

ABACAVIR/ LAMIVUDINE (ABC/3TC)

GENERAL INFORMATION

- Therapeutic class: Two NRTI in a double fixed-dose combination.
- WHO guidelines: Indicated for first- and second-line for children and as part of triple NRTI drugs under specific conditions in adults, adolescents and children.^{6,22}
- Originator company and product brand name: GlaxoSmithKline (GSK), Kivexa (EU), Epzicom (U.S.). In April 2009, Pfizer and GSK jointly announced the creation of ViiV, a new joint venture focusing solely on the R&D and commercialisation of HIV medicines.
- First approval by U.S. Food and Drug Administration (FDA): August 2004.²³
- WHO Model List of Essential Medicines (EML): Individual medicines included in the 17th edition. The WHO Expert Committee on the Selection and Use of Essential Medicines recommends and endorses the use of fixed-dose combinations and the development of appropriate new fixed-dose combinations.²⁴
- World sales of originator product: 2010: US\$ 899 million; 2009: \$834 million; 2008: \$721 million; 2007: \$641 million; 2006: \$475 million; 2005: \$233 million.^{163, 25, 27, 28, 29, 30}
- Patents: Most patents on abacavir (ABC) or lamivudine (3TC) also affect this combination. In addition, GSK applied for patents more specifically related to the combination.³⁰⁸ The patent expiry dates related to this combination are 2016 in the U.S. and 2019 in EU.³⁰

PRICE INFORMATION

Developing country prices in US\$ per patient per year, as quoted by companies.

The price in brackets corresponds to the price of one tablet. Products quality-assured by US FDA or WHO prequalification (as of May 2011) are in **bold**.

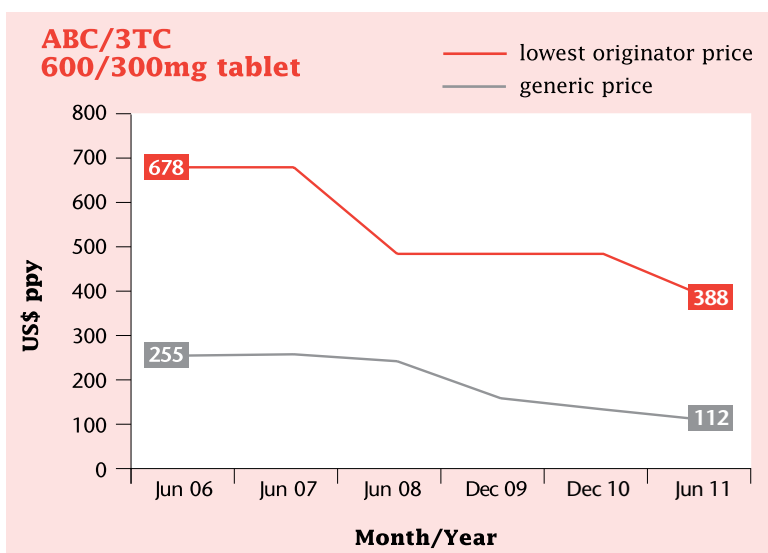
	Daily dose	ViiV	Aurobindo (CF)	Matrix (CF)
Who can access this price?		See annex 2		
ABC/3TC 60/30mg tablet	4		175 (0.120)	292 (0.200)
ABC/3TC 600/300mg tablet	1	388 (1.064)	112 (0.308)	280 (0.767)

(CF) The Clinton Foundation has negotiated with this manufacturer for reduced prices on some formulations for countries in their consortium. See annex 13 for details.

Evolution of the lowest price quoted for developing countries since 2006:

As of May 2011, two generic source of ABC/3TC 600/300mg tablet were quality-assured by US FDA or WHO prequalification. The lowest price is shown here.

Since 2006, the originator price has decreased by 43%, while generic prices have dropped by 56%.



Continued overleaf ❖

SPOTLIGHT ON ACCESS ISSUES

This combination is likely to fall out of favour since the latest 2010 WHO guidelines for adults and adolescents recommend treatment consisting of either AZT or TDF. It remains an important combination for the treatment of paediatric HIV, however.

In 2011, ViiV clarified their pricing structure (see annex 2), confirming that their standardised price discounts were not in fact available to all fully-financed Global Fund or PEPFAR programmes, contrary to previous announcements. Global Fund financed programmes in middle-income countries have not been and will not be eligible for those prices, and will have to negotiate prices on a case-by-case basis.

In February 2011, Shionogi-ViiV Healthcare announced the start of a phase III trial for a new fixed-dose combination including ABC, lamivudine (3TC)³⁶ and a new integrase inhibitor S/GSK1349572 (an investigational drug known as dolutegravir, now in phase III clinical development).³⁷

Patents

GlaxoSmithKline could not apply for basic patents related to ABC or 3TC in some developing countries such as India that did not grant patents on pharmaceutical products at

the time. This allowed Indian drug manufacturers to develop generic versions of each medicine, and of the combination of the two.

However, GSK widely applied for patents in other developing countries where possible.

Paediatrics

In its 2010 guidelines for antiretroviral therapy for HIV in infants and children, WHO recommends ABC/3TC as one of the possible combinations to be given with either an NNRTI or a PI in the first-line. ABC/3TC can also be part of second-line regimens, depending on what has been used as a first-line. WHO guidelines recommend a preferential order of NRTIs to be used in first-line regimens, with AZT preferred over ABC, and ABC preferred over d4T.²²

ABC will nevertheless continue to be an important drug for HIV/TB co-infected young children, not least because children have limited treatment options – there are interactions between TB drugs and nevirapine (NVP), and the dosage data on efavirenz (EFV) for children under three is lacking.

However, a recent survey regarding paediatric second-line carried out by the TREAT Asia Paediatric HIV

Observational Database (TApHOD) found that ABC was more difficult to access in Asia and that its relatively high cost could act as a deterrent to wider use.⁴¹ This applies particularly in countries where ABC is patented and where the generic ABC/3TC 60/30mg tablet is not available.

For children who need this combination, two generic sources of ABC/3TC 60/30mg are quality-assured by either US FDA or WHO prequalification. However, in countries where ABC is patented, the generic tablet is not available, and ViiV does not produce a fixed-dose combination of these drugs for children – even though the FDCs exist for adults.

The Paediatric Antiretroviral Working Group of WHO considers the development of a scored adult fixed-dose combination of ABC/3TC 300/150mg tablet, for use in children weighing over 25kg, to be a high priority.²²

The Working Group also considers the development of a triple fixed-dose combination of ABC/3TC/NVP 60/30/50mg tablet to be a high priority.²² This formulation does not exist yet although it is needed to simplify first-line treatment.