

Integration of tuberculosis treatment in a community-based home care programme for persons living with HIV/AIDS in Ndola, Zambia

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SUMMARY

SETTING: Two small urban townships (compounds) in Ndola, Zambia, served by an HIV/AIDS home care programme.

OBJECTIVE: To evaluate the implementation of the directly observed treatment, short-course (DOTS) strategy as part of an existing HIV/AIDS home care programme, by comparing TB treatment outcomes in an intervention population (Chipulukusu compound), where implementation of the DOTS strategy is an integral part of the HIV/AIDS home care programme, and in a control population (Twapia compound) with district TB services but as yet without coverage by the HIV/AIDS home care programme.

DESIGN: Prospective evaluation of all new sputum smear-positive TB patients registered in Chipulukusu and Twapia compounds between 1 February 1998 and 30 September 1999, with documentation of 2-month sputum smear conversion and 8-month treatment outcomes.

RESULTS: There were 72 new sputum smear-positive

pulmonary TB cases in Chipulukusu and 96 in Twapia registered during the study period. In comparing treatment outcomes in Chipulukusu and Twapia, there was no significant difference in treatment success (cure plus treatment completion) (61% vs. 48.9%) or in deaths (22% vs. 19%). However, cure rate was significantly higher in Chipulukusu than in Twapia (54.2% vs. 20.8%) and treatment interruption was significantly lower in Chipulukusu than in Twapia (8.3% vs. 22.9%).

CONCLUSION: Integration of the DOTS strategy for TB control with an existing HIV/AIDS home care programme led to improved TB programme performance in a compound with a small population (about 20 000). There is scope to scale up this approach so that the entire population of all the compounds in Ndola served by the HIV/AIDS home care programme can benefit from improved TB control.

KEY WORDS: community care; HIV/AIDS; tuberculosis; treatment outcomes; Zambia

ZAMBIA is one of the countries most severely affected by the acquired immune-deficiency syndrome (AIDS) epidemic. Human immunodeficiency virus (HIV) prevalence among adults aged 15–49 years is approximately 20% and has been at this level for several years.¹ HIV prevalence in urban areas (25–30%) is higher than in rural areas (10–15%). HIV prevalence among young pregnant women (15–19 years) has been decreasing since the mid-1990s, especially in the capital Lusaka, and this may be the first indication that the overall national HIV prevalence will fall in the coming years.²

Since the onset of the HIV/AIDS epidemic, tuberculosis incidence has increased dramatically in Zambia. The rate of notified tuberculosis cases (all forms) remained at approximately 100 per 100 000 population between 1964 and 1985, and has increased to

over 400/100 000 since then. The increase is largely attributable to the HIV epidemic. HIV prevalence among TB patients in Ndola, although not known at the time of this study, was likely to have been of the order of about 70–80%, based on rates in a similar urban setting elsewhere in Zambia.³ Zambia introduced the directly observed treatment, short-course (DOTS) strategy during 1994–1996. Unless they are too ill, tuberculosis patients are treated on an ambulatory basis.

Ndola District, an urbanised area in the Copperbelt Province with an estimated 450 000 inhabitants, is one of the districts in Zambia most severely affected by the HIV/AIDS epidemic, with an HIV prevalence rate of close to 30%.² From 1996 to 2000, the number of notified tuberculosis cases in the district increased by 56% (see Table 1). The number of

Table 1 The number of notified tuberculosis cases (all forms) in Ndola District, Zambia, 1996–2000

| Year | New tuberculosis cases |
|------|------------------------|
| 1996 | 2970 |
| 1997 | 3682 |
| 1998 | 4291 |
| 1999 | 4334 |
| 2000 | 4660 |

Source: records Tuberculosis Control Officer, Ndola District, Zambia.

detected tuberculosis cases (all forms) in Ndola in 2000 corresponds to a case detection rate of approximately 1000/100 000.

