

Association of Cardiovascular Surgeons of Ukraine
National M.M. Amosov Institute of Cardiovascular Surgery National Academy
of Medical Sciences of Ukraine

Shupyk National Medical Academy of Postgraduate Education



UKRAINIAN JOURNAL OF CARDIO- VASCULAR SURGERY

УКРАЇНСЬКИЙ ЖУРНАЛ
СЕРЦЕВО-СУДИННОЇ ХІРУРГІЇ

№ 1 (edition 38) 2020

Scientific edition

The founders:

National M. M. Amosov Institute of
Cardiovascular

Surgery National Academy of
Medical Sciences of Ukraine

Association of Cardiovascular
Surgeons of Ukraine

Shupyk National Medical Academy
of Postgraduate Education

Publisher Professional Edition
Eastern Europe

Chief editor:

V.V. Lazoryshynets,
member of National
Academy of Medical
Sciences, prof.

Editorial Board:

A. V. Rudenko, deputy
chief editor (Kyiv)

L. V. Kulyk, deputy
chief editor (Lviv)

O. D. Babliak (Kyiv)

J. Bialkowski (Poland)

R. M. Vitovsky (Kyiv)

I. M. Yemets (Kyiv)

A. K. Kurkevych (Kyiv)

V. B. Maksimenko (Kyiv)

W. M. Novick (USA)

O. S. Nikonenko (Zaporizhzhia)

I. V. Polivenok (Kharkiv)

O. V. Rybakova (Kyiv)

K. V. Rudenko (Kyiv)

S. O. Siromakha (Kyiv)

M. Yu. Sokolov (Kyiv)

O. M. Trembovetska (Kyiv)

P. Ferrazzi (Італія)

A. Weymann (Germany)

Editorial Committee:

Ye.V. Aksenov (Kyiv)

M. Yu. Atamaniuk (Kyiv)

O. A. Beregovyy (Kyiv)

N. M. Verych (Kyiv)

V. K. Gryn (Kyiv)

S. O. Dykucha (Kyiv)

O. M. Dovgan (Kyiv)

V. A. Zhovnir (Kyiv)

V. P. Zakharova (Kyiv)

Yu. I. Karpenko (Odesa)

A. I. Klantsa (Khmelnitsky)

V. I. Kravchenko (Kyiv)

I. M. Kravchenko (Kyiv)

O. A. Krykunov (Kyiv)

S. V. Maksimenko (Dnipro)

V. G. Mishalov (Kyiv)

Ye. A. Nastenکو (Kyiv)

Yu. V. Panichkin (Kyiv)

V. V. Popov (Kyiv)

N. M. Rudenko (Kyiv)

O. V. Rudenko (Kyiv)

L. L. Sitar (Kyiv)

R. I. Soskyda (Uzhgorod)

O. S. Stychynskyi (Kyiv)

Ya. P. Truba (Kyiv)

S. M. Furkalo (Kyiv)

Ukrainian Journal of Cardiovascular Surgery

The registration certificate KB № 23867-13707ПП was given in 08.05.2014 by Ministry of Justice of Ukraine.

Edited under title “**Cardiovascular Surgery Herald**” since may 2019 (the registration certificate KB № 20730-10530 ПП was given in 08.05.2014 by The Stateregistration service of Ukraine).

Edited under title “**The yearbook of scientific works of Ukrainian Society of Cardiovascular Surgery**” since 2014, certified by the Highest Attestation Commission (approved by the decision of the Presidium of the HAC of Ukraine of April 14, 2010 No. 1-05 / 3 «On adding of periodical scientific professional editions to the new list of scientific professional editions of Ukraine»).

Recommended by the Scientific Board of National M. M. Amosov Institute of Cardiovascular Surgery National Academy of Medical Science of Ukraine. Protocol No 5 from 27.02.2020

The Journal was included to the list of Ukrainian Scientific professional editions in which the results of doctoral thesis for PhD achievement can be published, category «Б». (approved by the order of The Ministry Of Education and Sciences of Ukraine from 17.03.2020 № 409)

All materials are published by the language of origin.

All submitted articles are undergoing internal and external double-blind peer review.

The journal is free of charge.

Electronic version is presented at www.cvs.org.ua, as well at the web-site of the Vernadsky National Library in department of «Scientific periodical press of Ukraine».

Prepress preparation of edition: N.G. Gnoyevaya,

Address of the editorial office: 03038, Amosov, 6, Kyiv, Ukraine

Signed for print 24.03.2020

Offset print. Size 70x100/16. Cond. Print sheets. 21,1.

Circulation 150 samples.

Order № 71.

Publisher Professional Edition Eastern Europe

Printer LLC Saiur Group

Novovokzalna Str. 8 Kyiv 03038

© National M.M. Amosov Institute of Cardiovascular Surgery National Academy of Medical Sciences of Ukraine

© Association of Cardiovascular Surgeons of Ukraine

© Shupyk National Medical Academy of Postgraduate Education

© Publisher Professional Edition Eastern Europe

ISSN 2664–5963 (Print)
ISSN 2664–5971 (Online)