

VOLUME 40, NUMBER 11  
NOVEMBER 2023

ISSN 0189 - 160X

---

# WAJM

---

**WEST AFRICAN JOURNAL OF MEDICINE**

ORIGINALITY AND EXCELLENCE IN MEDICINE AND SURGERY



**OFFICIAL PUBLICATION OF**  
THE WEST AFRICAN COLLEGE OF PHYSICIANS AND  
WEST AFRICAN COLLEGE OF SURGEONS



[www.wajmed.org](http://www.wajmed.org)



## TABLE OF CONTENTS

GENERAL INFORMATION	1C
INFORMATION FOR AUTHORS	1F
EDITORIAL NOTES – <b>Stigma in Medicine</b> Ibidunni O. Oloniniyi, Gregory E. Erhabor.....	1137
<b>Time to Treat the Climate and Nature Crisis as One Indivisible Global Health Emergency.....</b>	1139
Kamran Abbasi, Parveen Ali, Virginia Barbour, Thomas Benfield, Kirsten Bibbins-Domingo, Stephen Hancocks, Richard Horton, Laurie Laybourn-Langton, Robert Mash, Peush Sahni, Wadeia Mohammad Sharief, Paul Yonga, Chris Zielinski	
<b>ORIGINAL ARTICLE</b>	
<b>Health Resource Utilization among Patients with Type 2 Diabetes Mellitus In Nigeria: An Analysis from the International Diabetes Management Practice Study (IDMPS).....</b>	1145
Kolawole B.A, Anumah F.A, Unachukwu C (for the IDMPS 7 investigators)	
<b>Health-Related Quality of Life and Its Determinants Among Hypertensive Patients in Rural Southwest Nigeria.....</b>	1155
E. A. Afolabi-Obe, S. M. Agboola, A. O. Ibrahim, O. E. Gabriel-Alayode, O. E. Omosanya, O. T. Elegbede, A. O. Ajetunmobi, K. O. Sito, T. M. Olanrewaju	
<b>Metabolic Syndrome and its Correlates among Hypertensive Patients in Abuja, North Central Nigeria.....</b>	1164
H. C. Onyegbutulem, P. I. Henry-Onyegbutulem, D. Dogo, P. E.H. Schwarz, S. R. Bornstein	
<b>Oral health and nutritional Status of Preschool-Aged Children in Maiduguri, North-East Nigeria.....</b>	1173
T. O. Ligali, O. O. Orenuga	
<b>Antibody response to Covid-19 vaccine (AstraZeneca) amongst Healthcare Workers in a Tertiary Hospital in Nigeria.....</b>	1181
Z. G. Habib V.G. Kwaghe, B. A. Ekele, A. A. Akor, U. S. Galadima, N. D. Baamlong, E. K. Olateju, P. C. Onyeka	
<b>Sleep Health amongst Patients Attending Adult Neurology Clinic in Abakaliki Nigeria.....</b>	1192
C. O. Eze, F. C. Okoro, M. Okorie	
<b>Stroke Hexagon; Protocol for Reduction of Stroke Burden in Resource-Poor Settings.....</b>	1199
C. O. Eze	
<b>The Stigma of Epilepsy among Patients attending The Epilepsy Clinic at Connaught Hospital, Sierra Leone.....</b>	1209
Durodami R. Lisk, Alieu Kanu, James B.W. Russell	
<b>Food and Aeroallergen Sensitization, Eosinophils Levels and Risk of Atopic Dermatitis in Abuja.....</b>	1216
P. U. Ibekwe, T. I. Otu, E. E. Ekop, P. U. Bassi	
<b>Predictors of Surgical Site Infection in Contaminated Abdominal Surgical Wounds: Our Experience in Irrua Specialist Teaching Hospital.....</b>	1223
E. Tagar, J. Kpolugbo, W. Akerele, A. A. Okomayin, C. Odion	
<b>Overview of Early Childhood Caries in Nigeria and Global Recommended Treatment Guidelines.....</b>	1232
N. K. Onyejaka, A. R. Njokanma, A. Ehizele, A. Adewale	
<b>The Effect of Music on Operative Anxiety markers in patients undergoing Cataract Surgery: A dual centre cross-sectional comparative study.....</b>	1240
O. T. Aribaba, A. A. Adenekan, A. A. Alabi, C. C. Emefu, O. T. Ilo, M. O. Kareem, Y. O. Oshodi, A. O. Onakoya, F. B. Akinsola	
<b>Impact of Anemia on The Quality of Life of Chronic Kidney Disease Patients: A Single Institution Experience.....</b>	1253
A. Odeyemi, O. M. Oladimeji, A. O. Ajibare, A. A. Iyayi, A. B. Oladimeji, O. T. Ojo, A. P. Adebola, J. O. Awobusuyi, A. O. Adekoya	
<b>Intestinal Helminthiasis: Risk factors and relationship with Nutritional status and Anaemia among Institutionalised Children in three States of South-East Nigeria</b>	1262
M. O. Njoku, K. K. Iloh, C. O. Okike, G. C. Njoku, O. N. Iloh, N. C. Ojinnaka.	
<b>CASE REPORT</b>	
<b>Pyoderma Gangrenosum in a Young Nigerian Male with Severe Ulcerative Colitis: A Case Report.....</b>	1274
C. P. Onyia, P. Asogwa, W. Adiri, O. Obieno, U. N. Ijoma, S. C. Nwokediuko	
<b>INDEX TO VOLUME 40, NO 11, November, 2023</b>	
Author Index .....	1280
Subject Index .....	1281



## ORIGINAL ARTICLE

### Health Resource Utilization among Patients with Type 2 Diabetes Mellitus In Nigeria: An Analysis from the International Diabetes Management Practice Study (IDMPS)

*Utilisation des Ressources de Santé chez les Patients atteints de Diabète de Type 2 au Nigéria:  
Une Analyse de l'Étude Internationale sur la Pratique de la Gestion du Diabète (IDMPS)*

<sup>1\*</sup>B. A. Kolawole, <sup>2</sup>F. A. Anumah, <sup>3</sup>C. Unachukwu (for the IDMPS 7 investigators)

#### ABSTRACT

**PURPOSE:** To assess the data on health resource utilization collected from patients with T2DM in Nigeria, within the seventh wave (2016) of the International Diabetes Management Practices Study (IDMPS).