The tuberculosis control system in the district was analysed in 1995. The findings were that the cure rate among smear-positive pulmonary tuberculosis patients was very low (15–20%), a quarter of the patients defaulted during the intensive phase of treatment, and 75% of smear-positive cases were not followed up for sputum examination at 2 months. Since 1 January 1996, the policy has been to treat all patients on an ambulatory basis, with direct observation of treatment at the local health clinics during the 2-month initial phase. The overall performance of the district TB programme improved somewhat, but the default rate and inadequate sputum collection for examination for follow-up remained major problems.

The Home Care Programme (HCP) in Nkwazi Township, one of the poorest compounds in Ndola District, noted in 1994/1995 that many of their HIV/AIDS patients were frequently not completing tuberculosis treatment. This was not because the patients did not want to be treated, but because either they were unable to go to the hospital to collect their medication, or there were no drugs available, or they were not cared for. The HCP staff discussed the problem with the district health authorities. It was agreed that the HCP was to be recognised as a treatment centre and that the programme should take the responsibility for the treatment of tuberculosis for patients registered with the HCP. The initial results of community volunteer support for tuberculosis patients, including daily directly observed treatment (DOT) at the patient's house, were encouraging. The default rate dropped to below 10%, but the cure rate did not increase much. The system for sputum collection for examination towards the end of treatment, which had initially relied on patients bringing the samples to the hospital, improved once the community volunteers were better trained.

Setting

The Nkwazi HCP is part of the 'Catholic Diocese of Ndola Integrated AIDS Programme'. This programme provides care and support to HIV-infected and -affected persons and runs several HIV prevention programmes

in the Copperbelt Province. The project coordinates 11 HCPs located in 26 (mainly shanty) townships ('compounds') in five towns in the province. The programmes are community-based and provide holistic care, including medical and nursing care, welfare support, counselling and testing and psychological, spiritual and pastoral care. The programmes support close to 8000 persons with symptomatic HIV infection and their families. The total population of the 26 townships is estimated at 450 000. The programmes are run by 750 community volunteers, who are assisted by 34 nurses. The project is funded by donors, but receives some assistance from the various districts in which it is operating, e.g., secondment of a few nurses, tuberculosis medication and free medical care for registered patients in the hospitals.⁴

The encouraging tuberculosis treatment results from the Nkwazi HCP attracted local, national and international attention. The Ndola District Health Management Board and the Coordinator of the Catholic Diocese of Ndola Integrated AIDS Programme were invited to attend a planning workshop coordinated by the World Health Organization (WHO) 'Community Tuberculosis Care in Africa' project,⁵ at which they developed a study protocol. The investigators identified Chipulukusu and Twapia compounds as study sites. Chipulukusu (intervention population) and Twapia (control population) both have an estimated population of about 25 000. Both communities are economically deprived, with poor living conditions, and both communities are served by a small health centre and have primary schools. Safe drinking water is available through communal taps, although some houses are directly linked to the water supply system.

Aims and objectives

The study aim was to evaluate the implementation of the DOTS strategy as part of an existing HIV/AIDS HCP, by comparing TB treatment outcomes in the intervention population (Chipulukusu), where implementation of the DOTS strategy is an integral part of the HIV/AIDS HCP, and in a control population (Twapia) which has district TB services but as yet without coverage by the HIV/AIDS HCP. The project aimed to achieve a treatment success rate of 80% for new adult sputum smear-positive pulmonary tuberculosis patients and a default rate of less than 10%.

METHODS

The Ndola District Tuberculosis Officer conducted this operational research project over a 20-month period (1997–1998) in close collaboration with the Chipulukusu HCP. Several changes in the tuberculosis control approach in previous years made any comparison with historical data inappropriate. The inter-

vention and control areas differ little in their socio-economic status. The Ndola HCP for people living with HIV/AIDS (PHA) was implemented in Chipulukusu from 1992 onwards, but coverage has not yet reached Twapia. The HCP supports approximately 500 PHA and their families in Chipulukusu.

