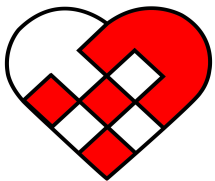


# Akreditacija



Prof. dr. sc. J. Šeparović Hanževački  
Dr.sc.prim. M. Ivanuša  
Dr. Irena Ivanac Vranešić

# Nacionalna akreditacija iz transtorakalne ehokardiografije

- Akreditacija (certifikacija)
- Individualna – adekvatno certifikaciji EAE
- Priznavanje već stečene akreditacije EAE-a na zahtjev
- Dobrovoljna
- Cilj: unaprijeđenje kvalitete ehokardiografije u Hrvatskoj
- Sve informacije na web stranici [croecho.kardio.hr](http://croecho.kardio.hr)

# Ispit za nacionalnu akreditaciju iz TTE

# Ispit za nacionalnu akreditaciju iz TTE

- Pismeni dio
  - Prijava na web stranicama RS
  - 1. Teorijski dio – 100 pitanja
  - 2. Analiza slučajeva – 50 pitanja
- Praktični dio
  - 200 nalaza – pisana dokumentacija
  - 6 slučajeva u slikovnom formatu



# KARDIO LIST

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ČASOPIS HRVATSKOG KARDIOLOŠKOG DRUŠTVA  
JOURNAL OF THE CROATIAN CARDIAC SOCIETY

[www.kardio.hr/kardio-list.html](http://www.kardio.hr/kardio-list.html)

## CroEcho2011

Simpozij Radne skupine za ehokardiografiju Hrvatskog kardiološkog društva  
Hrvatski ehokardiografski skup s međunarodnim sudjelovanjem

Symposium of the Working Group on echocardiography, Croatian Cardiac Society  
Croatian Echocardiography Meeting with International Participation

Opatija • 20.-22. listopada 2011.  
Opatija • October 20<sup>th</sup>-22<sup>nd</sup> 2011  
Hotel "Ambasador"



EMCare

INDEX COPERNICUS  
INTERNET MASTER LIST



HINARI  
Access to Research

HAW

Hrvatski arhiv weba  
Croatian Web Archive



Member of the ESC National Societies Cardiovascular Journals

**HARDIO LIST**

2011;6(11):309.



Ostalo

Other

**Sastanak nukleusa Radne skupine za ehokardiografiju Hrvatskog kardiološkog društva 11. srpnja 2011.**

**Working Group Nucleus Meeting for Echocardiography of the Croatian Cardiac Society of 11 July 2011**

**Daniel Lovrić\***

*Klinički bolnički centar Zagreb, Zagreb, Hrvatska  
University Hospital Center Zagreb, Zagreb, Croatia*

**HARDIO LIST**

2011;6(11):311.



Ostalo

Other

**Sastanak nukleusa Radne skupine za ehokardiografiju Hrvatskog kardiološkog društva 19. rujna 2011.**

**Working Group Nucleus Meeting for Echocardiography of the Croatian Cardiac Society of 19 September 2011**

**Daniel Lovrić\***

*Klinički bolnički centar Zagreb, Zagreb, Hrvatska  
University Hospital Center Zagreb, Zagreb, Croatia*

Teorijski dio ispita

Termin teorijskog ispita 25. studenoga 2011. godine u prostorijama Klinike za bolesti srca i krvnih žila KBC Zagreb. Prijave za ispit zaprimat će se putem web stranice. Prijavljenom kandidatu dodijeliti će se identifikacijski broj čime bi se osigurala tajnost podataka i objektivnost ispiti-vača do kraja ispita.

Dr. Ivanuša je predložio da svaki kandidat prije prijave treba imati preporuku mentora koji potvrđuje da je polaznik prošao potrebnu teorijsku edukaciju. Prijedlog je prihvaćen. Mentor može biti jedino akreditirani član Nukleusa. Nadalje je usljedila diskusija o uvjetima za prijavu i tehničkim detaljima provedbe pisanog ispita.

Zaključeno je da su uvjeti za pristup ispitu sljedeći: polaznik treba biti subspecijalist kardiolog ili subspecijalizant kardiologije ili internist koji se bavi 10 godina kardiologijom uz potvrdu mentora. Ispit će se plaćati i cijena će iznositi 1.000 kn. Broj polaznika u jednom roku ograničen je tehničkim uvjetima na maksimalno 20 osoba.

- Primjeri pitanja pokazani na Tečaju temeljne ehokardiografije
- Teorija (100 pitanja, 1 točan odgovor - 145 minuta)
- Prikazi slučajeva (50 pitanja vezanih uz TTE slučajeve koji će se projicirati na zidu- oko 110 minuta)
- Prosječno, prolazni prag će biti:
  - Minimalno 32 točna odgovora od 50 za prikaze slučajeva
  - Minimalno 65 točnih odgovora od 100 za teoriju



# Literatura za pripremu:

<http://www.escardio.org/communities/EAE/accreditation/TTE/Documents/tte-accreditation-reading-list.pdf>



**European Association of Echocardiography**  
A Registered Branch of the ESC



## **EAE individual accreditation**

### **Transthoracic Echocardiography (TTE):**

#### **Reading list**

**1- Feigenbaum's Echocardiography**

Armstrong, William F.; Ryan, Thomas  
ISBN - 9780781795579

Focuses on changes in the technology and clinical use of echocardiography. This title includes over 1,600 illustrations, 600 in full color; discussions on the use of three-dimensional echocardiography and perfusion imaging; and information on the mechanics and utility of Strain and Strain rate imaging.

