

Platelet Aberrations in HIV Patients: Assessing Impacts of ART

*Emmanuel Ifeanyi Obeagu¹ and Getrude Uzoma Obeagu²

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

²School 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

Platelet abnormalities are prevalent in HIV infection and contribute significantly to the disease's pathophysiology. Antiretroviral therapy (ART) has revolutionized HIV management but its effects on platelet function remain incompletely understood. This review provides a comprehensive overview of platelet aberrations in HIV patients, emphasizing the intricate interplay between HIV infection, ART, and platelet functionality. We discuss the mechanisms underlying platelet abnormalities, their clinical implications, and the influence of ART on platelet profiles. Additionally, we explore emerging research directions and potential therapeutic avenues to address platelet-related complications in HIV management. Understanding the complex interplay between HIV, ART, and platelets is crucial for optimizing patient care and improving outcomes in HIV management.

Keywords: *Platelets, HIV, Antiretroviral Therapy, Platelet Dysfunction, Platelet Aberrations, Immune Activation, Thrombocytopenia, Coagulation Disorders.*

Introduction

Platelet aberrations represent a significant aspect of HIV pathogenesis, contributing to both the hematological and vascular complications observed in infected individuals. Thrombocytopenia, characterized by low platelet counts, is a common manifestation of HIV infection and is attributed

Citation: Obeagu EI, Obeagu GU. Platelet Aberrations in HIV Patients: Assessing Impacts of ART. *Elite Journal of Haematology*, 2024; 2(3): 10-24

to various factors including direct bone marrow suppression by the virus, immune-mediated destruction, and increased platelet turnover due to chronic inflammation. Additionally, HIV-induced platelet activation and dysfunction further exacerbate the risk of thrombotic events and bleeding complications, posing significant challenges to patient management. Antiretroviral therapy (ART) has transformed the landscape of HIV treatment, leading to improved virological control, immune reconstitution, and prolonged survival. However, the effects of ART on platelet function remain incompletely understood. While ART-mediated viral suppression and immune modulation may theoretically alleviate platelet abnormalities, emerging evidence suggests that certain ART regimens, particularly protease inhibitors, may contribute to platelet dysfunction through various mechanisms. Consequently, elucidating the impact of ART on platelet dynamics is paramount for optimizing therapeutic strategies and minimizing treatment-related complications in HIV patients.¹⁻²⁴

The interplay between HIV infection, ART, and platelet aberrations is complex and multifaceted. HIV-induced immune activation and inflammation play a central role in driving platelet activation and dysfunction, while ART-mediated viral suppression and immune reconstitution may exert both beneficial and adverse effects on platelet function. Understanding the intricate mechanisms underlying these interactions is essential for deciphering the pathophysiology of platelet abnormalities in HIV and developing targeted interventions to mitigate their clinical consequences. Furthermore, platelet aberrations in HIV patients have profound clinical implications, affecting disease progression, treatment outcomes, and overall patient prognosis. Thrombocytopenia and platelet dysfunction are associated with increased morbidity and mortality, as well as heightened risk of cardiovascular events and bleeding complications. Therefore, comprehensive management strategies that address both HIV infection and associated platelet abnormalities are imperative for optimizing patient care and improving long-term outcomes.²⁵⁻³⁵

In this review, we aim to provide a comprehensive overview of platelet aberrations in HIV patients, with a focus on elucidating the complex interplay between HIV infection, ART, and platelet function. By synthesizing current evidence and identifying knowledge gaps, we aim to facilitate a deeper understanding of the pathophysiology of platelet abnormalities in HIV and inform the development of targeted therapeutic approaches to improve patient outcomes.

