Changing from single-drug to fixed-dose combinations: experience from Fiji

R. Mahadeo,¹ S. Gounder,¹ S. M. Graham^{2,3}

<http://dx.doi.org/10.5588/pha.14.0024>

Background: Fixed-dose combinations (FDCs) of first-line anti-tuberculosis drugs were introduced in Fiji in 2011, and there have been concerns about treatment response.

Objective: To evaluate the treatment response to FDCs among tuberculosis (TB) patients.

Methods: A retrospective cohort study was undertaken of treatment outcomes of new TB cases registered from January 2010 to April 2013 and weighing ≥ 30 kg. Sputum smear conversion of new sputum smear-positive cases and end-of-treatment outcomes of all cases were evaluated for those receiving FDCs and compared to outcomes with previous use of single-drug preparations.

Results: Among new TB patients, 240 received single-drug preparations and 259 received FDCs for the full duration of treatment. The groups were similar in terms of demographic and clinical characteristics. Treatment outcomes were available for 95% of cases. Unknown outcomes were more common in those receiving FDCs. When known, end-of-treatment outcome was the same in the two treatment groups and did not differ between TB types. Sputum smear conversion after the 2-month intensive phase of treatment was similar in the two treatment groups: 95% and 97%, respectively.

Conclusion: The introduction of FDCs in Fiji for the treatment of TB cases has not been associated with changes in treatment response.

Tuberculosis (TB) is a major cause of morbidity and mortality worldwide, with the highest prevalence in resource-limited countries. Fiji reported a TB case notification rate of 24 per 100 000 population in 2012, and this compares to a case notification rate of 31/100 000 in 1990.¹ TB control is an ongoing challenge, with 614 new and relapse TB cases reported to the World Health Organization (WHO) from 2010 to end 2012. Reported treatment success rates, an important indicator of TB control, have been variable over the last decade, ranging from 62% to $>90\%$.¹

There are many possible reasons for inadequate treatment outcomes, some of which may relate directly to medication, such as interrupted anti-tuberculosis drug supplies or poor patient adherence. To improve adherence, the WHO and the International Union Against Tuberculosis and Lung Disease (The Union) now recommend the use of fixed-dose combinations (FDCs) for first-line treatment of drug-susceptible TB.² TB patients were previously treated with a combination of single-drug preparations of isoniazid (H, INH), rifampicin (R, RMP), pyrazinamide (Z, PZA)

and ethambutol (E, EMB). Prospective, randomised trials covering multiple sites in TB-endemic settings have concluded that treatment outcomes were not inferior when using FDCs than when using single-drug preparations.^{3,4}

Since FDCs were introduced into the Fiji National Tuberculosis Programme (NTP) in November 2011, it has been observed anecdotally that the sputum conversion rate among new sputum smear-positive TB patients is lower than when treatment consisted of single-drug preparations. Although the WHO TB treatment guidelines limit the intensive phase of treatment for new patients to 2 months, this perception resulted in clinicians occasionally prolonging the intensive phase of treatment in patients receiving FDCs. This observation of lower sputum conversion rates has not, however, been evaluated or quantified.

We therefore aimed to evaluate whether the introduction of FDCs had affected treatment response among TB patients in Fiji.

METHODS

Study setting

This was a retrospective cohort study comparing anti-tuberculosis treatment outcomes between those receiving FDCs and those receiving single-drug preparations undertaken at all three NTP TB treatment centres in Fiji. The Fiji NTP was established in 1951, and the DOTS strategy was introduced in 1997.⁵ The case detection rate rose from an estimated 28% in 1990 to 79% in 2010.¹ The three TB treatment centres are the only providers of anti-tuberculosis drugs in Fiji. Sputum smear microscopy with Ziehl-Neelsen staining for acid-fast bacilli (AFB) is undertaken for initial diagnosis and after 2 months of standard first-line treatment for all sputum smear-positive cases to assess smear conversion to sputum smear-negative. For those patients who do not convert by 2 months, follow-up smear examination is carried out monthly. Results are recorded in the AFB register.

