



UČNI NAČRT PREDMETA / SUBJECT SPECIFICATION

Predmet:	Interna medicina – praktično delo ob bolniku
Subject Title:	Internal medicine - work with patients

Študijski program Study programme	Študijska smer Study field	Letnik Year	Semester Semester
Splošna medicina General medicine - EMŠP		6	12

Univerzitetna koda predmeta / University subject code:

Predavanja Lectures	Seminar Seminar	Sem. vaje Tutorial	Lab. vaje Labor work	praktikum	Samost. delo Individ. work	ECTS
				360	180	18

Nosilec predmeta / Lecturer:

Red. prof. dr. Breda Pečovnik Balon
Red. prof. dr. Ivan Krajnc (sonosilec)
Red. prof. dr. Radovan Hojs (sonosilec)

Jeziki /

Predavanja / Lecture:

Slovenščina/slovene

Languages:

Vaje / Tutorial:

Slovenščina/slovene

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

Prerequisites:

Vsebina:

Študent dela pod tutorstvom sobnega zdravnika v bolniških sobah. Opravlja pregled bolnika (status) in anamnezo. Sodeluje pri načrtovanju diagnostičnih preiskav, analizi izvidov in pri odločanju o zdravljenju. Študent aktivno sodeluje pri delu diplomiranih medicinskih sester, tako pri odvzemu krvi, dajanju injekcij...Spremlja bolnika na preiskave kot so rentgensko slikanje, invazivne kardiološke in gastroenterološke preiskave itd. Sobni zdravnik in predstojnik oddelka s svojim podpisom zagotavlja, da je opravil vse predvidene posege, ki so določeni v kartonu obveznosti študenta.

Content (Syllabus outline):

The student works under tutor's supervision in clinical wards. He/she performs examinations (clinical status) and establishes the patient's medical history. He/she cooperates in planning diagnostic procedures, analysis of results and subscription of the therapy. The student also actively participates in nurses' practice (taking blood examples, applications of ampoules). He/she accompanies the patient to X-ray and invasive cardiac and gastroenterological examinations etc. The student works in all departments of internal OPC and has to accomplish all scheduled commitments. At the end of practical training the head of the department confirms the student's work with a signature.

Temeljni literatura in viri / Textbooks:

1. A. Kocijančič: Klinična preiskava. Ljubljana: Littera picta, 2000.
2. J. Thomas, T. Monaghan (eds): Oxford Handbook of Clinical Examination and Practical Skills. Oxford: Oxford University Press, 2007.
3. M. Košnik et al (eds): Interna medicina. Ljubljana: Littera picta, 2011.
4. D. Longo et al (eds): Harrison's Principles of Internal Medicine, 18th edition. New York: McGraw-Hill, 2011.
5. P.J. Kumar, M.L. Clark (eds): Clinical Medicine, 7th edition. Edinburgh: Saunders Elsevier, 2009.

Cilji:

Cilji predmeta so priprava študentov na samostojno delo z internističnim bolnikom. Študent mora osvojiti teoretično in praktično način pristopa k bolniku, obvladati mora odnos z njim in s svojci. Znati mora vzeti

Objectives:

The objectives of the subject are preparation of students to independent work with an internist patient. The student has to acquire theoretical and practical modes of approach to the patient, the student has to master the

anamnezo, pregledati bolnika, ovrednotiti diagnostične metode in predlagati ustrezno zdravljenje. Študent bo usposobljen obravnavati bolnika skladno z načeli medicinske etike in deontologije.

Predvideni študijski rezultati:

Študent mora obvladati osnovne metode klinične preiskave, inspekcija, palpacija, perkusija, avskultacija, vzeti anamnezo, določiti splošni klinični status, specialni klinični status, diagnostične in terapevtske metode (glej klinična znanja in metode).
Študent mora poznati diagnostične metode: arterijska punkcija, UZ, endoskopija, ledvična ali jetrna biopsija, plevralna punkcija, pregled urinskega sedimenta, pregled krvne slike, scintigrafske preiskave, abdominalna punkcija, venepunkcija, RTG pregled, CT pregled, EMR, alergijski testi, bronhoskopija, kateterizacija srca, pregledi z Dopplerskim UZ srca, EKG, obremenilni testi za srce, Holter-monitoring, punkcija sklepov, pljučni funkcijski testi.

