

## Role and contribution of private healthcare sector doctors in the management of HIV-infected patients in the eThekweni Metropolitan area of KwaZulu-Natal

P Naidoo, CC Jinabhai, M Taylor

*Private healthcare sector doctors have a pivotal role to play in the management of HIV and AIDS infection. These doctors need to have an accurate knowledge of the management of the infection, and a positive attitude towards the treatment of persons with HIV and AIDS. This study investigated the extent of private healthcare sector doctor involvement in the management of HIV and AIDS patients and their training needs. A cross sectional descriptive study of private general practitioners and specialists was undertaken in the eThekweni Metro of KwaZulu-Natal. Structured self-report questionnaires were sent to 931 private healthcare sector doctors. Of the 331 (35.6%) responses received, three doctors did not complete the questionnaire, 235 (71.6%) doctors managed HIV and AIDS patients, but 93 (28.4%) doctors did not; of these, 48 (51.61%) had not encountered HIV and AIDS patients, 25 (26.88%) referred such patients to specialists, six (6.45%) cited cost factors as reasons for not treating such patients, whilst 12 (12.90%) doctors, though they indicated that there were other reasons for not managing HIV-infected patients, did not specify the reason. Two doctors (2.15%) indicated that due to inadequate knowledge they did not manage HIV and AIDS patients. Most doctors, 151 (63.5%), managed between 1-20 patients, whilst 19 (8%) managed more than 200 patients. The mean number of years since doctors had qualified was 22.02 (SD 10.58). Significantly more younger (recently qualified) doctors than older (qualified more years) doctors treated HIV/AIDS patients ( $p < 0.001$ ). Most doctors (76.3%) expressed a need for more training/knowledge on the management of HIV patients in areas such as overall HIV care (59%), antiretroviral therapy (53%), side effect management (39%) and therapeutic monitoring (35%); 194 (62.2%) doctors indicated their willingness to participate in a post graduate diploma in HIV and AIDS management. These results suggest that increased private sector doctor involvement in the treatment of HIV/AIDS patients needs to be facilitated. Addressing doctors' training needs could contribute to achieving this.*

### Introduction

AIDS has emerged as a critical public health problem in the developing world, and involving both the public and private healthcare sectors in its management is essential.

At the end of 2006, 24.7 million adults and children were living with HIV in sub-Saharan Africa,<sup>1</sup> of which over five million were living in South Africa alone.<sup>2</sup> Provision of antiretroviral therapy has expanded dramatically in sub-Saharan Africa with more than one million people receiving antiretroviral treatment by June 2006. However, the need in this region is such that less than a quarter of the people in need of antiretroviral treatment are receiving it.<sup>2</sup> A study by Rosen and Connelly demonstrated that the extent of private sector involvement is less than what the media has led people to believe. Even some of South Africa's largest employers are waiting for the national public treatment programme to assume responsibility for their HIV-infected employees.<sup>3</sup>

HIV data obtained via the antenatal clinic surveillance system suggest that HIV prevalence has not yet reached a plateau in South Africa. In addition, South Africa's epidemic has now reached the stage where increasing numbers of people are dying of AIDS.<sup>2</sup> Therefore all doctors, irrespective

of where they practice, have a pivotal role to play in the prevention and management of HIV infection and AIDS; this requires an accurate knowledge of the management of this disease, and positive attitudes towards persons infected.<sup>4</sup> It is also important that there is recognition of the barriers that prevent doctors from providing care to such patients and attempts to overcome the barriers should be prioritised. This study aimed at investigating whether general practitioners (GPs) and specialists in the private healthcare sector are involved in the management of HIV/AIDS patients and their training needs in respect of the comprehensive management of these patients in the eThekweni (Durban) Metro of KwaZulu-Natal. The objectives were to examine the current level of involvement of these doctors in the management of HIV-infected patients, and to assess the doctors' training needs for the comprehensive management of HIV-infected patients.