TB has been treated according to the Fiji NTP guidelines since before 2010: standard first-line treatment consists of 2 months of daily RMP, INH, PZA and EMB, followed by 4 months of daily INH and RMP (2RHZE/4RH).⁶ When treatment was provided as single-drug preparations, the following were available and in use: H100 and H300, R150 and R300, Z400 and Z500 and E400. Dosages were calculated according to weight to determine which preparation and how much of each preparation were required. The single-drug preparations were replaced by FDCs in 2011,

AFFILIATIONS

- 1 National Tuberculosis Programme, Ministry of Health, Suva, Fiji
- 2 Centre for International Child Health, University of Melbourne and Murdoch Children's Research Institute, Royal Children's Hospital, Melbourne, Victoria, Australia
- 3 International Union Against Tuberculosis and Lung Disease, Paris, France

CORRESPONDENCE

Rineesha Mahadeo
P J Twomey Hospital
Ministry of Health, Fiji
Tel: (+679) 932 0336
e-mail: rineesha21@gmail.com

KEY WORDS

tuberculosis; fixed-dose combination; treatment outcomes; Fiji

Received 7 March 2014
Accepted 7 July 2014

PHA2014;4(3):169–173
© 2014 The Union

as follows: R150/H75/Z400/E275 during the intensive phase and R150/H75 for the continuation phase. All anti-tuberculosis drugs used in Fiji are obtained from a WHO pre-qualified supplier and are prescribed according to weight as follows: 30–44 kg, 2 tablets; 45–54 kg, 3 tablets; 55–70 kg, 4 tablets; >70 kg, ≥ 4 tablets as prescribed by the clinician.⁷

Study population and design

The primary aim was to evaluate treatment outcomes since the introduction of FDCs in November 2011, and to compare these with treatment outcomes with previous use of single-drug preparations. This was a retrospective study with a pragmatic design to include as many treatment outcomes as available since the introduction of FDCs and then compare these with a similar number of TB cases who had received single-drug preparations. All new TB cases weighing ≥ 30 kg, including adults and children, registered from January 2010 to April 2013, were considered for inclusion in the retrospective analysis of the final treatment outcome. Only TB patients who received either FDC or single-drug preparations for the entire duration of treatment were included. Patients who received both FDCs and loose drugs during the period of observation were excluded. Children weighing <30 kg with TB were treated with different preparations (i.e., dispersible tablets), and were also excluded. The study outcomes that were evaluated and compared between the two treatment groups were end-of-treatment outcomes for all new TB cases, and sputum smear conversion for all new sputum smear-positive cases.

Data collection

A structured data collection form was developed to collect the following variables: TB registration number, treatment used (FDC or single drug), demographic characteristics, weight, dosage used, sputum smear results and final treatment outcome. Data were collected from the TB register, patient folders, laboratory register and pharmacy records, and then validated against the TB treatment card.

Data analysis

Data were entered and analysed using Epi Data, version 3.1 (EpiData Association, Odense, Denmark). Outcome variables for analysis were final treatment outcome according to NTP definitions⁵ and sputum conversion at 2 months for those with sputum smear-positive TB. These outcomes were compared between the two treatment groups using the χ^2 test with odds ratios (ORs) and 95% confidence intervals (CIs).

Ethics approval

Ethics approval was obtained from the Fiji National Health Research Committee, Suva, Fiji, and The Union Ethics Advisory Group, Paris, France.

RESULTS

A total of 499 records (females $n = 222$, males $n = 277$) of new TB cases weighing ≥ 30 kg registered between 1 January 2010 and 30 April 2013 were reviewed. This sample represented those who had taken a full course

of single-drug preparations ($n = 240$) or FDCs ($n = 259$). This represents 80% of the total TB caseload of 624 cases registered in Fiji for the study period, and did not include TB cases who had received a mixture of drug therapies, recurrent cases or those weighing <30 kg.

The characteristics of these new TB cases are presented in Table 1. Demographic and clinical characteristics listed were similar between the two groups, with no significant difference. Weight was not available for the majority (58% overall) of the cases.

