

**UČNI NAČRT PREDMETA / COURSE SYLLABUS**

**Ime predmeta:** Na dokazih podprta medicina  
**Course title:** Evidence based medicine

Študijski program in stopnja Study programme and cycle	Študijska smer Study option	Letnik Year of study	Semester Semester
Splošna medicina, enovit magistrski študijski program		Drugi	4.
General medicine, Uniform master's degree study program		Second	4th

**Vrsta predmeta (obvezni ali izbirni) /  
Course type (compulsory or elective)**

obvezni

compulsory

**Univerzitetna koda predmeta / University course code:**

Predavanja Lectures	Seminar Seminar	Vaje Tutorial	Klinične vaje Clinical training	Druge oblike študija Other forms of study	Samost. delo Individual work	ECTS
15	15	15			75	4
		AV LV RV				

**Nosilec predmeta / Course coordinator:**

prof. dr. Dušanka Mičetić Turk  
 doc. dr. Uroš Maver  
 doc. dr. Eva Turk

**Jeziki /Languages:**

**Predavanja / Lectures:** slovenski/slovene

**Vaje / Tutorial:** slovenski/slovene

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

Znanja iz predkliničnih predmetov in informatike

**Prerequisites for enrolling in the course or for performing study obligations:**

Knowledge from preclinical subjects and informatics

**Vsebina (kratek pregled učnega načrta):**

Predavanja:

- Kaj je z dokazi podprta medicina (praksa)?
  - Zgodovina
  - Najzaslužnejše osebe za razvoj z dokazi podprte medicine
  - Časovni potek razvoja in integracija v medicino
  - Analogija z drugimi področji
  - Pristopi integracije po svetu
  - Podatkovne baze, sistematični pregledi in drugi pristopi sinteze znanja– osnove
- Kritična presoja obstoječih podatkov kot osnovno orodje načrtovanja v predkliničnih raziskavah in klinični praksi

**Content (syllabus outline):**

Lectures:

- What is Evidence based medicine (practice)?
  - History
  - Crucial people for development of EBM
  - Timeline and integration in medicine
  - Analogy with other fields
  - Approaches around the world
  - Databases, systematic literature reviews and other approaches to knowledge synthesis- basics
- Critical appraisal of information as the core tool to research development in pre- and clinical practice

Seminars:

Introduction to EBM

## Seminarji:

### Uvod v EBM

- Ključna vprašanja glede EBM–PICO naloge?
- Oblikovanje raziskave/projekta?
- Kritičen pregled raziskav
- Osnove merjenja v medicini: veljavnost, točnost, natančnost in zanesljivost
- Diagnostika in testiranje hipotez

### Vrste študij

- Kvalitativno raziskovanje
- Kvantitativno raziskovanje
- Opazovalne študije
- Randomizirane klinične študije
- Prikazov primera
- Hierarhičnost dokazov
- Drugo

### Kako iskati literaturo – baze podatkov?

#### Kaj je učinkovito zdravljenje?

- Sistematični pregled literature
- Kdaj narediti sistematični pregled literature?
- Ocenjevanje kvalitete metodologije sistematičnih pregledov
- Meta analize

### Kako napisati članek?

### Kako kritično prebrati članek?

### Ali lahko verjamemo kliničnim smernicam?

- Ravnesje med koristmi in škodo smernic

### Na dokazih podprta klinična praksa

- Key questions in EBM- PICO tasks?
- Project/research development
- Critical appraisal of studies
- Basics of measurement in medicine: validity, accuracy, precision, reliability
- Diagnostics and hypothesis testing

### Types of studies:

- Qualitative research
- Quantitative research
- Observational studies
- RCTs
- Case studies
- Hierarchy of evidence
- Drugo

### Literature search - data bases?

### What is efficient/effective treatment?

- Systematic literature review
- When do we need a systematic literature review?
- Appraisal of methodological quality
- Meta analyses

### How a write a paper?

### Hot to critically read a paper?

### Can we trust clinical guidelines?

- What is the balance between benefits and disadvantages?

### EBM in clinical practice

## Temeljni literatura in viri / Reading materials:

### Obvezna literatura

1. Guyatt G, Rennie D, Meade MO, Cook DJ: User's Guides to the Medical Literature – A manual for evidence-based clinical practice, 3rd edition. JAMAevidence, McGraw Hill Education, 2014.
2. Cochrane Collaboration: <http://www.cochrane.org>

### Dodatna literatura

- Higgins, Julian PT, ed. Cochrane handbook for systematic reviews of interventions. Vol. 5. Chichester, England: Wiley-Blackwell, 2008.
- Hamer, Susan, and Gill Collinson. Achieving evidence-based practice: A handbook for practitioners. Elsevier Health Sciences, 2014.