In both townships, tuberculosis diagnosis is based on direct microscopy according to internationally accepted guidelines, and tuberculosis treatment is in line with national guidelines. The duration of treatment is 8 months with daily oral medication (2HRZE/6HE).*

Tuberculosis patients in Twapia receive their medication on a daily basis from the clinic (during the 2-month intensive phase). During the continuation phase, medication is dispensed weekly, every 2 weeks or monthly, depending on the condition of the patient and the distance to the clinic. Patients in Chipulukusu who are registered with the HCP receive their medication on a daily basis at home from a community volunteer who visits them early in the morning. Each patient is assigned a 'personal' volunteer. The volunteers visit the patients for at least 2 months. Medication in the continuation phase is provided as in Twapia.

Sputum collection at 2, 5 and 8 months improved considerably in Nkwazi following the introduction of a daily delivery service of sputum samples to the local hospital through the HCP. The Chipulukusu HCP intended to do the same as in Nkwazi. Such an addition to the programme would create a possible study bias towards the programme in Chipulukusu, as the patients in Twapia had to deliver their samples directly to the hospital. To overcome this possible bias, the samples from both townships were collected daily, and the results were returned the next day.

The HCP volunteers in Chipulukusu were asked if they wanted to participate in the study. About one-third, 15 in total, volunteered and received a 3-day training course on various aspects of tuberculosis management and their expected roles. The nurses attached to the HCP and the staff from Twapia Health Centre also underwent a short training course. The standard recording and reporting forms, e.g., standard tuberculosis registers, DOT cards, were used for data collection and monitoring. All new smear-positive tuberculosis patients aged 15 years or older, registered from 1 February 1998 to 30 September 1999 by either the Twapia Health Centre or the Chipulukusu HCP, entered the study. Data were analysed using Microsoft Excel 2000 (Microsoft Excel, Palisade Corp, Newfield, NY) and Epi Info 2000 (Centers for Disease Control, Atlanta, GA). Differences in outcomes between the intervention and control groups were compared with the χ^2 test (with a significance level of $P < 0.1$).

Table 2 Case-finding of new smear-positive tuberculosis patients (≥ 15 years) by quarter from February 1998 to September 1999 in the Chipulukusu Home Care Programme (intervention population) and the Twapia Health Centre (control population)

| Year | Quarter | Intervention area | Control area |
|---------------|---------|-------------------|--------------|
| 1998 | 1 | 3 | 13 |
| 1998 | 2 | 6 | 21 |
| 1998 | 3 | 17 | 11 |
| 1998 | 4 | 14 | 16 |
| Total | | 40 | 61 |
| 1999 | 1 | 9 | 7 |
| 1999 | 2 | 11 | 8 |
| 1999 | 3 | 12 | 20 |
| Total | | 32 | 35 |
| Overall total | | 72 | 96 |

Findings

The Twapia Health Centre recorded 96 new smear-positive pulmonary tuberculosis patients (aged ≥ 15 years) and the Chipulukusu HCP recorded 72 new cases. Twapia recorded considerably more patients than Chipulukusu in the first two quarters of the study, but in subsequent quarters the difference was much less (Table 2).

The average age of the registered patients was the same: 32.5 years for Twapia and 32.4 years for Chipulukusu. However, the sex distribution shows that the ratio male:female in Twapia was close to 1:1, while it was 1:2 in Chipulukusu. Table 3 gives further details of the age distribution.

Table 4 shows treatment outcomes for new adult sputum smear-positive cases. In comparing treatment outcomes in Chipulukusu and Twapia, there was no significant difference in treatment success (cure plus treatment completion) (61% vs. 48.9%) or in deaths (22% vs. 19%). The majority of deaths were in the intensive phase of treatment. However, the cure rate was significantly higher in Chipulukusu (54.2%) than in Twapia (20.8%) (χ^2 20.1, $P < 0.001$) and treatment interruption was significantly lower in Chipulukusu than in Twapia (8.3% vs. 22.9%) (χ^2 6.3, $P <$

