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Emerging Threats: Climate Change and HIV Transmission

[*]Emmanuel Ifeanyi Obeagu[1] and Getrude Uzoma Obeagu[2]

[1]Department of Medical Laboratory Science, Kampala International University, Uganda.

[2]School of Nursing Science, Kampala International University, Uganda.

[*]Corresponding authour: Emmanuel Ifeanyi Obeagu, Department of Medical Laboratory Science, Kampala International University, Uganda, emmanuelobeagu@yahoo.com, ORCID: 0000-0002-4538-0161

Abstract

Climate change and HIV/AIDS represent two interconnected global challenges with profound implications for human health and well-being. While the impacts of climate change on physical health and infectious diseases are increasingly recognized, the intersection between climate change and HIV transmission remains understudied. This paper explores the emerging threats posed by climate change to HIV transmission dynamics, highlighting the complex interactions between environmental factors, social determinants, and health outcomes. The paper examined the pathways through which climate change may exacerbate vulnerabilities to HIV infection, including disruptions to healthcare systems, population displacement, and changes in behavior and migration patterns. Furthermore, the papers emphasize the importance of adaptive strategies and interdisciplinary collaborations in addressing the intersecting challenges of climate change and HIV transmission. By understanding and mitigating these risks, we can work towards building resilient communities and protecting the health of vulnerable populations in the face of climate change and infectious diseases.

Keywords: climate change, HIV transmission, global health, infectious diseases, vulnerability, adaptation

Introduction

Climate change and HIV/AIDS are two global health challenges that pose significant threats to human well-being, each with far-reaching consequences for individuals and communities worldwide. Climate change, driven by anthropogenic activities, is altering the Earth's climate system, leading to rising temperatures, changing precipitation patterns, and increasing frequency of extreme weather events. Concurrently, HIV/AIDS remains a persistent public health concern, with over 38 million people living with HIV globally. While extensive research has focused on understanding the biological and social determinants of HIV transmission, the intersection between climate change and HIV/AIDS has garnered growing attention in recent years.The relationship between climate change and HIV transmission is multifaceted, with environmental, social, and economic factors playing critical roles. Climate

change can directly and indirectly influence HIV transmission dynamics through various pathways. Changes in temperature and rainfall patterns can impact vector habitats and the prevalence of co-infections, altering the risk of HIV transmission in endemic areas. Moreover, climate-related disasters, such as hurricanes, floods, and droughts, can disrupt healthcare systems, compromise access to HIV prevention and treatment services, and exacerbate vulnerabilities among affected populations.[1-25]

Vulnerable populations, including marginalized communities, people living in poverty, and those in resource-constrained settings, are disproportionately affected by both climate change and HIV/AIDS. These populations face intersecting challenges, including limited access to healthcare, inadequate infrastructure, and social inequalities, which increase their susceptibility to HIV infection and hinder their ability to cope with the impacts of climate change. Population displacement driven by climate-related events further exacerbates vulnerability, disrupting social networks, exacerbating poverty, and facilitating the spread of HIV.Addressing the complex interplay between climate change and HIV/AIDS requires interdisciplinary collaboration and integrated approaches that consider the broader social, economic, and environmental determinants of health. Healthcare providers, policymakers, researchers, and community organizations must work together to develop context-specific strategies that build resilience, promote adaptive capacity, and address the intersecting challenges of climate change and HIV transmission. Furthermore, policy interventions at local, national, and global levels are needed to mitigate the impacts of climate change on HIV transmission, promote sustainable development, and protect the health and well-being of vulnerable populations.[26-45]

Impact of Climate Change on HIV Transmission

The impact of climate change on HIV transmission is multifaceted, with environmental shifts influencing various factors that contribute to the spread of the virus. One of the primary mechanisms through which climate change affects HIV transmission is alterations in vector-borne diseases' prevalence and distribution. Changes in temperature and precipitation patterns can expand the habitat range of vectors like mosquitoes, potentially increasing the transmission of vector-borne diseases such as malaria and dengue fever. Co-infection with these diseases can further compromise immune function and increase susceptibility to HIV infection, particularly in regions where both HIV and vector-borne diseases are endemic.Moreover, climate-related disasters, such as hurricanes, floods, and droughts, can have profound effects on HIV transmission dynamics. Disasters disrupt healthcare systems, compromise access to HIV prevention and treatment services, and exacerbate socioeconomic vulnerabilities, leading to increased risk behaviors and HIV transmission. Displacement caused by climate-related events can also disrupt social networks and support systems, potentially exposing displaced populations to higher risk environments and increasing their vulnerability to HIV infection.[46-68]

Changes in behavior and migration patterns driven by climate change can also influence HIV transmission dynamics. Environmental degradation and resource scarcity can force populations to migrate in search of livelihoods, leading to changes in population density, mobility, and sexual networks. Migration, both internal and across borders, can facilitate the spread of HIV by disrupting social norms, increasing risk behaviors, and creating environments conducive to transmission. Furthermore, environmental stressors such as food insecurity and displacement can exacerbate poverty and inequality, further marginalizing vulnerable populations and increasing their susceptibility to HIV infection.The impact of climate change on HIV transmission is not uniform and varies across regions and populations. Vulnerable populations, including marginalized communities, people living in poverty, and those in resource-constrained settings, are disproportionately affected by both climate change and HIV/AIDS. These populations face intersecting challenges, including limited

access to healthcare, inadequate infrastructure, and social inequalities, which increase their vulnerability to HIV infection and hinder their ability to cope with the impacts of climate change.[69-89]

Vulnerability and Adaptation

Vulnerability and adaptation are central concepts in understanding the intersection between climate change and HIV transmission. Vulnerability refers to the susceptibility of individuals and communities to the adverse impacts of climate change and HIV/AIDS, influenced by a range of social, economic, and environmental factors. Vulnerable populations, including marginalized communities, people living in poverty, and those in resource-constrained settings, face intersecting challenges that increase their susceptibility to both climate change and HIV/AIDS.Climate change exacerbates existing vulnerabilities, amplifying social inequalities and disproportionately affecting marginalized populations. For example, extreme weather events and sea-level rise can displace communities, disrupt livelihoods, and exacerbate poverty, creating environments conducive to HIV transmission. Similarly, food insecurity and water scarcity resulting from climate change can undermine nutrition and sanitation, compromising immune function and increasing susceptibility to HIV infection.[90-105]

