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Editorial

Short Note on Zidovudine

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DESCRIPTION

Zidovudine (ZDV), is also called azidothymidine (AZT), is an antiretroviral medication used to avert and treat HIV/AIDS. It is formally suggested for use with other antiretrovirals. It is used to prevent mother-to-child spread during birth or after a needlestick injury. It is sold both by itself and together as lamivudine/zidovudine and abacavir/lamivudine/zidovudine. It may be given through oral route or intravenous route. Common side effects include cerebral pains, fever, and nausea. Serious side effects include liver problems, muscle damage, and high blood lactate levels. It is commonly used in pregnancy and appears to be safe for the baby. ZDV is of the nucleoside simple converse transcriptase inhibitor (NRTI) class. It works by inhibiting the enzyme reverse transcriptase that HIV uses to make DNA and therefore decreases replication of the virus.

Zidovudine was first narrated in 1964. It was supported in the United States in 1987 and was the main treatment for HIV. It is on the World Health Organization's List of Essential Medicines, the safest and most effective medicines needed in a health system. It is available as a generic medication. AZT is generally dosed twice a day in combination with other antiretroviral treatments. This approach is mentioned to as Highly Active Antiretroviral Therapy (HAART) and is utilized to prevent the probability of HIV resistance. AZT has been utilized for post-exposure prophylaxis (PEP) in combination with another antiretroviral drug called lamivudine. Together they work to significantly decrease the danger of HIV disease following the main single exposure to the infection. Recently, AZT has been restored by other antiretrovirals, for example, tenofovir to give PEP. AZT is presently a vital part of the clinical pathway for both pre-exposure prophylaxis and post-exposure treatment of mother-to-child transmission of HIV during pregnancy, labor, and delivery and has been proved to be vital to uninfected siblings' perinatal and neonatal development. Without AZT, as many 10 to 15% of fetuses with HIV-infected mothers will themselves become infected. AZT has been shown to reduce this risk to as little as 8% when given in a three-part regimen post-conception, delivery, and six weeks post-delivery. Consistent and proactive precautionary measures, such as the rigorous use of antiretroviral medications, cesarean section, face masks, heavy-duty rubber gloves, clinically segregated disposable diapers, and avoidance of mouth contact will further reduce child-attendant transmission of HIV to as little as 1–2%.

During 1994 to 1999, AZT was the essential type of prevention of mother-to-child HIV transmission. AZT prophylaxis prevented more than 1000 parental and infant deaths from AIDS in the United States. In the U.S. when, the aggred standard of care for HIV-positive mothers was known as the 076 regimen and complicated five daily doses of AZT from the second trimester beyond, as well as AZT intravenously administered during labour as this therapy was lengthy and expensive, it was deemed unfeasible in the Global South, where mother-to-child transmission was a significant problem. Various examinations were started in the late 1990s that sought to test the efficacy of a shorter, simpler regimen for use in 'resource-poor' countries. This AZT short course was a inferior standard of care and would have been considered malpractice if trialed in the US; however, it was nonetheless a treatment that would improve the care and survival of impoverished subjects.

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