

UČNI NAČRT PREDMETA / COURSE SYLLABUS

Predmet:	Klinična patofiziologija nujnih stanj
Course title:	Clinical Pathophysiology of Emergencies

Študijski program in stopnja Study programme and level	Študijska smer Study field	Letnik Academic year	Semester Semester
Biomedicinska tehnologija/Biomedical Technology 3. stopnja/3rd Degree		2	3 ali 4

Vrsta predmeta / Course type

Izbirni/Elective

Univerzitetna koda predmeta / University course code:

Predavanja Lectures	Seminar Seminar	Vaje Tutorial	Klinične vaje work	Druge oblike študija	Samost. Delo Individ. Work	ECTS
15	20	10			105	5

Nosilec predmeta / Lecturer:

Izr. prof. dr. Dušan MEKIŠ

Jeziki /

Predavanja / Lectures:

Slovenščina, angleščina/ slovene, english

Languages:

Vaje / Tutorial:

Slovenščina, angleščina/ slovene, english

Pogoji za vključitev v delo oz. za opravljanje študijskih obveznosti:

Prerequisites:

Kandidat mora doseči 300 ECTS na predhodnem študiju.

Graduate degree 300 ECTS

Vsebina:

Predmet obravnava fiziologijo in pojasnjuje patofiziologijo nekaterih nujnih stanj, znamenj in simptomov z prikazom primernih kliničnih testov in oskrbo. Pričakovani simptomi in znamenja so predstavljena s specifičnim patofiziološkim procesom.

Predmet je razdeljen v štiri dela:

- 1.osnovna načela patofizioloških procesov
- 2.patofiziologija srčno-žilnega sistema d patofiziologijo i n oskrbo poškodbe miokarda pri oživljanju in patofiziologija šoka
- 3.klinična patofiziologija akutnega respiratornega popuščanja in kapnografije
- 4.patofiziologija hude poškodbe možganov

Content (Syllabus outline):

The subject reviews normal physiology and explains the pathophysiology underlying emergency disease, signs and symptoms, and selection of tests and treatments. Expected signs and symptoms are related to the specific pathophysiologic processes occurring.

The subject is divided in four parts:

1. basic principles of pathophysiology
2. cardiovascular pathophysiology with pathophysiology and management of myocardial injury during cardiopulmonary resuscitation and pathophasiology of shock
3. clinical pathophysiology of acute respiratory insufficiency and capnography
- 4.pathophysiology of severe brain injury

Temeljni literatura in viri / Readings:

- Groer M Advanced Pathophysiology :Aplication to Clinical Practice, Philadelphia: Lippincott Williams& Wilkins, 2001.
- Huether SE and McCance KL. Understanding Pathophysiology, 2nd ed. St.Louis: Mosby-year Book, Inc.,2000.
- Gravenstein JS,Jaffe MB and Paulus DA. Capnography – Clinical Aspects.Cambridge University Press, Cambridge, 2004.
- Vincent JL (ed). 2004 Yearbook of Intensive Care and Emergency Medicine, Springer Verlag Berlin, 2004.
- Vincent JL (ed.) 2005 Yearbook of Intensive Care and Emergency Medicine, Springer Verlag, Berlin 2005.
- RJ Gazmuri, Ayoub IM, Kolarova JD, Radhakrishnan J, Wang S, Taglieri D. Pathophysiology nad management of myocardial injury during cardiopulmonary resuscitation. In: Grmec Š, Kupnik D. Akutna stanja – znamenja, simptomi, sindromi, diferencialna diagnoza in ukrepanje, Zbornik predavanj, Zbirka Acuta, Medicinska fakulteta

Maribor, Katedra za družinsko medicino, 2005:37 – 45.

- Najnovejši prispevki iz Circulation, Resuscitation, Shock, Chest, Intensive Medicine Care, Critical Care, Critical Care Medicine

Cilji in kompetence:

Znanje osnovnih patofizioloških načel nujnih stanj in sodobnih informacij o novih možnostih oskrbe takšnih stanj. Klinična aplikacija algoritmov (načelo opazovanja in odločanja).

Predvideni študijski rezultati:

Znanje in razumevanje:

Razumevanje in aplikacija algoritmov kardiopulmonalnega oživljanja. Razumevanje strategije minimaliziranja poškodb po oživljanju povezanih z uporabo trenutno veljavnih tehnik in seznanjanje z novimi terapevtskimi pristopi za preprečevanje omenjenih poškodb. Znanje monitoringa kritično bolnega bolnika, posebej kapnografije in EKG-a.

Prenesljive/ključne spretnosti in drugi atributi:

Monitoring, tehnike proste venske poti, endotrahealna intubacija, kapnografija, odčitavanje EKG-a, uporaba medikamentov v urgentnih situacijah (volumna resuscitacija, inotropi, vazoaktivna terapija) hitra sekvenčna intubacija, sinhronizirana kardioverzija in zunanja elektrostimulacija). Reševanje scenarije po načelu PBL (problem basic learning)

Objectives and competences:

Knowledge of basic principal of patophysiology of some emergencies and up-to-date information about new options for management of emergencies.

Application of the philosophy of the algorithms (alternating observation and decision steps).

Intended learning outcomes:

Knowledge and understanding:

Understanding and application the algorithms in CPR. Understanding the strategies for minimizing post resuscitation injury associated with current resuscitation techniques and examine novel therapies aimed at minimizing ischemia and reperfusion injury. Knowledge of monitoring critically ill patients, especially capnography and ECG.

Transferable/Key Skills and other attributes:

Monitoring, intravenous access, endotracheal intubation, capnography, electrocardiography and cardiac monitoring, drugs in emergencies (volume resuscitations, inotropes, vasopressors), rapid sequence intubation, synchronised cardioversion, cardiac pacing. PBL scenarios.

Metode poučevanja in učenja:

Predavanja, vaje v Simulacijskem centru, samostojno projektno seminarsko delo izbranih poglavji, PBL, ogled in delo na instrumentih.

Learning and teaching methods:

Lectures, laboratory work in Centre of simulation, project seminar, PBL, observation and work with instruments

Načini ocenjevanja:

Delež (v %) /

Weight (in %)

Assessment:

– projektna seminarska naloga z javno predstavitevijo in		– Project seminar – coursework with public demonstration,
– ustni izpit.		– oral examination