Adaptation involves the actions taken to reduce vulnerability and build resilience to the impacts of climate change and HIV/AIDS. Adaptive strategies aim to enhance the capacity of individuals and communities to cope with changing environmental conditions and mitigate negative health outcomes. Adaptation efforts may include measures to improve healthcare infrastructure, strengthen social support systems, and promote sustainable livelihoods. Integrated approaches that address the intersecting challenges of climate change and HIV/AIDS are essential for effective adaptation. Healthcare providers, policymakers, researchers, and community organizations must work together to develop context-specific strategies that build resilience, promote adaptive capacity, and address the underlying determinants of vulnerability. This may involve integrating climate resilience and disaster preparedness into HIV/AIDS programming, strengthening healthcare systems to ensure continuity of services during climate-related disasters, and implementing community-based interventions that empower vulnerable populations and promote sustainable development.Furthermore, adaptation efforts must be informed by an understanding of the complex interactions between climate change, HIV/AIDS, and other social and environmental stressors. Context-specific approaches that consider local knowledge, cultural practices, and community priorities are essential for effective adaptation. By prioritizing adaptation strategies that address the underlying drivers of vulnerability and build resilience at the individual, community, and systemic levels, we can protect the health and well-being of vulnerable populations in the face of climate change and infectious diseases.[106-129]

Interdisciplinary Approaches and Policy Implications

Interdisciplinary approaches and policy implications are critical in addressing the complex intersection of climate change and HIV transmission. Given the multifaceted nature of both challenges, collaboration across disciplines is essential to develop effective strategies that mitigate risks, protect vulnerable populations, and promote sustainable development. Healthcare providers, policymakers, researchers, and community organizations must work together to integrate climate change adaptation and HIV/AIDS programming. Interdisciplinary collaborations can facilitate the development of context-specific interventions that address the intersecting challenges of climate change and HIV transmission. This may involve leveraging existing healthcare infrastructure to provide comprehensive services that integrate HIV prevention and treatment with climate resilience and disaster preparedness measures. Furthermore, interdisciplinary research efforts are needed to advance our understanding of the complex interactions between climate change and HIV/AIDS. Research initiatives that bring together experts from diverse fields, including

public health, environmental science, social sciences, and policy, can inform evidence-based interventions and guide policy decisions. By combining quantitative and qualitative methodologies, interdisciplinary research can provide insights into the underlying determinants of vulnerability and identify effective strategies for adaptation.[130-145]

Policy implications stemming from interdisciplinary collaborations are essential for translating research findings into actionable interventions. Policy interventions at the local, national, and global levels can help mitigate the impacts of climate change on HIV transmission, promote sustainable development, and protect the health and well-being of vulnerable populations. This may involve implementing climate-resilient healthcare systems, integrating climate change adaptation into HIV/AIDS policies and programs, and addressing social inequalities that exacerbate vulnerability. Furthermore, policies that support community-based approaches and empower marginalized populations are essential for building resilience and promoting adaptive capacity. This may include initiatives to strengthen social support systems, provide access to education and economic opportunities, and promote gender equality and human rights. By prioritizing policies that address the underlying determinants of vulnerability and promote equity, policymakers can create enabling environments that support adaptation and foster sustainable development.[146-152]

Conclusion

Through interdisciplinary approaches and informed policy interventions, we can address the complex interactions between these two pressing issues and develop effective strategies to mitigate risks, protect vulnerable populations, and promote sustainable development. Climate change exacerbates existing vulnerabilities and complicates efforts to control HIV transmission, particularly among marginalized communities and those living in resource-constrained settings. Rising temperatures, changing precipitation patterns, and extreme weather events disrupt healthcare systems, compromise access to HIV prevention and treatment services, and exacerbate socioeconomic disparities, increasing vulnerability to HIV infection. Concurrently, HIV/AIDS further exacerbates vulnerabilities, undermining adaptive capacity and exacerbating the impacts of climate change on affected populations.

However, by fostering collaboration across disciplines and integrating research findings into policy decisions, we can develop holistic approaches that address the intersecting challenges of climate change and HIV transmission. Interdisciplinary research efforts can provide insights into the underlying determinants of vulnerability and identify effective strategies for adaptation. Policy interventions at the local, national, and global levels can promote climate-resilient healthcare systems, integrate climate change adaptation into HIV/AIDS policies and programs, and address social inequalities that exacerbate vulnerability. Furthermore, empowering communities, particularly marginalized populations, is essential for building resilience and promoting adaptive capacity. By prioritizing policies that address the underlying drivers of vulnerability, promote equity, and foster community participation, policymakers can create enabling environments that support adaptation and foster sustainable development.

References

1. Myers SS. Global environmental change: the threat to human health. Worldwatch Institute; 2009.
2. Louis ME, Hess JJ. Climate change: impacts on and implications for global health. American journal of preventive medicine. 2008;35(5):527-538.
3. Gaeva DV, Barinova GM, Krasnov EV. Climate Change and Health. Good Health and Well-Being. 2020:78-91.
4. Coovadia HM, Hadingham J. HIV/AIDS: global trends, global funds and delivery bottlenecks. Globalization and health. 2005; 1:1-0.