Table 2 lists treatment outcomes for all new TB cases and for TB type. Outcomes are compared by drug preparation received. It is noted that an unknown outcome was significantly more common in the FDC group. It is also noted that 21 (11%) TB cases who were cured were misclassified as either sputum smear-negative ($n = 13$) or extra-pulmonary TB (EPTB) ($n = 8$). For those with known outcomes, overall treatment outcomes were good, and an end-of-treatment outcome of 'cured' or 'treatment completed' was the same for those receiving FDCs and those receiving single-drug preparations—193 (81%) of 238 known outcomes in both groups.

The sputum smear conversion rate after the 2-month intensive phase was similar between the two groups (Table 3) for those with results, the majority of whom had converted at 2 months. Again, there were significantly more cases with unknown sputum conversion status among those receiving FDCs. If cases with unknown sputum smear conversion were included in the analysis, sputum smear conversion after the 2-month intensive phase was significantly more commonly recorded for those receiving single-drug preparations than those receiving FDCs (119/132, 90% vs. 94/125, 75%; $P = 0.002$).

DISCUSSION

This is an original study evaluating treatment responses following the introduction of FDCs in Fiji. Comparisons of cases with known outcomes found no significant differences in either end-of-treatment outcomes for all TB cases or sputum smear conversion for sputum smear-positive cases. The study groups were similar in baseline characteristics and type of TB treated, but with a retrospective cohort design it is not possible to evaluate all potential influences on outcome, given that the treatment was used over different time periods. Our findings are consistent with prospective, open randomised trials covering sites in TB-endemic settings in Africa, Asia and Latin America that concluded that treatment outcomes were not inferior when using FDCs than when using single-drug preparations.^{3,4}

The sputum conversion rate after the 2-month intensive phase in those with known outcomes was similar and high in both of the treatment groups, at 95% and 97%, respectively. This high sputum conversion rate compares to the WHO standard for a well-functioning NTP, which is a conversion rate of at least 75% among new smear-positive PTB cases, and is higher than rates recently reported from other settings.^{8,9} Our

ACKNOWLEDGEMENTS

This research was conducted through the Structured Operational Research and Training Initiative (SORT IT). The training was run in Fiji by the College of Medicine, Nursing and Health Sciences, Fiji National University, Suva, Fiji and The Union, Paris, France. Additional support for running the course was provided by the Public Health Division of the Secretariat of the Pacific Community, Nouméa, New Caledonia; Centre for International Child Health, the University of Melbourne, Melbourne, VIC, Australia; School of Population Health, University of Queensland, Brisbane, QLD, Australia; Regional Public Health, Hutt Valley District Health Board, Lower Hutt, New Zealand; the National TB Programme, Fiji Ministry of Health, Suva, Fiji.

Funding for the course was provided by the Global Fund to Fight AIDS, TB and Malaria, Geneva, Switzerland, with co-funding by The Union; the Special Programme for Research and Training in Tropical Diseases (TDR); Public Health Division of the Secretariat of the Pacific Community, Nouméa, New Caledonia; Centre for International Child Health, the University of Melbourne, Melbourne, VIC, Australia; School of Population Health, Brisbane, QLD, University of Queensland, Australia. Conflict of interest: none declared.

TABLE 1 Baseline characteristics of TB patients, Fiji, January 2010–April 2013

Variable	Treatment regimen		Total for variable n (%)
	FDC n (%)	Single-drug preparations n (%)	
Total	259	240	499
Age, years			
0–14	5 (2)	6 (3)	11 (2)
15–24	44 (17)	43 (18)	87 (17)
25–34	48 (19)	57 (24)	105 (21)
35–44	41 (16)	38 (16)	79 (16)
45–54	45 (17)	38 (16)	83 (17)
55–64	36 (14)	32 (13)	68 (14)
≥65	37 (14)	21 (9)	58 (12)
Unknown	3 (1)	5 (2)	8 (2)
Sex			
Male	148 (58)	129 (54)	277 (56)
Female	111 (43)	111 (46)	222 (45)
Ethnicity			
<i>i-Taukei</i>	185 (71)	154 (64)	339 (68)
Fijians of Indian descent	52 (20)	62 (26)	114 (23)
Others	22 (9)	24 (10)	46 (9)
Weight, kg			
30–39	5 (2)	6 (3)	11 (2)
40–54	28 (11)	41 (17)	69 (14)
55–70	28 (11)	43 (18)	71 (14)
>70	34 (13)	26 (11)	60 (12)
Unknown	164 (63)	124 (52)	288 (58)
TB type			
Smear-positive PTB	126 (49)	132 (55)	258 (52)
Smear-negative PTB	83 (32)	60 (25)	143 (29)
EPTB	50 (19)	48 (20)	98 (20)

