



WHAT IS ADVANCED HIV DISEASE?

Effective and tolerable antiretroviral therapies, and the adoption of globally recommended policies ensuring that anyone with a positive HIV test is linked to treatment, have mounted an incredible response to the AIDS epidemic. These innovations, combined with global commitment, have turned a once-fatal illness into a chronic disease.

However, in recent years, AIDS-related deaths have plateaued.¹ Those facing the greatest risk of mortality and morbidity are the individuals living with advanced HIV disease. Advanced HIV disease is defined by the World Health Organization (WHO) as a CD4 cell count below 200 cells/mm³, stage three or four HIV disease, or HIV in any child under 5 years of age. Regardless of their immune cell concentration, all HIV-positive children under 5 years of age are considered to have advanced HIV disease because they are at such a high risk of disease progression.²

Worldwide, one in three people living with HIV enter care with advanced HIV disease, placing them at high risk of serious illness and death.² Although all people living with advanced HIV disease are more prone to opportunistic infections including respiratory illnesses, hepatitis, cancers, and diarrheal diseases, the leading causes of death among those living with advanced HIV disease include TB, severe bacterial infections, and cryptococcal meningitis.

The burden of advanced HIV disease is significant and the health risks faced by those living with HIV are great. A number of factors are leading to its continued high prevalence:

- A large percentage of patients—more than half in some studies—who have started ART in the past have had their care interrupted, and then returned to care after a drop in their CD4 count and the presentation of symptoms.³
- Current national strategies and funding priorities do not adequately address the complex issue of advanced HIV disease.
- Access to key diagnostics to identify advanced HIV disease and related coinfections, and access to novel treatments for these infections are subpar.
- Models of care have not yet been developed to fit the various needs of those presenting (and re-presenting) with advanced HIV disease. Creating such models would ensure that health care workers have the capacity to carry out diagnostic, treatment, and care protocols to manage the complex needs and challenges of these individuals living with HIV, while shifting attention away from the more stable patient populations.

Cryptococcal meningitis



- 223,100 cases per year
- 81% mortality rate
- Represents 15% of AIDS-related deaths worldwide

Tuberculosis



- 1.2 million cases per year
- 33% mortality rate
- Represents 33% of AIDS-related deaths worldwide

Severe bacterial infection



- Exact statistics in HIV unknown
- More than 6 million deaths per year among whole population; people with advanced HIV at higher risk

WHERE ARE WE NOW?

Recognizing that the Joint United Nations Programme on HIV and AIDS (UNAIDS) General Assembly 2020 milestone and the Sustainable Development Goals will not be achieved unless advanced HIV disease mortality is urgently tackled, the WHO released its first advanced HIV disease guidelines in July 2017. The guidelines outline priority actions to reduce advanced HIV disease-related morbidity and mortality, and can be implemented in high-burden settings, assuming there is access to products and tools to diagnose and treat advanced disease. Affordable, user-friendly, and rapid point-of-care diagnostic tests to measure CD4 counts and diagnose cryptococcal meningitis and TB disease in patients with advanced HIV disease are now available.

There are also promising drugs critical for treating patients living with advanced HIV disease and/or diagnosed with opportunistic infections. For example, the second leading cause of death for HIV-infected individuals in sub-Saharan Africa is cryptococcal meningitis. Until recently, even with treatment, mortality rates for this disease have been up to 70%. Now, WHO-recommended treatments, such as the one-week combination of amphotericin and flucytosine, offer a better chance of survival and are becoming more readily available to the patients who desperately need them. There are also shorter, more patient-friendly preventive treatments for TB – the leading cause of death for people living with HIV. The WHO now supports a three-month regimen of weekly isoniazid (INH) and rifapentine to prevent TB – a regimen that is easier to complete than traditional six-month daily INH TB-preventive therapy.⁴

However, many of these diagnostics and treatments are still not accessible to those who need them most – individuals with advanced HIV disease and the health care workers who are trying to provide them with optimal care. **Until recently, high prices, lack of generic options, and deprioritization have hindered scale-up of critical products for advanced HIV disease.** However, generic manufacturing and price reductions of drugs such as flucytosine (to treat cryptococcal meningitis) and rifapentine are paving the way for improved access to optimal advanced HIV disease care.

Innovations and evidence are in place, but gaps remain and we need to address these to truly ensure that those living with advanced HIV disease not only survive, but thrive. Country operational plans and national health plans are lacking prioritization of advanced HIV disease, leaving advanced disease underfunded and health workers untrained in managing it. **National policies must prioritize implementation of robust and comprehensive training packages to manage advanced HIV disease and the key coinfections associated with it. In addition, countries need to allocate resources for use of innovative technology and for adequate stocks of more effective and tolerable drugs. We also desperately need to scale-up differentiated service delivery models that prioritize attention of highest risk clients alongside continued engagement of, but less attention focused on, more stable HIV-positive clients.**

PRIORITIZING AND MANAGING ADVANCED HIV DISEASE

The Elizabeth Glaser Pediatric AIDS Foundation (EGPAF) is committed to meeting the needs of all individuals living with HIV, including the special needs of those living with advanced HIV disease. First and foremost, we advocate at national

and international levels to strengthen adequate funding for diagnostics, treatments, and programs that can reduce mortality and morbidity due to advanced HIV disease.

EGPAF is working in several countries to roll out models of care that work for people living with advanced HIV disease – including providing these models to lower levels of health facilities, where patients most often access care. We have developed a training package and adopted a package of tools to assist health care workers in identifying advanced HIV disease, and we are adapting and delivering differentiated models of care that meet the needs of patients who are presenting or re-engaging in care with advanced disease, while shifting focus from stable patients. These tools ensure that health workers can effectively use new drugs and diagnostics, without overburdening their already busy workload.

Recognizing that not all aspects of advanced HIV disease care can be fully decentralized to the primary health care level, EGPAF is supporting a hub-and-spoke model of care. The training and tool packages acknowledge that those with advanced HIV disease are at higher risk of loss to follow-up and thus, intensified community-based care is needed. Given that comprehensive care for those with advanced HIV disease may require laboratory samples, and potentially patients, to move across health facility and community levels, EGPAF's package suggests strengthened communications and linkages between these hub-and-spoke referral networks.

In addition to providing advanced HIV disease care at its own sites, EGPAF plays an active role in research projects designed to estimate the burden of advanced HIV disease, project demand for advanced HIV disease products, and optimizing a set of tools and models of care for addressing advanced HIV disease.

We believe we can leverage successful implementation of innovative diagnostics, drugs, and care management approaches—we have done exactly this in scaling up access to early infant diagnosis and optimal treatment to diseases such as pediatric TB and adult syphilis. To address the needs of those with the greatest risk of morbidity and mortality in HIV-positive populations, successful implementation of such health care innovations are needed immediately.

REFERENCES

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