Metode poučevanja in učenja:

Praktično klinično delo

Naloge študenta: Skrbi za bolnike na najmanj treh (3) posteljah, od sprejema do odpusta:

- anamneze;
- jutranji orientacijski obiski pacientov z merjenji RR in poročanjem mentorju;
- fizikalni pregledi;
- poročanje o bolnikih na vizitah;
- predlog načrta preiskav (načela racionalne diagnostike) in terapije;
- posegi (glej karton za spremljanje praktikuma);
- sodelovanje pri pogovorih s svojci;
- koncepti epikriz in zaključkov.

Študent sprejema (napravi anamnezo in klinični pregled) na oddelku oz. kliniko tudi novo prispele bolnike, ki jih kasneje ne vodi več.

S pogojem, da ni motena kontinuiteta dela v bolniških sobah, se lahko študent pridruži svojemu mentorju tudi pri drugih opravilih (npr. v ambulantni).

Evidenco o opravljenem delu (karton, beležka) študenti predložijo glavnemu mentorju po končanih vajah. Znanje in napredovanje študentov se preverja sprotno.

Oblike skupinskega izpopolnjevanja:

- redni strokovni sestanki na kliniki;
- posebej za študente organizirane oblike: klinični seminarji s prikazom zanimivih bolnikov, osnove EKG, tečaji iz TPO, dializnega zdravljenja, endoskopij itd.

Vsak študent pripravi en (1) **seminar** iz klinične kazuistike ali literature.

Priporočena opravila, ki naj bi jih študent opravljal med delom na oddelku:

attitude towards the patient and the patient's relatives. The student has to know how to make an anamnesis, examine the patient, evaluate diagnostic methods and suggest appropriate treatment. The student will be qualified to treat a patient in congruence with the principles of medical ethics and deontology.

Intended learning outcomes:

The student has to master the basic methods of clinical examination, inspection, palpation, percussion, auscultation, taking anamnesis, determine general clinical status, special clinical status, diagnostic and therapeutic methods (see clinical knowledge and methods).
The student has to be acquainted with the diagnostic methods: arterial puncture, ultrasound, endoscopy, renal or liver biopsy, pleural puncture, examination of urinary sediment, complete blood count, scintigraphic examinations, abdominal puncture, venipuncture, Roentgen examination, CT scan, endoscopic mucosal resection, allergy tests, bronchoscopy, cardiac catheterization, cardiac examination with Doppler ultrasound, ECG, stress tests, Holter monitoring, joint puncture, pulmonary functional tests.

Learning and teaching methods:

Practical clinical work

Tasks of the student: takes care of the patients on at least three hospital beds, from hospital admission until release of the patient from hospital:

anamneses;
morning orientational visits of patients with RR (recovery room) measurements and reporting to the mentor;
physical examinations;
reporting about patients at visitations;
suggestion of the plan of examinations (principles of rational diagnostics) and therapy;
interventions (see medical record for monitoring practical training);
cooperation in conversations with relatives;
concepts of epicrisis and conclusions.

The student admits (makes the anamnesis and clinical examination) to the ward or clinic also newly arrived patients who are later no longer under the student's care. Provided that continuity of work in hospital rooms is not disturbed, the student can join his/her mentor also in other jobs (e.g. in an outpatients' clinic).

A record of completed work (medical record, notebook) is submitted by students to the main mentor after the finished practical work.

Knowledge and progress of students is checked regularly.

Forms of group training:

regular professional meetings at the clinic;
specially organized forms for the students: clinical seminars with the presentation of interesting patients, ECG basics, courses in CPR, dialytic treatment, endoscopies etc.

Each student prepares one seminar from clinical casuistry or literature.

Recommended jobs which the student should do during

- odvzemi venske in arterijske krvi, različne oblike parenteralnih aplikacij (s.c., i.m., i.v.); - uvajanje venskih katetrov (brahialnih); - kateterizacija sečnega mehurja; - uvajanje želodčne sonde; - makroskopska ocena sputuma; - torakalne in abdominalne punkcije; - intubacija (v sklopu reanimacijskega tečaja oz. tečaja TPO); - snemanje EKG; - bronhialna toaleta; - meritve funkcije pljuč	his/her work at the ward: taking of venous and arterial blood, various forms of parenteral applications (subcutaneous injection, intracutaneous or intradermal injection, intramuscular injection, intravenous injection); introduction of venous catheters (brachial); catheterization of the bladder; introducing of the gastric probe; macroscopic evaluation of sputum; thoracic and abdominal punctures; intubation (within the resuscitation course or CPR course); recording of ECG; bronchial toilet; measurements of pulmonary function
---	---

