NATIONAL TUBERCULOSIS INSTITUTE, BANGALORE

Recently published papers (2010-2011)

1. **Vijay S, Kumar P, Chauhan LS, Narayan Rao SV, Vaidyanathan P; Treatment Outcome and Mortality at One and Half Year Follow-Up of HIV InfectedTB Patients Under TB Control Programme in a District of South India;** ***PLoS ONE, 2011, 6(7): e21008.doi:10.1371/journal.pone.0021008***

Background: There is paucity of data from India on the impact of HIV related immuno-suppression in response to TB treatment and mortality among HIV infected TB patients. We assessed the TB treatment outcome and mortality in a cohort of HIV infected TB patients treated with intermittent short course chemotherapy under TB control programme in a high HIV prevalent district of south India.

Methodology/ Findings: Among 3798 TB patients registered for treatment in Mysore district from July 2007 to June 2008, 281 HIV infected patients formed the study group. The socio-demographic and treatment related data of these patients was obtained from TB and HIV programme records and patient interviews 19 months after TB treatment initiation by field investigators. Treatment success rate of 281 patients was 75% while in smear positive pulmonary tuberculosis cases it was 62%, attributable to defaults (16%) and deaths (19%). Only 2 patients had treatment failure. Overall, 83 (30%) patients were reported dead; 26 while on treatment and 57 after TB treatment. Association of treatment related factors with treatment outcome and survival status was studied through logistic regression analysis. Factors significantly associated with 'unfavourable outcome' were disease classification as Pulmonary [aOR-1.96, CI (1.02–3.77)], type of patient as retreatment [aOR-4.78, CI (2.12–10.76)], and non initiation of ART [aOR-4.90, CI (1.85–12.96)]. Factors associated with 'Death' were non initiation of ART [aOR-2.80, CI (1.15–6.81)] and CPT [aOR-3.46, CI (1.47–8.14)].

Conclusion: Despite the treatment success of 75% the high mortality (30%) in the study group is a matter of concern and needs immediate intervention. Non initiation of ART has emerged as a high risk factor for unfavourable treatment outcome and mortality. These findings underscore the importance of expanding and improving delivery of ART services as a priority and reconsideration of the programme guidelines for ART initiation in HIV infected TB patients.

Keywords: *Tuberculosis, HIV, Co-infection, DOTS, Mortality, Follow-up*

Citation : ***PLoS ONE, 2011, 6(7): e21008.doi:10.1371/journal.pone.0021008***

2. **Vijay S, Kumar P, Chauhan LS, Vollepore BH, Kizhakkethil UP: Risk Factors Associated with Default among New Smear Positive TB Patients Treated Under DOTS in India;** ***PLoS ONE, 2010, 5(4): e10043. doi:10.1371/journal.pone.0010043***

Background: Poor treatment adherence leading to risk of drug resistance, treatment failure, relapse, death and persistent infectiousness remains an impediment to the tuberculosis control programmes. The objective of the study was to identify predictors of default among new smear

positive TB patients registered for treatment to suggest possible interventions to set right the problems to sustain and enhance the programme performance.

Methodology & Principal Findings: Twenty districts selected from six states were assigned to six strata formed, considering the geographic, socio-cultural and demographic setup of the area. New smear positive patients registered for treatment in two consecutive quarters during III quarter 2004 to III quarter 2005 formed the retrospective study cohort. Case control analysis was done including defaulted patients as ''cases'' and equal number of age and sex matched patients completing treatment as ''controls''. The presence and degree of association between default and determinant factors was computed through univariate and multivariate logistic regression analysis. Data collection was through patient interviews using pretested semi structured questionnaire and review of treatment related records. Information on a wide range of socio demographic and patient related factors was obtained. Among the 687 defaulted and equal numbers of patients in completed group, 389 and 540 patients respectively were satisfactorily interviewed. In the logistic regression analysis, factors independently associated with default were alcoholism [AOR-1.72 (1.23–2.44)], illiteracy [AOR-1.40 (1.03–1.92)], having other commitments during treatment [AOR-3.22 (1.1–9.09)], inadequate knowledge of TB [AOR-1.88(1.35–2.63)], poor patient provider interaction [AOR-1.72(1.23–2.44)], lack of support from health staff [AOR-1.93(1.41–2.64)], having instances of missed doses [AOR-2.56(1.82–3.57)], side effects to anti TB drugs [AOR-2.55 (1.87–3.47)] and dissatisfaction with services provided [AOR-1.73 (1.14–2.6)].

Conclusion: Majority of risk factors for default were treatment and provider oriented and rectifiable with appropriate interventions, which would help in sustaining the good programme performance.

Keywords : *New Smear Positive, Tuberculosis, Patients, DOTS, India*

Citation: ***PLoS ONE, 2010, 5(4): e10043. doi:10.1371/journal.pone.0010043***

3. *Hans L Rieder, Vineet K Chadha, Nico JD Nagelkereke, Frank Van Leth; Guidelines for conducting tuberculin skin test surveys in high-prevalence countries; Int J Tuberc Lung Dis, 2011, 15(1), 51-525*

Abstract

This Supplement provides an update on guidelines first published in 1996 on conducting a tuberculin skin test survey and analyzing the resulting data. The updated guidelines add experiences gained from community surveys, revisit the proposed sampling strategies, and provide additional information on ethical considerations.

Keywords

Tuberculin skin test, tuberculin surveys, sampling, sample size, budgeting, training, field work organization, data recording, data management, data interpretation, reaction reading, analysis, community based survey,ethical considerations