

# Informacijska pismenost u profesionalnoj karijeri liječnika: praksa medicine u stoljeću informacijskog preopterećenja

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Likić, Robert

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Digital Repository](#)

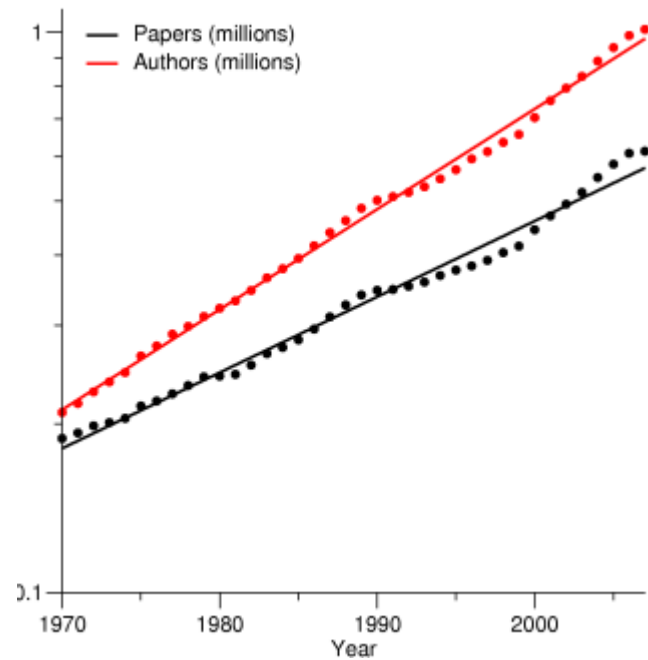


***Informacijska pismenost u  
profesionalnoj karijeri  
liječnika: praksa medicine u stoljeću  
informacijskog preopterećenja***

**Dr. Robert Likić**

**Medicinski fakultet Sveučilišta u Zagrebu**

# *Informacijska pismenost u profesionalnoj karijeri liječnika: praksa medicine u stoljeću informacijskog preopterećenja*



*Informacijska pismenost u profesionalnoj karijeri  
liječnika: praksa medicine u stoljeću informacijskog preopterećenja*



*Matovinović fellowship 15.01. – 15.04.2009 University of Michigan  
Health Centre, Ann Arbor, USA*



# ***Informacijska pismenost u profesionalnoj karijeri liječnika: praksa medicine u stoljeću informacijskog preopterećenja***

*UMHS: integrirani akademski zdravstveni sustav*

*UM KBC*

*817 kreveta*

*1.6 milijun izvanbolničkih pacijenata godišnje*

*10,000 zaposlenih*

*UM Medicinski fakultet*

*1500 nastavnika*

*915 specijalizanata*

*690 studenata*

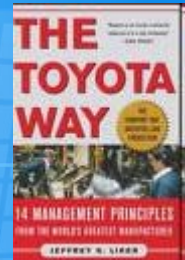
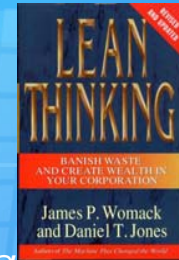
# **Informacijska pismenost u profesionalnoj karijeri**

## **liječnika: praksa medicine u stoljeću informacijskog preopterećenja**

### *Lean thinking*

*"The endless transformation of waste into value from the customer's perspective"*

*---Womack and Jones,  
Lean Thinking*



*1./ Identificirati što pacijenti percipiraju kao vrijednost (brza, učinkovita klinička vizita)*

*2./ Identificirati produktivne korake u proizvodnji proizvoda, izbaciti neproduktivne (poziv>termin>dolazak>liječnički pregled>odlazak <> zauzeta linija>čekanje>gužva (čekanje)>administracija>krivi lijek)*

*3./ Osigurati neometano trajanje procesa proizvodnje (smanjiti/eliminirati čekanje, smanjiti potragu za lijekovima, instrumentima, osobljem, smanjiti/eliminirati transfer itd itd)*