**Jamtvedt G**, Klemp M, Mørland B, Nylenna M. Responsibility and accountability for well informed health-care decisions: a global challenge. Lancet. 2015 Jun 12. pii: S0140-6736(15)60855-8. doi:10.1016/S0140-6736(15)60855-8. [Epub ahead of print]

- Ivers NM, Grimshaw JM, **Jamtvedt G**, **Flottorp S**, O'Brien MA, French SD, Young J, Odgaard-Jensen J. Growing literature, stagnant science? Systematic review, meta-regression and cumulative analysis of audit and feedback interventions in health care. J Gen Intern Med. 2014 Nov;29(11):1534-41. doi: 10.1007/s11606-014-2913-y.
- Lavis JN, Wilson MG, Moat KA, Hammill AC, Boyko JA, Grimshaw JM, **Flottorp S**. Developing and refining the methods for a 'one-stop shop' for research evidence about health systems. Health Research Policy and Systems 2015, 13: 10.

Grønhaug G, Østerås N, **Hagen KB**. Quality of hip and knee osteoarthritis management in primary health care in a Norwegian county: A cross-sectional survey. BMC Health Services Research 2014 14, 598.

Larsen MH, **Hagen KB**, Krogstad A-L, Aas E, Wahl AK. Limited evidence for the effects of patient education and self-management interventions in psoriasis patients. A systematic review. Patient Education & Counseling. 2014, 94(2):158-69.

### Cilji in kompetence:

- spoznati osnove »z dokazi podprte medicine«
- pridobiti pregledno znanje iz kritičnega vrednotenja obstoječih podatkov
- sistematično načrtovanje z dokazi podprtih predkliničnih in kliničnih raziskav
- sistematično načrtovanje pristopov v klinični praksi
- osvojiti podlago za na dokazih temelječe sprejemanje kliničnih odločitev

### Objectives and competences:

- learn the basics about »evidence based medicine«
- obtain basic knowledge of critical available data appraisal
- systematic planning of evidence based preclinical and clinical studies
- systematic planning of clinical procedures and practice
- obtain the basis for evidence based clinical decision making

### Predvideni študijski rezultati:

#### Znanje in razumevanje:

- spoznati osnove »z dokazi podprte medicine«
- pridobiti pregledno znanje kritičnega vrednotenja obstoječih podatkov
- sistematično načrtovanje z dokazi podprtih predkliničnih in kliničnih raziskav
- sistematično načrtovanje pristopov v klinični praksi
- osvojiti podlago za na dokazih temelječe sprejemanje kliničnih odločitev

#### Prenesljive/ključne spretnosti in drugi atributi:

- osnove z dokazi podprte medicine
- priprava in uporaba sistematičnega pregleda
- sistematično načrtovanje raziskav in uporaba v praksi

### Intended learning outcomes:

#### The students gain fundamental knowledge on:

- learn the basics about »evidence based medicine«
- obtain basic knowledge of critical available data appraisal
- systematic planning of evidence based preclinical and clinical studies
- systematic planning of clinical procedures and practice
- obtain the basis for evidence based clinical decision making

#### Transferable/Key Skills and other attributes:

- basics in evidence based medicine
- preparation and use of systematic reviewing
- systematic planning of studies and use in practice

### Metode poučevanja in učenja:

Predavanja, seminarji, vaje.

### Learning and teaching methods:

Classroom lectures, seminars, tutorials.

### Načini ocenjevanja:

Način (pisni izpit, ustno izpraševanje, naloge, projekt):

Materialni pogoji za izvedbo predmeta :

Predavalnica, računalniška učilnica, knjižnica.

Obveznosti študentov:

- seminar (priprava kratkega poročila na podlagi PICO vprašanj), ter predstavitev.
- opravljene vaje
- pisni izpit.

Delež (v %) /

Share (in %)

100

### Assessment methods:

Type (examination, oral, coursework, project):

Material conditions for subject realization

Classroom, computer lab, library.

