

Drug-prescribing habits in private surgeries and public hospitals

A new study investigates the impact of South Africa's National Drug Policy on pharmaceuticals in South Africa ten years after implementation. The study compares prescribing habits in public hospitals and private surgeries, reports GORDEN MOHLALA.



AFTER THE 1994 ELECTIONS IN SOUTH AFRICA, the minister of health appointed a Drug Policy Committee (DPC) following the draft of a National Drug Policy (NDP) to develop an essential drug list (EDL) for the public sector and to prepare treatment guidelines for health personnel.

The implementation of the NDP was characterised by a mixed and at times controversial set of outcomes. A number of studies and reviews were commissioned by the national Department of Health to look at the impact of these important gains (EDL and standard treatment guidelines) on primary healthcare in the provinces, followed by a national essential drugs programme (EDP) survey that was finalised in 2003. This was supposed to serve as preparation for the implementation of certain aspects of the NDP. Among other objectives, the NDP was to improve national drug use by both health personnel and consumers.

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This study looks specifically at prescribing habits and examines the following questions: what impact the NDP has on pharmaceutical use in the public sector; whether the NDP adhered national prescribing and dispensing of drugs by medical, paramedical and pharmaceutical personnel; whether the EDL is used effectively; and what the level of generic prescribing is.

On another level, which added much value to the study, we compared prescribing habits between the public hospitals and private surgeries run by private doctors. The study was conducted in the Western Cape and Limpopo between August and December 2005. We included a random selection of 15 public hospitals and 36 private surgeries from four districts and

employed World Health Organisation (WHO) methods and guidelines for the evaluation of drug use. The investigation included a review of patients' medical records and patient exit interviews.

Table 1 shows a comparison of drug-prescribing habits in public hospitals and private surgeries by province. According to the WHO/International Network for Rational Use of Drugs (INRUD) the following standards apply:

- ▶ The number of drugs prescribed per patient should be 1.6 per encounter;
- ▶ The percentage of antibiotics per case should not exceed 20%;
- ▶ The percentage of injections per case should not exceed 15%.

Ideally, all prescribed drugs should be those listed on the essential drug list.

Overall we found that medical staff in public hospitals prescribed more drugs per prescription compared to private surgeries. In the Western Cape, however, an average of 1.9 drugs were prescribed in private surgeries compared to 3.0 in public hospitals. In Limpopo, analysis of data revealed an average of 3.7 (SD=1.6) in private surgeries compared to 3.4 in public hospitals. In general, an average of 4.5 drugs in public hospitals were prescribed per hospitalisation (in-patient files) compared to 3.1 (SD=2.3) drugs prescribed per day consultation. Staying within the provinces, in Limpopo alone, public hospitals prescribed an average of 4.85 drugs per hospitalisation and 3.3 per day consultation, while private surgeries prescribed 3.94 per consultation. Public hospitals in the Western Cape prescribed an average of 4.0 per hospitalisation and 2.8 per day consultation, while private surgeries prescribed an average of 2.5 drugs per consultation.

The national EDL is meant to serve as a medicines formulary for the public sector. Challenges facing the EDL are that it does not cover all classes of drugs and that is why certain institutions, especially those that offer tertiary and quaternary (highly specialised treatment) healthcare, formulate their own medicines formulary lists through a drugs and therapeutics committee (DTC).

Drugs not appearing on the EDL and on the hospital's formulary list can, therefore, only be obtained following a written motivation by a doctor. This explains in part why, since the launch of the EDL and standard treatment guidelines, some drugs

appearing on patients' prescriptions are not listed on the EDL. In the private sector, prescribers have a greater choice of which medications they want to prescribe since they are not bound to using the EDL, which explains the low EDL prescribing levels

in the Western Cape, 72.8% (n=902) of drugs prescribed on the day of visit were antibiotics, while antibiotic prescription in private surgeries was 27.2% (n=275) on the day of visit. In Limpopo we found a 63.4% (n=1 552) prescription rate of antibiotics in

Table 1: Comparison of drug prescribing habits in public hospitals and private surgeries, by province

WHO/INRUD indicators	Public	Private	Public	Private	Public	Private	Total
Drug use	3.4	3.7	3.0	1.9	3.2	2.8	
Average number of drugs per prescription	(SD=1.8)	(SD=1.6)	(SD=2.0)	(SD=2.5)	(SD=2.3)	(SD=1.3)	
Injection use	9.8	32.9	6.7	13.7	8.2	22.3	
% of encounters with ≥1 injection	(n=429)	(n=152)	(n=282)	(n=124)	(SD=22)	(SD=15.8)	
Antibiotic use	63.4	36.6	72.8	27.2	68.1	31.9	
% antibiotic prescribing (per total responses)	(n=1 552)	(n=80)	(n=902)	(n=275)	(SD=6.8)	(SD=4.6)	
Other indications	93.1	89.0	92.0	86.0	92.6	86.5	
% drugs prescribed from EDL	(n=1 409)	(n=415)	(n=528)	(n=181)	(SD=0.8)	(SD=0.7)	
Other indications	41.7	21.9	48.6	27.1	45.2	24.5	
% drugs prescribed generically	(n=1 397)	(n=147)	(n=589)	(n=159)	(SD=4.9)	(SD=3.7)	

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observed in this sector. In the Western Cape, 92% (n=828) of all prescribed drugs in public hospitals were drugs appearing on the EDL, compared to 68% (n=181) in private surgeries. In Limpopo, 34.1% (n=1 409) of prescriptions were drugs appearing on the EDL, compared to 69% (n=415) in private surgeries.

Our findings suggest that there could be reason to investigate the lower generic prescribing percentages in the private sector. In the Western Cape, generic prescription was higher in public hospitals (48.6%, n=859), compared to private surgeries (27.1%, n=153). In Limpopo, however, generic prescriptions in private surgeries were found to be 21.9% (n=147), compared to 41.7% (n=1 367) in public hospitals.

The problem of overprescribing antibiotics has been linked to the global problem of drug resistance and could further be linked to the frustration of dealing with multiple infections in people infected with HIV. We measured and compared the levels of antibiotic use in public hospitals and private surgeries and found that in public hospitals

public hospitals, compared to 36.6% (n=630) in private surgeries.

Injection prescription was found to be within acceptable standards in public hospitals compared to high-dose rates in private surgeries. In the Western Cape, 13.7% (n=124) of patients who visited private surgeries received at least one injection compared to 6.7% (n=282) in public hospitals. In Limpopo, 32.9% (n=152) of patients who visited private surgeries received at least one injection compared to 9.8% (n=429) in public hospitals.

Doctors may prescribe for different reasons in different scenarios. Researchers have linked patients' conditions, the market, economic objectives and clinical trials to doctors' prescribing habits.

In conclusion, our findings suggest that, although the binding processes brought up as a result of the NDP, the EDL and the standard treatment guidelines have no clear regulatory role in the private sector with regard to drug use, drug prescribing in both sectors needs to be regulated through public-private partnerships for public benefit, especially with regard to the use of antibiotics, essential drugs and generic prescribing. ●

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