Platelet Aberrations in HIV Patients

Platelet aberrations represent a significant hematological complication in individuals living with Human Immunodeficiency Virus (HIV) infection. Thrombocytopenia, characterized by low platelet counts, is a prevalent manifestation observed in HIV patients, affecting approximately one-third of untreated individuals. This hematological abnormality is multifactorial in origin, arising from various mechanisms including direct viral-induced bone marrow suppression, immune-mediated platelet destruction, and increased platelet turnover due to chronic inflammation. Additionally, HIV-induced platelet activation and dysfunction further exacerbate the risk of

Citation: Obeagu EI, Obeagu GU. Platelet Aberrations in HIV Patients: Assessing Impacts of ART. *Elite Journal of Haematology*, 2024; 2(3): 10-24

thrombotic events and bleeding complications, contributing to the complexity of patient management and the overall disease burden. Understanding the pathophysiology of platelet aberrations in HIV patients is essential for optimizing therapeutic strategies and improving patient outcomes. The chronic immune activation and inflammation characteristic of HIV infection play a central role in driving platelet activation and dysfunction. Persistent viral replication and dysregulated immune responses lead to increased platelet turnover and activation, perpetuating a prothrombotic state and predisposing individuals to cardiovascular events. Furthermore, HIV-induced endothelial dysfunction and vascular injury contribute to platelet activation and aggregation, further exacerbating thrombotic risk.³⁶⁻⁵⁷

Antiretroviral therapy (ART) has revolutionized the management of HIV infection, leading to improved virological control, immune reconstitution, and prolonged survival. However, the effects of ART on platelet function remain incompletely understood. While ART-mediated viral suppression and immune modulation may theoretically alleviate platelet abnormalities, emerging evidence suggests that certain ART regimens, particularly protease inhibitors, may contribute to platelet dysfunction through various mechanisms. Thus, careful consideration of ART selection and monitoring of platelet function are crucial in HIV patient management to mitigate treatment-related complications. Platelet aberrations in HIV patients have profound clinical implications, impacting disease progression, treatment outcomes, and overall patient prognosis. Thrombocytopenia and platelet dysfunction are associated with increased morbidity and mortality, as well as heightened risk of cardiovascular events and bleeding complications. Therefore, comprehensive management strategies that address both HIV infection and associated platelet abnormalities are imperative for optimizing patient care and improving long-term outcomes. Future research efforts should focus on elucidating the complex interactions between HIV infection, ART, and platelet function to inform the development of targeted therapeutic approaches aimed at mitigating platelet-related complications in HIV patients.⁵⁸⁻⁷⁷

Impacts of ART on Platelet Aberrations

The introduction of Antiretroviral Therapy (ART) has transformed the landscape of HIV management, significantly improved patient outcomes and reducing morbidity and mortality associated with the virus. However, the effects of ART on platelet function in HIV patients are complex and multifaceted, with both beneficial and adverse implications. One of the primary mechanisms through which ART influences platelet aberrations is by achieving virological suppression. By effectively suppressing viral replication, ART attenuates the direct effects of HIV on bone marrow suppression and immune-mediated platelet destruction. As a result, ART has been associated with increased platelet counts and reduced risk of thrombocytopenia in HIV patients receiving treatment. Improved virological control not only mitigates the hematological complications of HIV but also reduces systemic inflammation and immune activation, thereby indirectly modulating platelet activity. ART-mediated immune reconstitution is another important factor influencing platelet aberrations in HIV patients. By restoring CD4+ T-cell counts and

Citation: Obeagu EI, Obeagu GU. Platelet Aberrations in HIV Patients: Assessing Impacts of ART. *Elite Journal of Haematology*, 2024; 2(3): 10-24

improving immune function, ART may attenuate chronic inflammation and immune activation, which are key drivers of platelet activation and dysfunction in HIV infection. However, it is important to note that despite virological suppression and immune reconstitution, some HIV patients may experience persistent immune activation and inflammation, which could sustain platelet abnormalities even in the presence of effective ART.⁷⁸⁻⁹²

While ART has been instrumental in improving the overall health and prognosis of HIV patients, certain antiretroviral drugs have been associated with adverse effects on platelet function. Protease inhibitors, a class of ART medications, have been implicated in platelet dysfunction through various mechanisms, including altered platelet signaling pathways and drug-induced metabolic disturbances. These drug-related effects on platelets underscore the importance of carefully selecting ART regimens and monitoring platelet function in HIV patients to minimize treatment-related complications. The impact of ART on platelet aberrations has significant clinical implications for HIV management. Effective ART not only suppresses viral replication and improves immune function but also helps alleviate platelet abnormalities and reduce the risk of associated complications such as thrombocytopenia and thrombotic events. However, the potential adverse effects of certain ART medications on platelet function highlight the need for personalized treatment regimens tailored to individual patient characteristics and monitoring of platelet parameters during therapy.⁹³⁻¹⁰⁵