Table 3 Age distribution of new adult smear-positive tuberculosis patients in Chipulukusu and Twapia townships

| Population | Total | Age | | Remarks |
|-------------|-------|---------|-------|-----------|
| | | Average | Range | |
| Chipulukusu | | | | |
| All | 72 | 32.4 | 17-70 | 1 unknown |
| Female | 25 | 30.0 | 17-54 | |
| Male | 47 | 32.9 | 20-70 | 1 unknown |
| Twapia | | | | |
| All | 96 | 32.5 | 7-59 | 1 unknown |
| Female | 45 | 30.2 | 17-53 | |
| Male | 51 | 33.6 | 18-59 | 1 unknown |

* H = isoniazid; R = rifampicin; Z = pyrazinamide; E = ethambutol.

Table 4 Treatment outcomes for new smear-positive tuberculosis cases (adults ≥ 15 years) from February 1998 to September 1999, in the Chipulukusu Home Care Programme (intervention population) and the Twapia Health Centre (control population)

| Year | Quarter | Cured <i>n</i> (%) | Treatment completed <i>n</i> (%) | Died <i>n</i> (%) | Failure <i>n</i> (%) | Treatment interrupted (defaulted) <i>n</i> (%) | Transfer <i>n</i> (%) | Total <i>n</i> |
|-------------------------|---------|-----------------------|--|----------------------|-------------------------|---|--------------------------|-------------------|
| Intervention population | | | | | | | | |
| 1998 | 1 | 2 | 0 | 0 | 0 | 0 | 1 | 3 |
| 1998 | 2 | 6 | 0 | 0 | 0 | 0 | 0 | 6 |
| 1998 | 3 | 8 | 1 | 4 | 0 | 1 | 3 | 17 |
| 1998 | 4 | 5 | 1 | 6 | 0 | 1 | 1 | 14 |
| Total | | 21 (52.5) | 2 (5.0) | 10 (25.0) | 0 | 2 (5.0) | 5 (12.5) | 40 |
| 1999 | 1 | 3 | 1 | 3 | 0 | 1 | 1 | 9 |
| 1999 | 2 | 8 | 0 | 1 | 0 | 2 | 0 | 11 |
| 1999 | 3 | 7 | 2 | 2 | 0 | 1 | 0 | 12 |
| Total | | 18 (56.3) | 3 (9.4) | 6 (18.8) | 0 | 4 (12.5) | 1 (3.1) | 32 |
| Overall total | | 39 (54.1) | 5 (6.9) | 16 (22.2) | 0 | 6 (8.3) | 6 (8.3) | 72 |
| Control population | | | | | | | | |
| 1998 | 1 | 2 | 5 | 2 | 0 | 2 | 2 | 13 |
| 1998 | 2 | 7 | 4 | 7 | 0 | 3 | 0 | 21 |
| 1998 | 3 | 4 | 0 | 1 | 0 | 3 | 3 | 11 |
| 1998 | 4 | 4 | 4 | 2 | 0 | 4 | 2 | 16 |
| Total | | 17 (27.9) | 13 (21.3) | 12 (19.7) | | 12 (19.7) | 7 (11.5) | 61 |
| 1999 | 1 | 1 | 4 | 1 | 0 | 1 | 0 | 7 |
| 1999 | 2 | 2 | 2 | 3 | 0 | 1 | 0 | 8 |
| 1999 | 3 | 0 | 8 | 2 | 0 | 8 | 2 | 20 |
| Total | | 3 (8.6) | 14 (40.0) | 6 (17.1) | 0 | 10 (28.6) | 2 (5.7) | 35 |
| Overall total | | 20 (20.8) | 27 (28.1) | 18 (18.9) | 0 | 22 (22.9) | 9 (9.4) | 96 |

0.012 Mantel-Haenszel, odds ratio [OR] 3.27 Cornfield). Fifteen of the 22 defaulters in Twapia stopped treatment in the intensive phase, compared with three out of six in Chipulukusu. The transfer-out rate was similar in the two populations.

