Long-Acting PrEP Shows Promise

An injectable, long-acting preexposure prophylaxis (PrEP) regimen reduced HIV incidence by 66% compared with an oral PrEP regimen, according to a study presented during the 23rd International AIDS Conference (AIDS 2020).

Daily oral PrEP can prevent about 99% of HIV infections. But having to take a daily pill can be difficult for some patients, diminishing the drug’s effectiveness, lead author Raphael Landovitz, MD, professor of medicine at the University of California, Los Angeles, said during a press briefing.

Landovitz compared oral PrEP with injections of a long-acting version of the HIV drug cabotegravir every 8 weeks, to determine whether the injectable drug would offer comparable protection. Nearly 4600 cisgender men and transgender women, all of whom have sex with men, enrolled at 43 sites in Africa, Asia, Latin America, and the US. During the nearly 3-year study, 52 participants contracted HIV—39 in the oral PrEP group and 13 in the injectable group. A companion study of injectable PrEP is currently underway in cisgender women in sub-Saharan Africa.

A second study presented during AIDS 2020 by Catherine Koss, MD, assistant professor of medicine at the University of California, San Francisco, found that PrEP was more effective than investigators expected in 16 rural communities in Kenya and Uganda. Among 5447 individuals at elevated risk of contracting HIV who took PrEP between 2016 and 2019, the infection rate was 0.35%. That was 79% lower than the 1.42% infection rate between 2015 and 2017 among matched historical controls in the same communities who did not use PrEP.

Customized Injection Guidelines Reduce Nurses’ Errors

After a study showed that user-friendly directions for nurses reduced intravenous drug administration errors, the United Kingdom’s National Health Service will begin user testing of all injection guidelines. Errors during the administration of intravenous drugs are common. In fact, studies indicate errors occur in about one-third to about half of all intravenous drug administrations. Ambiguous or hard-to-follow guidelines may contribute to nurses making such mistakes, lead author Matthew Jones, PhD, a lecturer in the Department of Pharmacy and Pharmacology at the University of Bath, noted in a statement.

“Current instructions are usually written by pharmacists using a format and language that makes immediate sense to other pharmacists, but not necessarily to nurses,” he explained. “Different professions think about things in different ways as a result of the different training they receive, and we need injection guidelines to be written in a way that is understood by nurses because they prepare and administer most injections.”

Through several rounds of “user testing,” Jones and his colleagues developed a new guideline designed to help prevent common errors by including easy-to-use equations and tables for dosing, dilution, and infusion rates. They then randomized 273 nurses to administer a voriconazole infusion to a mannequin in the middle of their shift using either the old guideline or the user-friendly version. The difference in how often each group made at least 1 moderate to severe error wasn’t significant. But nurses who used the user-friendly version made no guideline-related errors 48% of the time while those using the old guideline had error-free administrations only 20% of the time. Nurses using the new guideline completed the task in about 1.6 minutes’ less time.

Surge in Child Abuse, Harm During COVID-19 Pandemic Reported

A study documenting an alarming rise in abuse-related head injuries among children in the United Kingdom adds to increasing evidence that the novel coronavirus pandemic and efforts to contain it are taking a serious toll on children.

The study found that between March 23 and April 23, 2020—the first month of self-isolation in the United Kingdom—10 children were treated for suspected abusive head trauma at the Great Ormond Street Hospital for Children in London. The injuries included brain bleeding and skull fractures. The hospital’s monthly average of such injuries was 0.67 during the previous 3 years. Two parents reported delaying care because they feared infection with the novel coronavirus. The authors expressed concern that children with less profound abuse-related injuries may be going untreated.

A World Health Organization report on global child abuse noted that schools were closed to 1.5 billion children worldwide because of the pandemic, and their parents face heightened stress and anxiety from lost income, social isolation, and potential crowding in the home. Additionally, more time online may expose children to an increased risk of online sexual exploitation or bullying.

“Violence against children has always been pervasive, and now things could be getting much worse,” Henrietta Fore, executive director of UNICEF, said in a statement about the report. “Lockdowns, school closures and movement restrictions have left far too many children stuck with their abusers, without the safe space that school would normally offer. It is urgent to scale up efforts to protect children during these times and beyond.” — Bridget M. Kuehn, MSJ

Note: Source references are available through embedded hyperlinks in the article text online.