**2- Echo Made Easy**

Kaddoura, Sam  
ISBN - 9780443103636

Explains various echo techniques available, what an echo can and cannot give and puts echo into a clinical perspective. This book is suitable for qualified physicians, general practitioners, cardiac technicians, nurses and paramedics.

**3- 100 Challenges in Echocardiography**

Klimczak, Christophe; Nihoyannopoulos, Petros (Consultant Cardiologist, Imperial College of School of Medicine, Hammersmith Hospital, London, UK)  
ISBN - 9780443069277

Offers both experienced cardiologists and trainees the opportunity to identify and address common pitfalls encountered with echocardiology in routine clinical practice. This book covers a series of challenges ranging from technical difficulties to problems with echocardiographic interpretation with each section presenting a series of simulations.

**4- Echocardiography**

Leeson, Paul; Mitchell, Andrew; Becher, Harald  
ISBN - 9780199215751

Echocardiography is a key investigation to understand heart disease. It is performed by a wide range of doctors including cardiologists, anaesthetists and intensivists, as well as a large body of technicians. The book provides all the essential information on how to perform, analyse and report echocardiograms in an easily accessible handbook presentation. It is designed to complement training and accreditation programmes and, importantly, bridges the gap in echocardiography books between the simple entry-level texts and the large textbooks. Based on international cardiology and echocardiography society guidelines, this book aims to demystify transthoracic, transoesophageal and stress imaging, while remaining authoritative.

**5- Echocardiography**

Nihoyannopoulos  
ISBN - 9781848822924

As increasing emphasis is placed on evidence-based medicine and the need to a rapid and clinically effective diagnosis of cardiac disease, so echocardiography is ever-more present at the forefront of cardiology. This book covers common applications of echocardiography while touching on some of the less often seen echocardiographic diagnoses.

**6- Echo Manual, The**

Oh, Jae K.; Seward, James B.; Tajik, A. Jamil  
ISBN - 9780781748537

A practical guide to the performance, interpretation, and clinical applications of echocardiography. It provides a summary of techniques, diagnostic criteria, and quantitative methods for both echocardiography and Doppler echocardiography. It also presents discussion of each clinical problem which also includes transesophageal echocardiography.

**7- Practice of Clinical Echocardiography**

Otto, Catherine M.  
ISBN - 9781416036401

Explains how to qualitatively and quantitatively interpret echocardiographic images and Doppler flow data, and outlines how this information affects your clinical decision making. This title features chapters on tissue doppler, intracardiac echocardiography, hand-held echocardiography, and echocardiography in inherited connective tissue disorders.

**8- Essential Echocardiography: A Practical Handbook**

Solomon, Scott D.  
ISBN - 9781588293220

Covers cardiac imaging technologies, advances in ultrasound technology, as well as various techniques and applications of cardiac ultrasound. This title includes various echocardiographic images and illustrations. It provides a DVD containing moving images illustrating the major points.

**9- ESC Textbook of Cardiovascular Imaging**

Zamorano  
ISBN - 9781848824201

A comprehensive guide to different forms of cardiovascular imaging. It contains 8 sections that describe the imaging techniques and the imaging modalities used to visualise cardiovascular diseases in seven main areas.

# Praktični dio ispita

### III. Nacionalna akreditacija — praktični dio

Dr. Ivanac izložila je uvjete i program akreditacije koju provodi Europsko ehokardiografsko udruženje (EAE). Nakon diskusije dogovoreno je da se praktični dio ispita provodi u trajanju od godine dana pod vodstvom mentora, za to vrijeme polaznik treba samostalno obaviti i interpretirati 200 transtorakalnih ehokardiografskih pregleda te dostaviti povjerenstvu sljedeću pisanu i slikovnu dokumentaciju:

- 200 ehokardiografskih nalaza bez vidljivog imena i prezimena izvođača i bez potpisa;

- snimku jednog normalnog ehokardiografskog pregleda u digitalnom obliku;

- snimke sljedećih patoloških nalaza:

1. ishemijske bolesti srca sa svim prikazima sistoličke funkcije i očitanjem nalaza.

2. mitralna regurgitacija,

3. aortna stenoza,

4. aortna regurgitacija +

5. po izboru

(sadržaj svakog patološkog nalaza posebno će biti detaljno obrazložen u uputama).

# Praktični dio ispita:

200 nalaza – pisana dokumentacija

<b>Primary (Main) Diagnosis</b>	/	12
<b>LV function assessment</b> Inc. Cardiomyopathy (dilated / HCM)	/	12
<b>Myocardial Infarction (+ complications)</b>	/	12
<b>Mitral and Aortic valve disease</b> Inc. Prosthetic valves and endocarditis	/	12
<b>Congenital Heart Disease</b>	/	4
<b>Disease of the Aorta</b>	/	2
<b>Right Heart Disease</b>	/	2
<b>Pericardial Disease (Constriction / Tamponade)</b>	/	2
<b>Mass/Thrombus</b>	/	2
<b>No significant cardiac abnormality &lt;1/3</b>	<	70

# 6 slučajeva u slikovnom formatu

- CD, DVD, USB
  - 1. Normalan nalaz
  - 2. AS
  - 3. AR
  - 4. MR
  - 5. Ishemijska bolest srca
  - 6. Po izboru
- 
- Tražene projekcije za svaki slučaj bit će detaljno navedene na web stranicama