*4./ Dopustiti korisniku da identificira vrijednost unutar sustava (pacijentu se izlazi u susret u pogledu termina pregleda)*

*5./ Težiti savršenstvu i kontinuiranom poboljšanj(medicinsko osoblje svaki dan razmišlja kako svoj radni proces poboljšati)*

# Informacijska pismenost u profesionalnoj karijeri liječnika: praksa medicine u stoljeću informacijskog preopterećenja



Welcome to the  
**Clinical Home Page**



About | Suggest  
   
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[See Current Outages](#)

## New Adult Blood Transfusion Guideline

- [Clinical Home Page](#)
- [Clinical References](#)
- [Clinical Resources](#)
- [Connect to other Systems](#)

### Pathology

- [Antibiotic Susceptibility Report](#)
- [Blood Bank & Transfusion](#)
- [Pathology Lab Handbook](#)

### Radiology

- [On-Call Phone Numbers](#)
- [Patient Preps](#)
- [Radiologic Study Usage Guide](#)

### Pharmacy Services

- [Formularies](#)
- [Drug Shortages and Recalls](#)
- [Medication Use Guidelines](#)
- [Chemotherapy Forms](#)
- [MAPS Info / MAPS Sign On](#)
- [MI Pharmacy Directory](#)

### Nursing Services

- [Nursing Clinical Units/Areas](#)
- [PDR1 \(Education\)](#)
- [Wound & Ostomy Services](#)
- [Nursing Plans of Care \(NPOCs\)](#)

### Safety and Professionalism

- [Office of Clinical Affairs](#)
- [Safety Central](#)
- [Patient Safety Report Form \(Incident\)](#)
- [MLearning/Mandatories](#)
- [Find a policy](#)
- [On-Line Privileges](#)
- [Occupational Health Service](#)
- [UM-CareLink](#)
- [Compliance Office](#)

### Directory Services

- [UMHS Paging](#)
- [UM Online \(Campus\) Directory](#)
- [UMHS Dept. Directory](#)
- [UM Hospitals and Health Centers](#)
- [M-LINE | MarketScope MD Lookup](#)
- [Physician and Clinic Directory](#)
- [UMHS Websites A to Z](#)

### Clinical Resources

- [Clinical Organizations at UMHS](#)
- [Anticoagulation Service](#)
- [Consent Forms: Gen Surgical, Others](#)
- [Hospital Operations \(Bed Status\)](#)
- [Infection Control](#)
- [MVN and Home Care Services](#)
- [Supply Chain](#)
- [Office of Decedent Affairs](#)

### Clinical References

- [Antimicrobial Use/HIV Management](#)
- [Clinical Calculators](#)
- [Clinical Care Guidelines](#)
- [Consult Request Guidelines](#)
- [E-journals](#)
- [Health Sciences Libraries \(Taubman\)](#)
- [Medline: MEDSEARCH, PubMed](#)
- [MDConsult](#)
- [Patient Education](#)
- [Pharmacy: Micromedex, Epocrates](#)
- [Lexi-Comp \(ped dosing\)](#)
- [Facts & Comparisons, Up-to-Date](#)

**UMHS INTERNAL HOME**  
[search center](#) | [clinical home page](#) | [staff resources](#) | [news & events](#) | [fundamentals](#) | [research & education](#) | [support services](#) | [health-related sites](#) | [computing](#)

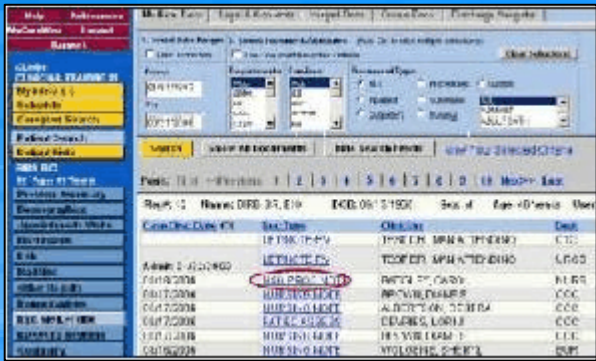
Click for explanation      [UMHS External Home](#) | [U-M Medical School](#) | [U-M Main Site](#)