TB = tuberculosis; FDC = fixed-dose combination; PTB = pulmonary TB; EPTB = extra-pulmonary TB.

findings are consistent with those of an earlier study in Indonesia that showed high sputum conversion rates and excellent treatment outcomes when comparing groups with sample size similar to that of our study.¹⁰ A more recent multi-site study reported 88% and 98% sputum smear conversion rates after 2 months of treatment and at end of treatment, respectively, in those who adhered to treatment, i.e., by per-protocol analysis.⁴ Notably in that study, sputum conversion rates were lower—79% and 81%, respectively—when all study participants were included in intention-to-treat analysis.

Many factors could potentially affect the sputum conversion rate in first-line anti-tuberculosis treatment, some of which relate directly to medication, including drug susceptibility and patient adherence. Data on the prevalence of drug-resistant TB in Fiji are limited. The high rates of sputum conversion by 2 months and the very low proportion with treatment failure on first-line treatment, as found in this study, support the observations reported to the WHO.¹ The excellent conversion rate in those with known outcomes may reflect excellent patient adherence, as noted in previous studies.^{3,4} It is policy in Fiji to treat all sputum smear-positive pulmonary TB (PTB) cases as in-patients during the intensive phase to receive treatment under the supervision of hospital staff. While this does not always occur, as exceptions can be made at the discretion of the clinician, most smear-positive PTB cases do receive the intensive phase as in-patients. This practice may also explain why the results of the follow-up sputum tests were available for the majority (87%) of cases. The findings contrast with those from recent studies in Rwanda that found a lower smear completion rate and poor patient adherence as an independent determinant of mortality.^{11,12}

Overall treatment outcomes for all new TB cases were similar between the treatment groups and were satisfactory, with cure or treatment completed in 81% of all cases with a known outcome. However, some discrepancies were noted with the data. Significantly, 8% of all TB cases receiving FDCs had no treatment outcome data recorded when compared to 0.8% of those receiving

TABLE 2 Treatment outcome for all new TB patients (>30 kg) by TB type and treatment regimen, Fiji, January 2010–April 2013

Treatment outcome*	All new cases (n = 499)				Sputum smear-positive PTB (n = 258)			Sputum smear-negative PTB (n = 143)			Extra-pulmonary TB (n = 98)		
	Total	FDC n (%)	SDP n (%)	P value	FDC n (%)	SDP n (%)	P value	FDC n (%)	SDP n (%)	P value	FDC n (%)	SDP n (%)	P value
Total	499	259	240		126	132		83	60		50	48	
Cured†	195 (39)	92 (36)	103 (43)	0.1	86 (69)	88 (67)	0.8	4 (5)	9 (15)	ND‡	2 (4)	6 (13)	ND‡
Treatment completed§	192 (39)	101 (39)	91 (38)	0.9	7 (5)	19 (14)	0.03	60 (72)	41 (68)	0.7	34 (68)	31 (65)	0.8
Death¶	37 (7)	21 (8)	16 (7)	0.7	8 (6)	8 (6)	0.9	10 (12)	3 (5)	0.2	3 (6)	5 (10)	0.5
Failure#	2 (0.4)	2 (0.8)	0	0.5	0	0	1.0	0	0	1.0	2 (4)	0	0.5
Default**	33 (7)	12 (5)	21 (9)	0.1	6 (5)	13 (10)	0.2	4 (5)	5 (8)	0.5	2 (4)	3 (7)	0.7
Transfer out††	14 (3)	7 (3)	7 (3)	0.9	3 (2)	2 (1.5)	0.7	3 (4)	2 (3)	1.0	1 (2)	3 (7)	0.4
Not recorded	23 (5)	21 (8)	2 (0.8)	<0.001	15 (12)	2 (1.5)	<0.01	1 (1)	0	1.0	5 (10)	0	0.06
Still undergoing treatment	3 (0.6)	3 (1.2)	0		1 (0.8)	0		1 (1)	0		1 (2)	0	

*Per WHO definitions.

