

Perceptions and practice of physicians treating HIV patients in the private sector in India: A cross sectional study

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ABSTRACT

Objectives: To understand the perceptions of the private HIV physicians regarding HIV case management and reporting practices followed by the National AIDS Control Programme, India. **Methods:** We conducted this cross-sectional study among 142 private practitioners attending Chennai ART Symposium 2017, from five south Indian states. We used a pre-structured questionnaire to collect information on demography, qualification, the number of HIV patients treated, ART regimen, and the reporting practices. EpiInfo 7.2 was used for data analysis. **Results:** Out of the 142 private practitioners, 89 (63%) responded. All respondents had diagnosed and/or treated at least 10 HIV patients in the past 12 months. About 42% of respondents reported attending an orientation program on ART by the State AIDS Control Society (SACS). Seventy percent of respondents were aware of the National AIDS Control Organization's (NACO) Public Private Partnership (PPP) initiative for private clinics, and 44% (39) reported sharing monthly reports with SACS. However, 77% of physicians were not interested to enroll due to increased paperwork and complicated reporting mechanisms. **Conclusion:** Private sector physicians treating People Living with HIV (PLHIV) are aware of NACO guidelines and reporting mechanisms. A simplified reporting process and an engaging platform are needed to facilitate reporting.

Keywords: Disease notification, HIV, monitoring, patient care, PLHIV, private sector

Introduction

In India, there are around 2.1 million People Living with Human Immunodeficiency Virus (PLHIV).^[1] With the advent of antiretroviral therapy (ART) and its rapid expansion, the annual number of AIDS-related deaths declined, by 56% between 2010 and 2017.^[2] National AIDS Control Programme (NACP) initiated the ART services with eight ART centers in 2004, and exponentially scaled-up to 540 ART Centers with a network of

over 1000 Link ART Centres across the country serving over 1.13 million PLHIV by 2019.^[3,4]

Although the bulk of HIV healthcare is being handled by the NACP, it is important to note that the health sector in India is highly pluralistic; multiple systems of medicine including alternative and indigenous medicine are legally practiced in diverse institutional settings.^[5] HIV care is also delivered in the private sector where approximately 100,000 patients are being managed, and payment for consultation and treatment is largely made out-of-pocket.^[5-7] The private health sector in India includes for-profit providers of varying capacity, informal providers such as drug sellers, and nongovernmental organization (NGO)

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providers.^[8] The private sector accounts for 80-85 percent of patient care in India with no difference in urban and rural areas.^[9-11]

Given the overwhelming presence of the private sector in health, it is assumed that collaboration with the private sector in the form of Public-Private Partnership (PPP) would improve equity, efficiency, accountability, quality, and accessibility of the health system.^[12] Engaging different stakeholders from the private and public sectors is one of the key strategies of the NACP.^[13] To increase access to ART services, the NACP has partnered with private institutions to deliver ART through an innovative partnership approach.^[14] With the roll-out of “Treat All”,^[15] there is an increase in the number of People living with HIV (PLHIV) requiring ART which will burden the strained public health infrastructure.

In India, private practitioners are involved in the diagnosis and first-line treatment of HIV patients. Private medical practitioners, who often function from small individual clinics offering outpatient facilities, refer their patients to private laboratories for investigations.^[16,17] In the absence of mechanisms to ensure the return of the patients, and given the wide choice of health care facilities available, seeking a second opinion and ‘shopping’ for alternative treatments and diagnosis is common among patients. In this unregulated and variable context, HIV management has many logistic and ethical challenges that render the need for effective monitoring and reporting between the practitioners, their patients, and the national program.

Limited information is available on the role, perceptions, and practice of private sector clinicians in delivering HIV/AIDS-related services in India. The objective of this study was to describe the perceptions and practices of private sector clinicians on HIV care service delivery and monitoring mechanisms of the National AIDS Control Programme.

Methods

We conducted a cross-sectional survey among practicing primary care physicians from five high HIV prevalence states diagnosing and treating HIV patients who attended a national-level symposium on HIV in Chennai. The respondents either belonged to Government institutions but also had private practices, the private clinic run by NGOs and private practitioners having their clinics with at least two years of experience treating PLHIV.

Data collection

We conducted this cross-sectional survey by sharing a structured, self-administered questionnaire with HIV physicians attending the Chennai ART (CART) Symposium 2017 conducted by Y.R. Gaitonde Centre for AIDS Research and Education (YRG CARE) in Chennai. The questionnaire had two parts. Part-A requested information regarding basic details and perception of HIV physicians regarding the HIV Programme in India. Part-B

is about the preferred mode of reporting on HIV treatment services to the NACP by private practitioners.