### Method

#### *Study design and sample*

This descriptive cross-sectional study included all private GPs and specialists working in the eThekweni Metro of KwaZulu-Natal who were solicited and invited to participate. Most of the eThekweni Metro is urban (central) and suburban (south, north and west) with a small rural constituency (inner west). A comprehensive list of 1255 GPs and specialists practicing in the eThekweni Metro was obtained from the Medpages Directory, KwaZulu-Natal Managed Care

P Naidoo, School of Pharmacy and Pharmacology; CC Jinabhai, M Taylor, Department of Community Health, University of KwaZulu-Natal. Correspondence to: P Naidoo, School of Pharmacy and Pharmacology, University of KwaZulu-Natal, Private Bag X54001, Durban 4001. E-mail: [naidoopj@ukzn.ac.za](mailto:naidoopj@ukzn.ac.za)

Coalition (which is a private doctor grouping), doctors' guilds, Lancet Clinic Courier database, and the Southern African HIV Clinicians Society.

The following specialist doctors were excluded after some of them indicated that their contact with HIV/AIDS patients was minimal, and felt that it was inappropriate for them to participate. These were specialist doctors such as gynaecologists, surgeons, occupational health doctors, psychiatrists, cardiologists, anaesthetists, ophthalmologists, plastic surgeons, critical care, and doctors working in the trauma unit of private hospitals.

*Study variables and instrument*

A structured self-reported questionnaire was used which included the number of years qualified as a doctor, and the number of HIV/AIDS patients managed currently. The number of years qualified as a doctor was used as a surrogate for age. If they did not manage HIV-infected patients the reason for this was requested. Doctors were asked about their training requirements with regard to HIV/AIDS management, and if they would be willing to participate in a postgraduate diploma course. This questionnaire was pilot-tested at a regular meeting of the local doctors' association. Minor changes in respect of age range were undertaken. The amended questionnaires were then sent to all the doctors in the study sample. The doctors were given two weeks to complete the questionnaire after which the questionnaires were returned to the researcher by post, faxed, emailed, collected or sent via the courier system. All information was treated confidentially and a follow up with non responders was undertaken telephonically or through visits by the researcher. The data were captured and analysed using SPSS 11.5 data programme. Ethical approval for the study protocol was obtained from the Ethics Committee of the Nelson R Mandela School of Medicine, University of KwaZulu-Natal.

**Results**

A total of 200 doctors did not satisfy the inclusion criteria, in that they had minimal contact with HIV and AIDS patients, thereby giving a sample size of 1055 doctors.

Of the 1055 questionnaires administered, 74 (7.4%) questionnaires were returned marked as deceased, emigrated, retired, left address, semi-retired specialist, sick or on holiday not available. A valid sample of 931 doctors was then established.

The results are presented describing the response rate, the number of doctors managing HIV/AIDS patients, reasons for not managing such patients and the training requirements of the doctors.

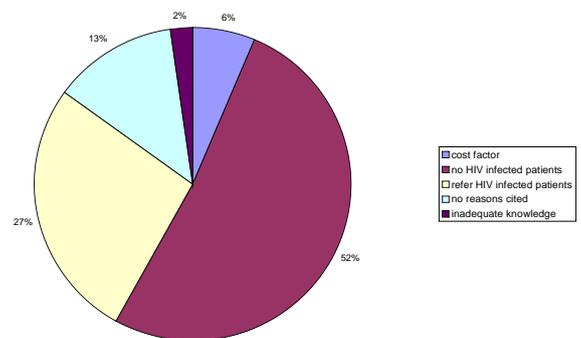
*Response rate*

Of the 931 questionnaires administered, 331 questionnaires were returned, providing a response rate of only 35.6%. Three doctors did not complete the questionnaire.

The doctors who participated practiced throughout the metro with the majority of the respondents practicing in the central area (36.3%) of the metro followed by the south (31.1%) with 13.9% and 16.6 % of the doctors in the northern and inner west areas of the metro, respectively.