†Sputum smear-positive at the beginning of the treatment, but smear-negative in the last month of treatment and on at least one previous occasion.

‡Incorrectly reported, as these cases were not sputum smear-positive at the beginning of treatment.

§Completed treatment but does not have a negative sputum smear result in the last month of treatment and on at least one previous occasion.

¶Died for any reason during the course of anti-tuberculosis treatment.

#Sputum smear-positive (and culture-positive) at 5 months or later during treatment.

**Treatment was interrupted for ≥2 consecutive months or more.

††Transferred to another recording and reporting unit and treatment outcome is unknown.

TB = tuberculosis; PTB = pulmonary TB; FDC = fixed-dose combination; SDP = single-drug preparations; ND = not done; WHO = World Health Organization.

TABLE 3 Sputum smear conversion rate of new smear-positive patients, January 2010–April 2013

Sputum smear conversion	Fixed-dose combination (<i>n</i> = 125) <i>n</i> (%)	Single-drug preparations (<i>n</i> = 132) <i>n</i> (%)	Total (<i>n</i> = 257) <i>n</i> (%)	<i>P</i> value
Known conversion	99	123	222	
At 2 months	94 (95)	119 (97)	213 (96)	0.5
After 2 months	5 (5)	4 (3)	9 (4)	
Within 3 months	2	2	4	
Within 5 months	3	2	5	
Not known	26 (21)	9 (7)	34 (13)	<0.001

single-drug preparations. It should be noted that an unknown treatment outcome was more common with the use of FDCs for all types of TB, which might imply that the use of FDCs is associated with less control over drugs. There were also significantly more sputum smear-positive cases with no sputum smear conversion data available in the FDC group. These missing data might bias the outcome results for the FDC group. In addition, some sputum smear-negative PTB and EPTB cases were listed as 'cured'. These findings highlight shortfalls in the NTP's recording and reporting procedures at the time of the introduction of FDC treatment. At this time, other changes were being made to policies and procedures, and there were insufficient trained staff in the NTP. This is reflected in the treatment success rates in Fiji reported to the WHO, i.e., only 67% in 2010 compared to >90% in 2009 and 2011.¹ This has since been addressed through training workshops and discussions with nurses and public health officers on recording and reporting procedures.

Accurate dosing according to patient weight to maximise antibiotic therapy and minimise side effects is an important aspect of prescribing. Weight was not recorded for more than half of the patients, either at the initiation of treatment or at the beginning of month 2 (the majority), or it was not recorded at all. It was therefore not possible to assess the accuracy of dosing in either group. A study in Malawi showed that intermittent treatment provided dosages that were sometimes too low, and weight bands used for prescribing needed to be re-examined.¹³

The study has a number of additional limitations. This was a retrospective study and concerns about the completeness and validity of the data have been mentioned. Many factors in addition to drug action, such as drug management and patient behaviour, can influence treatment outcomes. As this is a before-and-after study, the treatment groups represent different time periods. Data for all registered patients could not be collected due to unavailability of folders and incomplete recording in some treatment centres. Human immunodeficiency virus (HIV) co-infection is known to be associated with worse outcomes^{14,15}; however, HIV data were not available for this study. However, HIV is unlikely to be a major factor for determining treatment outcome in Fiji, as HIV prevalence among TB patients in Fiji is relatively low. In 2012, 58% of all TB cases were HIV-tested and 4% were HIV-infected.¹ The sample size was only sufficient to show considerable worsening of treatment outcomes with the introduction of FDCs, and given the excellent outcomes at baseline with single-drug preparations, was certainly insufficient to show significant improvements. Finally, the data of TB relapses following treatment were not recorded, and some studies have shown higher relapse rates in those receiving FDC treatment.^{16,17}

The study also has strengths. Data were collected from the three treatment centres in Fiji and represent around 80% of the

national TB caseload during that time period; the majority of the patient records were validated against treatment cards. The findings on treatment response would be reassuring to the NTP and support the WHO recommendations for the use of FDCs because of the potential advantages associated with their administration compared with single-drug formulations. There are potential advantages for the patient, such as lower risk of incorrect dosing, reduced pill burden and improved adherence; however, adherence and treatment satisfaction with FDC use have not been shown to be better in the context of clinical trials.¹⁷ There are also potential advantages for the NTP in greater simplicity of procurement and storage.