**METHODS:** In this cross-sectional study, adults ( $\geq 25$  years) with T2DM, who had requisite diabetes treatment data and were attended by participating physicians during the two-week recruitment period, were included.

**RESULTS:** Thirty-one participating physicians enrolled 304 eligible patients (mostly 40-60 years of age) with the duration of T2DM ranging from 1 to 31 years (median: 7). Only 34.2% (102/298) patients possessed health insurance and 46.8% (138/295) co-paid for medications outside the insurance. About 70.1% of patients had T2DM-related complications; 19.7% of patients were hospitalized in the past 12 months due to these complications. Altogether, 275 patients with T2DM received oral glucose-lowering drugs, with (88/275) or without (187/275) insulin. The cost of medications/strips was the reason reported for not achieving glycemic targets in ~60.0% (50/84) insulin users and 54.3% (114/210) patients self-monitoring blood glucose, respectively. Specialists in diabetes care attended to a lower number of patients/day than non-specialists ( $31.61 \pm 30.74$  vs.  $49.25 \pm 49.64$ ). Most of the specialists (14/22; 63.6%) reported insulin use in 20%-40% patients; while non-specialists (6/9; 66.6%) reported insulin use in <20% patients.

**CONCLUSION:** In Nigeria, low insurance coverage and high out-of-pocket payments for healthcare limit access to healthcare. Physicians are overburdened and medical resources trained in diabetes care seem insufficient. These findings highlight the need to formulate effective healthcare strategies for patients with T2DM.

WAJM 2023; 40(11):1145 - 1154

**Key words:** Nigeria, Diabetes, Resource utilization, Hospitalization

#### RÉSUMÉ

**OBJECTIF:** Évaluer les données sur l'utilisation des ressources de santé collectées auprès des patients atteints de DT2 au Nigéria dans le cadre de la septième vague (2016) de l'Étude Internationale sur les Pratiques de Gestion du Diabète (IDMPS).

**MÉTHODES:** Dans cette étude transversale, les adultes ( $\geq 25$  ans) atteints de DT2, qui disposaient de données de traitement du diabète nécessaires et qui ont été pris en charge par des médecins participants au cours de la période de recrutement de deux semaines, ont été inclus.

**RÉSULTATS:** Trente et un médecins participants ont inscrit 304 patients éligibles (principalement âgés de 40 à 60 ans) avec une durée du DT2 variant de 1 à 31 ans (médiane : 7). Seuls 34,2% (102/298) des patients étaient assurés santé, et 46,8% (138/295) payaient eux-mêmes pour les médicaments en dehors de l'assurance. Environ 70,1% des patients présentaient des complications liées au DT2 ; 19,7% des patients avaient été hospitalisés au cours des 12 derniers mois en raison de ces complications. Au total, 275 patients atteints de DT2 ont reçu des antidiabétiques oraux, avec (88/275) ou sans (187/275) insuline. Le coût des médicaments/bandelettes était la raison invoquée pour ne pas atteindre les objectifs glycémiques chez ~60,0% (50/84) des utilisateurs d'insuline et 54,3% (114/210) des patients effectuant l'autosurveillance de la glycémie, respectivement. Les spécialistes en diabétologie prenaient en charge un nombre inférieur de patients par jour que les non-spécialistes ( $31,61 \pm 30,74$  contre  $49,25 \pm 49,64$ ). La plupart des spécialistes (14/22 ; 63,6%) ont signalé l'utilisation de l'insuline chez 20 à 40% des patients ; tandis que les non-spécialistes (6/9 ; 66,6%) ont signalé l'utilisation de l'insuline chez moins de 20% des patients.

**CONCLUSION:** Au Nigéria, une faible couverture d'assurance et des paiements élevés directement par les patients limitent l'accès aux soins de santé. Les médecins sont surchargés et les ressources médicales formées dans la prise en charge du diabète semblent insuffisantes. Ces résultats soulignent la nécessité de formuler des stratégies de santé efficaces pour les patients atteints de Dt2. WAJM 2023; 40(11):1145 - 1154

**Mots-clés:** Nigeria, Diabète, Utilisation des ressources, Hospitalisation

<sup>1</sup>Endocrinology Unit, Medicine Department, Obafemi Awolowo University Teaching Hospital, Ile-Ife, Osun State, Nigeria.

<sup>2</sup>Endocrinology Unit, Medicine Department, University of Abuja Teaching Hospital, Abuja, Federal Capital Territory, Nigeria.

<sup>3</sup>Endocrinology Unit, Medicine Department, University of Port Harcourt Teaching Hospital, Port-Harcourt, Rivers State, Nigeria.

Corresponding Author: Prof. Babatope A. Kolawole - Endocrinology Unit, Medicine Department, Obafemi Awolowo University Teaching Hospital, Ile-Ife, Osun, Nigeria.

Telephone no: +2348033804884, E-mail ID: bakolawole@oauife.edu.ng

ORCID ID of the Author(s): Babatope Kolawole – 0000-0002-8242-3968, Felicia Anumah – 0000-0003-2525-638X, Chioma Unachukwu – 0000-0001-7345-145X