

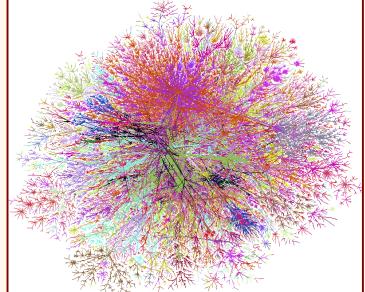
MEDICINSKA INFORMATIKA

Medicinska informatika
akad. god. 2008./09.,
završno predavanje



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Povezivanje...

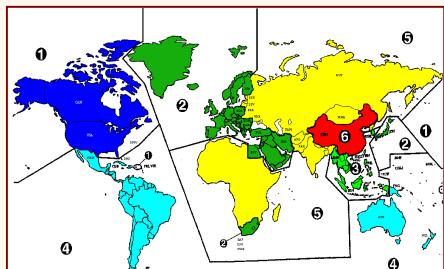


<http://www.cs.bell-labs.com/who/ches/map/>

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...i razdvajanje ☹

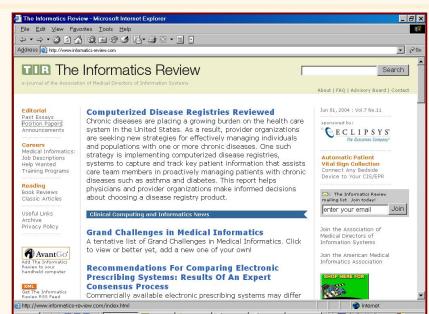


<http://www.unik.no/~robert/hifi/dvl/world.html>

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E-časopisi



The Informatics Review
Journal of the Association of Medical Directors of Information Systems

Computerized Disease Registers Prepared
Overdispersed and Increasingly Growing Turnover in the Health Care System in the United States. As a result, provider organizations are seeking new strategies for effectively managing individuals with chronic diseases. One strategy is to implement computerized disease registries to capture and track key patient information that assists care providers in managing patients with common chronic diseases such as asthma and diabetes. This report helps physicians and other health care providers make informed decisions about choosing a disease registry product.

Grand Challenges in Medical Informatics
A tentative list of Grand Challenges in Medical Informatics. Click to view or better yet, add a new one of your own!

Recommendations For Comparing Electronic Prescribing Systems: Results Of An Expert Consensus Process
Comparatively evaluate electronic prescribing systems may differ

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E. Coiera, 1998. (TIR)

The computer, the telephone, the Web, video – these, and all that is still to come, are unquestionably powerful tools. **Used badly**, they waste time and money, and dehumanise our interactions with each other. **Used well**, guided by a clear understanding of basic informatics principles, they are neither to be feared, loved nor loathed. **They are simply to be used.**

In the next century, the study of informatics will become as fundamental to the practice of medicine as anatomy has been to the last.

<http://www.informatics-review.com/thoughts/skills.html#Ten essential clinical informatics skills>

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Obrazovanje u digitalnoj znanosti (u medicinskim strukama)

- Kako rabiti digitalnu znanost?
(VJEŠTINE)
- Što jest digitalna znanost?
(ZNANJE)

nastavnik
predavač



voditelj
koordinator

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10 vještina (E. Coiera)

Clinicians should be able to:

1. Understand the dynamic and uncertain nature of medical knowledge and know how to keep personal knowledge and skills up-to-date
2. Search for and assess knowledge according to the statistical basis of scientific evidence
3. Understand some of the logical and statistical models of the diagnostic process
4. Interpret uncertain clinical data and deal with artefact and error
5. Analyse and structure clinical decisions in terms of risks and benefits
6. Adapt and apply clinical knowledge to the individual circumstances of patients
7. Access, assess, select and apply a treatment guideline; adapt it to local circumstances; and communicate and record variations in treatment plan and outcome
8. Structure and record clinical data in a form appropriate for the immediate clinical task, for communication with colleagues, or for epidemiological purposes
9. Select and utilize the most appropriate communication method for a given task (eg, face-to-face conversation, telephone, e-mail, video, voice-mail, letter)
10. Structure and communicate messages in a manner most suited to the recipient, task and chosen communication medium.



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E-udžbenici, \$

Biochemistry: Synthesizing the Molecules of Life

About this book
III. Synthesizing the Molecules of Life
25. Nucleotide Biosynthesis
25.1 In Vitro Synthesis of Pyrimidine Ring Is Assembled from Bicarbonate, Arginine, and Cysteine
25.2 Pyrimidine Can Be Synthesized de Novo or Recycled by Salvage Pathways
25.3 Deoxyribonucleotides Synthesized by the Reduction of

25. Nucleotide Biosynthesis

An ample supply of nucleotides is essential for many life processes. First, nucleotides are the activated precursors of nucleic acids. As a rule, the necessary level of replication of the genome is achieved by the incorporation of new information into RNA. Second, as adenosine nucleotide, ATP is the universal currency of energy. A guanine nucleotide, GTP, also serves as an energy source for a more select group of biological processes. Third, nucleotide derivatives such as UDP-glucose participate in biosynthetic processes such as the formation of glycoproteins and glycolipids, and the synthesis of polysaccharides and nucleic acids. Cycle nucleotides such as cyclic AMP and cyclic GMP are second messengers that transmit signals both within and between cells. ATP acts as the donor of phosphoryl groups transferred by protein kinases.

