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The challenges of treating HIV-infected adolescents

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Adolescents and young people represent a growing share of people living with HIV worldwide. In 2020 alone, 410,000 [194,000-690,000] young people between the ages of 10 to 24 were newly infected with HIV, of whom 150,000 [44,000-310,000] were adolescents between the ages of 10 and 19. To compound this, most recent data indicate that only 25 per cent of adolescent girls and 17 per cent of adolescent boys aged 15-19 in Eastern and Southern Africa – the region most affected by HIV – have been tested for HIV in the past 12 months and received the result of the last test. The testing rates in West and Central Africa and South Asia are even lower. If current trends continue, hundreds of thousands more will become HIV-positive in the coming years, and without knowing their status, adolescents will miss out on life-saving treatment. Additionally, a large population of children infected with HIV perinatally over the last decade are growing into adolescence.

In 2020, about 1.75 million [1.16 million-2.3 million] adolescents between the ages of 10 and 19 were living with HIV worldwide. Adolescents account for about 5 per cent of all people living with HIV and about 11 per cent of new adult HIV infections. About 1.5 million [1.0 million-2.1 million] (88 percent) live in sub-Saharan Africa. Outside of sub-Saharan Africa, the highest numbers of HIV-positive adolescents are in Asia and Latin America. Even though adolescents represent a growing proportion of people living with HIV worldwide and the highest risk population group for treatment attrition and AIDS-related mortality, there are very few specific interventions targeting this population. In fact,

previous systematic reviews show scarce and inconclusive evidence of effective interventions for this age group. Therefore, there is an urgent need to design, implement, and test interventions that keep young people in HIV treatment and care.

Recent years have seen an increase in focus on adolescent health and a rapidly changing programmatic environment particularly aimed at improving antiretroviral therapy adherence and retention among adolescents (10–19) and youth (15–24) living with HIV. There remains high attrition of children with regards to early testing and linking those patients who are positive to early treatment. Barriers to screening and testing in children and adolescents are multifactorial. Linkage to pre-antiretroviral therapy care and retention in care are the main steps at which attrition occurs.

There are a number of new formulations available for use in adolescents and children which offer more options for antiretroviral therapy treatment, of particular interest is the single dose combination pill containing Dolutegravir, Lamivudine and Tenofovir which has revolutionized adherence during first line treatment. Despite this, adolescents may fail to adhere to their optimized therapy and fail to become virally suppressed. A recent national survey in Uganda placed the adherence rate of adolescents at 68%.[1] In one of the large centres treating children and adolescents with HIV it was reported that an increasing number failed their 1st and second line treatment, resulting in up to 1.8% optimized to 3rd line treatment regimens. Adherence levels among adolescents living in Africa and Asia vary from moderate to high; however, achieving viral load suppression remains a challenge. 90 percent of adolescents living with HIV live in sub–Saharan Africa, a continent which has the least advanced adolescent focused care, resulting in unattended healthcare needs.

There are gender disparities in the care of HIV-infected adolescents. In some sub-Saharan countries, adolescent girls are two to three times more likely to be infected with HIV than boys of the same age group. According to WHO and UNAIDS, HIV among children and adolescents presents unique features that affect how diagnosis, treatment and care is provided across the age continuum of 0–19 years.

Optimal antiretroviral drug regimens may require changes as children age and grow. There is need to adapt and tailor service delivery for younger adolescents (10–14 years old) and older adolescents (15–19 years old) due to significant differences in health-seeking behaviour, number of adolescents acquiring HIV infection and health outcomes including AIDS-related causes. Further, models of care to retain children and adolescents on treatment and ensure that they have suppressed viral loads must leverage different opportunities and address various challenges over the life-course. It is a well-known fact that children and adolescents have lower reported treatment coverage, adherence to treatment and viral suppression rates than older age groups.

Adolescence is a unique time of transition during which a person needs access to quality health, education, and other social services. Considering that adolescence is characterized by a strong desire for autonomy and a rise in sexual expression and exploration, many adolescents living with HIV, like their peers without HIV, initiate sexual activity during this stage. Unfortunately, young people tend to have both low levels of sexual health knowledge and limited access to sexual and reproductive health (SRH) services, which are linked to higher engagement in sexual risk behaviours, unplanned pregnancies, and higher rates of sexually transmitted infections (STIs). While these outcomes are concerning for all young people, the consequences are far more concerning for adolescents living with HIV (ALHIV), as they are at risk for transmitting the virus to their sexual partners and for young women, their infants, and experiencing worse health outcomes due to STI co-infection. Disclosure to intimate partners remains a challenge especially for the adolescent girls and young women, and this may further compound their ability to adhere to treatment while in relationships or worsen the rates of intimate partner violence.

Evidence shows that ALHIV are more likely to experience mental health challenges compared to their peers who do not have HIV. Mental health problems are prevalent in ALHIV, often remain untreated, and may negatively affect antiretroviral therapy (ART) adherence, viral suppression, and retention in

care. The integration of routine mental health screening in paediatric ART programmes is a feasible approach for identifying and referring adolescents with mental health and adherence problems to counselling and psychosocial support services and if needed to psychiatric care. Adolescent-focused health services and individual-level interventions are needed to improve adherence and retention in care while focusing on all their health needs.

Current adolescent health care training programs, including those that are high quality and interdisciplinary, are insufficient in number and worse still inaccessible for health care providers in low resource settings. Health care providers need to be skilled with adolescent responsiveness to address many of the health needs of adolescents in particular ALHIV, if we are to achieve the target of ending AIDS and unnecessary early mortality by 2030 in this population.

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