The treatment success rate was higher in Chipulukusu (44/72) than in Twapia (47/96), but this difference (61% vs. 48.9%) just failed to achieve statistical significance (χ^2 2.43, $P < 0.118$ Mantel-Haenszel, OR (95%) 1.25 Cornfield). Among patients completing treatment, the proportion who submitted sputum samples was significantly higher in Chipulukusu than in Twapia. Of the 44 patients in Chipulukusu who completed treatment, 39 had two negative samples after the initial phase (at 5 and 8 months), while of the 47 patients in Twapia who completed the 8 months of treatment, only 20 had two negative sputum results after the initial phase (χ^2 20.06, $P < 0.0000075$ Mantel-Haenszel, OR 4.49 Cornfield).

Table 5 Sputum smear conversion at 2 months of treatment in the Chipulukusu Home Care Programme (intervention population) and Twapia Health Centre (control population)

| | Positive at start of treatment <i>n</i> | Negative at 2 months <i>n</i> (%) | Positive at 2 months <i>n</i> (%) | Not done at 2 months <i>n</i> (%) |
|-------------|--|---|---|---|
| Twapia | 96 | 64 (66.7) | 3 (3.1) | 29 (30.2) |
| Chipulukusu | 72 | 54 (75.0) | 4 (5.6) | 14 (19.4) |

Table 5 shows the sputum smear conversion rates at 2 months.

Patients who did not have their sputum examined at 2 months had either died, or defaulted or were transferred. Seven patients had a positive smear at 2 months. All four patients from Chipulukusu had a smear-negative result at 3 months (treatment in the third month was adjusted as per national guidelines). Three were cured, and one completed treatment. The three patients in Twapia also converted at 3 months, but one patient died later during treatment and the other two completed treatment. Sputum collection in Twapia at 5 months of treatment was very low: among the 64 patients who had a negative result at 2 months, only 18 (28.1%) had sputum samples examined at 5 months. In Chipulukusu, among the 54 patients who had a negative sputum result at 2 months, 45 (83.3%) had sputum samples examined at 5 months.

DISCUSSION

At first, more patients were registered in Twapia than in Chipulukusu. The likely explanation is that it took some time for TB patients to accept the newly established TB programme implemented in conjunction with the HCP in Chipulukusu. Although the performance of TB control activities in Twapia was sub-optimal, TB patients in Twapia were accustomed to the provision of the long-established service. Documentation in future of the numbers of patients registered in

Chipulukusu will reveal whether the better performance of the programme in Chipulukusu will attract more TB patients.

The original project objective was to reach a treatment success rate of 80% in the intervention population. The high death rate of 20.2% for new smear-positive tuberculosis patients, in the intervention and control populations combined, is consistent with findings from other countries with high HIV prevalence rates.⁶ Progress towards achieving the WHO target cure rate of 85% needs interpretation in the light of this high death rate. A death rate of approximately 20% among new smear-positive tuberculosis cases makes a cure rate of 85% impossible to achieve. Even a small percentage of patients who are transferred or who have defaulted will bring the treatment success rate below the project target of 80%. Taking into consideration the high death rate, achieving a 61% treatment success rate among a high HIV prevalence population represents a satisfactory outcome.

Although the treatment success rate in the Chipulukusu population was higher than in the Twapia population, this just failed to reach statistical significance (61% vs. 48.9%). The project achieved its target of a default rate of less than 10%. That the default rate was significantly lower in the intervention (8.3%) than in the control population (22.9%) testifies to the success of the HCP in supporting TB patients during treatment and enabling them to complete their treatment course. The system of collecting sputum samples for follow-up examinations worked better with the help of the home care volunteers in the intervention population, contributing to the significantly higher cure rate in Chipulukusu than in Twapia (54.2% vs. 20.8%).

