

Treating Acute Leukemia in Low- and Middle-Income Countries

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OUTLINE

- Introduction
- Challenges of treatment
 - Low level of awareness and poor health-seeking behavior
 - Inefficient health system and lack of access to proper healthcare
 - Inadequate diagnostic capacity
 - Non-availability of appropriate treatment modalities and supportive care
 - Others
- Improving treatment
- Conclusion

INTRODUCTION

- Acute leukemia are a heterogeneous group of neoplastic diseases characterized by defect in maturation of haemopoietic cells which, if untreated, could lead to death in weeks or months
- Requires prompt diagnosis and treatment
- Lack of accurate epidemiological data on acute leukemia in most LMIC
- High burden and poor outcome
- What is it like to treat acute leukemia in LMIC?
- Patient journey in Nigeria

CHALLENGES

Low level of awareness and poor health-seeking behavior

- Importance of early identification of signs and symptoms
- Consequences of late presentation
- Poor access to information
- High illiteracy level and low socioeconomic status

CHALLENGES

Inefficient health system and lack of access to proper healthcare

- High population and huge landmass
- Inadequate number of hospitals with required facilities and expertise
- Late referral for specialist care
- Inadequate manpower; few haematologists, 'brain drain'
- Health insurance; out-of-pocket payment

CHALLENGES

Inadequate diagnostic capacity

- Importance of investigations in diagnosis, choice of treatment and monitoring response to treatment
- Blood/bone marrow cytology and histology, CSF analysis (Cytospin), immunophenotyping (flow cytometry/immunohistochemistry), cytogenetics/FISH, molecular studies, Next Generation Sequencing
- Samples are shipped to laboratories in other countries ➡ ↑cost; delayed diagnosis
- Misdiagnosis

CHALLENGES

Non-availability of appropriate treatment modalities and supportive care

- Health insurance; out-of-pocket payment for standard treatment
- Advanced treatment e.g. targeted therapy, immunotherapy
 - TKIs, FLT3 inhibitors, IDH 1/2 inhibitors, blinatumomab
- Haemopoietic stem cell transplantation
- Blood products especially platelets (apheresis/concentrates)
- Infection control
- Organ support e.g haemodialysis, ICU care

CHALLENGES

Others

- Substantial delay from the onset of symptoms to the initiation of treatment
- High rate of abandonment of treatment
- Treatment-related toxicity leading to death

IMPROVING TREATMENT IN LMIC

- Awareness
- Advocacy
- Health insurance
- Strengthening the health systems
- Investment in diagnostic facilities
- Increase access to care

CONCLUSION

- High burden and abysmal outcome of acute leukemia in LMIC
- Myriad challenges in treating acute leukemia in LMIC
- Interventions to improve survival

Thank you