5. Benatar S, Brock G, editors. Global health: ethical challenges. Cambridge University Press; 2021.
6. Obeagu EI, Okwuanaso CB, Edoho SH, Obeagu GU. Under-nutrition among HIV-exposed Uninfected Children: A Review of African Perspective. Madonna University journal of Medicine and Health Sciences. 2022;2(3):120-127.
7. Obeagu EI. A Review of Challenges and Coping Strategies Faced by HIV/AIDS Discordant Couples. Madonna University journal of Medicine and Health Sciences. 2023 ;3(1):7-12.https://madonnauniversity.edu.ng/journals/index.php/medicine/article/view/91.
8. Obeagu EI, Obeagu GU. An update on premalignant cervical lesions and cervical cancer screening services among HIV positive women. J Pub Health Nutri. 2023; 6 (2). 2023; 141:1-2.links/63e538ed64252375639dd0df/An-update-on-premalignant-cervical-lesions-and-cervical-cancer-screening-services-among-HIV-positive-women.pdf.
9. Ezeoru VC, Enweani IB, Ochiabuto O, Nwachukwu AC, Ogbonna US, Obeagu EI. Prevalence of Malaria with Anaemia and HIV status in women of reproductive age in Onitsha, Nigeria. Journal of Pharmaceutical Research International. 2021;33(4):10-19.
10. Omo-Emmanuel UK, Chinedum OK, Obeagu EI. Evaluation of laboratory logistics management information system in HIV/AIDS comprehensive health facilities in Bayelsa State, Nigeria. Int J Curr Res Med Sci. 2017;3(1): 21-38.DOI: 10.22192/ijcrms.2017.03.01.004
11. Obeagu EI, Obeagu GU, Musiimenta E, Bot YS, Hassan AO. Factors contributing to low utilization of HIV counseling and testing services. Int. J. Curr. Res. Med. Sci. 2023;9(2): 1-5.DOI: 10.22192/ijcrms.2023.09.02.001
12. Obeagu EI, Obeagu GU. An update on survival of people living with HIV in Nigeria. J Pub Health Nutri. 2022; 5 (6). 2022;129.links/645b4bfcf3512f1cc5885784/An-update-on-survival-of-people-living-with-HIV-in-Nigeria.pdf.
13. Offie DC, Obeagu EI, Akueshi C, Njab JE, Ekanem EE, Dike PN, Oguh DN. Facilitators and barriers to retention in HIV care among HIV infected MSM attending Community Health Center Yaba, Lagos Nigeria. Journal of Pharmaceutical Research International. 2021;33(52B):10-19.
14. Obeagu EI, Ogbonna US, Nwachukwu AC, Ochiabuto O, Enweani IB, Ezeoru VC. Prevalence of Malaria with Anaemia and HIV status in women of reproductive age in Onitsha, Nigeria. Journal of Pharmaceutical Research International. 2021;33(4):10-19.
15. Odo M, Ochei KC, Obeagu EI, Barinaadaa A, Eteng UE, Ikpeme M, Bassey JO, Paul AO. TB Infection Control in TB/HIV Settings in Cross River State, Nigeria: Policy Vs Practice. Journal of Pharmaceutical Research International. 2020;32(22):101-119.
16. Obeagu EI, Eze VU, Alaeboh EA, Ochei KC. Determination of haematocrit level and iron profile study among persons living with HIV in Umuahia, Abia State, Nigeria. J BioInnovation. 2016; 5:464-471.links/592bb4990f7e9b9979a975cf/DETERMINATION-OF-HAEMATOCRIT-LEVEL-AND-IRON-PROFILE-STUDY-AMONG-PERSONS-LIVING-WITH-HIV-IN-UMUAHIA-ABIA-STATE-NIGERIA.pdf.
17. Ifeanyi OE, Obeagu GU. The values of prothrombin time among HIV positive patients in FMC owerri. International Journal of Current Microbiology and Applied Sciences. 2015;4(4):911-916.https://www.academia.edu/download/38320140/Obeagu_Emmanuel_Ifeanyi_and_Obeagu__Getrude_Uzoma2.EMMA1.pdf.
18. Izuchukwu IF, Ozims SJ, Agu GC, Obeagu EI, Onu I, Amah H, Nwosu DC, Nwanjo HU, Edward A, Arunsi MO. Knowledge of preventive measures and management of HIV/AIDS victims among parents in Umuna Orlu community of Imo state Nigeria. Int. J. Adv. Res. Biol. Sci. 2016;3(10): 55-65.DOI; 10.22192/ijarbs.2016.03.10.009
19. Chinedu K, Takim AE, Obeagu EI, Chinazor UD, Eloghosa O, Ojong OE, Odunze U. HIV and TB co-infection among

patients who used Directly Observed Treatment Short-course centres in Yenagoa, Nigeria. IOSR J Pharm Biol Sci. 2017;12(4):70-75.links/5988ab6d0f7e9b6c8539f73d/HIV-and-TB-co-infection-among-patients-who-used-Directly-Observed-Treatment-Short-course-centres-in-Yenagoa-Nigeria.pdf

20. Oloro OH, Oke TO, Obeagu EI. Evaluation of Coagulation Profile Patients with Pulmonary Tuberculosis and Human Immunodeficiency Virus in Owo, Ondo State, Nigeria. Madonna University journal of Medicine and Health Sciences. 2022;2(3):110-119.
21. Nwosu DC, Obeagu EI, Nkwocha BC, Nwanna CA, Nwanjo HU, Amadike JN, Elendu HN, Ofoedeme CN, Ozims SJ, Nwankpa P. Change in Lipid Peroxidation Marker (MDA) and Non enzymatic Antioxidants (VIT C & E) in HIV Seropositive Children in an Urban Community of Abia State. Nigeria. J. Bio. Innov. 2016;5(1):24-30.links/5ae735e9a6fdcc5b33eb8d6a/CHANGE-IN-LIPID-PEROXIDATION-MARKER-MDAAND-NON-ENZYMATIC-ANTIOXIDANTS-VIT-C-E-IN-HIV-SEROPOSITIVE-CHILDREN-IN-AN-URBAN-COMMUNITY-OF-ABIA-STATE-NIGERIA.pdf.
22. Igwe CM, Obeagu IE, Ogbuabor OA. Clinical characteristics of people living with HIV/AIDS on ART in 2014 at tertiary health institutions in Enugu, Nigeria. J Pub Health Nutri. 2022; 5 (6). 2022;130.links/645a166f5762c95ac3817d32/Clinical-characteristics-of-people-living-with-HIV-AIDS-on-ART-in-2014-at-tertiary-health-institutions-in-Enugu.pdf.
23. Ifeanyi OE, Obeagu GU, Ijeoma FO, Chioma UI. The values of activated partial thromboplastin time (APTT) among HIV positive patients in FMC Owerri. Int J Curr Res Aca Rev. 2015; 3:139-144.https://www.academia.edu/download/38320159/Obeagu_Emmanuel_Ifeanyi3__et_al.IJCRAR.pdf.
24. Obiomah CF, Obeagu EI, Ochei KC, Swem CA, Amachukwu BO. Hematological indices o HIV seropositive subjects in Nnamdi Azikiwe University teaching hospital (NAUTH), Nnewi. Ann Clin Lab Res. 2018;6(1):1-4.links/5aa2bb17a6fdccd544b7526e/Haematological-Indices-of-HIV-Seropositive-Subjects-at-Nnamdi-Azikiwe.pdf
25. Omo-Emmanuel UK, Ochei KC, Osuala EO, Obeagu EI, Onwuasoanya UF. Impact of prevention of mother to child transmission (PMTCT) of HIV on positivity rate in Kafanchan, Nigeria. Int. J. Curr. Res. Med. Sci. 2017;3(2): 28-34.DOI: 10.22192/ijcrms.2017.03.02.005
26. Aizaz M, Abbas FA, Abbas A, Tabassum S, Obeagu EI. Alarming rise in HIV cases in Pakistan: Challenges and future recommendations at hand. Health Science Reports. 2023;6(8):e1450.
27. Obeagu EI, Amekpor F, Scott GY. An update of human immunodeficiency virus infection: Bleeding disorders. J Pub Health Nutri. 2023; 6 (1). 2023;139.links/645b4a6c2edb8e5f094d9bd9/An-update-of-human-immunodeficiency-virus-infection-Bleeding.pdf.
28. Obeagu EI, Scott GY, Amekpor F, Ofodile AC, Edoho SH, Ahamefula C. Prevention of New Cases of Human Immunodeficiency Virus: Pragmatic Approaches of Saving Life in Developing Countries. Madonna University journal of Medicine and Health Sciences. 2022;2(3):128-134.https://madonnauniversity.edu.ng/journals/index.php/medicine/article/view/86.
29. Walter O, Anaebo QB, Obeagu EI, Okoroiwu IL. Evaluation of Activated Partial Thromboplastin Time and Prothrombin Time in HIV and TB Patients in Owerri Metropolis. Journal of Pharmaceutical Research International. 2022:29-34.
30. Odo M, Ochei KC, Obeagu EI, Barinaadaa A, Eteng EU, Ikpeme M, Bassey JO, Paul AO. Cascade variabilities in TB case finding among people living with HIV and the use

of IPT: assessment in three levels of care in cross River State, Nigeria. Journal of Pharmaceutical Research International. 2020;32(24):9-18.

