



# African Journal of Laboratory Haematology and Transfusion Science

The official Journal of the Haematology and Blood Transfusion Scientists Society of Nigeria

Volume 3, Number 1, March, 2024  
ISSN: 2814-0591 (Print)  
ISSN: 2814-0605 (Online)  
[www.ajlhtsonline.org](http://www.ajlhtsonline.org)



AJLHTS is a member of the prestigious  
CrossRef. Each of the AJLHTS articles has  
its unique DOI reference

## EDITORIAL BOARD MEMBERS

### EDITORS-IN-CHIEF

Prof. Zaccheaus A. Jeremiah,  
Department of Haematology and Blood Transfusion Science,  
Faculty of Medical Laboratory Science, Rivers State University,  
Port Harcourt. email: eic@ajlhtsonline.org

### DEPUTY EDITORS

General Haematology Section  
Prof. Nancy C. Ibeh  
Nnamdi Azikiwe University, Awka, Nigeria

Thrombosis and Haemostasis Section  
Prof. Ifedayo O. Ajayi  
University of Benin, Benin City, Nigeria

Transfusion Science Section  
Prof. Josephine Akpotuzor  
University of Calabar, Calabar, Nigeria

### EDITORIAL ADVISERS

Prof. Zaccheaus. A. Jeremiah,  
Rivers State University, Port Harcourt, Nigeria  
Prof. Osaro Erhabor,  
Usmanu Dan Fodiyo University, Sokoto, Nigeria  
Prof. Musa Abidemi Muhibi,  
Edo State University, Uzairue, Edo State, Nigeria  
Dr. Marcus Chilaka,  
University of Bradford, West Yorkshire, UK  
Dr. Tosan Erhabor,  
Medical Laboratory Science Council of Nigeria, Abuja, Nigeria

**Managing Editor** - Opuada Stowe  
**Production/Circulation Manager**- Kenneth Zifawei  
**Editorial Assistant** - Ransom B. Jacob.  
editorialassistant.ajlhts@hbtssn.org

### ASSOCIATE EDITORS

Prof. Ebirien-Agana. S. Bartimaeus, Rivers State University,  
Port. Harcourt, Nigeria  
Dr. Richard Vikpebah Duneeh, University of Health and  
Applied Sciences, Ghana  
Dr. Okezie Okamgba, Abia State University, Uturu, Nigeria  
Dr. Evelyn M.Eze, Rivers State University, Port Harcourt,  
Nigeria  
Dr. Rose Amaechi, Ambrose Ali University, Ekpoma, Nigeria  
Dr. Kolawole Fasakin, Federal Teaching Hospital, Ekiti,  
Nigeria  
Dr. Benjamin Eledo, Federal Medical Centre, Yenagoa, Nigeria  
Dr. Stella U.Ken-Ezihuo, Rivers State University, PH, Nigeria  
Dr. Bolaji David Akinbo, Clinical Trials Research Specialist  
(Solid Tumors), University of Iowa Cancer Center, USA  
Dr. Yashim Nuhu Andrew, National Hospital, Abuja, Nigeria  
Dr. Yetunde D. Obazee, Abuja, Nigeria  
Dr. Bukar Mohammed, University of Maiduguri, Maiduguri,  
Nigeria  
Dr. Solomon Umukoro, MRC, The Gambia  
Prof. Evarista Osime, University of Benin, Nigeria.

### Disclaimer

The Publisher and Editors cannot be held responsible for errors or any consequences arising from the use of information contained in this journal. The views and opinions expressed do not necessarily reflect those of the publisher and Editors neither does the publication of advertisements constitute any endorsement by the Publisher and Editors of the products advertised.

### Copy right and Copying

Copyright 2022. Haematology and Blood Transfusion Scientists Society of Nigeria (HBTSSN). All rights reserved. No part of this publication may be reproduced, printed or transmitted in any form or by any means without the prior permission in writing from the copyright holder. Authorization to copy items for personal and internal use is granted by the copyright holder for libraries and other users duly registered

### Periodical Statement

African Journal of Laboratory Haematology and Transfusion Science [ISSN2814-0591(Print); ISSN 2814-0605(Online)] is published quarterly in March, June, September and December. The journal is published as an open access journal on the website: [www.ajlhtsonline.org](http://www.ajlhtsonline.org)

### Printed By:

 Biz Pages Publishing & Printing Company Limited  
37 Wogu Street, Dline, Port Harcourt, Rivers State, Nigeria.  
Tel.: 08033102821, 08024754474  
Email: bizpagesnig@gmail.com  
[www.bizpages.com.ng](http://www.bizpages.com.ng)