In this chapter, we continue along the path begun in Chapter 24, which described the incorporation of nitrogen into nucleic acids from inorganic sources such as nitrogen gas. The amino acid glycine and aspartate are the building blocks on which the rings present in nucleotides are formed. Furthermore, aspartate and the side chain of glutamine serve as sources of NH₂ groups in the formation of nucleotides.

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E-udžbenici, \$

Harrison's Principles of Internal Medicine

GRAND ROUNDS
Gottlieb Hospital Department of Therapeutic Radiology Dr. Eugene Braunwald
More Lectures...

Featured Updates
Editorial Influence in Critical Illness Dr. S. Larry Jameson

UPDATES
Most Recent (last 2 weeks)
New Chapters
Reviews & Editorials

CONSULT CENTER

CONTENTS
List of Chapters
Preface
PARTS
1: Introduction to Clinical Medicine
2: Cardinal Manifestations and Presentations Of Disease
3: Genetics and Disease
4: Infectious Diseases
5: Immunobiology
6: Disorders of the Cardiovascular System
7: Disorders of the Respiratory System
8: Disorders of the Kidney and Urinary Tract
9: Disorders of the Endocrine System
10: Disorders of the Immune System, Connective Tissue, and Rheumatology
11: Pediatric and Adolescent Medicine
12: Disorders of the Immune System, Connective Tissue, and Rheumatology

HARRISON'S ON THE GO
Harrison's On the Go is your mobile reference and quick medical resource guide.
HARRISON'S ON CALL

<http://www.harrisonsonline.com/>

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Izravno učenje s interneta

Diagnostic Imaging.com

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CME
REFERENCE: W0235064AP1
RELEASE DATE: April 2004
EXPIRATION DATE: April 2004
TEST CODE: 014

To complete this CME activity free of charge, please click on the "Take Test" link below and answer the post-test questions. Estimated time to complete this activity should not exceed 1.0 hour.

EDUCATIONAL OBJECTIVES:
Upon completion of this activity, participants should be able to:

- Compare the differences between screen-film and digital mammography.
- Understand the reasons by which digital mammograms are formed and displayed.
- Distinguish the differences between hard-copy (film) and soft-copy (monitor) display of digital mammograms.

<http://www.diagnosticimaging.com/cme/articles/019.pdf>

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CATEGORY 1 ARTICLE

PORT TEST

NOTE: Clicking on the "port test" link will take you away from the Diagnostic Imaging.com site and bring you to CME, Inc.'s website where the tests are hosted.

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Diagnostic Imaging.com article PDF

This process is still in place for other clinically approved FFDM systems for which an accreditation module has not yet been developed. New users of the GE Senograph 2000D FFDM system must first register their new digital unit with the ACR instead of the FDA.

Now that accreditation of FFDM is possible, stand-alone digital sites can be accredited by the ACR and certified by the FDA. New facilities wanting to start up with FFDM should notify the ACR as soon as possible before opening so that they can receive the appropriate application materials.

For sites already ACR-accredited based on SFM systems, a new process is in place for registering new SFM and FFDM units. The facility must have an equipment evaluation of the new unit performed by a qualified medical specific tests, test frequencies, and action limits, according to the manufacturer's QC procedures. Just as for SFM, QC procedures and results are reviewed during the site's annual MQSIA inspection.

FIGURE 6. Contrast setting. A: Change of contrast settings shows improved definition of a benign fibroadenoma. B: High-contrast setting plus magnification shows improved definition of a benign fibroadenoma.

educated mammography personnel, these challenges can be met. ■

References

1. Hins AG, Taffel ML. Screen-film and liquid crystal display mammography. In: Hendrick RE, ed. *Diagnostic imaging of North America: breast imaging*. Philadelphia: WB Saunders; 2000:209-214.
2. Hendrick RE, Beris EA. Optimizing mammographic image quality. In: Feig SA, ed. *Diagnostic imaging of North America: breast imaging*. Vol 1. New York: Lippincott-Raven; 1995:718-730.
3. Hendrick RE, Beris EA. Optimizing the diagnostic performance of digital screen-film imaging. In: Hins AG, ed. *Advances in film processing: methods, technologies, and applications*. Mahwah, NJ: Medical Physics Publishing; 2000:111-120.
4. Beris EA, Hendrick RE, Carter GA. Performance evaluation of full-field digital mammography vs screen-film mammography for detection of simulated microcalcifications in a clinical setting. *Mammography*. 2001;16:17-22.
5. Hendrick RE, Beris EA. Full-field digital mammography: a review. Chicago: Photomedicine Publishing; 2001.
6. GE Medical Systems. *Senograph 2000D Quality Assurance Procedure*. Princeton, NJ: GE Medical Systems; 2000. (GE Medical Systems internal document 277580-001, rev. No. 22, 2000).
7. Lewis JM, D'Oni CA, Hendrick RE, et al. Clinical evaluation of full-field digital mammography to screen-film mammography for detection of 4945 paired examinations. *Radiology*. 2002;218:873-880.