Načini ocenjevanja:Delež (v %) /
Weight (in %)**Assessment:**

POGOJI ZA PRISTOP K POSAMEZNEMU PREVERJANJU ZNANJA -prisotnost na seminarjih -najmanj 80 % udeležba na kliničnih vajah -opravljen seminar -opravljene in evidentirane vse obveznosti iz kartona vaj - potrjen karton vaj je sestavni del prijavnice k izpitu OBLIKE IN NAČIN PREVERJANJA IN OCENJEVANJA ZNANJA -sprotno preverjanje znanja ob bolniku -pisni izpit - 5 vprašanj esejskega tipa, ovrednotena s po 4 točkami; -za pozitivno oceno je treba doseči 11 točk Pozitivno opravljen pisni izpit je pogoj za pristop k praktičnemu delu in ustnemu teoretičnemu delu -praktični del (pregled bolnika) in ustni teoretični del -izvajajo ga habilitirani učitelji znotraj predmeta, ki jih določi predstojnik katedre -če študent ne opravi ustnega izpita, ponavlja izpit v celoti (pisni in ustni ob bolniku) Ocenjevalna lestvica pri pisnem in ustnem izpitu 56 % do 65 % - 6 66 % do 75 % - 7 76 % do 85 % - 8 86 % do 95 % - 9 96 % do 100 % - 10	Pisni 40 % Ustni 60 %	REQUIREMENTS FOR ACCESS TO INDIVIDUAL KNOWLEDGE CHECKING: attendance at coursework at least 80% attendance at clinical practice completed coursework assignment completed and recorded all obligations from the record of practice validated record of practice is an integral component of the application form for the exam FORMS AND MODE OF CHECKING AND ASSESSING KNOWLEDGE regular knowledge checking by the patient's side written exam – 5 essay-type questions, evaluated with 4 points each; for a positive mark 11 points need to be achieved Positively completed written exam is the condition for access to practical part and oral theoretical part. -practical part (examination of the patient) and oral theoretical part is implemented by habilitated professors within the subject who are appointed by the head of the department in case a student fails the oral exam, he/she takes the exam again entirely (written and oral by the patient's side) Grading scale in written and oral exam 56% to 65% - 6 66% to 75% - 7 76% to 85% - 8 86% to 95% - 9 96% to 100% - 10
Reference nosilca / Lecturer's references:		

BREDA PEČOVNIK BALON:

HOJS, Nina, BEVC, Sebastjan, PEČOVNIK-BALON, Breda, HOJS, Radovan, EKART, Robert. Paricalcitol reduces proteinuria in non-dialysis chronic kidney disease patients. V: BUTUROVIĆ-PONIKVAR, Jadranka (ur.). Special issue : contributions from the 5th Slovenian Congress of Nephrology with international participation, (Therapeutic apheresis and dialysis (Online), ISSN 1744-9987, vol. 17, no. 4). [S. l.]: International Society for Apheresis, cop. 2013, str. 368-372. <http://onlinelibrary.wiley.com/doi/10.1111/1744-9987.12080/pdf>, doi: 10.1111/1744-9987.12080. [COBISS.SI-ID 4745023], [JCR, SNIP, WoS do 23. 9. 2013: št. citatov (TC): 0, čistih citatov (CI): 0, normirano št. čistih citatov (NC): 0, Scopus do 9. 9. 2013: št. citatov (TC): 0, čistih citatov (CI): 0, normirano št. čistih citatov (NC): 0] tipologija 1.08 -> 1.01

BEVC, Sebastjan, PURG, Darinka, TURNŠEK, Nina, HREN, Martin, HOJS, Nina, ZORMAN, Tadej, PEČOVNIK-BALON, Breda, DVORŠAK, Benjamin, EKART, Robert, HOJS, Radovan. Ankle-brachial index and cardiovascular mortality in nondiabetic hemodialysis patients. V: BUTUROVIĆ-PONIKVAR, Jadranka (ur.). Special issue : contributions from the 5th Slovenian Congress of Nephrology with international participation, (Therapeutic apheresis and dialysis (Online), ISSN 1744-9987, vol. 17, no. 4). [S. l.]: International Society for Apheresis, cop. 2013, str. 373-377, ilustr. <http://onlinelibrary.wiley.com/doi/10.1111/1744-9987.12081/pdf>, doi: 10.1111/1744-9987.12081. [COBISS.SI-ID 4745535], [JCR, SNIP, WoS do 16. 9. 2013: št. citatov (TC): 0, čistih citatov (CI): 0, normirano št. čistih citatov (NC): 0, Scopus do 9. 9. 2013: št. citatov (TC): 0, čistih citatov (CI): 0, normirano št. čistih citatov (NC): 0] tipologija 1.08 -> 1.01