Student's commitments:

- seminars (a short report on PICO questions), and presentation.
- completed tutorials
- written exam

### Reference nosilca / Course coordinator's references:

**TURK, Eva**, PREVOLNIK RUPEL, Valentina, TAPAJNER, Alojz, ISOLA, Arja. Reliability and validity of the audit on diabetes-dependent quality of life (ADDQoL) and EQ-5D in elderly Slovenian diabetes mellitus type 2 patients. *Health*, ISSN 1949-5005, Mar. 2014, vol. 6, no. 8, str. 699-711.

LEGIDO-QUIGLEY, Helena, PANTELI, Dimitra, BRUSAMENTO, Serena, KNAI, Cecile, SALIBA, Vanessa, **TURK, Eva**, SOLÉ, Meritxell, AUGUSTIN, Uta, CAR, Josip, MCKEE, Martin, BUSSE, Reinhard. Clinical guidelines in the European Union : mapping the regulatory basis, development, quality control, implementation and evaluation across member states. *Health policy*, ISSN 0168-8510, 2012, vol. 107, str. 146-156.

KNAI, Cécile, BRUSAMENTO, Serena, LEGIDO-QUIGLEY, Helena, SALIBA, Vanessa, PANTELI, Dimitra, **TURK, Eva**, CAR, Josip, MCKEE, Martin, BUSSE, Reinhard. Systematic review of the methodological quality of clinical guideline development for the management of chronic disease in Europe. *Health policy*, ISSN 0168-8510, 2012, vol. 107, str. 157-167.

DOVNIK, Andraž, MUJEZINOVIĆ, Faris, TREIBER, Milena, PEČOVNIK-BALON, Breda, GORENJAK, Maksimiljan, **MAVER, Uroš**, TAKAČ, Iztok. Seasonal variations of vitamin D concentrations in pregnant women and neonates in Slovenia. *European Journal of Obstetrics, Gynecology and Reproductive Biology*, ISSN 0301-2115. [Print ed.], 2014, vol. 181, str. 6-9.

MAVER, Tina, **MAVER, Uroš**, STANA-KLEINSCHEK, Karin, SMRKE, Dragica, KREFT, Samo. A review of herbal medicines in wound healing. *International journal of dermatology*, ISSN 0011-9059. [Print ed.], Article first published online: 24 Mar. 2015, vol. , iss. , str. [1-12].

6. DEVETAK, Miha, PERŠIN, Zdenka, STANA-KLEINSCHEK, Karin, **MAVER, Uroš**. Utilization of optical polarization microscopy in the study of sorption characteristics of wound dressing host materials. *Microscopy and microanalysis*, ISSN 1431-9276. [Print ed.], Apr. 2014, vol. 20, iss. 02, str. 561-565.

**MAVER, Uroš**, VELNAR, Tomaž, GABERŠČEK, Miran, PLANINŠEK, Odon, FINŠGAR, Matjaž. Recent progressive use of atomic force microscopy in biomedical applications. *TrAC, Trends in analytical chemistry*, ISSN 0165-9936, Available online 15 March 2016, vol. , str. 1-4, doi: 10.1016/j.trac.2016.03.014.

**MIČETIĆ-TURK, Dušanka**, ŠIKIĆ POGAČAR, Maja. Klinična uporaba probiotikov v pediatriji = Clinical use of probiotics in pediatrics. *Zdravniški vestnik*, ISSN 1318-0347. [Tiskana izd.], dec. 2011, letn. 80, št. 12, str. 933-943.

**TURK, Eva**, ZALETEL, Jelka, ORMSTAD, Sari Susanna, **MIČETIĆ-TURK, Dušanka**, ISOLA, Arja. Is a multi-disciplinary approach in the delivery of care for patients with Diabetes mellitus Type 2 cost effective? A systematic review. *HealthMed*, ISSN 1840-2291, 2011, vol. 6, no. 2, str. 711-719.

COSTA, Stefano, ASTARITA, Luca, HARIZ, M. Ben, CURRÒ, Giovanni, DOLINŠEK, Jernej, KANSU, Aydan, MAGAZZU, Giuseppe, MARVASO, Stefania, **MIČETIĆ-TURK, Dušanka**, PELLEGRINO, Salvatore, PRIMAVERA, Giuseppe, ROSSI, Pasqualino, SMARRAZZO, Andrea, TUCCI, Francesca, ARCIDIACO, Carmela, GRECO, Luigi. A point-of-care test for facing the burden of undiagnosed celiac disease in the Mediterranean area: a pragmatic design study. *BMC gastroenterology*, ISSN 1471-230X, 2014, vol. 14.