

Code: MFSE 0813	Course title: PREVENTION OF CARDIOVASCULAR DISEASES		
Level: clinical	Year: IV	Semester: VIII	ECTS: 1
Status: elective	Total contact hours: 20		
Prerequisites: According to the Study Regulation			
Lecturer: Professors and associates involved in the implementation of the course in accordance with the plan of the teaching process			
1. Overall aim	To introduce students with high rates of morbidity and mortality, throughout the world, Europe, and especially in our country, to introduce students with importance of cardiovascular diseases (CVD) prevention, with influence of risk factors, with correct prediction of rising prevalence, as well as determination methods of CVD risk factors, methods and goals of prevention programs, as well as the total surplus of successful implementation of prevention programs, resulting in reduced morbidity, disability, absenteeism, and total health care costs.		
2.Course contents	<p>During the course the student will acquire the following knowledge:</p> <p>Module 1. The incidence and prevalence of cardiovascular diseases in the world, Europe, and Bosnia and Herzegovina The aim of this Module is to introduce students to the global burden of cardiovascular disease, to the incidence, prevalence, morbidity and mortality of cardiovascular disease, years of potential life lost and disability-adjusted life years due to cardiovascular disease, in the world, Europe, and Bosnia and Herzegovina, to compare rates of the above parameters, and to introduce students to the projection and prediction of overall increase of cardiovascular disease in the period up to year 2030.</p> <p>Module 2. Risk factors for cardiovascular disease The aim is to understand unmodified risk factors: gender, age and hereditary factor, and the modified risk factors: smoking, hypertension, hyperlipoproteinemia, diabetes mellitus, lifestyle, obesity, alcohol, physical inactivity, psychosocial factors, thrombogenic factors, steroid hormone contraceptives.</p> <p>Module 3. The objectives of prevention The aim is to understand the main goals of prevention, the need and method of developing active prevention strategies, the need and method of determining priorities in preventive practices, training of medical staff, education of patients as well as public awareness of cardiovascular disease burden.</p> <p>Module 4. Assessment of cardiovascular risk The aim is to introduce students to become capable with the method of assessment of risk for the fatal outcome of cardiovascular disease, the assessment of primary risk, and assessment of secondary risk, using CVD risk charts and scoring systems that are recommended in the European and American guidelines.</p> <p>Module 5. Implementation of preventive cardiovascular medicine The aim is to understand the content and method of prevention programs, the main goals of prevention, the development of appropriate prevention strategies, participants in the preventive programs, and obstacles in carrying out routine prevention programs.</p>		
3. Learning outcomes	<p><i>The skills that student needs to know (practically carry out):</i></p> <ul style="list-style-type: none">- to determine the score of multiple risk factors- how to use European and American score table- to diagnose risk factors- to correlate risk factors		

	<ul style="list-style-type: none"> - knowledge of the principles and performance effectiveness of the reduction of risk factors to the overall reduction of morbidity and mortality of cardiovascular diseases (population attributable fraction) - the basic principles of implementation of preventive program. <p><i>The skills that student is introduced in (need to know) :</i></p> <ul style="list-style-type: none"> - Basic descriptive and inferential statistics, calculation and interpretation of incidence, prevalence, measures of association, calculation of morbidity and mortality rates. - practical use of the risk score table from European and American guidelines. - practical implementation of prevention programs in terms of primary prevention and secondary prevention of cardiovascular disease. <p>After elective course, the student should adopt the following attitudes:</p> <ul style="list-style-type: none"> - a full understanding of the issues of prevention of cardiovascular disease - determining the level of risk using scoring of multiple risk factors - the needs of reduction of significantly increased values of risk factors - the importance of reduction of fatal events from cardiovascular diseases - the importance of practical implementation of preventive measures - the fact that total reduction of the morbidity rate benefits in reducing the overall cost of health care.
4. Learning methods:	<p>Course is organized in the form of lectures and practice.</p> <p>The total number of hours is 20, 10 hrs. of lectures, 8 hrs. of practice, and 2 hrs. of exam.</p> <p>In practice hours will be used method of problem-oriented work, for the given topic and population group.</p> <p>Students will be divided into smaller groups, up to a maximum of five students, with the aim of developing discussion and developing competition between the groups, in the sense which group will find a better solution for the given problem task</p> <p>Groups will work on the project tasks, and the results and solutions will be presented by group leaders. In the course performing, will be carried out continuous assessment on clinical vignettes.</p>
4. Methods of examination	<p>Methods of continuous assessments, Practical exam and Final (oral) exam.</p> <p>Practical exam</p> <p>Practical exam will be performed in the written form by fulfilling the tasks defined in the checklists. Checklist has itself 5 problem tasks i.e., 1 task from each Module. Each correct answer earns 5-10 points, so max. points is 50. Student can earn max. of 50 points and to pass exam needs to gain min. of 28 points.</p> <p>Earned points will be added to points for Final exam grade.</p> <p>Final exam</p> <p>Final exam is in the form of oral examination in the manner of 1 question from each Module. Each correct answer earns 5-10 points, so max. points is 50 and to pass oral part of Final exam student need to gain min. of 28 points. The criterion for taking the theoretical part of the exam is previously completed practical part of the exam.</p> <p>Repeated and Remedial exam</p> <p>Repeated and Remedial exams are conducted according to the previously defined criteria of Final exam.</p>

