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Detection of all types of Tuberculosis and their outcome among internally displaced persons attending consular clinic for TB in Kirkuk-Iraq

ABSTRACT:

Background Internally displaced persons (IDPs) are persons who are forced to free or leave their homes or places, and they are more vulnerable groups specially the children , women and elderly. Tuberculosis is one of the public health problems facing Internally displaced persons.

Aim: This study was conducted to show the prevalence and outcome of tuberculosis among IDPs.

Patients and Methods: A total of 173 IDPs were followed up for the period of DOTS program treatment and their outcome was detected according to the DOTS strategy, The activity of the context of increased T.B detection and control among IDPS has been concluded in NTP program during 2011. There was delay in obtaining two mobile clinic to visit IDPS , was postponed to 2013 ,it was started during 2013 by the disturbing educational maternal (1000) copy brochures. A sampling of all T.B patients, whether they are smear positive, smear negative , or extrapulmonary as well as multidrug resistance were included. The local T.B program network in Kirkuk governorate is comprised of one T.B consulatory clinic and 10 diagnostic lab. distributed around the 6 districts

Results: Out of 400000 IDPs , 173 were registered as T.B ,120 were completed 6 months treatment with 74% success rate, while (53)40% were lost to follow up .

Conclusion: It was concluded that IDPs needs more active follow up to complete their long duration treatment.

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Introduction:

Internally displaced persons (IDP) are those persons or group of persons who are forced or obligated to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflicts, situation of generalized violence, violation of human rights or natural or human-made disaster, and who have not crossed an internationally recognized state border⁽¹⁾. There are more than 38 million (IDP) around the world⁽²⁾.

Internally displaced persons don't cross the boundaries while refugee does. In recent years the number of refugees is declining in contrast to the number of (IDPs) which is drastically increasing to more than double⁽³⁾. The number has grown from 1.2 million in eleven countries to 26 million in 49 once, the underlying assumption of (UNHCR) operation, is that (IDP) can be best cared when they are kept isolated in camps, although the camps portrays a picture of seclusion where huge number of (IDPs) lives in crowded and unhygienic places⁽⁴⁾.

Short term solution by (brand Aid) is usual in short term health problem solving, the vulnerable groups affected by displacements are children, women, and elderly⁽⁴⁾.

The children health is perspective as malnutrition and immunization program, apart from that their psychological needs remains neglected. At the time of internal displacement inadequate health services affects mostly elderly, as they are regarded as people with special needs in spite of that very little care is provided to them, mental health impact can have important political consequences⁽⁵⁾.

Tuberculosis and treatments interruption facilitate the emergence of failure and drug resistance especially among IDP, as T.B registration ranks among the 9 high T.B burden countries in (EMRO) contributing to 3% of the total cases, and cure rate was 89% in Iraq⁽⁶⁾.

The current unstable security condition and the presence of more than 400000 (IDPs) in Kirkuk from the four hot governorate T.B is a public health priority in Iraq. Mosul, Tikrit, Diyala

and parts of Kirkuk (Dakuk and Hawija districts) are regarded critical and needs concern to be payed to detect tuberculosis patients who are enrolled in DOTS program ,as well as to detect the new hidden cases among young and elderly IDPs⁽⁷⁾.

Giant steps are in need to occupy the disease specially in camps, by following up the cases, tracing contacts, assessing the risk factors and confirming their treatment outcomes. The flight of (IDPs) to urban areas reflects a global trend of increasing urbanization , factors that attract the persons to urban areas include greater access to public services, physical security and kindship network or social ties⁽⁸⁾.

The displacement is dynamic process, it occurs not only by conflict but disaster as well can be the trigger. IDPs generally lives in both gathered and dispersed inelegant slum settlements, authorities and humanitarian actors provide assistance and protection as twice as those living in disproved setting⁽⁹⁾.

Objectives:

1. To detect the prevalence of tuberculosis among IDPs in Kirkuk.
2. To detect the favorable and unfavorable outcomes after 1 year of displacement in comparison with NTP indicators.

Patients and Methods:

The study was conducted in consultant clinic of T.B. and respiratory disease in Kirkuk via registered and enrolled cases in DOTS program on emphasis of ENRS package registration system.

The study was carried out during the period from 10 th of June, 2014 till 10 th of June 2015.

A total of 173 patients enrolled in the program were included in the study irrelevant to their settlement in or outside camps.

The sampling was used as a convenient type, a retrospective study was carried out by the consultancy clinic laboratory. Based on NTP and WHO recommendation to detect TB. Patients and their treatment outcome.

A sampling of all T.B patients, whether they are smear positive, smear negative, or extrapulmonary as well as multidrug resistance were included. The local T.B program network in Kirkuk governorate is comprised of one T.B consultary clinic and 10 diagnostic lab. distributed around the 6 districts.