...s testom znanja

Diagnostic Imaging.com
CONTINUING MEDICAL EDUCATION

<http://www.mhsource.com/diagnostic/>

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... i u Hrvatskoj

<http://medix.com.hr>

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Izravno (on-line)...

<http://bmj.com/cgi/content/full/323/7304/75>

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E-tromboza!

- e-Thrombosis, a new threat for the 21st century
- The risk of developing life-threatening blood clots from sitting for long periods at a computer was revealed today in a case report from New Zealand. A young man who spent up to 18 hours a day sitting at his computer nearly died after developing a massive blood clot that formed in his leg veins, broke off and travelled to his lungs (pulmonary embolism).

TIR, Vol. 6 No. 7

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Studentski seminar

- prikazi na računalu:
 - količina sadržaja (vrijeme na raspolaganju)
 - izradba "na brzinu" ☺
 - plagiranje ☺ ☺ ☺
 - preslika izvornog teksta – loše!
 - važno znati i razumjeti sadržaj, poznavati sve izraze, kratice i tumačenja
 - jako bitno: hrvatski književni jezik! ☺
 - šarenilo, animacije – nepotrebno!

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Stud. seminar – pismenost

„slijedi da će se IV. sastanak (Journal Club) Katedre za informatiku održati u četvrtak, 13. lipnja 04., u 19 sati u informatičkoj učionici. Obrađivat će se poglavlja prema sljedećem rasporedu: Gordana B. – 10. poglavlje, Lidiya B.Z. – 11. poglavlje i Mladen P. – 12. poglavlje.

Izvor podataka: „Uvod u znanstveni rad u medicini“ Med. naklada, III. izd. (žuto), 2004. god. Podrazumijeva se da svi učesnici pomno prouče sva navedena poglavla i aktivno se uključe u raspravu.

Srdačno,

Lidija Bilić-Zulle

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Stud. seminar – pismenost

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Srdačno,

Lidija Bilić-Zulle

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Studentski seminari

- početak
 - pozdrav, predstavljanje
 - "ja, nažalost, nisam..."
 - "bit ću kratak..."
- završetak, zadnja rečenica, zaključak, pitanje...
 - "i to je to"
- zanimanje za to što se radi
- timski rad



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Studentski seminari, izlaganja

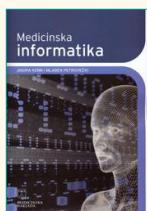
- tekst – previše ili premalo?
- količina cjelokupne mjerije
- didaktički sadržaji (učenje)
- izlaganje, pogled ka...
- primjeri izvan zadanoga teksta
- slike (grafički prikaz)
- vrijeme izlaganja



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Ispit: gradivo



- udžbenik
- nastava
 - seminari
 - vježbe



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Dopunsko gradivo

- Degoulet P, Fieschi M.
Introduction to Clinical Informatics
Springer, 1997.
- Van Bemmel JH, Musen MA.
Handbook of Medical Informatics
Springer, 1997.
http://www.mieur.nl/mihandbook/r_3_2/handbook/home.htm



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Ispitna razdoblja

- mrežne stranice Fakulteta
- pismeni ispit: 45 minuta
- rezultati: 30 minuta nakon ispita
- usmeni ispit:
 - nije obvezan
 - odmah nakon objave rezultata
- upis ocjena: odmah nakon objavljinjanja rezultata

Pozornost: prijava i odjava ispita – Studis!



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Studenti se primaju **svakim danom** od 12-14 sati

Konzultacije **utorkom i četvrtkom** 14-16 sati



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Ispit

- pismeni:
 - test, 22 pitanja, 45 min
 - primjer testa na mrežnim stranicama
 - pribajanje plus/minus bodova stečenih na nastavi
- usmeni:
 - 5 pitanja
 - objavljena na mrežnim stranicama

Bodova	Ocjena
0 - 11	nedovoljan
12 - 13	dovoljan
14 - 16	dobar
17 - 19	vrlo dobar
20 -	izvrstan



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Hvala na pozornosti...

...i puno uspjeha na ispitu.

*Molim još trenutak strpljenja za
studentsku anketu...*



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