31. Jakheng SP, Obeagu EI. Seroprevalence of human immunodeficiency virus based on demographic and risk factors among pregnant women attending clinics in Zaria Metropolis, Nigeria. J Pub Health Nutri. 2022; 5 (8). 2022;137.links/6317a6b1acd814437f0ad268/Seroprevalence-of-human-immunodeficiency-virus-based-on-demographic-and-risk-factors-among-pregnant-women-attending-clinics-in-Zaria-Metropolis-Nigeria.pdf.
32. Obeagu EI, Obeagu GU. A Review of knowledge, attitudes and socio-demographic factors associated with non-adherence to antiretroviral therapy among people living with HIV/AIDS. Int. J. Adv. Res. Biol. Sci. 2023;10(9):135-142.DOI: 10.22192/ijarbs.2023.10.09.015 links/6516faa61e2386049de5e828/A-Review-of-knowledge-attitudes-and-socio-demographic-factors-associated-with-non-adherence-to-antiretroviral-therapy-among-people-living-with-HIV-AIDS.pdf
33. Obeagu EI, Onuoha EC. Tuberculosis among HIV Patients: A review of Prevalence and Associated Factors. Int. J. Adv. Res. Biol. Sci. 2023;10(9):128-134.DOI: 10.22192/ijarbs.2023.10.09.014 links/6516f938b0df2f20a2f8b0e0/Tuberculosis-among-HIV-Patients-A-review-of-Prevalence-and-Associated-Factors.pdf.
34. Obeagu EI, Ibeh NC, Nwobodo HA, Ochei KC, Iwegbulam CP. Haematological indices of malaria patients coinfected with HIV in Umuahia. Int. J. Curr. Res. Med. Sci. 2017;3(5):100-104.DOI: 10.22192/ijcrms.2017.03.05.014 https://www.academia.edu/download/54317126/Haematological_indices_of_malaria_patients_coinfected_with_HIV.pdf
35. Jakheng SP, Obeagu EI, Abdullahi IO, Jakheng EW, Chukwueze CM, Eze GC, Essien UC, Madekwe CC, Madekwe CC, Vidya S, Kumar S. Distribution Rate of Chlamydial Infection According to Demographic Factors among Pregnant Women Attending Clinics in Zaria Metropolis, Kaduna State, Nigeria. South Asian Journal of Research in Microbiology. 2022;13(2):26-31.
36. Okorie HM, Obeagu Emmanuel I, Okpoli Henry CH, Chukwu Stella N. Comparative study of enzyme linked immunosorbent assay (Elisa) and rapid test screening methods on HIV, Hbsag, Hcv and Syphilis among voluntary donors in. Owerri, Nigeria. J Clin Commun Med. 2020;2(3):180-183.DOI:**DOI:** 10.32474/JCCM.2020.02.000137links/5f344530458515b7291bd95f/Comparative-Study-of-Enzyme-Linked-Immunosorbent-Assay-ElISA-and-Rapid-Test-Screening-Methods-on-HIV-HBsAg-HCV-and-Syphilis-among-Voluntary-Donors-in-Owerri-Nigeria.pdf.
37. Ezugwu UM, Onyenekwe CC, Ukibe NR, Ahaneku JE, Onah CE, Obeagu EI, Emeje PI, Awalu JC, Igbokwe GE. Use of ATP, GTP, ADP and AMP as an Index of Energy Utilization and Storage in HIV Infected Individuals at NAUTH, Nigeria: A Longitudinal, Prospective, Case-Controlled Study. Journal of Pharmaceutical Research International. 2021;33(47A):78-84.
38. Emannuel G, Martin O, Peter OS, Obeagu EI, Daniel K. Factors Influencing Early Neonatal Adverse Outcomes among Women with HIV with Post Dated Pregnancies Delivering at Kampala International University Teaching Hospital, Uganda. Asian Journal of Pregnancy and Childbirth. 2023 Jul 29;6(1):203-211.http://research.sdpublishers.net/id/eprint/2819/.
39. Igwe MC, Obeagu EI, Ogbuabor AO, Eze GC, Ikpenwa JN, Eze-Steven PE. Socio-Demographic Variables of People Living with HIV/AIDS Initiated on ART in 2014 at Tertiary Health Institution in Enugu State. Asian Journal of Research in Infectious Diseases. 2022;10(4):1-7.
40. Vincent CC, Obeagu EI, Agu IS, Ukeagu NC, Onyekachi-Chigbu AC. Adherence to Antiretroviral Therapy among HIV/AIDS in Federal Medical Centre, Owerri. Journal of

Pharmaceutical Research International. 2021;33(57A):360-368.