Patient related data were collected on a special questionnaire, the patient treatment status was based on patient interview and validated by review of patients medical record in (ENRS) package program according to WHO instructions to get accuracy of treatment history .

Only two cases were registered in Laylan governmental camp , one was new case and the second was retreated case they were followed up regularly by the T.B. consultary clinic in corporation with Dakok Laylan PHC and the ambulatory PHC center in the camp ,both of them has completed treatment successfully .

All registered cases were enrolled in DOTS program and followed up

directly by the the employers of the consultary clinic to avoid missing cases and losing their follow up , the heath care workers used to call the interrupted patient by phone and thy were asked to inform the clinic about changing their address during the 1st week of settlement to be able to supply them by drug from the nearest PHC in case the patients were unable to reach the clinic.

The activity of the context of increased T.B detection and control among IDPS has been concluded in NTP program during 2011.

There was delay in obtaining two mobile clinic to visit IDPS , was postponed to 2013 ,it was started during 2013 by the disturbing educational maternal (1000) copy brochures.

Results:

Out of 400000 IDP since 2014 , 173 patients were registered in consultary clinic of chest and respiratory disease in Kirkuk according to ENRS records as shown in table -1.

Table -1. The rate of estimated and detected cases among IDPs

Population of Kirkuk 2014-2015	Estimated rate/all type/NTP	Estimated rate in Kirkuk among 400000(IDP)	Detected cases among (IDP)
1508908	45/100000	180/400000	173/400000

Table 2, shows the site of origin of detected cases, the highest rate was from Salahadin (52%), followed by Kirkuk (24%), while only 1% has been registered from each of Baghdad, Ninewa and Diwanya.

Table -2. The total No. of T.B patients among IDPs according to site of origin

Site of origin	Number	Percentage
Salahadin	90	52
Kirkuk	43	24
Anbar	22	12
Diyala	11	6
Baghdad	2	1
Ninewa	2	1
Diwanya	2	1
Kerbala	1	0.5
Total	173	

All registered cases were enrolled in DOTS program and followed up by the employers of the consolatory clinic to avoid missing cases and loosing their follow up, the health care workers used to call the interrupted patients by phone and they were asked to inform the clinic about changing their address during the 1st week of settlement to be

able to supply them with the drug from the nearest PHCC in case the patients were unable to reach the clinic.

Table 3, shows the number and percentage of TB cases according to the type of the disease, the rate of smear positive was 60% followed by extrapulmonary 27% and the lowest rate was smear negative 13%.

Table -3- Number and percentage of cases detected among IDPs according to the type of T.B. (new cases).

Type	Number	%
Smear positive	36	60%
Smear negative	8	13%
Ep	16	27%
Total	60	100%

The total number of new positive cases(category 1.) registered were 36 and the other types of T.B. were 60 while the remaining (113) cases were

enrolled on treatment in their governorate but it was interrupted and irregular courses, 53 Of them were lost to follow up as in table -3-

Table -4- Treatment outcome of 120 of the total

Outcome	Number	%
Cure	30	25%
Completed treatment	58	49%
Death	2	2%
Loss to follow up	10	8%
Interrupted treatment	10	8%
Transferred	10	8%
Total	120	100%

Table -5- shows the cases distribution according to dwelling, only two cases were registered in Laylan governmental camp, one was extrapulmonary, and the second was a category 2 (retreatment) case , they were followed up regularly

by the consultancy clinic of T.B. in corporation with Duhok district , LaylanPHCc and mobile clinic inside the camp , and both of them have completed treatment successfully

Table -5- the distribution of cases in camp and outside camp

Settlement	Number	%
Camp	2	2
Outside camp	171	98
Total	173	100

Discussion:

Tuberculosis has re-emerged as an important public health problem with increasing rate especially among countries with unstable political and financial conflicts as well as poor living condition: overcrowding and, malnutrition⁽¹⁰⁾.

The total number of (IDPs) has reached to 400000 during the completed calendar year (since 10/6/2014) in Kirkuk. According to WHO and NTP target , the estimated case detection rate is as follows:

New smear positive cases should constitute 18/100000 (72 new smear positive is presumed to be detected while the prevalence rate of all cases is estimated to be 45/100000 i.e. 180 cases in Kirkuk according to local statistics^(11&12).

Factors that draw IDPs to urban areas include greater access to public services, physical security as well as kinship network or social ties (underRadir). In this study only 2 out of 173 were living in camps.

IDPs outside camps are living in both gathered and dispersed settings. Authorities and humanitarian organization provides assistance and protection in camps as twice as those living in displaced setting (UNHCR). The current study showed that patients inside camps completed treatment successfully.