Clinical Implications and Future Directions

The clinical implications of platelet aberrations in HIV patients are multifaceted and significant, impacting various aspects of disease management and patient outcomes. Firstly, thrombocytopenia and platelet dysfunction are associated with increased morbidity and mortality in HIV-infected individuals, leading to a higher risk of bleeding complications and thrombotic events. Therefore, regular monitoring of platelet counts and function is essential for early detection and management of hematological abnormalities in HIV patients. Furthermore, platelet aberrations have implications for the management of comorbidities commonly observed in HIV patients, such as cardiovascular disease and liver dysfunction. Platelet activation and dysfunction contribute to the development of atherosclerosis and thrombotic events, exacerbating cardiovascular risk in this population. Similarly, in patients with liver disease, thrombocytopenia may predispose to bleeding complications, necessitating careful assessment and management strategies tailored to individual patient needs.¹⁰⁶⁻¹⁰⁷ The choice of antiretroviral therapy (ART) regimen also has important clinical implications for platelet health in HIV patients. While ART effectively suppresses viral replication and improves immune function, certain medications, particularly protease inhibitors, may adversely affect platelet function. Therefore, clinicians must consider the potential impact of ART on platelet dynamics when selecting treatment regimens and monitor for treatment-related complications, such as drug-induced thrombocytopenia or platelet dysfunction.

Citation: Obeagu EI, Obeagu GU. Platelet Aberrations in HIV Patients: Assessing Impacts of ART. *Elite Journal of Haematology*, 2024; 2(3): 10-24

Future research efforts should focus on several key areas to advance our understanding of platelet aberrations in HIV patients and improve patient care. Firstly, elucidating the underlying mechanisms driving platelet dysfunction in HIV infection is essential for developing targeted interventions to mitigate hematological complications and reduce cardiovascular risk. This includes investigating the role of chronic inflammation, immune activation, and viral factors in platelet activation and dysfunction. Furthermore, the development of novel therapeutic approaches aimed at modulating platelet function represents a promising avenue for future research. This includes exploring the potential use of antiplatelet agents or immunomodulatory therapies to mitigate platelet activation and dysfunction in HIV patients and reduce the risk of associated complications. Overall, a comprehensive understanding of platelet aberrations in HIV patients and their clinical implications is essential for optimizing patient care and improving outcomes in this population. By addressing hematological abnormalities and minimizing treatment-related complications, clinicians can enhance the overall quality of care for individuals living with HIV.¹⁰⁷

Conclusion

Platelet aberrations in HIV patients represent a complex and multifaceted aspect of the disease that significantly impacts clinical outcomes and patient management. Thrombocytopenia, platelet activation, and dysfunction contribute to increased morbidity and mortality, as well as heightened risks of cardiovascular events and bleeding complications. Antiretroviral therapy (ART) has revolutionized HIV management by effectively suppressing viral replication and improving immune function. However, the effects of ART on platelet function remain incompletely understood. Understanding the interplay between HIV infection, ART, and platelet aberrations is essential for optimizing therapeutic strategies and improving patient outcomes. While ART-mediated viral suppression and immune modulation may alleviate platelet abnormalities, certain ART medications, particularly protease inhibitors, may contribute to platelet dysfunction. Therefore, careful consideration of ART selection and monitoring of platelet parameters are crucial in HIV patient management to mitigate treatment-related complications.