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# Informacijska pismenost u profesionalnoj karijeri liječnika: praksa medicine u stoljeću informacijskog preopterećenja








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University of Michigan  
Health System

**New Adult Blood Transfusion Guideline**

About | Suggest

- Search UMHS - 

Report Computer Bug  

See Current Outages  


Clinical Home Page
Clinical References
Clinical Resources
Connect to other Systems

### UMHS Clinical Processes References







**Antibiotic Management/Ordering**  
[Antibiotic Susceptibility](#) ,  
[Antimicrobial Guidelines and HIV Management](#) 

### ICD-9 Code/Diagnosis Search

### Infection Control

**MarketScope Physician Database**   
 MI and Northern Ohio physician information from M-Line, Clinical Affairs, and Medirisk .

### Medical Records/Health Information Management

[Dictation instructions](#) , [UMHS medical abbreviations](#) ,  
[UMHS medical unapproved abbreviations](#) , and  
[Guidelines for Medical Record Documentation and Dictation](#)   
[Medical Records Content and Location](#)  
[EMERSE \(CareWeb search engine\)](#)     
[Document Imaging Tools](#)   
[Clinician Document Imaging Training Module](#)

### Pathology Laboratory Handbooks

Clinical laboratory services, critical values, abbreviations and symbols, and [more](#).

### Patient Care Cost Data

Facilities costs for selected patient care services and products








### Pharmacy Services

[Formularies](#)   
[Medication Use Guidelines](#)   
[Chemotherapy Forms](#)   
[Other Forms](#)  
[Schedule II Prescription Fills Request Form](#)   
[Medicare Part D Coverage](#)

### Pharmacy Knowledgebase

[AccessPharmacy](#)  
[Micromedex Knowledge Bases](#)  [Reprorisk](#) ,  
[Drugs](#) , [Toxicology](#) , [Disease](#) , [Interactions](#) , [IV Compatibility](#) ,  
[Patient Ed](#)

### Clinical Knowledge References






**Clinical Guides and Guidelines**  
[Adult Blood Transfusion Guideline](#)  **new**  
[Adult Post-operative Nausea & Vomiting Guidelines](#)  
[Adult In-pt Acute MI Protocol](#)  **new**  
[Clinical Care Guidelines](#)   
[Consult Request Guidelines](#)  
[Geriatrics Resources and Assessment Tools - UMHS](#)   
[Michigan Medical Marijuana Program](#) **new**  
[National Guidelines Clearinghouse](#)  
[UMHS NICU Cheat Sheet](#)   
[UMHS Pediatric Trauma Handbook](#)   
[Influenza Guidelines](#)  
[VTE Risk Assessment](#)   
[Just the Facts](#) , the house officer manual for interns

### Immunization Resources


### Clinical Calculators

**Medline**  
[UM-MEDSEARCH](#)   
[PubMed](#) , [Methodological Clinical Queries](#)

### Medical Textbooks, Journals, or Portals

[AccessMedicine](#)  
[Up-to-date](#)   
[E-journals](#)  
[Greenfield Surgical Atlas](#)   
[Lippincott's Manual of Nursing Practice](#)  
[MDConsult](#) .  please log off when finished.  
[The Red Book](#) Pediatric Infectious Disease  
[Stat!Ref](#)   Books, [Stedman's Dictionary](#)

### Nutrition Services

[American Dietetic Association Nutrition Care Manual](#)   
[Available Diet Orders at UMHS](#)

### Patient Education

[Health Topics A-Z](#) , [Patient Handouts for Clinical Guidelines](#) ,  
[MedlinePlus](#)

### Health Sciences Libraries (Taubman)



# **Informacijska pismenost u profesionalnoj karijeri liječnika: praksa medicine u stoljeću informacijskog preopterećenja**

Primjer 1. Pregled pojedine bolesti, informacije o nekom stanju..  
Koja je razlika između depresije i bipolarnog poremećaja?  
Moj pacijent ima drepanocitozu, trebam informacije o toj bolesti..

