

Information sheet for the course Hospital Hygiene

University: <i>Alexander Dubček University of Trenčín</i>	
Faculty: <i>Faculty of Health Care</i>	
Course unit code: NemHyg/d	Course unit title: Hospital Hygiene
Type of course unit: <i>compulsory</i>	
Planned types, learning activities and teaching methods: <i>Lecture: 2 hours weekly/26 hours per semester of study; full-time</i> <i>Exercises: 1 hour weekly/13 hours per semester of study; full-time</i> <i>Supervised practice output: 2 hours weekly/26 hours per semester of study;</i>	
Number of credits: 3	
Recommended semester: <i>5th semester in the 3rd year (full-time)</i>	
Degree of study: <i>I (bachelor)</i>	
Course prerequisites: none	
Assessment methods: <i>The student will acquire 100 points per semester</i> <ul style="list-style-type: none"> - writing an essay on the designated topic writing (25 points) - oral examination (75 points) <i>Score:</i> <i>100 – 90 points – A</i> <i>89 – 80 points – B</i> <i>79 – 70 points – C</i> <i>69 – 60 points – D</i> <i>59 – 50 points – E</i> <i>49 and fewer points - FX</i>	
Learning outcomes of the course unit: <i>Student:</i> <ol style="list-style-type: none"> 1. acquires basic knowledge of hospital epidemiology, 2. can describe the characteristics of the main types of nosocomial infections (NI), their agents and formulate measures against the outbreak and spread. 3. is able to analyze different types of nosocomial infections, possible mechanisms of transmission and propose possible measures to prevent them. 4. acquire the basic skills and knowledge for the performance of surveillance NN in the hospital. 	
Course contents: Lectures: <ol style="list-style-type: none"> 1. Nosocomial infections, definition, basic division, history. Hospital epidemiology, scope of activities, legislation. The importance of prevention of nosocomial infections as part of a patient safety program. 2. Characteristics and specifications of the epidemic process of nosocomial infections, specific and non-specific transfer factors. 3. The principal cause of nosocomial infections, their microbiological and epidemiological characteristics, principles prophylactic use of antibiotics, antibiotic resistance forms. 4. Risk factors for the development and spread of nosocomial infections. Team for the prevention and control of healthcare associated infections, its role in addressing the epidemic occurrence, development and deployment of surveillance 5. Types of NI - respiratory infections, pneumonia associated with the AEI, Gastrointestinal tract infections 6. Types of NI - blood infections and bloodstream infections associated with central and 	

peripheral catheters, urinary tract infections.

7. Types of NN - infection at the surgical site (surface, deep, organ), preventive measures: the preoperative preparation, during surgery and postoperative care. Spatial and operational specifications of the operating room.
8. Types of NI - newborn and maternal infections, infections of the skin and mucous membranes, burns, infections and bedsores, fungal infections, and other infections.
9. Surveillance of nosocomial infections - prevalence and incidence studies.
10. Decontamination of medical devices, Introduction, definitions, principles of cleansing.
11. Disinfection - types of disinfectants, hands disinfection of healthcare workers, disinfection of small and large surfaces, disinfection of medical devices, the principles of endoscopy, decontamination of medical devices - a high- level disinfection
12. Sterilization of medical devices: presterilization preparation, packaging and labeling, sterilization, storage and transport sterilized medical devices, testing of medical devices, physical, chemical and biological systems. Central sterilization.
13. Occupational exposure of healthcare workers to physical, chemical and biological agents at work, the risk of occupational diseases, preventive measures, including vaccination.

Seminars:

1. Practical exercise the diagnosis of different types of NI definitions created by ECDC.
2. Model situation - implementation of point prevalence survey of nosocomial infections, patient filling this form, determine the prevalence of nosocomial infections and antibiotic consumption.
3. Model situation - implementation of retrospective study NI monitoring in the Intensive Care Unit (ICU) or Department of Anesthesiology and Intensive Care (DAIC). The calculation of the cumulative incidence and incidental density.
4. Model situation - solution nosocomial outbreaks of diarrhea caused by *Cl. difficile*, draft anti-epidemic measures.
5. Model situation - solution incidence of nosocomial infections caused by MRSA, the draft anti epidemic measures.
6. Quality control of cleansing detecting the presence of residues of proteins and blood metal toolkit. Preparation of expert opinion for medical staff departments in the preparation of positive results.
7. Check the sterilization process hot air sterilizer, a steam sterilizer, using physical, chemical and biological control systems, filling in the cover letter, sample culturing biological tests, evaluation of physical parameters and chemical indicators, the establishment of the Protocol on sterilization. Development of the draft order prohibiting the use of sterilization techniques for finding malfunctioning. (Exercise will be conducted in a microbiological laboratory of the Faculty).
8. Monitoring the effectiveness of chemical disinfection methods, microbiological methods sampling disinfectant to verify the effectiveness of hospital pathogens.
9. Hand hygiene of healthcare workers, practice proper technique hand disinfection, control coping techniques fluorescence method. Draft standard for hand hygiene.
10. Assessment of project documentation operating room, selected hospital departments, outpatient facilities, preparation of expert opinion.
11. Rehearsal hand hygiene
12. Individual training presentations.
13. Presentation of the work.

Recommended of required reading:

1. ŠTEFKOVIČOVÁ, M. a kol. 2007. *Dezinfekcia a sterilizácia - teória a prax II*. Žilina: Vrana, 2007, 164 s. ISBN 978-80-968248-3-0
2. MAĎAR, R., ŠTEFKOVIČOVÁ, M. 2004. *Nemocničné infekcie vybrané kapitoly*. Banská

Bystrica: Agentúra Dumas, 2004, 141s. ISBN 80-968999-1-0					
3. ŠRÁMOVÁ, H. 1995. <i>Nozokomiální nákazy I.</i> Maxdorf, Praha 1995, 224 s. ISBN 80-85912-00-7					
4. ŠRÁMOVÁ, H. 2001 <i>Nozokomiální nákazy II.</i> Maxdorf, Praha 2001, 303 s. ISBN 80-85912-25-2					
5. MAĎAR, R., PODSTATOVÁ, J., ŘEHOŘOVÁ. 2006. <i>Prevence nozokomiálních nákaz v klinické praxi.</i> 1. vydání. Praha: Grada, 2006. 176 s. ISBN 80-247-1673-9.					
6. MAYHALL, C.G. et al. 2004. <i>Hospital epidemiology and infection control.</i> Philadelphia, 2004.					
7. PODSTATOVÁ, HANA. <i>Základy epidemiologie a hygieny.</i> 1. vyd. Praha : Galén, 2009. ISBN 978-80-7262-597-0.					
8. ŠTEFKOVIČOVÁ, M., LITVOVÁ, S.: <i>Nozokomiálne nákazy v slovenských nemocniciach.</i> Žilina: Zdravé stránky s.r.o. 2013. 96 s. ISBN 978-80-971480-0-3.					
Language: Slovak					
Remarks:					
Evaluation history: <i>Number of evaluated students</i>					
A	B	C	D	E	FX
100-90	89-80	79-70	69-60	59-50	49 - >
Lectures: doc. MUDr. Mária Štefkovičová, PhD., MPH.					
Last modification: 22.04.2014					
Supervisor: doc. MUDr. Mária Štefkovičová, PhD., MPH.					