



Generic Hepatitis, HIV and TB Treatments Could Plunge to \$90 Each

Such generic drugs could save nations huge sums in the coming years.

August 17, 2017 By [Benjamin Ryan](#)

The cost to treat hepatitis B and C (HBV/HCV), HIV and tuberculosis (TB) could drop below \$90 each in nations provided they can negotiate to obtain certain cheap generics in the coming years. This is according to a recent cost analysis of the steps necessary to produce medications for such conditions, taking into account a 10 percent profit margin.

Together, HIV, TB, HCV and TB kill more than 4 million people annually.

Dzintars Gotham, MBBS, of Imperial College, London, presented findings from the analysis at the 9th International AIDS Society Conference on HIV Science in Paris (IAS 2017). For his research, he teamed with investigators from Howard University in Washington, DC, St. Stephen's AIDS Trust in London, the University of Liverpool and the University of Cambridge.

Dzintars Gotham speaks at IAS 2017 in Paris. Presentation by Dzintars Gotham at IAS 2017; and Hill et al, *J Virus Erad* 2017; 3: 117-123.

The researchers analyzed the cost of the raw drug, or active pharmaceutical ingredient (API), for various direct-acting antivirals (DAAs) to treat HCV, antiretrovirals (ARVs) to treat HIV and HBV, and TB drugs. They then factored in the cost of making these raw materials into tablets. Next, they considered taxes and a profit margin. Lastly, they compared their estimated prices to the current lowest prices of these medications according to the Médecins Sans Frontières (Doctors Without Borders) 2016 guide to antiretroviral drug costs.

For example, in their analysis of the potential cost of a 12-week course of generic Sovaldi (sofosbuvir), they found that: the cost of the API was \$1,050 per kilogram (enough to treat 30 people); the API for a 12-week course was \$35; the cost to formulate the drug into tablets was 1 cent per tablet, raising the overall cost to \$36; the cost of packaging was 35 cents per month of drug, raising the overall cost to \$37; and considering a profit margin and tax bump of 13 percent, the final generic price was \$42.

Gotham told the conference that the current lowest prices for a 12-week course of

Sovaldi and Daklinza (daclatasvir) treatment for hep C range from a high of \$142,710 in the United States to \$104,723 in Denmark, \$96,404 for treatment through Veterans Affairs in the United States, \$50,059 in France, \$29,361 in Brazil, \$174 in Egypt and \$108 in India. According to his team's analysis, a generic version of the treatment could be produced for as little as \$47.

“SOF/DCV” is shorthand for Sovaldi (sofosbuvir) and Daklinza (daclatasvir), a common hep C regimen. “USD” stands for U.S. dollars. Presentation by Dzintars Gotham at IAS 2017; and Hill et al, J Virus Erad 2017; 3: 117-123.

Generic versions of drugs for HIV, HBV, HCV and TB that could cost less than \$90 are listed below. Such price reductions are likely feasible in low- and middle-income nations according to the analysis. Meanwhile, once the drugs lose their patent protection (go off patent), wealthier nations could see similar steep price reductions.

HIV (per year of treatment):

- Atripla (efavirenz/tenofovir disoproxil fumarate/emtricitabine) for HIV: \$78. This regimen has a current global lowest price (GLP) of \$100. The components of the regimen will lose their patent protection between 2017 and 2029.
- Viread (tenofovir disoproxil fumarate), Epivir (lamivudine) and Sustiva (efavirenz), \$82. The current GLP of this regimen is \$107. All these drugs are currently off patent.
- Truvada (tenofovir disoproxil fumarate/emtricitabine), \$54, which has a current GLP of \$67. The components will lose patent protection between 2017 and 2032.

Hepatitis B (per year of treatment):

- Baraclude (entecavir), \$82. It has a current GLP of \$409 and is off patent.

Hepatitis C (per 12-week course):

- Sovaldi, \$42. It has a current GLP of \$45 and will lose patent protection between 2028 and 2030.
- Harvoni (ledipasvir/sofosbuvir), \$79. The combination regimen has a current GLP of \$307 and will lose patent protection between 2028 and 2032.
- Sovaldi plus Daklinza, \$47. The regimen has a current GLP of \$108 and will lose patent protection between 2028 and 2031.

TB (per six-month course):

- Isoniazid, rifampin, pyrazinamide and ethambutol (HRZE), \$38. The regimen has a current GLP of \$27 and is off patent.

These estimates are limited by the fact that they do not factor in the cost of transporting the generic drugs or conducting trials to ensure that the drugs are comparable to brand-name versions. However, the profit margin buffer may help offset such costs. Additionally, the analysis does not consider the cost if drugs are manufactured domestically instead of imported, which would presumably make them less expensive.

The analysis also hinges on the presumption that nations can successfully negotiate such steep price reductions with drug manufacturers.

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