ISSN 2663-4864

# ONCOLOGY and RADIOLOGY of KAZAKHSTAN №3 (65) 2022

KAZAKH INSTITUTE OF ONCOLOGY AND RADIOLOGY

STATISTICS DIAGNOSTICS TREATMENT REVIEWS LECTURES MASTER CLASSES



# **ONCOLOGY AND RADIOLOGY** OF KAZAKHSTAN №3 (65) 2022

DOI of the journal: 10.52532/2663-4864

DOI of the issue: 10.52532/2663-4864-2022-3-65-1-56

## Academic and Research Journal of the Kazakh Institute of Oncology and Radiology

### **Editorial Council:**

M. Dzhugashvilli, MD, Ph.D., Instituto Madrileno de Oncologia (Grupo Imo), Madrid (Spain)

M. Gultekin, MD, Instructor, Department of Radiation Oncology, Hacettepe University, Ankara (Turkey)

K. Narayan, MBBS, MD, Ph.D., FRANZCR, Assoc. Prof., Peter MacCallum Cancer Center (Australia)

M. Silbermann, MD, PhD, Prof., Executive Director of Middle East Cancer Consortium (Israel)

M.D. Aliev, MD, Prof., Member of the Russian Academy of Sciences, FSBI NMRRC of the Ministry of Health of the Russian Federation (Russia) L.B. Dzhansugurova, Candidate of Medicine, Assoc. Prof., Institute of General Genetics and Cytology (Kazakhstan)

E.N. Imyanitov, MD, Associate member of the Russian Academy of Sciences, N.N. Petrov National Medical Research Center for Oncology (Russia)

A.D. Kaprin, MD, Prof., Member of the Russian Academy of Sciences, FSBI NMRRC of the Ministry of Health of the Russian Federation (Russia) I. Kokhreidze, MD, Prof., Oncology clinic «Kironi», Tbilisi State Medical University (Georgia)

S.A. Krasny, MD, Prof., Associate member of Belarus National Academy of Sciences, N.N. Alexandrov Republican Scientific and Practical Center of Oncology and Medical Radiology (Belarus) V.M. Moiseenko, MD, Prof., St. Petersburg City Clinical Oncology Center (Russia) I.M. Omarova, MD, Prof., Karaganda Regional Cancer Dispensary (Kazakhstan)

T.Yu. Semiglazova, MD, Prof., N.N. Petrov National Medical Research Center for Oncology (Russia)

1.5. Stilidi, MD, Prof., Member of the Russian Academy of Sciences, N.N. Blokhin National Medical Research Center of Oncology (Russia) E.A. Tilekov, MD, Prof., National Center of Oncology (Kyrgyzstan)

M.N. Tilliashaykhov, Republican Oncology Research Center of the Ministry of Health of the Republic of Uzbekistan (Uzbekistan)

Z.Kh. Huseinov, MD, Republican Cancer Research Center of the Ministry of Health and Social Protection of the Population of the Republic of Tajikistan (Tajikistan)

#### **Editorial Board: Chief Editor -Editorial Board Members:** D.R. Kaidarova, MD, Member of the Kazakhstan National A.Zh. Abdrakhmanova, MD, KazlOR, Almaty Academy of Sciences, KazlOR, Almaty T.A. Adylkhanov, MD, Prof., Semey State Medical University, Semey **Deputy Editor in Chief –** A.S. Shinbolatova, MPH, KazlOR, Almaty A.A. Baynazarova, MD, Prof., Sunkar Medical Center, Almaty Administrative Editor -T.G. Goncharova, Doctor of Biology, KazlOR, Almaty V.B. Kim, MD, KazlOR, Almaty Zh.Zh. Zholdybay, MD, Prof., Kazakh National Medical University, Almaty Proofreader - T.V. Vasilieva, KazlOR, Almaty R.Z. Abdrakhmanov, Candidate of Medicine, KazlOR, Almaty **Translation editors –** M.K. Sherimkulova (Kazakh), KazlOR, Almaty Z.D. Dushimova, Candidate of Medicine, KazIOR, Almaty T.V. Vasilieva (English), KazlOR, Almaty A.Zh. Zhylkaidarova, Candidate of Medicine, KazlOR, Almaty Printing layout -E.I. Ishkinin, PhD, Almaty Cancer Center, Almaty A.A. Abdrashitov, Candidate of Biology, KazlOR, Almaty I.R. Khusainova, Candidate of Psychology, KazlOR, Almaty **Executive Secretary -**L.A. Malysheva, Candidate of Biology, KazlOR, Almaty O.V. Shatkovskaya, MBA, KazlOR, Almaty

The journal is in the List of official publications of the Committee for Quality Assurance in the Sphere of Education and Science MES RK recommended for the publication of the main results of scientific activity. The journal is cited in the RSCI database and has a non-zero impact factor. The journal has a non-zero impact factor in the Kazakhstani citation base of the National Center for Scientific and Technical Information.