The high default rate seen in the mid-1990s in the Nkwazi HCP, which was the reason why the community began to become involved in tuberculosis treatment, was at that time attributed mainly to problems with the care delivery system. Although setting up the Chipulukusu HCP largely resolved these health care delivery problems, there is a general problem of the loss to follow-up of 10–15% of home care patients registered with the HCPs coordinated by the Ndola Integrated AIDS Programme. Although there has been no systematic survey to explore the reasons for this loss of patients from the HCP, discussions with home care volunteers and staff have shed some light on the issue.

Some patients are under pressure from the family to return to 'the village'. Although many of the people who live in the towns are born there, and sometimes even their parents are, they still consider their ancestral region or village as their real home. The reason why the family feels that it is better for the patient (and often the rest of household) to return to the village is not always clear. It can be that they foresee that the sick person may die soon, and a funeral in the vil-

lage is far less complicated and much cheaper than in town. Another reason may be that alternative care, e.g., from the local herbalist or traditional healer, is seen as more appropriate for the patient, as the medical care the patient has received so far has failed to cure. Another reason mentioned by people in the community is that the cause of the illness is a spell that someone, such as a neighbour, has put on the person. By moving away without leaving a trail the spell might be broken as the person who bewitches the patient will no longer be able to find the victim. Therefore, moving away could provide a cure for the illness. This would explain why sometimes entire families suddenly disappear without leaving a forwarding address or without telling anybody about their plans. Home care volunteers, who have a good relationship with a patient, are also not informed of this sudden move. The powerful influence of such cultural factors probably explains why the home care volunteer contribution to tuberculosis programme activities had no impact on the transfer rate.

The Nkwazi HCP became involved in tuberculosis control in order to improve the provision of care for tuberculosis patients in collaboration with the government health care system. Not all the volunteers felt that tuberculosis care should be added to their routine work, as the number of people with symptomatic HIV infection was already taking a lot of their time. However, in spite of the extra amount of work, most community volunteers felt very positive about their involvement in the care for tuberculosis patients. It was for many the first time that one of their patients improved so dramatically. They felt it as a personal victory when a patient completed treatment, gained weight or was able to resume daily activities. Most of the other HCPs coordinated by the Catholic Diocese are now working to include tuberculosis care (in close cooperation with their respective district authorities), and are very positive about the work.

The fast growing number of tuberculosis patients in Ndola District has also been observed in the other districts in the province. The challenge is to expand the community tuberculosis care approach in collaboration with the government health care system while achieving and sustaining satisfactory treatment outcome results. Once satisfactory treatment outcome results are achieved, there is scope for HCPs to contribute towards identifying tuberculosis suspects, with the aim of improved case detection.

Few tuberculosis patients in Chipulukusu township who were not previously registered with the HCP opted for the daily visit by the community home care volunteers. Instead, many opted for daily visits to the health centre to receive their daily medication. The HCP is well known in the township and daily visits might have suggested to the patient (or family) that the tuberculosis patient was also suffering from AIDS. Stigma and (self-) discrimination for persons living with HIV/AIDS is still

an important problem, in spite of the large numbers of patients. Many tuberculosis patients do not want to be associated with HIV/AIDS care if they think that the 'only' diagnosis is tuberculosis.

CONCLUSIONS

A well organised community-based home care programme for people living with HIV/AIDS can achieve satisfactory tuberculosis treatment outcome results using the DOTS strategy. The extra work for the community volunteers is compensated by the work satisfaction of tuberculosis treatment. The most important challenges in the future include expanding the approach more widely in close collaboration with the district or national tuberculosis control authorities, and tackling the high death rate among tuberculosis patients, such as through the use of cotrimoxazole prophylaxis.⁷

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RÉSUMÉ

CONTEXTE: Deux petites banlieues urbaines ('compounds') à Ndola, Zambie, desservies par un programme de soins à domicile VIH/SIDA bien installé.

