



## DETERMINANTS OF NON-ADHERENCE OF HIV PATIENTS TO DOTS AT TERTIARY CARE HOSPITAL, RANCHI, JHARKHAND

### Medical Science

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### ABSTRACT

HIV patient are more prone to be co-infected with TB which is leading cause of death. **OBJECTIVE:** - To assess factors associated with non-adherence of HIV positive patients to DOTS. **METHODOLOGY:-** It was the cross sectional hospital based study, carried out in ART and DOTS centre of tertiary care hospital RIMS, Ranchi, Jharkhand. The period of study was from Nov 2013 - Jan 2014. **RESULT:** - Out of 30 patients in ART centre, 9 (30%) patient developed TB, of which 6 (67%) had pulmonary TB. Among 9 TB patient, 5 (56%) were adherent to DOTS while 4 (44%) were not. Half of the patients 2 (50%) were non-adherence due to travel expenses and half (50%) were due of difficulty in travelling to DOTS centre and poor patient information and communication **CONCLUSION:** - Counseling and IEC important to adherence to DOTS.

### KEYWORDS

HIV/TB co-infection, counseling, IEC

### INTRODUCTION

Tuberculosis is a serious health threat, especially for people living with HIV. People living with HIV are more likely than others to become sick with TB. Worldwide, TB is one of the leading causes of death among people living with HIV. Risk of developing tuberculosis (TB) is estimated to be between 26 and 31 times greater in people living with HIV than among those without HIV infection. In 2014, there were 9.6 million new cases of TB, of which 1.2 million were among people living with HIV [1].

HIV patient are prone to be co-infected with TB in which there is increased incidence of multidrug resistant (MDR) and extended drug resistant (XDR) cases. As we know, the management of MDR and XDR cases is difficult resulting in increased incidence of deaths. Globally in 2014, there were an estimated 3.3% of new cases and 20% of previously treated cases with MDR-TB. Drug resistance surveillance data show that an estimated 480 000 people developed MDR-TB in 2014 and 190 000 people died. 300 000 cases of MDR-TB estimated among TB patients reported by national TB programmes in 2014[2]. Extensively drug-resistant TB (XDR-TB) has been reported by 105 countries in 2014. On average, an estimated 9.7% of people with MDR-TB have XDR-TB. Non adherence to treatment is the patient's inability or refusal to take TB medications according to prescribed by health professional and there is multiple barriers to adherence to DOTS. Thus proper adherence to DOTS is required through counseling and they can be diagnosed and managed early, which results in decreased incidence of deaths.

### AIMS AND OBJECTIVES

To assess factors associated with non-adherence of HIV positive patients to DOTS.

### METHODOLOGY

This was the cross sectional hospital based study that was carried out in ART and DOTS centre of tertiary care hospital RIMS, Ranchi, Jharkhand. The period of study was from Nov 2013 - Jan 2014. HIV infected patients above 15 years of age attending ART centre constituted the study population. Our sample size was 30. A pretested semi-structured questionnaire which also included questions covering areas about his/ her basic socio demographic characteristics was used for data collection. Informed consent form was made available in Hindi language and patients were explained in details about the consequences of study. The data from questionnaire were sorted, coded and entered into the computer and analyzed using the SPSS.

### RESULT

#### Socio-demographics

Out of 30 patients in ART centre, 25 (83%) referred by RIMS ICTC centers and 5 (17%) were from different ICTC centre of which 14 (47%) were male and 16 (53%) were female. Most of were 12 (40%)

between 15-25 years of age while age group of 26-40 and 41-60 each had 9 (30%) of people. 22 (73%) were non-tribal and they 23 (77 %) were married. 9 (30%) were illiterate, 5 (17%) were just literate, 10 (33%) had received primary education and 6 (20%) had received secondary education and above. Most of the patients 12 (40%) belonged to daily wages group including drivers and labourers and they mostly 14 (46.66%) belong to class IV. 21 (70%) patients were having overcrowded family.

Factors associated with non-adherence of HIV positive patients to DOTS

9 (30%) out of 30 HIV patient developed TB, of which 6 (67%) had pulmonary TB. Out of 9 TB patient 5 (56%) patients were adherence to DOTS while 4 (44%) were not. Half of the patients 2 (50%) were non-adherence due to travel expenses and half (50%) were due to difficulty in travelling to DOTS centre and poor patient information and communication.

### DISCUSSION

We found that interplay of factors influence the treatment of TB in TB/HIV co-infected patients on concomitant treatment of TB & HIV. 56% of surveyed HIV/TB co-infected patients were adherent to DOTS centre while 44% were non adherent. The most cited reason for not taking drugs was travel expenses followed by difficulty in travelling to DOTS centre and poor patient information and communication. In this study female patient are more than male. The results indicate that adequate counseling about HIV/TB co-infection and the importance of adherence to DOTS programme is urgently needed. There should be collaborative TB-HIV activities are essential.

**Table – 1 Socio demographic profile (N=30)**

Variable	No (%)
<b>Sex</b>	
Male	14 (47%)
Female	16 (53%)
<b>Age in years</b>	
15-25	12 (40%)
26-40	9 (30%)
41-60	9 (30%)
<b>Ethnicity</b>	
Tribal	8 (73%)
Non tribal	22 (27%)
<b>Marital status</b>	
Married	23 (77%)
Unmarried	7 (23%)
<b>Residence</b>	
Urban	6 (20%)

<b>Rural</b>	24 (80%)
<b>Education</b>	
<b>Illiterate</b>	9 (30%)
<b>Literate</b>	5 (16.66%)
<b>Primary</b>	10 (33.33%)
<b>Secondary &amp; above</b>	6 (20%)
<b>Occupation</b>	
<b>Govt. service</b>	1 (3.33%)
<b>Farming</b>	3 (10%)
<b>Self</b>	1 (3.33%)
<b>Daily wages</b>	4 (13.33%)
<b>Drivers</b>	8 (26.66%)
<b>Labours</b>	
<b>Student</b>	4 (13.33%)
<b>Unemployed</b>	1 (3.33%)
<b>Socioeconomic distribution</b>	
<b>Class I</b>	3 (10%)
<b>Class II</b>	4 (13.33%)
<b>Class III</b>	3 (10%)
<b>Class IV</b>	14 (46.66%)
<b>Class V</b>	6 (20%)
<b>Family type</b>	
<b>Nuclear</b>	9 (30%)
<b>joint</b>	21 (70%)
<b>Overcrowding</b>	
<b>Present</b>	21 (70%)
<b>Absent</b>	9 (30%)

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