BREZNIK, Silva, EKART, Robert, HREN, Martin, RUPREHT, Mitja, PEČOVNIK-BALON, Breda. Radiographic assessment of vascular calcification, aortic pulse wave velocity, ankle-brachial index and fibroblast growth factor-23 in chronic hemodialysis patients. V: BUTUROVIĆ-PONIKVAR, Jadranka (ur.). Special issue : contributions from the 5th Slovenian Congress of Nephrology with international participation, (Therapeutic apheresis and dialysis (Online), ISSN 1744-9987, vol. 17, no. 4). [S. l.]: International Society for Apheresis, cop. 2013, str. 378-383, ilustr. <http://onlinelibrary.wiley.com/doi/10.1111/1744-9987.12082/pdf>, doi: 10.1111/1744-9987.12082. [COBISS.SI-ID 4745279], [JCR, SNIP, WoS do 23. 9. 2013: št. citatov (TC): 0, čistih citatov (CI): 0, normirano št. čistih citatov (NC): 0, Scopus do 4. 9. 2013: št. citatov (TC): 0, čistih citatov (CI): 0, normirano št. čistih citatov (NC): 0] tipologija 1.08 -> 1.01

EKART, Robert, KANIČ, Vojko, PEČOVNIK-BALON, Breda, BEVC, Sebastjan, DVORŠAK, Benjamin, HOJS, Radovan. Blood pressure measurements and left ventricular mass index in hemodialysis patients. Artificial organs, ISSN 0160-564X, 2012, vol. 36, issue 6, str. 517-524. <http://onlinelibrary.wiley.com/doi/10.1111/j.1525-1594.2011.01401.x/pdf>, doi: 10.1111/j.1525-1594.2011.01401.x. [COBISS.SI-ID 4393279], [JCR, SNIP, WoS do 11. 4. 2013: št. citatov (TC): 2, čistih citatov (CI): 2, normirano št. čistih citatov (NC): 1, Scopus do 20. 3. 2013: št. citatov (TC): 1, čistih citatov (CI): 1, normirano št. čistih citatov (NC): 1]

EKART, Robert, KANIČ, Vojko, PEČOVNIK-BALON, Breda, BEVC, Sebastjan, HOJS, Radovan. Prognostic value of 48-hour ambulatory blood pressure measurement and cardiovascular mortality in hemodialysis patients. Kidney & blood pressure research, ISSN 1420-4096, 2012, vol. 35, no. 5, str. 326-331. <http://content.karger.com/produktedb/produkte.asp?DOI=10.1159/000336357>, doi: 10.1159/000336357. [COBISS.SI-ID 4393535], [JCR, SNIP, WoS do 17. 7. 2013: št. citatov (TC): 2, čistih citatov (CI): 2, normirano št. čistih citatov (NC): 1, Scopus do 10. 9. 2012: št. citatov (TC): 0, čistih citatov (CI): 0, normirano št. čistih citatov (NC): 0]

IVAN KRAJNC:

KOŠUTIĆ, Damir, PEJKOVIĆ, Božena, ANDERHUBER, Friedrich, VADNJAL, Sabina, ŽIC, Rado, GULIC, Rozita, KRAJNC, Ivan, ŠOLMAN, Lea, KOCBEK, Lidija. Complete mapping of lateral and medial sural artery perforators : anatomical study with Duplex-Doppler ultrasound correlation. Journal of plastic, reconstructive & aesthetic surgery, 2012, vol. 65, issue 11, str. 1530-1536, doi: 10.1016/j.bjps.2012.04.045. [COBISS.SI-ID 51228408]

KOCBEK, Lidija, KRAJNC, Ivan, ANDERHUBER, Friedrich. Anatomical variations of the posterior intercostal arteries and the thoracic vertebral artery. J. int. med. res., 2011, vol. 39, no. 3, str. 1001-1005. [COBISS.SI-ID 3996223]

GORIŠEK, Borut, KRAJNC, Petra, KRAJNC, Ivan. Quality of life and the effect on social status among Slovenian women after breast cancer treatment. J. int. med. res., Mar.-Apr. 2009, vol. 37, no. 2, str. 557-566. [COBISS.SI-ID 3285311]

GORIŠEK, Borut, REBOLJ STARE, Marija, KRAJNC, Ivan. Accuracy of intra-operative frozen section analysis of ovarian tumours. J. int. med. res., 2009, vol. 37, no. 4, str. 1173-1178. <http://www.jimronline.net/content/full/2009/92/1227.pdf>. [COBISS.SI-ID 3384127]