Abay Ave. 91, Office 905, Almaty 050022, the Republic of Kazakhstan, Kazakh Institute of Oncology and Radiology, JSC Tel. (727) 292 6961, email: submit@oncojurnal.kz ISSN 1684-937X (Print) Registration Certificate No. 10248-Ж of 14.07.2009, No. 13574-W of 22.04.2013 ISSN 2521-6414 (Online), registered at ISSN International Center on 24.07.2017 URL: http://oncojournal.kz/

CSCSTI: 76.29.49 ISSN: 2663-4864 (English version - Online), Linking ISSN (ISSN-L): 2663-4856. URL: http://oncojournal.kz/english\_version/ Dates of publication: 2017-9999. Registered at ISSN International Center on 26.02.2019 Subscription index: 74684 Publishing House: "Apple-print" Individual Entrepreneur Order No. 60. Circulation - 500 copies. The journal is published quarterly.

# Content

# ORGANIZATION OF HEALTHCARE

V.A. Makarov, D.R. Kaidarova, S.E. Yessentayeva, J. Kalmatayeva, M.E. Mansurova, N. Kadyrbek, R.E. Kadyrbayeva, S.T. Olzhayev, I.I. Novikov. Using machine learning algorithms to develop a model for predicting the survival of lung cancer patients in the Republic of Kazakhstan
I.A. Pivovarova, L.G. Turgunova, A.A. Klodzinsky, M.N. Butyugina, M.A. Kakhanova, N.E. Antonova. Hematology Center LLP project office organization experience
DIAGNOSTICS
<b>R.A. Aringazina, N.Zh. Zholdassova, Zh.Zh. Nurgaliyeva,</b> <b>B.A. Kurmanalin, I.B. Kaibagarova.</b> Metabolic disorders in patients with oncologic pathology
<b>B.B. Kaliyev, R.I. Rakhimzhanova, T.B. Dautov, L.A.</b> <b>Bastarbekova, Zh.A. Moldakhanova, A.M. Kabdullina,</b> <b>A.Zh. Bimakhan.</b> Gender differences in patients with atrial fibrillation shown by transthoracic echocardiography and computed tomography
CLINICAL CASES
A.O. Murzakhmetova, V.M. Kemaikin, A.M. Ainabay, A.M. Meiramova, B.A. Ainabekova. Acute kidney injury in patients with acute leukemia after hematopoietic stem cell transplantation: A series of clinical cases
LITERATURE REVIEW
<b>R.K. Kumisbekova, N.A. Shanazarov, B.R. Bimbetov,</b> <b>M.E. Tuleutaev, D.S. Nigmetulla, E.I. Zhapparov.</b> Current view on the epidemiology of breast cancer: A literature review
A.R. Satanova, D.R. Kaidarova, E.K. Kukubassov, R.O. Bolatbekova, D.B. Kaldybekov, O.O. Bertleuov. The global prevalence of human papillomavirus causing cervical cancer: A literature review
<i>K.K. Smagulova, I.T. Turkpenova, D.U. Shayakhmetova,</i> <i>A.I. Dzhumanov, S.A. Yessenkulova.</i> The role of microsatellite instability in colorectal cancer: A literature review



### **Dear audience!**

We are glad to present this year's third issue of the "Oncology and Radiology of Kazakhstan" journal!

In the name of the Editorial Board and on my behalf, I ask all authors to pay serious attention to the requirements for manuscripts. This will significantly ease the process of accepting manuscripts for publication.

This issue shares the experience of cancer care organizational improvement, the results of original studies, and the epidemiological situation assessment for various cancer localizations.

The assessment of the operating efficiency of the Center for Hematology project office in studying the approaches to the treatment of patients with oncohematological diseases is of interest. The authors provide the characteristics of patients treated since 2015 and included in the database.

We also offer an article published in English called "Gender Differences in Patients with Atrial Fibrillation Shown by Transthoracic Echocardiography and Comput-

ed Tomography," which studies the use of transthoracic echocardiography and computed tomography in examining male and female patients.

The issue contains literature reviews on the prevalence of cancers of various localizations prepared by our doctoral students and young scientists led by experienced mentors. The articles provide a detailed analysis, trends, and ways to improve cancer care in colorectal cancer, cervical cancer, and breast cancer.

The journal offers interesting materials on acute renal injury in patients, a series of cases of metabolic disorders in patients with oncologic pathology of acute leukemia after hematopoietic stem cell transplantation, and the use of machine education algorithms to develop a model for predicting the survival of lung cancer patients in the Republic of Kazakhstan.

We are pleased to bring diverse articles and research results to your attention! Looking forward to your new materials! Take care and stay healthy!

> Respectfully Yours, **Dilyara Kaidarova** Editor-in-Chief of the "Oncology and Radiology of Kazakhstan" journal