Health Economics and Epidemiology Research Office
HE²RO
Wits Health Consortium
University of the Witwatersrand

HE²RO Policy Brief

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An overview of the pharmaceutical market for Tenofovir-Emtracitabine-Efavirenz (TEE) and Tenofovir-Lamivudine-Dolutegravir (TLD) within the South African private sector

Background

The scale up of access to HIV care and treatment is critical to the success of achieving the UNAIDS 95-95-95 goals in South Africa (SA)[1]. There were an estimated 5.4 million people on Antiretroviral therapy (ART) in the SA public sector in 2021, including 137,655 children (<15 years) and 5,328,800 adults[2]. Despite the large HIV burden, it is estimated that only 62% of the 7.5 million people who are living with HIV (PLHIV) in the country are on ART.

Recent reports suggest that the increasing trend in PLHIV being lost to care is of growing concern [3]. The perception of poor-quality HIV health service delivery in the public sector, e.g. long waiting times, are potential drivers of disengagement from care [4]. This has led to a number of cash-paying, uninsured PLHIV seeking care in the private-sector, where approximately 420 000 insured patients already access ART [5]. These patients are obliged to pay cash to access private-sector Antiretrovirals (ARVs). Private-sector medicine prices including that of ARVs are regulated through the Single Exit Price (SEP) legislation and may not be affordable.

Determining the number of cash-paying clients in the private sector has proven difficult. This review therefore sought to understand the distribution of private-sector TEE(Tenofovir, Emtricitabine, Efavirenz) and TLD(Tenofovir, Lamivudine, Dolutegravir) ARV volumes (where 1-pack = 1-month supply), quantify the number of cash-paying private-sector ART clients and to unpack existing market dynamics influencing demand. Secondly, this review intended to unpack patterns of TEE versus TLD utilisation to assess the rate of uptake of optimised regimens to inform policy review in line with the national guidelines.

Methods

We conducted a quantitative analysis on secondary private sector sales datasets with a focus on first line ART regimens containing TEE and TLD fixed-dose combinations.

Single exit price (SEP) database analysis

We used the most recently updated SEP database at the time of this analysis (March 2020) to identify TEE and TLD products, manufacturers and pricing variations.

Private sector procurement data analysis

The private sector sales dataset for Anatomical Therapeutic Chemical (ATC) category JO5A Antiretrovirals (ARVs) was purchased from IQVIA in July 2020. Data was analysed in MS Excel to gain an understanding of TEE verse TLD volumes sold between August 2019 to July 2020, as well as to identify products, prices and associated market-share. Data on the various dispensing channels, payment methods as well as script-line information was used to estimate the number of patients paying cash for ARVs within this market.

Results

An analysis of the SEP database revealed price disparities across products and manufacturers within both the TEE and TLD private-sector markets. TEE product prices ranged from R230 to R747 per pack, while TLD product prices ranged from R230 to R522 per pack.

Based on the product utilisation trends, data shows that the transition from TEE to TLD is lagging in the private sector with higher priced TEE products driving volumes.

The possible reasons for these price-volume distortions could include, among others:

- Lack of awareness amongst customers and prescribers of the availability of lower priced options
- Lack of incentives to implement policies
- Possible perverse incentives still embedded in the system

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PEPFAR U.S. President's Emergency Plan for AIDS Relief
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Right to care Treating Health Seriously
EQUIP Innovation for Health

South African private sector TEE verse TLD volumes (August-2019 to July-2020)

TEE& TLD Market size
Estimated revenues (ZAR)
1.1 Billion

Higher priced TEE products still drive volumes in the private sector despite the recommendation to transition eligible patients onto more effective and lower priced TLD regimens

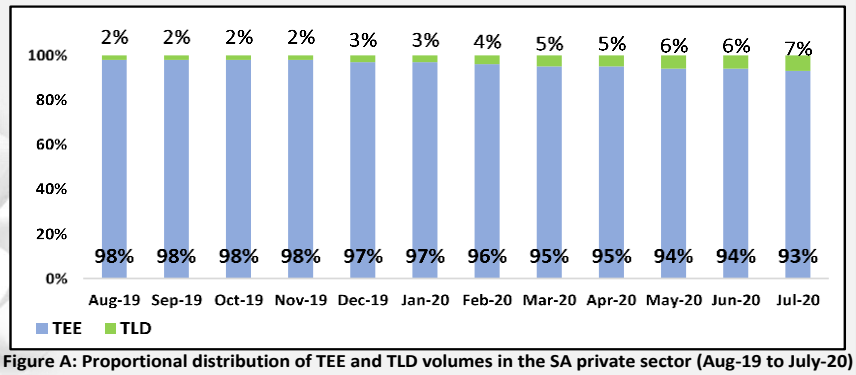


Figure A: Proportional distribution of TEE and TLD volumes in the SA private sector (Aug-19 to July-20)

Market, manufacturer and price overview (August-2019 to July-2020)

The TEE market is moderately concentrated with 71% of total volumes distributed between 3 large manufacturers (Aspen©, Cipla-Medpro© and Adcock Ingram©). In comparison the TLD market is highly concentrated with Mylan products contributing to 58% of total market volumes. Pricing disparities exist across manufacturers as well as within manufacturers product lines for both TEE and TLD.

