Treatment: HIV Capsid Inhibitor

Lenacapavir shows promise for long-acting HIV treatment and prevention.

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Lenacapavir, the first HIV capsid inhibitor, reduces viral load in people who have used several prior antiretrovirals and have multidrug-resistant virus, according to Gilead Sciences. Lenacapavir disrupts the HIV capsid, the cone-shaped shell that surrounds the viral genetic material. Because it works differently than existing antiretrovirals, it remains active against virus that has developed resistance to other types of drugs. In the Phase II/III CAPELLA trial, 36 adults with highly resistant HIV added oral lenacapavir or a placebo to their current failing regimen. After 14 days, 88% of people in the lenacapavir group had at least a half-log reduction in viral load, compared with just 17% in the placebo group. The treatment was safe and well tolerated. At that point, all participants were offered lenacapavir injections every six months plus an optimized combination regimen. Prior studies showed that lenacapavir injections led to sustained drug concentrations for several months. Researchers are also testing lenacapavir as a twice-yearly injectable PrEP option.

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