41. Igwe MC, Obeagu EI, Ogbuabor AO. Analysis of the Factors and Predictors of Adherence to Healthcare of People Living With Hiv/Aids In Tertiary Health Institutions In Enugu State. Madonna University Journal of Medicine and Health Sciences. 2022;2(3):42-57.https://madonnauniversity.edu.ng/journals/index.php/medicine/article/view/75.
42. Madekwe CC, Madekwe CC, Obeagu EI. Inequality of monitoring in Human Immunodeficiency Virus, Tuberculosis and Malaria: A Review. Madonna University journal of Medicine and Health Sciences. 2022;2(3):6-15.https://madonnauniversity.edu.ng/journals/index.php/medicine/article/view/69
43. Echendu GE, Vincent CC, Ibebuike J, Asodike M, Naze N, Chinedu EP, Ohale B, Obeagu EI. WEIGHTS OF INFANTS BORN TO HIV INFECTED MOTHERS: A PROSPECTIVE COHORT STUDY IN FEDERAL MEDICAL CENTRE, OWERRI, IMO STATE.European Journal of Pharmaceutical and Medical Research, 2023;10(8): 564-568
44. Nwosu DC, Nwanjo HU, Okolie NJ, Ikeh K, Ajero CM, Dike J, Ojiegbe GC, Oze GO, Obeagu EI, Nnatunanya I, Azuonwu O. BIOCHEMICAL ALTERATIONS IN ADULT HIV PATIENTS ON ANTIRETRQVIRAL THERAPY.World Journal of Pharmacy and Pharmaceutical Sciences, 2015; 4(3): 153-160**.** links/5a4fd0500f7e9bbc10526b38/BIOCHEMICAL-ALTERATIONS-IN-ADULT-HIV-PATIENTS-ON-ANTIRETRQVIRAL-THERAPY.pdf.
45. Obeagu EI, Obeagu GU. Effect of CD4 Counts on Coagulation Parameters among HIV Positive Patients in Federal Medical Centre, Owerri, Nigeria. Int. J. Curr. Res. Biosci. Plant Biol. 2015;2(4):45-49.
46. Baker RE, Mahmud AS, Miller IF, Rajeev M, Rasambainarivo F, Rice BL, Takahashi S, Tatem AJ, Wagner CE, Wang LF, Wesolowski A. Infectious disease in an era of global change. Nature Reviews Microbiology. 2022;20(4):193-205.
47. Arthur RF, Gurley ES, Salje H, Bloomfield LS, Jones JH. Contact structure, mobility, environmental impact and behaviour: the importance of social forces to infectious disease dynamics and disease ecology. Philosophical Transactions of the Royal Society B: Biological Sciences. 2017;372(1719):20160454.
48. Mordecai EA, Ryan SJ, Caldwell JM, Shah MM, LaBeaud AD. Climate change could shift disease burden from malaria to arboviruses in Africa. The Lancet Planetary Health. 2020;4(9): e416-23.
49. Obeagu EI, Nwosu DC. Adverse drug reactions in HIV/AIDS patients on highly active antiretro viral therapy: a review of prevalence. Int. J. Curr. Res. Chem. Pharm. Sci. 2019;6(12):45-8.DOI: 10.22192/ijcrcps.2019.06.12.004 links/650aba1582f01628f0335795/Adverse-drug-reactions-in-HIV-AIDS-patients-on-highly-active-antiretro-viral-therapy-a-review-of-prevalence.pdf.
50. Obeagu EI, Scott GY, Amekpor F, Obeagu GU. Implications of CD4/CD8 ratios in Human Immunodeficiency Virus infections. Int. J. Curr. Res. Med. Sci. 2023;9(2):6-13.DOI: 10.22192/ijcrms.2023.09.02.002 links/645a4a462edb8e5f094ad37c/Implications-of-CD4-CD8-ratios-in-Human-Immunodeficiency-Virus-infections.pdf.
51. Obeagu EI, Ochei KC, Okeke EI, Anode AC. Assessment of the level of haemoglobin and erythropoietin in persons living with HIV in Umuahia. Int. J. Curr. Res. Med. Sci. 2016;2(4):29-33.links/5711c47508aeebe07c02496b/Assessment-of-the-level-of-haemoglobin-and-erythropoietin-in-persons-living-with-HIV-in-Umuahia.pdf.
52. Ifeanyi OE, Obeagu GU. The Values of CD4 Count, among HIV Positive Patients in FMC Owerri. Int. J. Curr. Microbiol. App. Sci. 2015;4(4):906-910.https://www.academia.edu/download/38320134/Obeagu_Emmanuel_Ifeanyi_and_Obeagu__Getrude_Uzoma.EMMA2.pdf.

53. Obeagu EI, Okeke EI, Anonde Andrew C. Evaluation of haemoglobin and iron profile study among persons living with HIV in Umuahia, Abia state, Nigeria. Int. J. Curr. Res. Biol. Med. 2016;1(2):1-5.
54. Ibebuike JE, Nwokike GI, Nwosu DC, Obeagu EI. A Retrospective Study on Human Immune Deficiency Virus among Pregnant Women Attending Antenatal Clinic in Imo State University Teaching Hospital. *International Journal of Medical Science and Dental Research*, 2018; 1 (2):08-14.https://www.ijmsdr.org/published%20paper/li1i2/A%20Retrospective%20Study%20on%20Human%20Immune%20Deficiency%20Virus%20among%20Pregnant%20Women%20Attending%20Antenatal%20Clinic%20in%20Imo%20State%20University%20Teaching%20Hospital.pdf.
55. Obeagu EI, Obarezi TN, Omeh YN, Okoro NK, Eze OB. Assessment of some haematological and biochemical parametrs in HIV patients before receiving treatment in Aba, Abia State, Nigeria. Res J Pharma Biol Chem Sci. 2014; 5:825-830.
56. Obeagu EI, Obarezi TN, Ogbuabor BN, Anaebo QB, Eze GC. Pattern of total white blood cell and differential count values in HIV positive patients receiving treatment in Federal Teaching Hospital Abakaliki, Ebonyi State, Nigeria. International Journal of Life Science, Biotechnology and Pharama Research. 2014; 391:186-189.
57. Obeagu EI. A Review of Challenges and Coping Strategies Faced by HIV/AIDS Discordant Couples. Madonna University journal of Medicine and Health Sciences. 2023; 3 (1): 7-12.
58. Oloro OH, Obeagu EI. A Systematic Review on Some Coagulation Profile in HIV Infection. International Journal of Innovative and Applied Research. 2022;10(5):1-11.
59. Nwosu DC, Obeagu EI, Nkwuocha BC, Nwanna CA, Nwanjo HU, Amadike JN, Ezemma MC, Okpomeshine EA, Ozims SJ, Agu GC. Alterations in superoxide dismutiase, vitamins C and E in HIV infected children in Umuahia, Abia state. International Journal of Advanced Research in Biological Sciences. 2015;2(11):268-271.
60. Ifeanyi OE, Uzoma OG, Stella EI, Chinedum OK, Abum SC. Vitamin D and insulin resistance in HIV sero positive individuals in Umudike. Int. J. Curr. Res. Med. Sci. 2018;4(2):104-108.
61. Ifeanyi OE, Leticia OI, Nwosu D, Chinedum OK. A Review on blood borne viral infections: universal precautions. Int. J. Adv. Res. Biol. Sci. 2018;5(6):60-66.
62. Nwovu AI, Ifeanyi OE, Uzoma OG, Nwebonyi NS. Occurrence of Some Blood Borne Viral Infection and Adherence to Universal Precautions among Laboratory Staff in Federal Teaching Hospital Abakaliki Ebonyi State. Arch Blood Transfus Disord. 2018;1(2).
63. Chinedu K, Takim AE, Obeagu EI, Chinazor UD, Eloghosa O, Ojong OE, Odunze U. HIV and TB co-infection among patients who used Directly Observed Treatment Short-course centres in Yenagoa, Nigeria. IOSR J Pharm Biol Sci. 2017;12(4):70-75.
64. Offie DC, Obeagu EI, Akueshi C, Njab JE, Ekanem EE, Dike PN, Oguh DN. Facilitators and barriers to retention in HIV care among HIV infected MSM attending Community Health Center Yaba, Lagos Nigeria. Journal of Pharmaceutical Research International. 2021;33(52B):10-19.
65. Obeagu EI, Obeagu GU, Ede MO, Odo EO, Buhari HA. Translation of HIV/AIDS knowledge into behavior change among secondary school adolescents in Uganda: A review. Medicine (Baltimore). 2023;102(49): e36599. doi: 10.1097/MD.0000000000036599. PMID: 38065920; PMCID: PMC10713174.
66. Anyiam AF, Arinze-Anyiam OC, Irondi EA, Obeagu EI. Distribution of ABO and rhesus blood grouping with HIV infection among blood donors in Ekiti State Nigeria. Medicine (Baltimore). 2023;102(47): e36342. doi: 10.1097/MD.0000000000036342. PMID: 38013335; PMCID: PMC10681551.
67. Echefu SN, Udosen JE, Akwiwu EC, Akpotuzor JO, Obeagu EI. Effect of