Statistical analysis

We described the respondent profile using frequencies and percentages. We applied binary logistic regression with an opinion on the feasibility of information sharing as outcome variables and private practitioner characteristics as independent variables. The results were reported as odds ratios and 95% confidence intervals (CI). The association between opinion on whether patient information sharing will help NACP design the Programme better and the above independent variables were studied using Fisher’s exact test. We dichotomized years of experience with <5 years as reference. The number of patients treated in the last 12 months was dichotomized at 100. SPSS version 22 was used for data analysis.

Ethical clearance

We obtained ethical committee clearance for this study from the institutional ethics committee of Sri Balaji medical college, Chennai, India. (Ref No 002/SBMC/IHEC/2017/926). We shared the study information sheets with the participants attending the CART symposium and we obtained written informed consent from the doctors who had consented to participate in the survey. We did not collect any personal identifiers of participants. The data collected was shared only with the authors of this manuscript for analysis and review.

Results

We shared the survey information sheet and questionnaire with 142 private practitioners, 62% (89/142) was the response rate; 70.79% were males. Of these, 50.56% (45/89) were serving in public health facilities but also had private practice, 8.99% (8/89) were working in a non-government organization and 40.45% (36/89) were private practitioners. The majority (63/89) had experience in providing ART services for more than five years. Evidently, 88.64% (78/89) reported that sharing a report on the “number of PLHIV on ART” accessing care in the private sector will aid in planning by NACP. About 77.53% opined that it is feasible for private practitioners to report to NACP and 56.52% (39/69) to be a monthly reporting system. Patient confidentiality and fear of losing their patient was the predominant reason for not reporting to the National AIDS Control Programme [Table 1].

It was noted that 67% were aware of the PPP model of ART service delivery and 79% were not members of this initiative [Figure 1]. Seventy-four percent (68/89) were aware of NACO treatment guidelines; however, only 41.57% (37) attended orientation on patient management and Post-Exposure Prophylaxis (PEP) [Table 2]. Forty percent (36/89) of respondents followed the 2016 NACO guidelines for ART initiation (CD4 Counts below 500). Viral load was used as the preferred monitoring tool by 82.02% (73/89) respondents. 58.43% have reported that there were instances of needle stick

injuries at their clinics and 91.01% of respondents opined that there should be a national registry on Needle stick injury and Post-Exposure Prophylaxis (PEP) in all Health care facilities in both Public and Private sector. The majority of respondents (77.53%) were aware of PEP, and 50.56% opined that it is feasible to implement PEP in India. A total of 23.6% of respondents were prescribing PEP in India. The respondents belonging to states where HIV is a notified disease had five times greater odds; those who reported to NACO/SACS had eight

times higher odds. Respondents representing states reporting on HIV had through nine times more like to consider the feasibility of patient information sharing by private practitioners to NACO [Table 3].

Discussion

The cross-sectional survey among the physicians practicing in the private sector from the five high prevalent states in India indicated opportunities for training, operationalizing ART services, reporting, and providing PEP as per guidelines by the private physicians.

This study showed that about 80% of physicians were prescribing ART as per national guidelines and were aware of the recent Treat All policy. This high knowledge and practice can be attributed to the capacity-building sessions attended by the physicians and about 50% of the respondents were part of the public health intervention. 77.5% of the physicians in this study opined that it is feasible for private practitioners to report to NACP and 44% to have monthly reporting which is in line with directions from the Supreme Court of India given in the year 2008 which includes the guidance for private practitioners to report on ART services delivery.^[3,4]

One major challenge indicated by the survey participants was the inability of the private practitioners to preserve patient confidentiality and the fear of losing their patients if reported to the National Programme. This corroborates the general perceptions of private medical practitioners studied where even notifiable disease like TB is also not reported due to lack of time, concerns towards patient confidentiality, and fear of offending patients.^[4,18,19] A similar experience was reported from Nigeria where despite of high level of awareness of the disease surveillance system the private health care providers were not reporting to the government due to a lack of skilled human resources as well as complicated procedures.^[20]

As PEP is considered a bio-behavioral intervention, healthcare providers are likely to play a critical role in implementing