National authorities have the primary responsibilities for providing protection and assistance to IDPs by supporting events across Iraq. An assessment of tuberculosis among (IDPs) was conducted in habib Al Malih PHCC in Ankawa to increase awareness in T.B

and its follow up⁽¹³⁾. This study is the first to be done to detect and follow up cases in Kirkuk.

In Iraq, especially in Kirkuk, the precarious existing conditions in urban areas including slum as displacement places has extra stress on services and resources with forced migrants in urban dwells sharing densely populated and poorly served environments leading to informal settlement outside camp. Displaced people faced little or no access to basic services, including water health care, education, sanitation, garbage disposal. Families lived in these sites because they were unable to pay higher rents and lack of host families support (IOM). In this study the vast majority of cases were living in uncompleted buildings with poor services.

In the last decade there was an increase in the incidence of T.B. according to WHO report, 93% of population are immunized by 2001 ⁽⁶⁾. A national T.B. program was launched under WHO supervision that was targeted to diagnose 70% of all cases in the country and to that 85% of successfully

treated of all diagnosed cases in 2005 , which was revised and expanded to include the successful rate up to 89%⁽¹¹⁾.

Access to safe areas remain a big gap with IDPs as people are prevented from entering Kirkuk and Khanagain cities⁽¹³⁾.

Regarding the situation of T.B among (IDPs) in Kirkuk, the REACH health actors reported an increasing incidence of cases of Tuberculosis among (IDPs) in both camp and non-camp setting, in Kirkuk and IKR as the number of cases were increased from 52 in 2014 to 190 in 2015 i.e. an increase rate of 265%⁽⁸⁾.

According to Deng, an effective response to the IDP crises must go deeper to its roots, not only to specify symptoms. The root causes may explore the structural problems are inequity of power, mismanagement of conflicts, the national wealth distribution and egregious violation of human rights⁽¹⁴⁾.

During the freezing days, shelter and winterization remain the most critical humanitarian needs especially in camps, unfinished and abandoned

buildings; insecurity is a hamper in face of ensuring access to health services for all persons of concern particularly in (difficult to reach areas). It is obvious that the lack of shelter and thermal insulation against the harsh winter will have a strong negative impact on general health status of IDP especially in northern of Iraq.

The number of people who are internally displaced by violence in Iraq since 2014 is 2.7 millions about 352380 are in Kirkuk⁽¹⁵⁾.

UNHCR and its partners teams have reached between million individuals through Iraq, for determination of their needs, vulnerabilities, demographic information and accommodation circumstances, but the eviction risks continue as a matter of concern in Kirkuk for families from Diyala, Ninewa, and salah-Aldeen , while UNHCR keep to advocate (IDPs) to remain in Kirkuk.

The risk of infection is increased among people living outdoors in substandard structures, in cold climate condition and having high vulnerability to chest diseases among which

pneumonia and T.B ranks first (OCHA). The rate of all T.B. cases registered in Kirkuk among (IDPs) was 173/400000 i.e. 41/100000 while is almost identical to the estimated rate of WHO statistics, although no governorate has reached that target (40/100000) till now but vice versa, the rate is declining since the last 2 years, and Iraq as a whole country has reached 43% of the estimated (70%) of the target , according to annual report of NTP 2013.

Looking for safe area remain a big gap with (IDPs) because people are prevented from entering Kirkuk and Khanagin cities .Even when the (IDPs) reached check point they were prevented from access to Kirkuk and remained at those points.

The treatment outcome in the present study (the success rate) was 74% ,which was almost identical to a study done in refugee camp on thai- Burmese border, the treatment success rate was 77.5% the defaulted was 13.5% , death was 7.6% and failure to treatment was 1.3%⁽¹⁶⁾. These results suggests that the treatment outcome depends on the

governmental program capacity to respond to patients constrains, as this group needs a patient –cultured approach (individualized innovative strategy to succeed the program).

In a study done to assess the impact of the response to increased TB among Syrian refugees, it was obvious that in 2014 the treatment outcome among camp and non camp Syrian refugees culture-confirmed patients was as follows: Treatment success was 85% with no death, defaulter or treatment failure. This study indicate that the refugees need rapid and high level response to occupy their disease especially the high risk patients⁽¹⁷⁾.

Conclusion:

- 1- It is concluded that the unstable living and settlement status of IDPS is a strong risk factor for development of new TB cases as well as to high interruption and defaulter rate .
- 2- The CDR was about 100% meaning that still there are more than 50% of cases are hidden and needs a more active surveillance to find them ,

to prevent failure , relapse and conversion to MDR.

Recommendation:

It is of crucial importance to follow up these people even after return to place at origin of at least 6 months through ENRS program and a vigorous corporation with the TB clinic of the included government and positive implementations of local authorities under total supervision of NTP and WHO offices , so that to keep the CDR under control.

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