References

1. Vishnu P, Aboulafia DM. Haematological manifestations of human immune deficiency virus infection. *British journal of haematology*. 2015;171(5):695-709.
2. Raman RT, Manimaran D, Rachakatla P, Bharathi K, Afroz T, Sagar R. Study of basic coagulation parameters among HIV patients in correlation to CD4 counts and ART status. *Journal of clinical and diagnostic research: JCDR*. 2016;10(5):EC04.
3. Hoermann G. Clinical significance of clonal hematopoiesis of indeterminate potential in hematology and cardiovascular disease. *Diagnostics*. 2022;12(7):1613.
4. 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.

Citation: Obeagu EI, Obeagu GU. Platelet Aberrations in HIV Patients: Assessing Impacts of ART. *Elite Journal of Haematology*, 2024; 2(3): 10-24

5. Obeagu EI, Alum EU, Obeagu GU. Factors associated with prevalence of HIV among youths: A review of Africa perspective. Madonna University journal of Medicine and Health Sciences. 2023;3(1):13-18.
<https://madonnauniversity.edu.ng/journals/index.php/medicine/article/view/93>.
6. 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>.
7. 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](https://doi.org/10.22192/ijcrms.2017.03.01.004).
8. 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.
9. 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](https://doi.org/10.22192/ijcrms.2017.03.01.004)
10. 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](https://doi.org/10.22192/ijcrms.2023.09.02.001)
11. 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](https://doi.org/10.22192/ijcrms.2023.09.02.001).
12. 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.
13. 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.
14. 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.
15. Obeagu EI, Eze VU, Alaebob 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](https://doi.org/10.22192/ijcrms.2023.09.02.001).

Citation: Obeagu EI, Obeagu GU. Platelet Aberrations in HIV Patients: Assessing Impacts of ART. *Elite Journal of Haematology*, 2024; 2(3): 10-24

16. 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_Emanuel_Ifeanyi_and_Obeagu_Getrude_Uzoma2.EMMA1.pdf.
17. 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](https://doi.org/10.22192/ijarbs.2016.03.10.009)
18. 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](https://www.academia.edu/download/38320159/Obeagu_Emanuel_Ifeanyi3_et_al.IJC_RAR.pdf)
19. 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.
20. 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](https://www.academia.edu/download/38320159/Obeagu_Emanuel_Ifeanyi3_et_al.IJC_RAR.pdf).
21. 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](https://doi.org/10.22192/ijarbs.2016.03.10.009).
22. 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_Emanuel_Ifeanyi3_et_al.IJC_RAR.pdf.
23. 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](https://doi.org/10.22192/ijarbs.2016.03.10.009)

Citation: Obeagu EI, Obeagu GU. Platelet Aberrations in HIV Patients: Assessing Impacts of ART. *Elite Journal of Haematology*, 2024; 2(3): 10-24

24. 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](https://doi.org/10.22192/ijcrms.2017.03.02.005)
25. 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.
26. Obeagu EI, Ameorpor 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](https://doi.org/10.22192/ijcrms.2017.03.02.005).
27. Obeagu EI, Scott GY, Ameorpor 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>.
28. Walter O, Anaebio 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.
29. 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.
30. 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](https://doi.org/10.22192/ijcrms.2017.03.02.005).
31. 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](https://doi.org/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](https://doi.org/10.22192/ijarbs.2023.10.09.015)
32. 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](https://doi.org/10.22192/ijarbs.2023.10.09.014) [links/6516f938b0df2f20a2f8b0e0/Tuberculosis-among-HIV-Patients-A-review-of-Prevalence-and-Associated-Factors.pdf](https://doi.org/10.22192/ijarbs.2023.10.09.014).
33. Obeagu EI, Ibeh NC, Nwobodo HA, Ochei KC, Iwegbulam CP. Haematological indices of malaria patients coinfecting with HIV in Umuahia. *Int. J. Curr. Res. Med. Sci.*

Citation: Obeagu EI, Obeagu GU. Platelet Aberrations in HIV Patients: Assessing Impacts of ART. *Elite Journal of Haematology*, 2024; 2(3): 10-24

