



انجمن خون و سرطان کودکان ایران  
Iranian Pediatric Hematology & Oncology Society

# Iranian Journal of Blood and Cancer

The Official Journal of

**Iranian Pediatric Hematology and Oncology Society (IPHOS)**

**Volume 4, Number 1, Autumn 2011**

ISSN: 2008-4595

## Director-in- Chief

Mohammad Saeid Rahimi Nejad, MD

## Editor-in-chief

Hassan Abolghasemi, MD

## Executive Editor

Kourosh Sheibani, MD, MS

## Co-Executive Editors

Mohammad Faranoush, MD

Mitra Karimi, MD

## Editorial Board

Baharat Agarwal, India

Mardawig Alebouyeh, Iran

Mohamad Taghi Arzanian, Iran

Andrea Biondi, Italy

Maria Domenica Cappellini, Italy

Mohammad Faranoush, Iran

Martin Schrappe, Germany

Ahmad Khaleghnejad Tabari, Iran

Hossein Kowsari Najmabadi, Iran

Akira Nakagawara, Japan

Odile Oberlin, France

Mohammad Pedram, Iran

Flora Peyvandi, Italy

Yaddanapudi Ravindranath, USA

Houri Rezvan, Iran

Farhad Samie, Iran

Ardeshir Ghavamzadeh, Iran

Ali Taher, Lebanon

Poul Telfer, UK

Parvaneh Vossough, Iran

Peter Hans Wagner, Switzerland

Khodamorad Zandian, Iran

## Reviewers

Shaban Alizadeh, PhD

Amir Atashi, PhD

Ali Dehghanifard, MS

Aziz Eghbali, MD

Peyman Eshghi, MD

Mohammad Faranoush, MD

Bijan Keikhaei, MD

Seyed Hadi Mousavi, PhD

Hossein Najmabadi, PhD

Najmaldin Saki, PhD

Nasim Valizadeh, MD

**Iranian Journal of Blood and Cancer (IJBC) is published by Iranian Pediatric Hematology and Oncology Society (IPHOS) in collaboration with Iranian Blood Transfusion Organization (IBTO).**

**“IJBC” is approved as an “Academic Research Journal” by Medical Journal Commission of the “Ministry of Health and Medical Education, Islamic Republic of Iran”.**

**Iranian Journal of Blood and Cancer** is covered in IranMedex® .

**Editorial Staff**

Samira Esmaeili , Nasim Sadat Hosseini-Divkalaye

**Editorial office**

1<sup>st</sup> floor, NO. 63, Shahid Toosi (Shabahang) Street, Tohid Square, Tehran, Iran

P.O. Box: 1419783311

Tel-Fax: +98 21 66 91 26 79

Website: [www.ijbc.ir](http://www.ijbc.ir)

Email: [Info@ijbc.ir](mailto:Info@ijbc.ir)

Documentation and content management by Health Researchers R & D Institute of IBTO.

Layout designed by Zaman Hamzehpour and performed by Zohd Publication Institute / Printed in I.R. Iran.

The Iranian Pediatric Hematology and Oncology Society 2012. All rights reserved.

---

**Cover Photo:**