Dolutegravir regimen against other regimens on some hematological parameters, CD4 count and viral load of people living with HIV infection in South Eastern Nigeria. Medicine (Baltimore). 2023;102(47): e35910. doi: 10.1097/MD.0000000000035910. PMID: 38013350; PMCID: PMC10681510.

68. Opeyemi AA, Obeagu EI. Regulations of malaria in children with human immunodeficiency virus infection: A review. Medicine (Baltimore). 2023;102(46): e36166. doi: 10.1097/MD.0000000000036166. PMID: 37986340; PMCID: PMC10659731.
69. Obeagu EI, Obeagu GU, Obiezu J, Ezeonwumelu C, Ogunnaya FU, Ngwoke AO, Emeka-Obi OR,
70. Obeagu EI, Ubosi NI, Uzoma G. Storms and Struggles: Managing HIV Amid Natural Disasters. Int. J. Curr. Res. Chem. Pharm. Sci. 2023;10(11):14-25.
71. Obeagu EI, Obeagu GU. Human Immunodeficiency Virus and tuberculosis infection: A review of prevalence of associated factors. Int. J. Adv. Multidiscip. Res. 2023;10(10):56-62.
72. Obeagu EI, Obeagu GU. Unmasking the Truth: Addressing Stigma in the Fight Against HIV. Elite Journal of Public Health. 2024;2(1):8-22.
73. Obeagu EI, Obeagu GU, Okwuanaso CB. Optimizing Immune Health in HIV Patients through Nutrition: A Review. Elite Journal of Immunology. 2024;2(1):14-33.
74. Obeagu EI, Obeagu GU. Utilization of immunological ratios in HIV: Implications for monitoring and therapeutic strategies. Medicine. 2024;103(9): e37354.
75. Obeagu EI, Obeagu GU. CD8 Dynamics in HIV Infection: A Synoptic Review. Elite Journal of Immunology. 2024;2(1):1-3.
76. Obeagu EI, Obeagu GU. Implications of B Lymphocyte Dysfunction in HIV/AIDS. Elite Journal of Immunology. 2024;2(1):34-46.
77. Obeagu EI, Obeagu GU. Maternal Influence on Infant Immunological Responses to HIV: A Review. Elite Journal of Laboratory Medicine. 2024;2(1):46-58.
78. Obeagu EI, Obeagu GU. Understanding B Lymphocyte Functions in HIV Infection: Implications for Immune Dysfunction and Therapeutic Strategies. Elite Journal of Medicine. 2024;2(1):35-46.
79. Obeagu EI, Obeagu GU. Platelet-Driven Modulation of HIV: Unraveling Interactions and Implications. Journal home page: http://www. journalijiar. com.;12(01).
80. Obeagu EI, Anyiam AF, Obeagu GU. Managing Hematological Complications in HIV: Erythropoietin Considerations. Elite Journal of HIV. 2024;2(1):65-78.
81. Obeagu EI, Obeagu GU, Hauwa BA, Umar AI. Hematocrit Variations in HIV Patients Co-infected with Malaria: A Comprehensive Review. Journal home page: http://www. journalijiar. com.;12(01).
82. ObeaguEI AA, Obeagu GU. Synergistic Effects of Blood Transfusion and HIV in Children Under 5 Years with Severe Malaria: A Review. Elite Journal of HIV. 2024;2(1):31-50.
83. Obeagu EI, Anyiam AF, Obeagu GU. Unveiling B Cell Mediated Immunity in HIV Infection: Insights, Challenges, and Potential Therapeutic Avenues. Elite Journal of HIV. 2024;2(1):1-5.
84. Obeagu EI, Obeagu GU. Hematocrit Fluctuations in HIV Patients Co-infected with Malaria Parasites: A Comprehensive Review. Int. J. Curr. Res. Med. Sci. 2024;10(1):25-36.
85. Obeagu EI, Obeagu GU. Transfusion Therapy in HIV: Risk Mitigation and Benefits for Improved Patient Outcomes. Sciences. 2024;4(1):32-7.
86. Obeagu EI, Obeagu GU. Mental Health and Psychosocial Effects of natural disaster on HIV Patients. Sciences. 2024;4(1):38-44.
87. Obeagu EI, Obeagu GU. Eosinophil-Associated Changes in Neonatal Thymic T Regulatory Cell Populations in HIV-Infected Pregnancies. Elite Journal of Health Science. 2024;2(1):33-42.
88. Obeagu EI, Obeagu GU. Advances in Understanding the Impact of Blood Transfusion on Anemia Resolution in HIV-Positive Children with Severe Malaria: A