- 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)
[https://www.academia.edu/download/54317126/Haematological indices of malaria patients coinfectd with HIV.pdf](https://www.academia.edu/download/54317126/Haematological_indices_of_malaria_patients_coinfected_with_HIV.pdf)
34. 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.
 35. Viola N, Kimono E, Nuruh N, Obeagu EI. Factors Hindering Elimination of Mother to Child Transmission of HIV Service Uptake among HIV Positive Women at Comboni Hospital Kyamuhunga Bushenyi District. *Asian Journal of Dental and Health Sciences*. 2023;3(2):7-14. <http://ajdhs.com/index.php/journal/article/view/39>.
 36. Olaniyi OD, Davies-Folorunsho TO, Ademosun AA, Abdulganiyu N, Omosigho OP, Olaniyan MF, Muhibi MA. Platelet activities in pregnant women living with Human Immunodeficiency Virus on HAART in Lagos, Nigeria. *African Journal of Laboratory Haematology and Transfusion Science*. 2023;2(1):54-62.
 37. Usman A, Balogun O, Shuaib BI, Musa BO, Yusuf AA, Ajayi EI. Prevalence of Cytopenia and its Correlation with Immunosuppression in Naïve HIV-1 Infected Patients Initiating First-Line Antiretroviral Therapy: A Pilot Study. *Infection & Chemotherapy*. 2023c;55(4):479.
 38. 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.2020.02.000137](https://doi.org/10.32474/JCCM.2020.02.000137)
[links/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](https://doi.org/10.32474/JCCM.2020.02.000137).
 39. 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.
 40. 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/>.
 41. Igwe MC, Obeagu EI, Ogbuabor AO, Eze GC, Ikpenwa JN, Eze-Sтивен 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.

Citation: Obeagu EI, Obeagu GU. Platelet Aberrations in HIV Patients: Assessing Impacts of ART. *Elite Journal of Haematology*, 2024; 2(3): 10-24

42. 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.
43. 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>.
44. 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>
45. Echendu GE, Vincent CC, Ibebuikwe 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
46. Nwosu DC, Nwanjo HU, Okolie NJ, Ikeh K, Ajero CM, Dike J, Ojiegbe GC, Oze GO, Obeagu EI, Nnatananya I, Azuonwu O. BIOCHEMICAL ALTERATIONS IN ADULT HIV PATIENTS ON ANTIRETROVIRAL THERAPY. *World Journal of Pharmacy and Pharmaceutical Sciences*, 2015; 4(3): 153-160.
[links/5a4fd0500f7e9bbc10526b38/BIOCHEMICAL-ALTERATIONS-IN-ADULT-HIV-PATIENTS-ON-ANTIRETROVIRAL-THERAPY.pdf](https://www.wjpr.in/links/5a4fd0500f7e9bbc10526b38/BIOCHEMICAL-ALTERATIONS-IN-ADULT-HIV-PATIENTS-ON-ANTIRETROVIRAL-THERAPY.pdf).
47. 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.
48. 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/ijcrps.2019.06.12.004](https://doi.org/10.22192/ijcrps.2019.06.12.004)
[links/650aba1582f01628f0335795/Adverse-drug-reactions-in-HIV-AIDS-patients-on-highly-active-antiretro-viral-therapy-a-review-of-prevalence.pdf](https://www.ijcrps.in/links/650aba1582f01628f0335795/Adverse-drug-reactions-in-HIV-AIDS-patients-on-highly-active-antiretro-viral-therapy-a-review-of-prevalence.pdf).
49. 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](https://doi.org/10.22192/ijcrms.2023.09.02.002) [links/645a4a462edb8e5f094ad37c/Implications-of-CD4-CD8-ratios-in-Human-Immunodeficiency-Virus-infections.pdf](https://www.ijcrms.in/links/645a4a462edb8e5f094ad37c/Implications-of-CD4-CD8-ratios-in-Human-Immunodeficiency-Virus-infections.pdf).
50. 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](https://www.ijcrms.in/links/5711c47508aeebe07c02496b/Assessment-of-the-level-of-haemoglobin-and-erythropoietin-in-persons-living-with-HIV-in-Umuahia.pdf).
51. 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.