OBJECTIF: Evaluer la mise en œuvre de la stratégie DOTS comme élément d'un programme de soins à domicile VIH/SIDA déjà existant en comparant les résultats du traitement TB dans une population d'intervention ('compound' Chipulukusu) où la mise en œuvre de la stratégie DOTS fait partie intégrale du programme de soins à domicile VIH/SIDA et dans une population de contrôle ('compound' Twapia) avec des services TB de district mais encore sans couverture par le programme de soins à domicile VIH/SIDA.

SCHÉMA: Evaluation prospective de tous les nouveaux patients TB à bacilloscopie positive enregistrés dans les 'compounds' à Chipulukusu et à Twapia entre le 1er février 1998 et le 30 septembre 1999, en documentant les taux de négativation des frottis d'expectoration à deux mois et les résultats du traitement à 8 mois.

RÉSULTATS: Au cours de la période d'étude, 72 nouveaux cas de TB pulmonaires à bacilloscopie positive

ont été enregistrés à Chipulukusu et 96 à Twapia. Dans la comparaison des résultats du traitement à Chipulukusu et à Twapia, on n'a pas noté de différence significative dans le taux de succès du traitement (guérison plus achèvement du traitement) (61% vs. 48,9%) ou dans les taux de décès (22% vs. 19%). Toutefois, le taux de guérison a été significativement plus élevé à Chipulukusu qu'à Twapia (54,2% vs. 20,8%) et les interruptions du traitement ont été significativement moins nombreuses à Chipulukusu qu'à Twapia (8,3% vs. 22,9%).

CONCLUSION: L'intégration de la stratégie DOTS de lutte antituberculeuse au sein d'un programme de soins à domicile VIH/SIDA déjà en place a conduit à une amélioration des performances du programme TB dans un 'compound' comportant une petite population (environ 20.000 personnes). Il y a place pour l'extension de cette approche en sorte que la totalité de la population de tous les 'compounds' de Ndola desservis par le programme de soins à domicile VIH/SIDA puisse bénéficier d'une amélioration de la lutte antituberculeuse.

RESUMEN

CONTEXTO: Dos pequeños barrios urbanos ("compounds") en Ndola, Zambia, atendidos por un programa de atención a domicilio VIH/SIDA bien establecido.

OBJETIVO: Evaluar la implementación de la estrategia DOTS, como parte de un programa existente de atención a domicilio VIH/SIDA, comparando los resultados del tratamiento en una población de intervención (Chipulukusu), donde la implementación de la estrategia DOTS es parte integrante del programa de atención a domicilio VIH/SIDA y en una población control (Twapia) con servicios TB de distrito, pero aún sin cobertura por el programa de atención a domicilio VIH/SIDA.

DISEÑO: Evaluación prospectiva de todos los casos de TB con baciloscopia positiva registrados en Chipulukusu y Twapia entre el 1° de febrero de 1998 y el 30 de setiembre de 1999, con documentación de negativización de la baciloscopia a los 2 meses y resultados del tratamiento de 8 meses.

RESULTADOS: Durante el período de estudio, se registraron 72 casos nuevos de TB pulmonar con baciloscopia positiva en Chipulukusu y 96 en Twapia. Al comparar los resultados del tratamiento, no se observó una diferencia significativa en cuanto al éxito del tratamiento (curación más tratamientos completos) (61%

contra 48,9%) o en la letalidad (22% contra 19%). Sin embargo, la tasa de curación fue significativamente más alta en Chipulukusu que en Twapia (54,2% contra 20,8%) y la tasa de interrupción del tratamiento fue significativamente más baja en Chipulukusu que en Twapia (8,3% contra 22,9%).

CONCLUSIÓN: La integración de la estrategia DOTS para el control de la TB, dentro de un programa exis-

tente de atención a domicilio de VIH/SIDA, llevó a un mejoramiento del rendimiento del programa en un "compound" con una pequeña población (20.000 habitantes). Hay razones para la extensión de este enfoque, de manera a que la totalidad de la población, de todos los "compounds" de Ndola atendidos por el programa de atención a domicilio de VIH/SIDA puedan obtener beneficio del mejoramiento del control de la TB.