In conclusion, the introduction of FDCs in Fiji for the treatment of new TB cases has not been associated with lower rates of sputum smear conversion after the 2-month intensive phase or poorer end-of-treatment outcomes. This finding is reassuring, as there are additional potential advantages for both the NTP and patients associated with the use of FDCs compared to single-drug preparations. However, the study highlights the need for the NTP to strengthen recording of treatment responses.

References

- 1 World Health Organization. Global tuberculosis report 2013. WHO/HTM/TB/2013.11. Geneva, Switzerland: WHO, 2013.
- 2 Blomberg B, Spinaci S, Fourie B, Laing R. The rationale for recommending fixed-dose combination tablets for treatment of tuberculosis. *Bull World Health Organ* 2001; 79: 61–68.
- 3 Lienhardt C, Cook S V, Burgos M, et al. Efficacy and safety of a 4-drug fixed-dose combination regimen compared with separate drugs for treatment of pulmonary tuberculosis. *JAMA* 2011; 305: 1415–1423.
- 4 Bartacek A, Schütt D, Panosch B, Borek M, Rimstar 4-FDC Study Group. Comparison of a four-drug fixed-dose combination regimen with a single tablet regimen in smear-positive pulmonary tuberculosis. *Int J Tuberc Lung Dis* 2009; 13: 760–766.
- 5 Brostrom R, Gribble S, Wiegandt A, Linh N N, Masaki O. External review of the National TB Programme of Fiji, 2008. Suva, Fiji: Ministry of Health, Republic of Fiji, 2008.
- 6 National Tuberculosis Programme, Ministry of Health, Fiji. Tuberculosis guideline. Clinical diagnosis and management of tuberculosis, and measures for its prevention and control. Suva, Fiji: Ministry of Health, 2011.
- 7 World Health Organization. Operational guide for national tuberculosis control programmes on the introduction and use of fixed-dose combination drugs. WHO/CDS/TB/2002.308. WHO/EDM/PAR/2002.6. Geneva, Switzerland: WHO, 2002.
- 8 World Health Organization. Compendium of indicators for monitoring and evaluating national tuberculosis programmes. WHO/HTM/TB/2004.344. Geneva, Switzerland: WHO, 2004.
- 9 Pefura-Yone E W, Kengne A P, Kuaban C. Non-conversion of sputum culture among patients with smear-positive pulmonary tuberculosis in Cameroon: a prospective cohort study. *BMC Infect Dis* 2014; 14: 138.
- 10 Gravendeel A M, Asapa A S, Becx-Bleumink M, Vrakking H A. Preliminary results of an operational field study to compare side-effects, complaints and treatment results of a single-drug short-course regimen with a four-drug fixed-dose combination (4FDC) regimen in South Sulawesi, Republic of Indonesia. *Tuberculosis* 2003; 83: 183–186.
- 11 Kayigamba F R, Bakker M I, Mugisha V, Gasana M, Schim van der Loeff M F.