Table 1: Perception on reporting to NACP by the private practitioners (n=89)

| Characteristics | n | % |
|---|----|-------|
| Gender | | |
| Male | 63 | 70.79 |
| Age | | |
| Median Age | 45 | 12.5 |
| Place of work | | |
| Government and Private | 45 | 50.56 |
| Non-Governmental Organization (NGO) | 8 | 8.99 |
| Only Private | 36 | 40.45 |
| HIV treatment experience (years) | | |
| <1 | 4 | 4.49 |
| 1 to 2 | 7 | 7.87 |
| 2 to 5 | 15 | 16.85 |
| 5 to 10 | 28 | 31.46 |
| >10 | 35 | 39.33 |
| Opinion on sharing information on Number of PLHIV in private sector will aid NACP in planning | | |
| No | 6 | 6.74 |
| Yes | 78 | 87.64 |
| Don't Know | 5 | 5.62 |
| Opinion on feasibility of private practitioners to report to NACP | | |
| No | 14 | 15.73 |
| Yes | 69 | 77.53 |
| Don't know | 6 | 6.74 |
| Frequency of reporting patients on ARV (n=69) | | |
| Monthly | 39 | 56.52 |
| Quarterly | 26 | 37.69 |
| Half yearly | 4 | 5.79 |

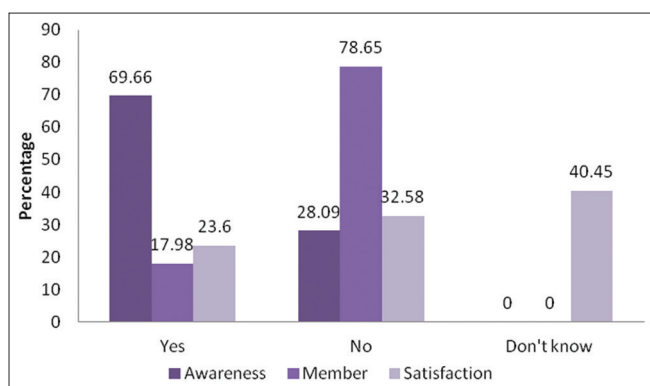


Figure 1: Awareness, acceptance and satisfaction of PPP model for ART services for PLHIV management by National AIDS Control Organization

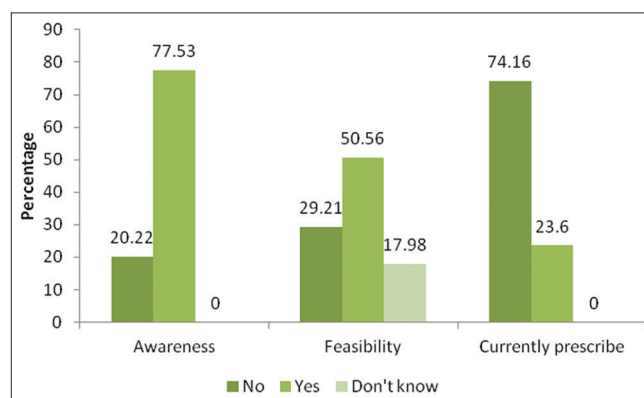


Figure 2: Pre-Exposure Prophylaxis (PEP) awareness, feasibility and current practice of primary care physicians treating HIV patients in 2017

Table 2: Knowledge, awareness and practices regarding reporting for PLHIV among private practitioners

| Variable | Characteristic | n (%) |
|---|---|------------|
| Aware on directives to prevent irrational prescription of ART | No | 21 (23.6) |
| | Yes | 68 (76.4) |
| Attended orientation programs on patient management | No | 52 (58.42) |
| | Yes | 37 (41.57) |
| Is HIV infection a notifiable disease in your State | No | 38 (42.7) |
| | Yes | 41 (46.07) |
| | Don't know | 10 (11.24) |
| Cases reported to NACO (n=84) | Yes | 23 (27.4) |
| | No | 61 (72.6) |
| Aware to report cumulative number of patients on treatment) to NACO through email | Yes | 27 (30) |
| | No | 62 (70) |
| When ART is initiated n=82 | CD4 Count <500 | 36 (40.45) |
| | CD4 Count <350 | 6 (6.74) |
| | Immediately when reported HIV reactive | 34 (38.2) |
| | Based on Clinical status and OIs | 3 (3.37) |
| | If Viral Load is detectable | 3 (3.37) |
| PEP prescribed currently (n=87) | No | 66 (74.16) |
| | Yes | 21 (23.6) |
| First line regimen used | NRTI + NNRTI/NTRI + NRTI + NNRTI | 15 (16.85) |
| | NTRI + NRTI+Integrase Inhibitors | 2 (2.25) |
| | NTRTI + NRTI + NNRTI | 72 (80.9) |
| Frequency of VL Monitoring (n=81) | Quarterly | 1 (1.2) |
| | Every 6 months | 24 (29.6) |
| | One year after follow-up | 34 (42) |
| | Targeted viral load when there is clinical or Immunological failure | 22 (27.2) |