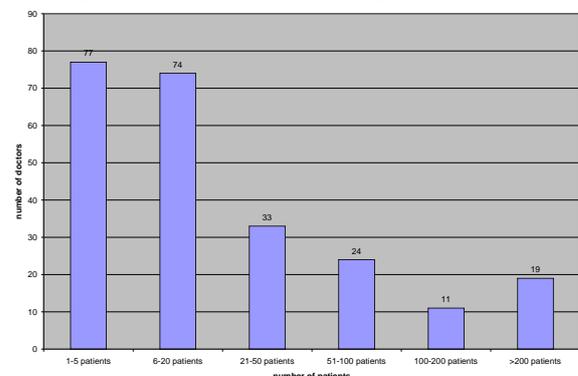
The majority of the doctors [n=235, (71.6%)] managed HIV-infected patients with 33.2% of these doctors practicing in the central area and another 31.9% practicing in the southern region of the eThekweni municipality. Of the 93 doctors that did not manage HIV-infected patients, 41.9% also came from the central area in comparison to a lower percentage of 25.8% from the southern area of the metro. A further small percentage of 12.9% practicing in the inner west area of the metro also did not manage HIV/AIDS patients. An interesting observation was the significant geographic difference between the doctors working in the central suburb and those working in the south in terms of the number of years qualified, with more older doctors working in the central area [mean number of years qualified=24.62 (SD 11.13)] and more younger doctors [mean number of years qualified=18.83, (SD 9.630 p=0.002)] working in the south.

The following reasons were provided by the doctors for not managing HIV-infected patients (Figure 1): over half of the doctors (52%) who did not treat HIV and AIDS patients reported that their practice profile did not include such patients, whilst over a quarter of the doctors referred their patients to specialists; the cost factor (not further explained) was cited by 6% of the doctors.



**Figure 1: Reasons given for not managing HIV infected patients by private healthcare sector doctors (n=93)**

The majority of the doctors in the metro [n=151 (63.5%)] managed between 1-20 patients but the range, reaching up to over 200 patients, was wide, as shown in Figure 2. The mean number of years since doctors had qualified was 22.02 years (SD 10.58). Significantly more younger doctors [mean number of years qualified=19.59 years (SD 9.54)] treated HIV-infected patients than did older doctors [mean number of years qualified=28.38 (SD 10.48) (p < 0.001)].



**Figure 2: Number of patients cared for by private healthcare sector doctors (n=235)**

The majority of doctors (76.3%) required more training on the management of HIV/AIDS patients. This included 80%

of doctors currently managing such patients but two thirds of doctors who did not manage HIV/AIDS patients also wanted training. These doctors were more likely to require information on overall HIV care. The three most common areas in which training needs were identified are indicated in Figure 3. The highest priority for training was: overall HIV care, antiretroviral (ARV) management and ARV side effect management.

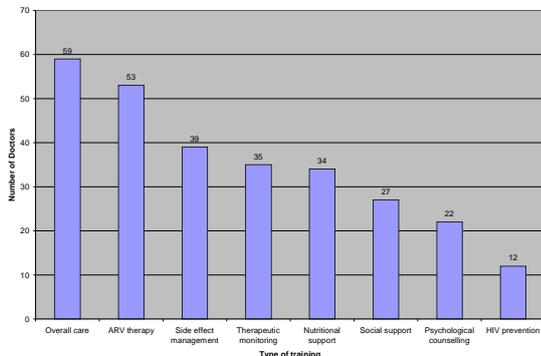


Figure 3: Training needs of private healthcare sector doctors in respect of HIV/AIDS management (n=331)

A significant difference in the mean years since qualification was found in terms of those doctors indicating a need for training compared to those not indicating such a need (20.63 years, SD 10.27 versus 26.24 years, SD 9.8,  $p < 0.005$ ). Significantly more younger doctors required training in therapeutic drug monitoring [mean years qualified=17.95 (SD 9.77),  $p < 0.004$ ] and side effect management [mean years qualified=18.39 (SD 9.27),  $p = 0.01$ ] than older doctors [mean years qualified=22.18 (SD 10.39) and mean years qualified=22.06 (SD 10.85), respectively], who indicated that they did not require training in these areas.