Citation: Obeagu EI, Obeagu GU. Platelet Aberrations in HIV Patients: Assessing Impacts of ART. *Elite Journal of Haematology*, 2024; 2(3): 10-24

https://www.academia.edu/download/38320134/Obeagu_Emanuel_Ifeanyi_and_Obeagu_Getrude_Uzoma.EMMA2.pdf.

52. 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.
53. Alum EU, Ugwu OP, Obeagu EI, Okon MB. Curtailing HIV/AIDS Spread: Impact of Religious Leaders. *Newport International Journal of Research in Medical Sciences (NIJRMS)*. 2023;3(2):28-31.
54. Obeagu EI, Obeagu GU, Paul-Chima UO. Stigma Associated With HIV. AIDS: A Review. *Newport International Journal of Public Health and Pharmacy (NIJPP)*. 2023;3(2):64-67.
55. Alum EU, Obeagu EI, Ugwu OP, Aja PM, Okon MB. HIV Infection and Cardiovascular diseases: The obnoxious Duos. *Newport International Journal of Research in Medical Sciences (NIJRMS)*. 2023;3(2):95-99.
56. Ibebuikie 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>.
57. Obeagu EI, Obarezi TN, Omeh YN, Okoro NK, Eze OB. Assessment of some haematological and biochemical parameters in HIV patients before receiving treatment in Aba, Abia State, Nigeria. *Res J Pharma Biol Chem Sci.* 2014; 5:825-830.
58. 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 Pharma Research.* 2014; 391:186-189.
59. 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.
60. 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.
61. Nwosu DC, Obeagu EI, Nkwuocha BC, Nwanna CA, Nwanjo HU, Amadike JN, Ezemima MC, Okpomeshine EA, Ozims SJ, Agu GC. Alterations in superoxide dismutase, 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.
62. Obeagu EI, Malot S, Obeagu GU, Ugwu OP. HIV resistance in patients with Sickle Cell Anaemia. *Newport International Journal of Scientific and Experimental Sciences (NIJSES)*. 2023;3(2):56-59.

Citation: Obeagu EI, Obeagu GU. Platelet Aberrations in HIV Patients: Assessing Impacts of ART. *Elite Journal of Haematology*, 2024; 2(3): 10-24

63. 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.
64. 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.
65. 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).
66. 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.
67. 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.
68. 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.00000000000036599. PMID: 38065920; PMCID: PMC10713174.
69. Anyiam AF, Arinze-Anyiam OC, Ironi 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.00000000000036342. PMID: 38013335; PMCID: PMC10681551.
70. 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.00000000000035910. PMID: 38013350; PMCID: PMC10681510.
71. 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.00000000000036166. PMID: 37986340; PMCID: PMC10659731.
72. Alum EU, Obeagu EI, Ugwu OPC, Samson AO, Adepoju AO, Amusa MO. Inclusion of nutritional counseling and mental health services in HIV/AIDS management: A paradigm shift. *Medicine (Baltimore).* 2023;102(41): e35673. doi: 10.1097/MD.00000000000035673. PMID: 37832059; PMCID: PMC10578718.
73. Aizaz M, Abbas FA, Abbas A, Tabassum S, Obeagu EI. Alarming rise in HIV cases in Pakistan: Challenges and future recommendations at hand. *Health Sci Rep.* 2023;6(8): e1450. doi: 10.1002/hsr2.1450. PMID: 37520460; PMCID: PMC10375546.

Citation: Obeagu EI, Obeagu GU. Platelet Aberrations in HIV Patients: Assessing Impacts of ART. *Elite Journal of Haematology*, 2024; 2(3): 10-24