DINEVSKI, Dejan, POLI, Andrea, KRAJNC, Ivan, ŠUŠTERŠIČ, Olga, ARH, Tanja. E-health integration and interoperability based on open-source information technology. *Wien. klin. Wochenschr., Suppl.*, 2010, vol. 122, suppl. 2, str. 3-10, doi: 10.1007/s00508-010-1354-9. [COBISS.SI-ID 3670335]

RADOVAN HOJS

EKART, Robert, KANIČ, Vojko, PEČOVNIK-BALON, Breda, BEVC, Sebastjan, DVORŠAK, Benjamin, HOJS, Radovan. Blood pressure measurements and left ventricular mass index in hemodialysis patients. *Artificial organs*, ISSN 0160-564X, 2012, vol. 36, issue 6, str. 517-524. <http://onlinelibrary.wiley.com/doi/10.1111/j.1525-1594.2011.01401.x/pdf>, doi: 10.1111/j.1525-1594.2011.01401.x. [COBISS.SI-ID 4393279], [JCR, SNIP, WoS do 11. 4. 2013: št. citatov (TC): 2, čistih citatov (CI): 2, normirano št. čistih citatov (NC): 1, Scopus do 20. 3. 2013: št. citatov (TC): 1, čistih citatov (CI): 1, normirano št. čistih citatov (NC): 1]

HOLC, Iztok, HOJS, Radovan, ČIKEŠ, Nada, AMBROŽIČ, Aleš, ČUČNIK, Saša, KVEDER, Tanja, ROZMAN, Blaž, PAHOR, Artur. Antiphospholipid antibodies and atherosclerosis: Insights from Rheumatoid arthritis - A five-year follow-up study. *Immunobiology*, ISSN 0171-2985, 2011, vol. 216, no. 12, str. 1331-1337.

<http://www.sciencedirect.com/science/article/pii/S0171298511001008>, doi: 10.1016/j.imbio.2011.05.008.

[COBISS.SI-ID 4033855], [JCR, SNIP, WoS do 10. 1. 2012: št. citatov (TC): 0, čistih citatov (CI): 0, normirano št. čistih citatov (NC): 0, Scopus do 17. 7. 2013: št. citatov (TC): 4, čistih citatov (CI): 3, normirano št. čistih citatov (NC): 1]

HOJS, Radovan, BEVC, Sebastjan, EKART, Robert, GORENJAK, Maksimiljan, PUKLAVEC, Ludvik. Kidney function estimating equations in patients with chronic kidney disease. *International journal of clinical practice*, ISSN 1368-5031, Apr. 2011, vol. 65, no. 4, str. 458-464, doi: 10.1111/j.1742-1241.2010.02597.x. [COBISS.SI-ID 3905599], [JCR, SNIP, WoS do 31. 12. 2013: št. citatov (TC): 5, čistih citatov (CI): 4, normirano št. čistih citatov (NC): 2, Scopus do 25. 12. 2013: št. citatov (TC): 4, čistih citatov (CI): 4, normirano št. čistih citatov (NC): 2]

PFEFFER, Marc A., HOJS, Radovan, NAVODNIK-PRELOŽNIK, Maja, RUS, Igor, SAKSIDA, Silvana, et al. Baseline characteristics in the trial to reduce cardiovascular events with aranesp therapy (TREAT). *American journal of kidney diseases*, ISSN 0272-6386, Jul. 2009, vol. 54, no. 1, str. 59-69.

<http://www.sciencedirect.com/science/article/pii/S0272638609006404>, doi: 10.1053/j.ajkd.2009.04.008. [COBISS.SI-ID 4633151], [JCR, SNIP, WoS do 9. 5. 2013: št. citatov (TC): 20, čistih citatov (CI): 19, normirano št. čistih citatov (NC): 8, Scopus do 31. 12. 2013: št. citatov (TC): 25, čistih citatov (CI): 24, normirano št. čistih citatov (NC): 11]

PFEFFER, Marc A., NAVODNIK-PRELOŽNIK, Maja, HOJS, Radovan, SAKSIDA, Silvana, RUS, Igor, et al. A trial of darbepoetin alfa in type 2 diabetes and chronic kidney disease. *The New England journal of medicine*, ISSN 0028-4793, 2009, vol. 361, no. 21, str. 2019-2032, doi: 10.1056/NEJMoa0907845. [COBISS.SI-ID 4403007], [JCR, SNIP, WoS do 6. 1. 2014: št. citatov (TC): 491, čistih citatov (CI): 491, normirano št. čistih citatov (NC): 186, Scopus do 7. 1. 2014: št. citatov (TC): 626, čistih citatov (CI): 626, normirano št. čistih citatov (NC): 237]