

# Learning outcomes based on acquiring competencies: teaching of medical students in clinical environment

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# Learning outcomes based on acquiring competencies

- In traditional approach to medical education learning objectives are broad and often focus on what the learner should „know“ whereas competencies focuses on what the learner should be able „to do“

# Learning outcomes based on acquiring competencies

- Long tradition of learning outcomes based on acquiring competencies.
- For the first time applied in the definition of learning outcomes of medical specialization in the late nineties.
- In the undergraduate teaching for the first time implemented within the clinical practice in the XII semester.

## Learning outcomes based on acquiring competencies

- Reintroduction of summer internship in undergraduate teaching lead to introduction of competencies that students should acquire during the summer internship in internal medicine and surgery.
- During 2016 University of Belgrade Faculty of Medicine defined a new global learning outcomes based on competences and is currently being considered for individual courses.

# Learning outcomes clinical practice

- Well-defined competencies
- Lack of harmonized terminology between the medical disciplines
- There is minimal overlap in competencies
- The mechanism of competencies control?

# KLINIČKI STAŽ



## OPŠTA MEDICINA U OKVIRU KLINIČKOG STAŽA

	STEPEN SAVLAĐAVANJA VEŠTINA				POTPIS I PEČAT MENTORA
	1	2	3	4	
Zapisivanje u karton i vođenje kartona				X	
Razgovor sa bolesnikom				X	
Vođenje telefonskih razgovora (bolesnik, rodbina)	X				
Razgovor sa duševno obolelim	X				
Fizikalni pregled odraslog			X		
Fizikalni pregled deteta			X		
Fizikalni pregled starijih ljudi			X		
Upućivanje na dodatna ispitivanja			X		
Tumačenje nalaza dodatnih ispitivanja			X		
Postavljanje dijagnoza			X		
Akutno suženje svesti i pokušaj samoubistva	X	X			
Ocena uživanja alkohola i zloupotreba droga			X		
Ocena delovanja porodice			X		
Vođenje bolesnika sa hroničnom bolešću			X		
Pisanje receptata			X		
Kućne posete			X		
Umirući bolesnik			X		
Posmrtni pregled (pregled okoline pokojnika)	X				
Bolesnik sa rakom			X		
CVI u kući			X		
Aplikacija injekcije na terenu (s.c., i.m., i.v.)			X		
Kateterizacija mokraćne bešike kod žena i muškaraca na terenu	X				
Ispiranje slušnih kanala			X		
Bolesnik sa kanišom			X		
Bolesnik sa stomom			X		
Vakcinacija			X		
Aplikacija lekova pumpicom			X		
Propisivanje tehničkih pomagala			X		
Vođenje booolovanja			X		
Pripremanje predloga za ZK i/ili IK			X		
Savetovanje o vođenju zdravog života			X		
Saradnja sa zdravstvenim i društvenim ustanovama			X		

### Provera znanja

Veštine koje student do kraja studija mora da ovlada su sledeće:

- 1= ima teorijsko znanje o veštini
- 2= ima teorijsko znanje o veštini i već video izvođenje veštine
- 3= ima teorijsko znanje o veštini, i izvodi pod nadzorom mentora
- 4= ima teorijsko znanje o veštini i rutinski je praktično izvodi

# Learning outcomes summer internship

- The working group which had to develop summer internship learning outcomes set too high competency requirements.
- Developed competences for summer internship in surgery.
- It will be implemented during the 2018 summer internship.
- The mechanism of competencies control?



# Студентски приручник

## Летња пракса из хирургије са анестезиологијом

Име студента:

Здравствена установа:

Одељење:

Ментор:

Датум трајања летње праксе:

Драги лекари и студенти,

Студентски приручник је део званичне документације Медицинског факултета  
Универзитета у Београду

Молимо да га пажљиво попуните.

Управа Медицинског факултета Универзитета у Београду



Става	Извештај			Коментар
	Посматра	Под надзором	Самостално	
Узимање анамнезе				
Физикални преглед				
главе и врата				
Груди				
трбуха				
екстремитета				
Припрема оперативног поља и ноже пацијента за инвазивне процедуре				
Употреба антисептичних раствора				
Употреба стерилног завојног материјала				
Хируршко прање руку				
Навлачење и употреба хируршких стерилних рукавица				
Употреба хируршког инструментарнијума				
Асистенције у хируршким интервенцијама				
Пласирање обичног и повратног хируршког шавца				
Везивање обичног и двоструког хируршког чвора				
Превијање чисте хируршке ране				
Превијање компликоване хируршке ране				
Скидање конаца				
Пласирање маске за кисеоник и "ервеја"				
Пласирање ендотрахеалног тубуса				
Постављање НГ сонде				
Пласирање и контрола проходности уринарног катетера				
Ректални туше				
Палпацирање периферних артерија				

# Learning outcomes 2016

- In the context of improving teaching, Faculty of medicine has formed a working group to develop a new learning outcomes.
- The working group has developed a global learning outcomes based on competences in 2016 as a basis for development of detailed outcomes. That will be developed through alignment of the individual departments outcome proposals.
- We expect that the new learning outcomes, based on competences, will be finalized in early 2018.

# Learning outcomes 2016

- Medical doctor will be able to:
  - The proper history taking and clinical examination of patient
  - Recognize and timely detect the most common and most important clinical symptoms and the patient's condition
  - Correctly interpret the results of laboratory and clinical tests, as well as radiographical images
  - Order therapy and/or refer patient to the appropriate therapeutic procedure...

# Obstacles

- Most of mentors involved in clinical practice are not employed at the medical faculties and therefore they are not sufficiently motivated to supervise practical work so faculties have only limited possibilities to control their activities.
- Also, there is a problem, "No hard feelings", or avoiding negative assessments of students during practice.

# Way forward

- It is necessary to precisely define the national standards of competence for medical doctors.
- Modernization of the state exam for physicians based on national standards.

# Conclusion

- Fundamental principles and implications of competency-based education suggests that it is a viable model for conceptualizing medical doctors education even in resource-poor countries.
- The logistical challenges of implementing competency-based education are far from trivial, but the model holds potential for more efficient and effective training of health care workers.