Information on nutritional support was requested by 40.3% of the doctors managing HIV-infected patients whilst only 19.6% of the doctors who did not manage these patients required this information ( $p < 0.005$ ). Doctors managing more than 100 HIV-infected patients were less likely to ask for additional training when compared to the other doctors as

depicted in Table 1. Doctors who manage between 51 and 200 HIV-infected patients were less likely to need information about overall HIV care and prevention compared to doctors who managed fewer (between one and 50) patients.

Doctors managing more than 51 patients were more likely to ask for information about ARV therapy, therapeutic drug monitoring and side effect management.

This study also showed that 62.2% (n=194) indicated their willingness to participate in a postgraduate diploma in HIV/AIDS management. Of these doctors, 159 (82.8%) are managing HIV and AIDS patients, whilst 33 (17.2%) are not. Interestingly, there was a significant difference in the mean age ( $p < 0.005$ ) of doctors willing to participate in a post graduate diploma [mean years qualified=19.88 (SD 9.73)] compared to those who were not willing [mean years qualified=25.69 (SD 11.03)].

## Discussion

The majority of the doctors in the metro [n=151 (63.5%)] managed between 1-20 patients. Significantly more 'younger' doctors [mean number of years qualified, 19.59 years, (SD 9.54)] treated HIV-infected patients than did 'older' doctors [mean number of years qualified 28.38 (SD 10.48)  $p < 0.001$ ]. The period since qualifying was found to significantly influence whether doctors managed HIV and AIDS patients with fewer older doctors caring for such patients. The main finding of this study was that years since qualifying, taken as a surrogate for age is a factor in determining whether doctors managed HIV/AIDS patients and their training needs. This in turn suggested that comprehensive HIV management skills and knowledge are critical factors in the care of HIV/AIDS in the private healthcare sector.

Several factors may be responsible for doctors not managing HIV and AIDS patients. Studies undertaken in countries outside South Africa have indicated these barriers which include the fear of becoming infected, homophobia, burnout,

Table 1: Percentage of private healthcare sector doctors that require training in each patient category

		Number of patients				Chi square p value*
		1-50		51->200		
		Count	Column %	Count	Column %	
Training category	yes	147	81.7%	40	80.0%	0.789
	no or unsure	33	18.3%	10	20.0%	
Overall HIV care	yes	92	62.2%	19	47.5%	0.094
	no	56	37.8%	21	52.5%	
ARV therapy	yes	77	52.4%	26	65.0%	0.155
	no	70	47.6%	14	35.0%	
Therapeutic drug monitoring	yes	45	30.6%	24	60.0%	0.001
	no	102	69.4%	16	40.0%	
HIV prevention	yes	11	7.7%	11	27.5%	0.002
	no	132	92.3%	29	72.5%	
Side effect management	yes	55	37.7%	24	60.0%	0.011
	no	91	62.3%	16	40%	
Other areas of training	yes	14	9.7%	10	25.0%	0.011
	no	131	90.3%	30	75.0%	

\* If <25% of cells had expected counts < 5, Pearson's chi square p value was reported, otherwise Fisher's exact test p value was reported.

religious attitudes, and unwillingness to care and touch patients.<sup>5</sup> A review article concluded that "it seems that professional staff and above all students are afraid of contracting AIDS themselves, it also appears that knowledge is related to fears".<sup>6</sup> It is therefore important that doctors are well informed about the risks of being infected whilst managing HIV/AIDS patients, and that they have the skills to reduce such risks. However, it is important to be knowledgeable about the facts of transmission, and to understand that avoiding or refusing care is unethical and cannot be condoned.<sup>7</sup>

