Effort Launched to Adapt HIV/AIDS Drugs for Children

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A NONPROFIT RESEARCH AND DEVELOPMENT ORGANIZATION has launched a new program to adapt HIV/AIDS medications for safer, more effective pediatric use.

The Drugs for Neglected Diseases initiative (DNDi), which is based in Geneva, Switzerland, announced the new effort in July. The program will build on the DNDi’s work in developing and delivering new treatments for such neglected diseases as sleeping sickness, leishmaniasis, and Chagas disease.

HIV infection nearly has been eliminated in infants and children in developed countries because of effective treatment to prevent mother-to-child transmission of the virus. But the same preventive methods are not widely available in low-income countries.

“Children with HIV/AIDS in low- and middle-income countries . . . are absent from the HIV research and development agenda, and this is largely because they are poor and voiceless and do not represent a lucrative market,” said Bernard Pécoul, MD, MPH, executive director of the DNDi, in a statement.

After discussions with experts in endemic countries and officials from government health agencies in the United States and Europe, the DNDi has set as its first goal the development of an improved first-line protease inhibitor–based regimen for children younger than age 3 years, regardless of prior exposure to antiretroviral drugs.

The World Health Organization (WHO) recommends antiretroviral therapy for children with HIV infection who are younger than age 2 years. However, the safety and correct doses of key drugs have not been established for very young children and formulations have not been specifically adapted for children.

According to the DNDi, its pediatric HIV therapy has to be easy to administer, better tolerated by children than current drugs, heat stable, and dosed once daily or less. New formulations also should be durable against drug resistance, compatible with tuberculosis drugs, and affordable.

The WHO has reported that more than 2.5 million children younger than age 15 years currently are living with HIV infection. Some 2.3 million of these children live in sub-Saharan Africa.

According to the Joint United Nations Programme on HIV/AIDS, only 28% of children in immediate need of antiretroviral therapy have access to treatment. Without treatment, one-third of children born with HIV will die before their first birthday, 50% will die before they are aged 2 years, and 80% will die before they are aged 5 years.

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Sudden Cardiac Death in Women

A healthy lifestyle with no cigarettes, regular exercise, proper body weight, and a diet filled with vegetables, fruits, nuts, whole grains, and fish may reduce a woman’s risk of sudden cardiac death by 80%.

Stephanie E. Chiuve, ScD, of Brigham and Women’s Hospital in Boston, led the study that reported the finding. “Sudden cardiac death in women occurs more frequently without any diagnosis of coronary heart disease, so it’s very good news that a healthy lifestyle can prevent sudden cardiac death,” she said.

http://tinyurl.com/3nbq2vh

Less Salt But Not Less Risk

A moderate decrease in dietary salt does not reduce the risk of developing cardiovascular disease or dying, according to a recent analysis.

The meta-analysis of 7 randomized, controlled studies produced no strong evidence to show that dietary and behavior change programs, group counseling, or written information decreased the risk of heart disease or death from any cause in people with normal or high blood pressure.

http://tinyurl.com/4hyu9tv

Rare Blood Stem Cell

Scientists have isolated a rare type of stem cell that can regenerate all types of cells in the blood system.

The team from Canada found that human stem cells that express the adhesion molecule CD49f have the most regenerative capability. The finding may aid the development of new clinical applications for stem cells as well as advance stem cell research.

http://tinyurl.com/3qsvxyo

Drug-Resistant Gonorrhea

Gonorrhea appears to be developing resistance to currently available drugs. The US Centers for Disease Control and Prevention reported a significant increase in gonorrhea strains resistant to cefixime and ceftriaxone during the past decade.

The agency warns that if the gonorrhea bacterium loses its susceptibility to cephalosporins, no other well-studied and effective treatment options are available for this sexually transmitted infection. Gonorrhea can cause infertility and other problems.

http://tinyurl.com/4yfxft

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