1./ Udžbenik (klasični, online ili PDA)



2./ MDConsult



3./ STAT!Ref



4./ UpToDate



5./ AccessMedicine

# ***Informacijska pismenost u profesionalnoj karijeri liječnika: praksa medicine u stoljeću informacijskog preopterećenja***

*Primjer 2. Informacije o lijekovima*

*Koja je pedijatrijska doza eritromicina za BHS-A faringitis?*

*Koje je lijekove FDA odobrio za Liječenje Alzheimerove bolesti?*

*1./ ePocrates (online i PDA)*

**EPOCRATES®**

*2./ Facts & Comparisons (eFacts)*

 **Facts & Comparisons® 4.0**

*3./ Micromedex*

 **THOMSON REUTERS**  
**HEALTHCARE**

# **Informacijska pismenost u profesionalnoj karijeri liječnika: praksa medicine u stoljeću informacijskog preopterećenja**

Primjer 3. Sinteza smjernica za liječenje bolesti

Koje su najnovije smjernice za liječenje paničnog poremećaja?

Koja je najbolja metoda kontrole boli u djece?

1./ *Cochrane Database of Systemic Reviews*



2./ *PubMed: Clinical Queries – Systemic Reviews*



3./ *UMHS Clinical Guidelines*



4./ *National Guideline Clearinghouse*



5./ *ACP PIER*





# **Informacijska pismenost u profesionalnoj karijeri liječnika: praksa medicine u stoljeću informacijskog preopterećenja**

*Primjer 4. Odgovor na "usko" pitanje koji ne proizlazi iz smjernica..  
Može li u sedamdeset godina stare žene s primarnom insomnijom i  
nuspojavama na hipnotike imati koristi od kognitivne terapije u  
pogledu kvalitete i trajanja sna?*

*Da li u djeteta s croupom deksametazon smanjuje simptome bolje od  
standardne simptomatske terapije?*

*1./ PubMed: Clinical Queries – Clinical Study Category*



**PubMed Clinical Queries**

*2./ ACP Journal Club*



*3./ Database of Abstracts of Reviews of Effects*



**World Health Organization  
Regional Office for Europe**

# ***Informacijska pismenost u profesionalnoj karijeri liječnika: praksa medicine u stoljeću informacijskog preopterećenja***

*Primjer 5. Informiranje pacijenata*

*Gdje mogu naći informacije o prehrani za svog pacijenta koji ima novo-otkrivenu šećernu bolest?*

*1./ MedlinePlus*



*2./ UMHS Patient Education*



# Informacijska pismenost u profesionalnoj karijeri liječnika: praksa medicine u stoljeću informacijskog preopterećenja

## Taubman Medical Library



UM.Sitemaker: Websites Made Simple	6/2, 9:30 AM	Open
EndNote X2 Basics	6/2, 1:00 PM	Full
Using Word *2007* Effectively for Your Dissertation (for Windows Users)	6/2, 2:00 PM	Open
Using the Library's New Course Reserves Service	6/4, 10:00 AM	Full
Using Jing for Screen Capture	6/4, 12:00 PM	Open
Using Word *2008* Effectively for Your Dissertation (For Mac Users)	6/4, 1:00 PM	Open
CTools Wiki Quickie	6/5, 9:30 AM	Open
Intermediate Photo Editing with Photoshop CS 3	6/5, 1:00 PM	Full
Creating Posters with Illustrator CS3	6/8, 1:00 PM	Full
UM.Sitemaker: Online Forms and Tables	6/9, 9:30 AM	Open
RefWorks Basics	6/11, 10:00 AM	Open
Building an EndNote Library	6/16, 1:30 PM	Open
Finding Funding for Graduate Students: Identifying Grants for Fellowship & Dissertation Support	6/17, 12:00 PM	Full
Mendeley	6/17, 12:00 PM	Open
Low Literacy -- its effect on patient health and what YOU can do about it	6/17, 12:00 PM	Open
A Quick Look at Office 2007	6/18, 10:00 AM	Open
Finding Funding for Graduate Students: Identifying Grants for Fellowship & Dissertation Support	6/23, 12:00 PM	Full
Getting Started with Photoshop CS 4	6/23, 1:00 PM	Open
Working with EndNote and Microsoft Word	6/23, 1:30 PM	Full
Great Grantsmanship: Finding Funding Sources for Research and Academic Projects	6/24, 10:30 AM	Open
Great Grantsmanship: Finding Funding Sources for Research and Academic Projects	6/29, 1:00 PM	Open
Working with EndNote Formatting/Output Styles	7/7, 1:30 PM	Open
Working with EndNote and Figures	7/14, 1:30 PM	Open
RefWorks Basics	7/17, 10:00 AM	Open
Web of Knowledge	7/24, 10:00 AM	Open
Advanced Techniques I	8/4, 1:30 PM	Open
National Institutes of Health Public Access Policy	8/6, 10:00 AM	Open
Advanced Techniques II	8/11, 1:30 PM	Open
Using the Library's New Course Reserves Service	8/18, 2:00 PM	Open
Using the Library's New Course Reserves Service	9/2, 9:30 AM	Open