## CONTENTS

### Editorial

- 1. High pre-and post-treatment Platelet-Neutrophil to Lymphocyte ratio is linked to high mortality risk in Epithelial Ovarian Cancer patients in Southeastern Nigeria** 1 - 12  
Jude Ogechukwu Okoye, Tochukwu Juliet Ado-Okoye, Chiemeka Michael Emeka, George Uchenna Eleje, Immaculata Ogochukwu Uduchi, Uchechukwu Lilian Okoye
- 2. Knowledge of Healthcare Professionals on Full Blood Count Histogram Interpretation: a cross-sectional study from Ghana** 13 - 26  
Ruth Duku-Takyi, Mainprice Akuoko Essuman, Samira Daud, and Felix Osei-Boakye
- 3. The Trajectory of Haptoglobin in Haemolysis, Inflammation and Transfusion Reaction** 27 - 46  
Nnenna Ihua, B. W. Moore-Igwe and Beauty Eruchi Echonwere-Uwikor
- 4. Neonatal Blood Transfusion in Africa; Towards Optimizing Scarce Resource** 47 - 52  
Musa Abidemi Muhibi, Yetunde Olamide Aborisade, Mathew Folaranmi Olaniyan, Abdulwaheed Adewale Ademosun, Tesleemah Oluwakemi Davies-Folorunso, Olufemi David Olaniyi, Nuryan Abdulganiy, Fatimat Adewumi Adedapo-Ismail, Yekeen Adebisi Kosamat, Wakeel Adekunle Alade, Sikiru Adetona Lawal
- 5. Selected Indicators of Immunothrombosis in Apparently Healthy Nigerian Women of Different Reproductive Status** 53 - 59  
Euphoria C. Akwiwu, Comfort E. Esedeke, Grace U. Ndukwe, Stella B. Egbe, Dennis A. Abunimye, Josephine O. Akpotuzor
- 6. Prevalence of Anaemia and Iron Requirement in Women Across Reproductive Phases in Calabar, Nigeria** 60 - 66  
Euphoria C. Akwiwu, Uchechi E. Nwabia, Effiong E. Okon, Stella B. Egbe, Josephine O. Akpotuzor
- 7. Study of Hemoglobins C and S in Pregnant Women in the Eastern Health District of Abobo** 67 - 75  
Yayo-Ayé Mireille, Kamagaté Tairatou, Adjé Missa Louis, N'guessan-Blaou Rebecca, Kassi-Kablan Hermance, Diallo Issiaga, Meledje Marie-France, Malick Simone, Sawadogo Duni
- 8. Pre-transfusion compatibility tests in sickle cell disease** 76 - 85  
Batavisoaniatsy EE, Razafinarivo AH, Tsatoromila FAM, Randriamanantany ZA.

The African Journal of Laboratory Haematology and Transfusion Science (AJLHTS) was first published in May, 2022 and will be two years in April, 2024. Within these two years, the journal has maintained consistency in publishing four issues a year, gained international recognition and visibility, maintained good quality practices and passed the Journal Publishing Practices Standards (JPPS) with one star rating. The AJLHTS is Crossref indexed and each article is assigned a unique DOI number that will help your reader to easily locate your paper from your citation. The journal is also indexed in google scholar and continues to be the leading journal in haematology and blood transfusion science in Africa.

Within this short period, AJLHTS has published forty-six (46) articles, all fully indexed in Crossref and AJOL. We have received six (6) (13.0%) articles from other African countries (Lome, Sudan, Guinea, Cote d'voire, Ghana and Madagascar). This is very commendable and a fulfilment of one of the objectives of the journal; to disseminate research outputs in haematology and blood transfusion science from Africa to the rest of the world.

In this era of automation, a lot of scientists find it confusing to interpret the various histograms displayed by the auto haematology analysers. A good interpretation of the histograms provides a wealth of information on many haematological conditions than mere cell counts, helping to narrow down the differential diagnosis at a very early stage even before higher level investigations are ordered. The enigma surrounding these figures generated by the machines have been unravelled in this issue of the journal by Duku-Takyi et al. The

information conveyed in this paper is vital to the haematology scientist that it is a highly recommended reading to all.

This issue of the journal also contains an interesting systematic review on the trajectory of haptoglobin in haemolysis, inflammation and transfusion reaction by Ihua et al.,. Haptoglobin is of high clinical relevance even though not given the proper attention it deserves. This review serves as an eye opener to the various roles haptoglobin plays in the body.

Akwivu et al reported selected indicators of immunothrombosis in apparently healthy Nigerian pregnant women of different reproductive status. Their findings indicate that these indicators were significantly higher in the premenopausal than the postmenopausal women. In a similar study, the prevalence of anaemia and iron requirement in pregnant women of different reproductive status was determined and discussed. It was concluded in their study that the prevalence of anaemia and iron requirement was lower in postmenopausal than premenopausal men.

There are still other interesting research findings published in this issue of volume 3 of the AJLHTS that are of benefit to students, lecturers and practitioners. You are invited to submit your quality research findings to AJLHTS and you will be glad you did.

**Prof Z.A.Jeremiah**

Editor-in-Chief

DOI: 10.59708/ajlhts.v3i1.002