Comprehensive Review. Elite Journal of Haematology. 2024;2(1):26-41.
89. Obeagu EI, Ayogu EE, Obeagu GU. Interactions between Blood Transfusion and Antiretroviral Medications: Implications for Patient Care. Elite Journal of Medicine. 2024;2(2):104-15.
90. Obeagu EI, Obeagu GU. Maternal Eosinophilic Responses in HIV-Positive Pregnant Women: Unraveling Immunological Dynamics for Improved Maternal-Fetal Health. Elite Journal of Immunology. 2024;2(1):47-64.
91. Obeagu EI, Anyanwu CN, Obeagu GU. Challenges and Considerations in Managing Blood Transfusion for Individuals with HIV. Elite Journal of HIV. 2024;2(2):1-7.
92. Obeagu EI, Ubosi NI, Obeagu GU, Akram M. Early Infant Diagnosis: Key to Breaking the Chain of HIV Transmission. Elite Journal of Public Health. 2024;2(1):52-61.
93. Obeagu EI, Obeagu GU. Understanding Hematocrit Fluctuations in HIV-Malaria Coinfection for Improved Management. Elite Journal of Public Health. 2024;2(1):22-34.
94. Obeagu EI, Obeagu GU. The Impact of Erythropoietin on Preeclampsia in HIV-Positive Women: A Review. Elite Journal of Nursing and Health Science. 2024;2(1):21-31.
95. Obeagu EI, Obeagu GU. Platelet Distribution Width (PDW) as a Prognostic Marker for Anemia Severity in HIV Patients: A Comprehensive Review. Journal home page: http://www. journalijiar. com.;12(01).
96. Obeagu EI, Obeagu GU. Neonatal Outcomes in Children Born to Mothers with Severe Malaria, HIV, and Transfusion History: A Review. Elite Journal of Nursing and Health Science. 2024;2(3):38-58.
97. Obeagu EI, Obeagu GU. Assessing Platelet Functionality in HIV Patients Receiving Antiretroviral Therapy: Implications for Risk Assessment. Elite Journal of HIV. 2024;2(3):14-26.
98. Obeagu EI, Obeagu GU. Advancements in HIV Prevention: Africa's Trailblazing Initiatives and Breakthroughs. Elite Journal of Public Health. 2024;2(1):52-63.
99. Obeagu EI, Obeagu GU. Maternal Influence on Infant Immunological Responses to HIV: A Review. Elite Journal of Laboratory Medicine. 2024;2(1):46-58.
100. Obeagu EI, Obeagu GU. Counting Cells, Shaping Fates: CD4/CD8 Ratios in HIV. Elite Journal of Scientific Research and Review. 2024;2(1):37-50.
101. Obeagu EI, Anyiam AF, Obeagu GU. Managing Hematological Complications in HIV: Erythropoietin Considerations. Elite Journal of HIV. 2024;2(1):65-78.
102. Obeagu EI, Obeagu GU. Immune Modulation in HIV-Positive Neonates: Insights and Implications for Clinical Management. Elite Journal of Nursing and Health Science. 2024;2(3):59-72.
103. Obeagu EI, Ayogu EE, Obeagu GU. Impact on Viral Load Dynamics: Understanding the Interplay between Blood Transfusion and Antiretroviral Therapy in HIV Management. Elite Journal of Nursing and Health Science. 2024;2(2):5-15.
104. Obeagu EI, Obeagu GU. Understanding B Lymphocyte Functions in HIV Infection: Implications for Immune Dysfunction and Therapeutic Strategies. Elite Journal of Medicine. 2024;2(1):35-46.
105. Obeagu EI, Anyanwu CN, Obeagu GU. Challenges and Considerations in Managing Blood Transfusion for Individuals with HIV. Elite Journal of HIV. 2024;2(2):1-7.
106. Obeagu EI, Obeagu GU. Understanding ART and Platelet Functionality: Implications for HIV Patients. Elite Journal of HIV. 2024;2(2):60-73.
107. Obeagu EI, Obeagu GU. The Role of Blood Transfusion Strategies in HIV Management: Current Insights and Future Directions. Elite Journal of Medicine. 2024;2(1):10-22.
108. Obeagu EI, AmaezeAA O, Obeagu GU. B Cell Deficiency and Implications in HIV Pathogenesis: Unraveling the Complex Interplay. Elite Journal of Nursing and Health Science. 2024;2(2):33-46.
109. Obeagu EI, Obeagu GU. Eosinophil Dynamics in Pregnancy among Women Living with HIV: A Comprehensive

Review. Int. J. Curr. Res. Med. Sci. 2024;10(1):11-24.
110. Obeagu EI, Obeagu GU. Hematocrit Fluctuations in HIV Patients Co-infected with Malaria Parasites: A Comprehensive Review. Int. J. Curr. Res. Med. Sci. 2024;10(1):25-36.
111. Obeagu EI, Obeagu GU. Unveiling the Role of Innate Immune Activation in Pediatric HIV: A Review. Elite Journal of Immunology. 2024;2(3):33-44.
112. Obeagu EI, Obeagu GU. Harnessing B Cell Responses for Personalized Approaches in HIV Management. Elite Journal of Immunology. 2024;2(2):15-28.
113. Obeagu EI, Obeagu GU, Hauwa BA, Umar AI. Neutrophil Dynamics: Unveiling Their Role in HIV Progression within Malaria Patients. Journal home page: http://www. journalijiar. com.;12(01).
114. Obeagu EI, Obeagu GU, Hauwa BA, Umar AI. Hematocrit Variations in HIV Patients Co-infected with Malaria: A Comprehensive Review. Journal home page: http://www. journalijiar. com.;12(01).
115. Obeagu EI, Igwe MC, Obeagu GU. The Power of Unity: Collective Efforts in Confronting HIV Stigma. Elite Journal of Public Health. 2024;2(3):22-36.
116. Obeagu EI, Anyiam AF, Obeagu GU. Managing Anemia in HIV through Blood Transfusions: Clinical Considerations and Innovations. Elite Journal of HIV. 2024;2(1):16-30.
117. Obeagu EI, Obeagu GU. Maternal Eosinophilic Responses in HIV-Positive Pregnant Women: Unraveling Immunological Dynamics for Improved Maternal-Fetal Health. Elite Journal of Immunology. 2024;2(1):47-64.
118. Obeagu EI, Obeagu GU. Platelet Aberrations in HIV Patients: Assessing Impacts of ART. Elite Journal of Haematology, 2024; 2 (3).:10-24.
119. Obeagu EI, Obeagu GU. Hematological Changes Following Blood Transfusion in Young Children with Severe Malaria and HIV: A Critical Review. Elite Journal of Laboratory Medicine. 2024;2(1):33-45.
120. Obeagu EI, Anyiam AF, Obeagu GU. Erythropoietin Therapy in HIV-Infected Individuals: A Critical Review. Elite Journal of HIV. 2024;2(1):51-64.
121. Obeagu EI, Ubosi NI, Obeagu GU, Obeagu AA. Nutritional Strategies for Enhancing Immune Resilience in HIV: A Review. Int. J. Curr. Res. Chem. Pharm. Sci. 2024;11(2):41-51.
122. Obeagu EI, Obeagu GU. The Crucial Role of Erythropoietin in Managing Anemia in HIV: A Review. Elite Journal of Scientific Research and Review. 2024;2(1):24-36.
123. Obeagu EI, Obeagu GU. Impact of Maternal Eosinophils on Neonatal Immunity in HIV-Exposed Infants: A Review. Elite Journal of Immunology. 2024;2(3):1-8.
124. Obeagu EI, Anyiam AF, Obeagu GU. Unveiling B Cell Mediated Immunity in HIV Infection: Insights, Challenges, and Potential Therapeutic Avenues. Elite Journal of HIV. 2024;2(1):1-5.
125. Obeagu EI, Obeagu GU. Anemia and Erythropoietin: Key Players in HIV Disease Progression. Elite Journal of Haematology, 2024; 2 (3).:42-57.
126. Obeagu EI, Obeagu GU. Platelet Dysfunction in HIV Patients: Assessing ART Risks. Elite Journal of Scientific Research and Review. 2024;2(1):1-6.
127. Obeagu EI, Ubosi NI, Obeagu GU, Akram M. Early Infant Diagnosis: Key to Breaking the Chain of HIV Transmission. Elite Journal of Public Health. 2024;2(1):52-61.
128. Obeagu EI, Obeagu GU. Transfusion Therapy in HIV: Risk Mitigation and Benefits for Improved Patient Outcomes. Sciences. 2024;4(1):32-7.
129. Obeagu EI, Obeagu GU. P-Selectin and Immune Activation in HIV: Clinical Implications. Elite Journal of Health Science. 2024;2(2):16-29.
130. Obeagu EI, Obeagu GU. Mental Health and Psychosocial Effects of natural disaster on HIV Patients. Sciences. 2024;4(1):38-44.
131. Obeagu EI, Obeagu GU. Optimizing Blood Transfusion Protocols for Breast Cancer Patients Living with HIV: A Comprehensive Review. Elite Journal of Nursing and Health Science. 2024;2(2):1-7.