Gastroenterology - Mozilla Firefox

https://ctools.umich.edu/access/content/group/11558134-8728-46d2-a77d-dd55fb9833e4/course\_topics\_refs/topics/gastroenterology/topic\_framesets

**Gastroenterology**   [Objectives](#)   [Case 1](#)   [Case 2](#)   [Case 3](#)   [Print Cases](#)   - Get References -

[Syllabus](#)


- Hemoglobin=14gm%
- Glucose (fasting)=210
- Liver chemistries: normal
- Cholesterol=310 (LDL=275)
- Triglyceride=400

**Q1:** Which of the following are appropriate next steps?

- [A.](#) Treat diabetes with an oral hypoglycemic agent and refer for diabetic teaching
- [B.](#) Increase the dose of atorvastatin
- [C.](#) Adjust his antihypertensive therapy
- [D.](#) Institute a weight reduction program
- [E.](#) Recommend upper endoscopy

[Click here for Dr. Nostrant's discussion of the question.](#)

**Case #1** (continued)  
The patient's diabetes is treated with glipizide ER 5mg daily and metformin 500mg twice a day. His fasting blood sugar was maintained at 115-140 mg%, and his hemoglobin A1c dropped from 9.4% to 6.0%.



Transferring data from ctools.umich.edu...   Proxy: None

# Informacijska pismenost u profesionalnoj karijeri liječnika: praksa medicine u stoljeću informacijskog preopterećenja

The screenshot shows the Open.Michigan website. At the top left is the logo "open.michigan" and at the top right is the tagline "Connecting the". Below the logo is a navigation menu with links: home, about, community, education, projects, and contact. The main content area features a description of Open.Michigan as a University of Michigan initiative. Below this are several featured project cards, including one for "collaborators | Creative Commons: ccLearn" which includes the CC Learn logo and text about fair use. Other cards mention "OCW Consortium", "Hewlett Foundation", "U-M community | Dentistry", and "U-M community | School of Public Health". At the bottom of the main area are tabs for "community", "education", and "projects", and a "featured" section with "recently added" and "go to community »".

open.michigan Connecting the

**home**  
about  
community  
education  
projects  
contact

**Open.Michigan:** a University of Michigan initiative to create and share knowledge, resources, and research with the global learning community.

collaborators | OCW Consortium  
collaborators | Hewlett Foundation  
U-M community | Dentistry  
U-M community | School of Public Health  
collaborators | Creative Commons: ccLearn  
U-M community | School of Public Health