74. Obeagu EI, Obeagu GU, Obiezu J, Ezeonwumelu C, Ogunnaya FU, Ngwoke AO, Emeka-Obi OR, Ugwu OP. Hematologic Support in HIV Patients: Blood Transfusion Strategies and Immunological Considerations. *APPLIED SCIENCES (NIJBAS)*. 2023;3(3).
75. 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.
76. 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.
77. Obeagu EI, Malot S, Obeagu GU, Ugwu OP. HIV resistance in patients with Sick Cell Anaemia. *Newport International Journal of Scientific and Experimental Sciences (NIJSES)*. 2023;3(2):56-9.
78. Hanhoff N, Vu Q, Lang R, Gill MJ. Impact of three decades of antiretroviral therapy in a longitudinal population cohort study. *Antiviral Therapy*. 2019;24(3):153-165.
79. Ndashimye E, Arts EJ. The urgent need for more potent antiretroviral therapy in low-income countries to achieve UNAIDS 90-90-90 and complete eradication of AIDS by 2030. *Infectious Diseases of Poverty*. 2019;8(04):67-74.
80. Alum EU, Ugwu OP, Obeagu EI, Aja PM, Okon MB, Uti DE. Reducing HIV Infection Rate in Women: A Catalyst to reducing HIV Infection pervasiveness in Africa. *International Journal of Innovative and Applied Research*. 2023;11(10):01-6.
81. Obeagu EI, Obeagu GU. Unmasking the Truth: Addressing Stigma in the Fight Against HIV. *Elite Journal of Public Health*. 2024;2(1):8-22.
82. 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.
83. Obeagu EI, Obeagu GU. Utilization of immunological ratios in HIV: Implications for monitoring and therapeutic strategies. *Medicine*. 2024;103(9):e37354.
84. Obeagu EI, Obeagu GU. CD8 Dynamics in HIV Infection: A Synoptic Review. *Elite Journal of Immunology*. 2024;2(1):1-3.
85. Obeagu EI, Obeagu GU. Implications of B Lymphocyte Dysfunction in HIV/AIDS. *Elite Journal of Immunology*. 2024;2(1):34-46.
86. Obeagu EI, Obeagu GU. Maternal Influence on Infant Immunological Responses to HIV: A Review. *Elite Journal of Laboratory Medicine*. 2024;2(1):46-58.
87. 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.
88. Obeagu EI, Obeagu GU. Platelet-Driven Modulation of HIV: Unraveling Interactions and Implications. *Journal home page: <http://www.journalijar.com>*;12(01).
89. Obeagu EI, Anyiam AF, Obeagu GU. Managing Hematological Complications in HIV: Erythropoietin Considerations. *Elite Journal of HIV*. 2024;2(1):65-78.
90. 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.journalijar.com>*;12(01).

Citation: Obeagu EI, Obeagu GU. Platelet Aberrations in HIV Patients: Assessing Impacts of ART. *Elite Journal of Haematology*, 2024; 2(3): 10-24

91. 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.
92. 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.
93. 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.
94. Obeagu EI, Obeagu GU. Transfusion Therapy in HIV: Risk Mitigation and Benefits for Improved Patient Outcomes. *Sciences*. 2024;4(1):32-7.
95. Obeagu EI, Obeagu GU. Mental Health and Psychosocial Effects of natural disaster on HIV Patients. *Sciences*. 2024;4(1):38-44.
96. 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.
97. 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.
98. 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.
99. 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.
100. 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.
101. 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.
102. 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.
103. Obeagu EI, Obeagu GU. Understanding Hematocrit Fluctuations in HIV-Malaria Coinfection for Improved Management. *Elite Journal of Public Health*. 2024;2(1):22-34.
104. 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.
105. 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](http://www.journalijiar.com;);12(01).
106. Gresele P, Falcinelli E, Sebastiano M, Baldelli F. Endothelial and platelet function alterations in HIV-infected patients. *Thrombosis research*. 2012 Mar 1;129(3):301-318.

Citation: Obeagu EI, Obeagu GU. Platelet Aberrations in HIV Patients: Assessing Impacts of ART. *Elite Journal of Haematology*, 2024; 2(3): 10-24

107. Awamura T, Nakasone ES, Gangcuangco LM, Subia NT, Bali AJ, Chow DC, Shikuma CM, Park J. Platelet and HIV Interactions and Their Contribution to Non-AIDS Comorbidities. *Biomolecules*. 2023;13(11):1608.

Citation: Obeagu EI, Obeagu GU. Platelet Aberrations in HIV Patients: Assessing Impacts of ART. *Elite Journal of Haematology*, 2024; 2(3): 10-24