132. Obeagu EI, Obeagu GU. Advances in Understanding the Impact of Blood Transfusion on Anemia Resolution in HIV-Positive Children with Severe Malaria: A Comprehensive Review. Elite Journal of Haematology. 2024;2(1):26-41.
133. Obeagu EI, Obeagu GU. Transfusion-Related Complications in Children Under 5 with Coexisting HIV and Severe Malaria: A Review. Int. J. Curr. Res. Chem. Pharm. Sci. 2024;11(2):9-19.
134. Obeagu EI, Obeagu GU. Impact of Blood Transfusion on Viral Load Dynamics in HIV-Positive Neonates with Severe Malaria: A Review. Elite Journal of Scientific Research and Review. 2024;2(1):42-60.
135. Obeagu EI, Ayogu EE, Obeagu GU. Interactions between Blood Transfusion and Antiretroviral Medications: Implications for Patient Care. Elite Journal of Medicine. 2024;2(2):104-5.
136. Obeagu EI, Obeagu GU, Odo EO, Igwe MC, Ugwu OP, Alum EU, Racheal P. Combatting Stigma: Essential Steps in Halting HIV Spread. IAA Journal of Applied Sciences. 2024;11(1):22-9.
137. Obeagu EI, Obeagu GU. P-Selectin Expression in HIV-Associated Coagulopathy: Implications for Treatment. Elite Journal of Haematology, 2024; 2 (3).:25-41.
138. Obeagu EI, Obeagu GU. Eosinophil-Associated Changes in Neonatal Thymic T Regulatory Cell Populations in HIV-Infected Pregnancies. Elite Journal of Health Science. 2024;2(1):33-42.
139. Obeagu EI, Obeagu GU. Exploring the Role of L-selectin in HIV-related Immune Exhaustion: Insights and Therapeutic Implications. Elite Journal of HIV. 2024;2(2):43-59.
140. Obeagu EI. Erythropoietin and the Immune System: Relevance in HIV Management. Elite Journal of Health Science. 2024;2(3):23-35.
141. Obeagu EI, Obeagu GU. The Impact of Erythropoietin on Preeclampsia in HIV-Positive Women: A Review. Elite Journal of Nursing and Health Science. 2024;2(1):21-31.
142. Obeagu EI, Obeagu GU. Unraveling the Role of Eosinophil Extracellular Traps (EETs) in HIV-Infected Pregnant Women: A Review. Elite Journal of Nursing and Health Science. 2024;2(3):84-99.
143. Obeagu EI, Obeagu GU. Hematologic Considerations in Breast Cancer Patients with HIV: Insights into Blood Transfusion Strategies. Elite Journal of Health Science. 2024;2(2):20-35.
144. Obeagu EI, Obeagu GU. L-selectin and HIV-Induced Immune Cell Trafficking: Implications for Pathogenesis and Therapeutic Strategies. Elite Journal of Laboratory Medicine. 2024;2(2):30-46.
145. Obeagu EI, Obeagu GU. The Intricate Relationship Between Erythropoietin and HIV-Induced Anemia: Unraveling Pathways for Therapeutic Insights. Int. J. Curr. Res. Chem. Pharm. Sci. 2024;11(2):30-40.
146. Obeagu EI, Obeagu GU. The Role of L-selectin in Tuberculosis and HIV Coinfection: Implications for Disease Diagnosis and Management. Elite Journal of Public Health. 2024;2(1):35-51.
147. Kalu OA, Ukibe NR, Onyenekwe CC, Okoyeagu RC, Nnaemeka WS, Onyenekwe AJ, Ukibe EG, Ukibe BC, Ukibe VE, Obeagu EI. Assessment of Serum Cystatin C, Microalbumin Levels and Egfr in HIV Seropositive Individuals based on Age and Gender in NAUTH, Nnewi, Nigeria. Elite Journal of Medicine. 2024;2(3):48-59.
148. Obeagu EI, Obeagu GU. Understanding Immune Cell Trafficking in Tuberculosis-HIV Coinfection: The Role of L-selectin Pathways. Elite Journal of Immunology. 2024;2(2):43-59.
149. Obeagu EI, Obeagu GU. Eosinophilic Changes in Placental Tissues of HIV-Positive Pregnant Women: A Review. Elite Journal of Laboratory Medicine. 2024;2(1):14-32.
150. Obeagu EI, Obeagu GU. P-Selectin and Platelet Activation in HIV: Implications for Antiviral Therapy. Elite Journal of Scientific Research and Review. 2024;2(1):17-41.

151. Obeagu EI, Obeagu GU. Strength in Unity: Building Support Networks for HIV Patients in Uganda. Elite Journal of Medicine. 2024;2(1):1-6.
152. Obeagu EI, GU EE. Understanding the Intersection of Highly Active Antiretroviral Therapy and Platelets in HIV Patients: A Review. Elite Journal of Haematology, 2024; 2 (3).:111-7.

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