Open OCW are

**cc Learn**  
ccLearn is helping Open.Michigan understand and incorporate fair use into OER.

community education projects

**featured**  
recently added  
go to community »

**Free**

<https://open.umich.edu/index.php>

# Informacijska pismenost u profesionalnoj karijeri liječnika: praksa medicine u stoljeću informacijskog preopterećenja

**EPOCRATES® ONLINE** [Home](#) **DRUGS** [DISEASES](#) [m✓](#) [PILL ID](#) [MEDCALC](#) [TABLES](#)



**Drug Lookup:**  **Browse:** [Rx](#) [Alt Meds](#)

Select formulary: No Formulary Selected

---

## aspirin

generic

  **Sections:**

- Entire Monograph
- Black Box Warnings
- Adult Dosing**
- Peds Dosing
- Contraindications/Cautions
- Drug Interactions
- Adverse Reactions
- Safety Monitoring
- Pharmacology
- Manufacturer/Pricing
- Patient Education
- Pill Pictures

**Adult Dosing**

**Dosage forms:** 81,165,325,500,650; 81 CH; 120,200,300,600 PR

**pain/fever**  
**[325-650 mg PO q4h prn]**  
Alt: 300-600 mg PR q4h prn; Max: 4 g/day PO

**\*acute coronary syndrome**  
**[162-325 mg PO x1]**  
Info: chew tab

**\*MI prevention**  
**[81-325 mg PO qd]**

**\*TIA/thrombotic stroke prevention**  
**[75-325 mg PO qd]**

**\*arthritis**  
**[2.6-5.4 g PO qd div q4-6h]**

**\*rheumatic fever**  
**[5-8 g PO qd div q4-6h x1-2wk]**  
Info: taper dose over next 2-8wk

**renal dosing**  
**[adjust dose frequency]**  
CrCl 10-50: give q4-6h; CrCl <10: avoid use; HD: give dose after dialysis, no supplement; CAPD: no supplement


**hepatic dosing**  
**[not defined]**



<https://online.epocrates.com>



# Informacijska pismenost u profesionalnoj karijeri liječnika: praksa medicine u stoljeću informacijskog preopterećenja



**JOHNS HOPKINS**  
**POC-IT CENTER**

Search:  GO

---

**Handheld ABX | CME Center | Q&A Forum | Literature Review | Site Info | FAQ**

**Other POC-IT Resources**

POC-IT Center  
HIV Guide

**Related Sites**

JH Infection Control  
Center for Clinical Global Health  
JH Viral Hepatitis Center  
JH Center for Global Health  
JH Division of Infectious Diseases  
Infectious Diseases Grand Rounds  
Zambia HIV Guide

**Other Q&A Forums**

HIV Guide Q&A  
Hepatitis Q&A

**Guide Editors**

Editor In Chief  
John G. Bartlett, MD

Managing Editor  
Paul G. Auwaerter, MD, MBA

Pharmacology Editor  
Paul Pham, PharmD, BCPS

## ABX Guide

**Browse Guide By:**

- Diagnosis
- Drugs
- Pathogens
- Management
- Vaccines


“To use the Guide, please select from the options Diagnosis, Drugs, Pathogens, Management, Vaccines to the left.”

**Question of the Month**

**Echinocandins for UTI**  
Are echinocandins effective in UTIs including renal parenchymal infections? Thanks.  
2009-05-03

**Literature Review**



Archives  
By John G. Bartlett, M.D.



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**ABX GUIDE CME CENTER**

**EARN CREDITS WHEN YOU SEE THE FOLLOWING TWO ICONS**

-  **POC-IT CME (0.25hr)**  
Links to quick, 0.25 hr CME programs within the context of your search
-  **CME Dialogues (0.5hr)**  
Links to full-featured multimedia presentations on related topics

**CME Programs**

Two new CME programs:

- 48th Annual ICAAC/IDSA 46th Annual Meeting Highlights on Antibiotics and Vaccines
- Update on Guidelines for Influenza Vaccination in Children for 2008-2009

**Announcements**

Swine Flu Podcast and Update From the Johns Hopkins Office of Critical Event Preparedness and Response

Smartphones Becoming Integral Tools for Health Care Providers, Medical Students



<http://prod.hopkins-abxguide.org>

# *Informacijska pismenost u profesionalnoj karijeri liječnika: praksa medicine u stoljeću informacijskog preopterećenja*