TEE market overview for the private sector (August 2019 - July 2020)

	Aspen Pharmacare©	Cipla-Medpro©	Adcock Ingram©	Activo Health©	Mylan©	Macleods©
TEE Market size (volumes/packs sold)	2 654 508*					
Herfindahl—Hirschman Index (HHI)	1912 (Moderate concentration)					
Market share	25%	26%	20%	11%	8%	4%
Estimated volumes	656 563	693 589	526 725	307 791	204 852	113 610
Estimated Sales (R)	R 322 230 386	R 215 928 102	R 158 133 607	R 147 437 432	R 96 935 472	R 38 755 528
% Contribution to total TEE volumes	94%**					
Estimated total revenues (R)	R1 066 924 421*					

Note: *Includes Hetero©, Aurogen© and Specpharm©, MSD©, Novagen© and Emcure© ** Remaining 6% of volumes split between Hetero drugs, Aurogen, Specpharm, MSD, Novagen and Emcure

TLD market overview for the private sector (August 2019 - July 2020)

	Mylan©	Cipla-Medpro©	Aspen Pharmacare©	Activo Health©	Ranbaxy©
TLD Market size (volumes/packs sold)	113 777*				
Herfindahl—Hirschman Index (HHI)	4068 (Highly concentrated)				
Market share (volumes)	58%	25%	6%	5%	4%
Estimated volumes	65 795	28 597	6 752	5 410	4 244
Estimated Sales (R)	R21 724 738	R7 760 458	R2 037 534	R2 643 576	R1 143 422
% Contribution to total TLD volumes	98%				
Estimated total revenues (R)	R 36 116 287**				

Note: *Approximately 0,3% of volumes split between Adcock Ingram© and Aurogen©, 2% Emcure© Includes Adcock Ingram©, Aurogen© and Emcure©**

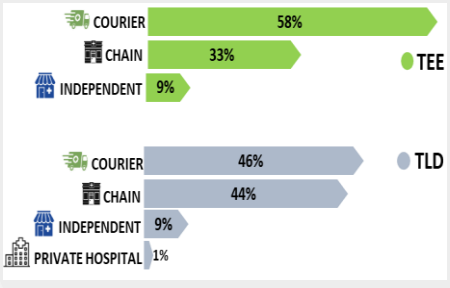
SEP overview (Mar-20)

- R748 — TEE: MSD ATRIPLA®
- R563 — TEE: SPECPHARM EFTENEM®
- R522 — TLD: RANBAXY TELATRI®
- R488 — TEE: NOVAGEN CITENVIR®; TEE: EMCURE TRIONCE®
- R466 — TEE: ACTIVO TRIOLAR®; TEE: AUROGEN TRUNO®; TEE: MACLEODS TRIPAVIR®; TEE: MYLAN ATROIZA®; TEE: ASPEN TRIBUSS®; TEE: CIPLA ODIMUNE®
- R306 — TEE: ADCOCK TRIVENZ®; TEE: MACLEODS TRIVAGE®
- R294 — TEE: HETERO HEFTENAM®
- R235 — TEE: MACLEODS TRIEMTA®
- R234 — TLD: RANBAXY LANOGRAV®
- R230 — TEE: ADCOCK RIZENE®; TEE: CIPLA TRENVIR®; TEE: MYLAN ATENEF®; TLD: MYLAN ACRIPTEGA®; TLD: MYLAN ODYSTRA®; TLD: MYLAN RANEGA®

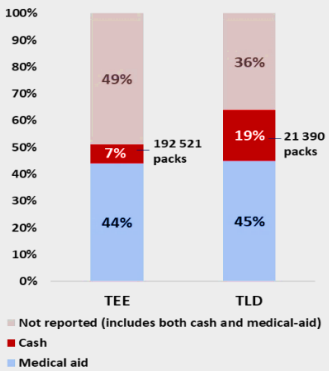
Herfindahl-Hirschman Index (HHI) is an indicator of market concentration/competition calculated by summing the squares of each manufacturer's market share: HHI<1500 = low concentration (perfect competition), 1500<HHI<2500 = moderate concentration, HHI>2500 = highly concentrated market

Distribution channels and payment method (August -2019 to July-2020)

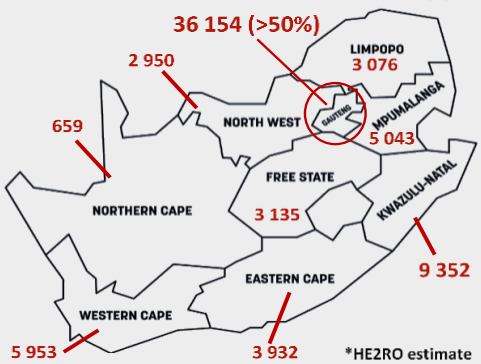
Distribution of total packs sold by type of pharmacy/channel



Distribution of total packs by payment method



From #packs to #people
Estimated number of ***cash-paying*** *patients**
71 940



Analysis of payments

Source: HE2RO analysis

Figure 1: Results

 Recommended citation: K. Govender, M. Gaula, T. Maotoe, J. Miot. An overview of the pharmaceutical market for Tenofovir-Emtracitabine-Efavirenz (TEE) and Tenofovir-Lamivudine Dolutegravir (TLD) within the South African private sector: HE²RO Policy Brief Number 44, Health Economics and Epidemiology Research Office, 2022

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