- Sputum completion and conversion rates after intensive phase of tuberculosis treatment: an assessment of the Rwandan control program. *BMC Res Notes* 2012; 5: 357.
- 12 Kayigamba F R, Bakker M I, Mugisha V, et al. Adherence to tuberculosis treatment, sputum smear conversion and mortality: a retrospective cohort study in 48 Rwandan clinics. *PLOS ONE* 2013; 8: e73501.
 - 13 Harries A D, Gausi F, Salaniponi F M. Prescriptions and dosages of anti-tuberculosis drugs in the National Tuberculosis Control Programme of Malawi. *Int J Tuberc Lung Dis* 2004; 8: 724–729.
 - 14 Sanchez M, Bartholomay P, Arakaki-Sanchez D, et al. Outcomes of TB treatment by HIV status in national recording systems in Brazil, 2003–2008. *PLOS ONE* 2012; 7: e33129.
 - 15 Harries A D, Zachariah R, Corbett E L, et al. The HIV-associated tuberculosis epidemic—when will we act? *Lancet* 2010; 375: 1906–1919.
 - 16 Suryanto A A, van den Broek J, Hatta M, de Solderhoff R, van der Werf M J. Is there an increased risk of TB relapse in patients treated with fixed-dose combination drugs in Indonesia? *Int J Tuberc Lung Dis* 2008; 12: 174–179.
 - 17 Albanna A S, Smith B M, Cowan D, Menzies D. Fixed-dose combination antituberculosis therapy: a systematic review and meta-analysis. *Eur Respir J* 2013; 42: 721–773.

Contexte : L'association de médicaments anti-tuberculeux de première ligne à dose fixe (FDC) a été introduite en 2011 aux Fidji et a soulevé des préoccupations en matière de réponse thérapeutique.

Objectif : Evaluer la réponse thérapeutique des patients tuberculeux aux FDC.

Méthodes : Nous avons entrepris une étude rétrospective de cohorte sur les résultats du traitement de nouveaux cas de la tuberculose (TB) enregistrés entre janvier 2010 et avril 2013 et pesant ≥ 30 kg. La conversion du frottis de crachats des nouveaux cas à frottis positif et les résultats en fin de traitement de tous les cas ont été évalués chez les patients recevant des FDC et comparés aux résultats obtenus auparavant avec des préparations à médicament unique.

Résultats : Parmi les nouveaux patients tuberculeux, 240 ont reçu

des préparations de médicaments uniques et 259 ont reçu des FDC pendant toute la durée de leur traitement. Les deux groupes étaient similaires en termes de caractéristiques démographiques et cliniques. Les résultats du traitement étaient disponibles pour 95% des cas ; les résultats étaient plus souvent indisponibles pour les patients recevant des FDC. Lorsqu'ils étaient connus, les résultats en fin de traitement étaient identiques dans les deux groupes thérapeutiques et ne différaient pas en fonction des types de TB. La conversion des frottis de crachats après 2 mois de la phase intensive était également similaire dans les deux groupes : 95% et 97%, respectivement.

Conclusion : L'introduction des FDC aux Fidji dans le traitement des cas de TB n'a pas été associée à des modifications de la réponse thérapeutique.

Marco de referencia: El uso de las combinaciones de dosis fijas (FDC) de medicamentos antituberculosos de primera línea se introdujo en Fiji en el 2011 y se han planteado inquietudes acerca de la respuesta terapéutica que generan.

Objetivo: Evaluar la respuesta al tratamiento de la tuberculosis (TB) en los pacientes que recibían FDC.

Métodos: Fue este un estudio retrospectivo de cohortes sobre los desenlaces terapéuticos de los casos nuevos de TB registrados entre enero del 2010 y abril del 2013, en pacientes con un peso de ≥ 30 kg. Se evaluó la conversión de la baciloscopia del esputo de los casos nuevos con baciloscopia positiva y el desenlace terapéutico definitivo de todos los casos que recibieron FDC y se compararon con los desenlaces de pacientes que habían recibido el tratamiento usado anteriormente con base en especialidades farmacéuticas de un solo medicamento.

Resultados: De los casos nuevos de TB, 240 pacientes recibieron preparaciones con medicamentos únicos y 259 recibieron FDC durante todo el período de tratamiento. Los grupos presentaron características demográficas y clínicas semejantes. Se conoció el desenlace terapéutico de 95% de los casos. El desconocimiento del desenlace fue más frecuente en los casos que recibían FDC. En los casos con desenlace conocido no se observaron diferencias entre ambos grupos de tratamiento ni entre los diferentes tipos de TB. La tasa de conversión del esputo tras 2 meses de tratamiento intensivo fue equivalente en ambos grupos (FDC 95% y medicamentos únicos 97%).

Conclusión: La introducción de los medicamentos antituberculosos en FDC en Fiji no se ha asociado con modificaciones de la respuesta al tratamiento.