE MOST COMMON CANCERS AMONG CHILDREN**

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**Introduction:** Knowledge about the first cancer symptoms, typical localization and frequency is important, because it helps in diagnosing and leads to rapid initiation of a treatment. Nowadays, about 80% children with diagnosed cancer can be cured.

**Aim of study:** Knowledge analysis of medical students about the most common cancers among children and the first cancer symptoms.

**Material and methods:** Survey was created and elaborated by authors of a study. The questionnaire filled 173 medical students from all over Poland.

**Results:** Analysis revealed differences in a knowledge between young (students of 1-3 year) and older students (4-6 year of study). Young students answered correctly on 38,85% questions, older students on 63,92%. Young students had a great knowledge about leukaemia even though they haven't attended haematology classes yet. 62,27% of them knew that leukaemia is the most common cancer and 62,27% knew the basic leukaemia symptoms. Students, who began haematology classes, demonstrated even greater knowledge. 92,06% knew leukaemia symptoms and 88,89% answered that there are the most common cancers among children. Answers to the question about brain tumours diagnostics were surprising, because 62,73% of young students didn't commit a mistake, compared to older students – 49,21% correct answers. That was the only question, which was answered worse by older students. Questions which concerned practical issues, such as cancer symptoms and physical examination, were answered better (61,37% correct) than questions about theory (39,05%) – epidemiology, pathogenesis and localization. The most correct answers were in a question referred to physical examination (79,19%), the least (8,09%) on question about the most common children age group, where cancers occur.

**Conclusions:** Student of the last three years of study gave more correct answers than students of the first three years. It is caused by an increase of students knowledge during studying. The most correct answers were given by students of fourth year, the least – students of first year. A large part of respondents marked incorrect answers. It is important to pay attention to the basic cancer symptoms during learning process. That knowledge will be essential in the future doctors' life.

## **TITLE: STRESS AMONG MEDICAL STUDENTS AND HOW THEY MANAGE IT**

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**Introduction:** It is known that medical studies are one of the most stressful fields of study. From the start to the end of medical education every student have to deal with a pressure coming from doctors, lecturers and sometimes other students. There are a lot of requirements which we have to fulfil. From one year to another there are more of them.

**Aim of study:** The aim of a study is to show how medical students are stressed and how they manage it.

**Material and methods:** The method was anonymous questionnaire, which contained 23 original questions and was published on the Internet.

**Results:** In the survey took part 659 medical students from different Medical Universities in Poland. There were 469 women (71,2%) and 190 men (28,8%). About 92% of interviewees affirmed that they are more stressed during academical year than during time without classes. Moreover the results of the questionnaire show that more than 95% students of first, second and third year are stressed. In the case of students from fourth, fifth and sixth year about 88% affirmed stress during academical year. The data show that the most stressed are students from first year. In the survey we asked a question about unequal, unhealthy and unjust competition if it occurs in the student's surroundings and 481 medical students (73,9%) claimed to it.

**Conclusions:** Stress is common phenomenon in daily lives especially during academical year. As we can see, the level of stressed students is similar in every year of studies. In spite of changing requirements in every academical year, the stress is the same.

**TITLE: PSYCHOACTIVE SUBSTANCE INTOXICATION AS A INCREASING PROBLEM IN LUBLIN PROVINCE IN A LAST YEARS**

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**Introduction:** Psychoactive drug, is a chemical substance that changes brain function and results in alterations in perception, mood, or consciousness. Psychoactive substances often bring about subjective changes in consciousness and mood that the user may find rewarding and pleasant or advantageous and are thus reinforcing. Substances which are both rewarding and positively reinforcing have the potential to induce a state of addiction. Number of hospitalizations after the use of these substances shows, how dangerous they can affect our organism. Especially dangerous, may be so called 'desinger drugs' - a structural or functional analog of a controlled substance that has been designed to mimic the pharmacological effects of the original drug, while avoiding classification as illegal and/or detection in standard drug tests.

**Aim of study:** Aim of the study is to analyze tendency in a number of hospitalizations caused by psychoactive substances intoxication at the Department of Toxicology and Cardiology in Lublin in a last years.

**Material and methods:** Data comes from yearly reports, made by the Department of Toxicology and Cardiology in Lublin.

**Results:** In a last years, number of hospitalizations, after the use of psychoactive substances increased. In a year 2013 doctors at the Department of Toxicology and Cardiology had to deal with 133 cases of intoxication. In a 2016, total number of hospitalizations was 233. The most cases were registered in a year 2015 – 258 hospitalizations. Most of the hospitalized patients were men – in a year 2016 190 patients were men and only 40 were women. Percentage of men varied from 69 % in a year 2013 to 82 % in 2016. The percentage of a woman had decreasing tendency. Average age of a hospitalized patient had increasing tendency – in 2013 it standed at 24,3 and in 2016 at 25,7. Fortunately, percentage of underaged patients decreased from 31 % in 2013 to 7,8 % in 2016. The dominating age group were young adults (18-25 years) – from 45 to 51%. The age group in which we observed the biggest increasing tendency was 26-40 years ( from 26 % in 2013 to 41 % in 2016).

**Conclusions:** Psychoactive substance intoxication is a increasing problem in our region. In a foru years number of cases almost doubled. The substances that cauce intoxication are 'typical' drugs, such as amphetamine, as well as 'designer drugs'. Designer drugs are a serious problem, because doctors don't know which substances contains a drug. There is no specific antidote, and the treatment is symptomatic. Positive conclusion from this study is that percentage of a underaged patients decreased in a last years. Very important goal for the next years is to decrease total numbers of intoxications. We can achieve that by organizing a campaigns and educate the society.