	Final grading Sum of points from Practical exam and Final exam constitute final grading:		
	<i>Mark</i>	<i>Points</i>	<i>Description of mark</i>
	10 (A)	95-100	exceptional success without mistakes or with minor errors
	9 (B)	85-94	above the average, with some mistake
	8 (C)	75-84	average, with noticeable mistakes
	7 (D)	65-74	generally good but with significant disadvantages
	6 (E)	55- 64	meets the minimum criteria
	5 (F, FX)	< 55	does not meet the minimum criteria
6. Literature	Obligatory: <ul style="list-style-type: none"> – Gielen S, DeBacker G, Piepoli FM and Wood D (eds). The ESC Textbook of Preventive Cardiology. Oxford University Press; 2015. Additional: <ul style="list-style-type: none"> – Labarthe, D., 2011. Epidemiology and Prevention of Cardiovascular Diseases. Jones & Bartlett Learning. – Braunswald's Heart Disease: Bonow R (ed): A Textbook of Cardiovascular Medicine. Philadelphia: Saunders. 2011. 		
7. Notes	All forms of teaching are obligatory. Lectures and practice will be held according to the Curriculum of the Faculty of Medicine University of Sarajevo. Fixing absences from classes is in accordance with applicable legal regulations of studying at the Faculty of Medicine University of Sarajevo. Consultations for students will be held in the period of 11 - 12h every day, by appointment to the responsible teacher Assistant professor Enisa Ademović e-mail: enisa.ademovic@mf.unsa.ba		

PLAN OF COURSE: PREVENTION OF CARDIOVASVULAR DISEASE

Week 15.	Form of teaching	Hours
Tuesday	<p>Lecture: Global burden of cardiovascular disease, incidence, prevalence of cardiovascular disease, years of potential life lost and disability-adjusted life years due to cardiovascular disease (CVD) through the world, Europe, and Bosnia and Herzegovina. Risk factors for cardiovascular disease.</p> <p>Practical work: Task 1: counting incidence, prevalence, morbidity, and mortality of cardiovascular diseases (CVD) in Canton Sarajevo, Federation of B&H and Bosnia and Herzegovina. Task 2: prediction of CVD morbidity and mortality rate up to years 2030. Classroom practical work according to schedule.</p>	<p>3</p> <p>2</p>
Wednesday	<p>Lecture: Goals of cardiovascular disease prevention</p> <p>Practical work: Task 1: counting of unmodifiable risk factors impact according to SCORE charts. Task 2: counting of modifiable risk factors impact according to SCORE charts. Task 3: counting of relative risk for fatal outcome in individuals age < 40 y.</p> <p>Practical work: Task 1: proposal of prevention goals for Canton Sarajevo. Task 2: proposal of prevention goals for Federation of B&H. Task 3: proposal of priorities assessing for cardiovascular diseases.</p>	<p>2</p> <p>1</p> <p>1</p>
Thursday	<p>Lecture: Estimation of CVD overall (lifetime) and fatal risk Estimation of secondary cardiovascular risk</p> <p>Practical work 1: Task 1: estimation of primary risk for fatal CVD outcome. Task 2. Clinical vignettes (case report without previous cardiovascular disease) - assessment of overall and fatal cardiovascular risk using European SCORE charts and online version Heart Score. Task 3 estimation of overall fatal and non-fatal risk according to European and American online cardiovascular risk scores and according to American ASCVD charts.</p> <p>Practical work 2: Task 1: Secondary risk assessment in patients with manifest cardiovascular disease Task 2: Clinical vignettes (case report) - estimation 10-year risk for recurrent vascular events in patients with manifest cardiovascular disease (ASCVD).</p>	<p>3</p> <p>2</p> <p>2</p>
Friday	<p>Lecture: Implementation of CVD preventive programs. Obstacles and limitation in carrying out prevention programs.</p> <p>Practical exam</p>	<p>2</p> <p>2</p>
Week 16.		
Weeks 17-18	Final exam (Final term exam)	
Weeks 17-18	Final exam (Re-sit term exam)	
September	Final term (Second Re-sit term exam)	