Table 3: Factors affecting opinion on PLHIV information sharing with NACO/SACS

| Factors [†] | Outcomes: Information sharing | |
|---|-----------------------------------|---------------------------------|
| | Beneficial for programme planning | Feasible OR (95% CI); P |
| | Fisher exact value; P | |
| Sex (Ref-Female) | 0.669; 0.446 | 0.33 (0.07,1.63);0.175 |
| Experience (Ref- <5 years) | 0.685; 0.433 | 1.88 (0.55,6.42);0.313 |
| Clinic Type (Ref-Single doctor) | 0.693; 0.472 | 1.57 (0.48,5.15);0.461 |
| Orientation programmes attended | 0.034; 0.028 | 2.23 (0.63,7.97);0.215 |
| HIV notifiable disease in State | 0.028; 0.012 | 5.04 (1.23,20.7);0.025 |
| Number of PLHIV treated in last 12 months (Ref- <100) | 1; 0.501 | 0.95 (0.26,3.39);0.937 |
| Reported treated cases to NACO/SACS | 0.173; 0.117 | 8.14 (0.94,70.6);0.057 |
| Awareness about reporting cumulative numbers via e-mail to NACO | 0.17; 0.086 | 8.98 (1.05,76.5);0.045 |
| Occupational exposure to HIV | 0.547; 0.302 | 1.13 (0.2554218,4.955039);0.876 |
| Awareness about the PPP model | 0.04; 0.04 | |

[†]The reference category for categorical variables unless specified is "No"

PEP in care settings. Studies conducted have affirmed that interventions are needed to engage a broader array of healthcare providers in PEP provision and if resources are invested in training clinicians to provide PEP, then these stakeholders could enhance the use of PEP as part of a prevention package by primary providers.^[21] Further, Emily. A. Arnold *et al.* observed that the involvement of private health care providers in PEP is well established, albeit there are challenges in administering PEP in private clinic settings. 23.6% of respondents are currently prescribing PEP for their clients indicating a shift in risk perceptions and behavioral practices among health care providers.^[21]

The National AIDS Control Program monitoring tools are not fully equipped to absorb information from the private providers on disease surveillance and guidelines despite a national policy. Similar experiences from Revised National Tuberculosis Control Program (RNTCP) treatment centers were reported where free drugs were provided to private clinics and an interactive database with a responsive system encouraged private providers to report on a periodical basis. With HIV viral load monitoring implemented in India, there is a need to orient the private providers in reporting formats with a facilitating approach in a non-threatening way that would encourage reporting. There is a further need to strengthen the PEP management with provision

for easy linkage to viral load monitoring at the Government facilities.

The recent directive from the Government of India regarding the initiation of ART centers in all 500+ medical colleges both in the Government and Private sector is a welcome step in furthering private engagement in HIV care and building a comprehensive HIV prevention and care strategy.^[22] However, this process needs more clarity on whom to approach and how to get started to have reporting system established for the National AIDS Control Programme along the lines of “Nikshay” – The web-based case-based reporting platform for the TB control Programme. An inbuilt mechanism for data quality monitoring of reporting sites and providing feedback in a constructive way would go a long way in engaging the private sector in quality HIV care with an agreed national framework of treatment and reporting system.

The limitation of this current study is that it was done on a small selected sample size and a convenient sampling technique was followed which was also a limitation. Large studies involving private practitioners, institutions, and corporate sector roles in HIV care are recommended in the future.

Conclusion

Private sector physicians involved in PLHIV care are aware of NACO guidelines and reporting mechanisms. They can collaborate with Government through an established recognition mechanism where Government can incentivize the partnerships with mentoring, capacity building, and provision of a uniform framework. Web-based online applications and authentication/recognition will make the process easier. Wider dissemination of information on Public Private Partnerships and opportunities for PEP and ART to follow guidelines with user-friendly reporting formats with essential data needed for patient management monitoring and to inform national treatment policies for HIV care in India.

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Conflicts of interest

There are no conflicts of interest.

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