The majority of the doctors, both 'young' and 'old', do require training in the management of HIV/AIDS patients. Training requirements were also influenced by the number of HIV/AIDS patients managed, with doctors more experienced in managing such patients (since they were handling large numbers) having different training requirements. Doctors managing more than 51 patients were more likely to ask information about ARV therapy, therapeutic drug monitoring and side effect management, most likely due to the fact that these doctors were more likely to implement, monitor and manage ARV therapy and related complications. This study has shown that almost three quarters of the doctors felt that they require more training in the management of HIV and AIDS patients. This result is consistent with other studies where doctors opted not to manage HIV and AIDS patients because they found that caring for HIV/AIDS patients to be too complex.<sup>8</sup> A significant proportion of doctors not treating HIV-infected patients referred them to specialists. This could also be related to lack of confidence to treat these patients secondary to lack of training. Rawlings *et al* in a study undertaken in the USA found that almost half of the respondents either did not have any experience or had a maximum of five years experience in treating HIV patients. This limited experience together with a lack of support staff were listed as impediments to care.<sup>9</sup> However, when this is compared to South Africa, five years of experience may be significant due to the high level of exposure to HIV, while in the USA this may not be the case unless in specialist care. These conclusions were supported by another study in the United States which emphasised that lack of appropriate training posed a barrier to doctors managing HIV and AIDS patients.<sup>10</sup> Other studies clearly demonstrate that doctors refused to treat HIV and AIDS patients because they feared that they would lose patients,<sup>9,17</sup> whilst structural barriers such as lack of support staff,<sup>9</sup> structure of general practice,<sup>18</sup> lack of community social services or resources,<sup>14,16</sup> financial risk or the lack of insurance<sup>9,14,15,22</sup> together with demands on physicians time<sup>4,15,18-21</sup> were cited as additional barriers. In this study, the following barriers reported were cost factor and inadequate knowledge.

The high prevalence of HIV and AIDS in South Africa, and the increase in the prevalence of HIV infection suggest that increasingly it will be necessary for GPs to be involved in the care of these patients.<sup>23</sup> As the epidemic matures many doctors should be managing HIV/AIDS patients in KwaZulu-Natal, since this province has the highest prevalence in the country as shown by antenatal clinic attendees' data; in 2004, 40.7% of women attending public antenatal clinics were HIV-seropositive.<sup>24</sup> The care of people with HIV and AIDS is challenging due to its multidisciplinary nature, its medical complexity, physical manifestations the need for infection control procedures and the associated stigma but despite this,

over 70% of the respondents did manage HIV and AIDS patients. Due to the magnitude of the epidemic in South Africa, it is not surprising that most doctors do treat HIV-infected patients.

This study also showed that 62.2% (n=194) indicated their willingness to participate in a postgraduate diploma in HIV and AIDS management. The significant difference in the mean age of doctors willing to participate in a postgraduate diploma compared to those who were not willing is expected based on the fact that the 'younger' cohort of doctors was more involved with HIV care compared to the 'older' doctors and therefore more committed to seek opportunities for formal training.

The most important limiting factor of this study is the response rate of only 35.6%. The response rate could have been influenced by factors such as those doctors being involved and interested in HIV/AIDS management responding and providing information, whilst non responses (n=600) could be due to doctors who do not manage HIV and AIDS patients, or that they do not like participating in research whilst other doctors did indicate that they were too busy to complete a questionnaire. In future studies, response rate could be improved by considering the above factors. Secondly, the respondents were likely to be skilled, confident and knowledgeable doctors which in turn may indicate that the situation described is an optimistic one, whilst those doctors who lacked confidence, felt less knowledgeable or were not managing HIV patients optimally were more likely not to participate.

Because this study is limited in terms of sample size and, in particular, the cohort of doctors who did not treat HIV, further studies are required in South Africa to describe and define more accurately the barriers preventing private healthcare sector doctors playing a more active role in the management of HIV and AIDS patients. Addressing these barriers could ensure that patients with HIV and AIDS are more optimally managed.

## Conclusion and recommendation

The results from this study indicate that most doctors in the private healthcare sector are currently involved in the management of HIV/AIDS patients. Younger doctors are predominantly involved in management, with the 'older' doctors being less involved with HIV care. The study highlighted the need to provide further information and training to doctors practising in the eThekweni community. This could empower doctors to manage HIV-infected patients more effectively and also remove barriers preventing doctors to be more involved in HIV care in the private healthcare sector. Additional studies are required to assess and identify possible barriers to private healthcare sector doctors not playing an active role in the management of HIV/AIDS patients. In addition, strategies to make private healthcare more accessible should be developed such as public-private partnerships or the introduction of social health insurance.

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