

Principles of Writing a Paper and getting it published

Anthony D Harries

The Union, Paris, France

MSF, Brussels, Belgium

The Union

International Union Against
Tuberculosis and Lung Disease
Health solutions for the poor



LuxOR
Luxembourg Operational Research

BASIC STRUCTURE

- **Title Page**
- **Abstract**
- **Introduction, aim and objectives**
- **Methods (includes ethics approvals)**
- **Results (includes tables and figures)**
- **Discussion and Conclusion**
- **References**

Use “Recurrent TB in Malawi”

TITLE PAGE

- Title
- Authors and Institutions
- Corresponding author
- Word counts (abstract and full paper)
- Key words
- Short running title

Recurrent TB in the Malawi National Tuberculosis Programme

Authors and Institutions:

Anthony D Harries,¹ Francis Gausi,^{1,2} John Kwanjana,¹ Felix Salaniponi¹

¹ National Tuberculosis Programme, Ministry of Health, Malawi

² National Statistics Office, Zomba, Malawi

Address for Correspondence:

Anthony D Harries, NTP, Lilongwe, Malawi

Phone and Fax: +265 1962 714 297: Email: adharries@malawi.net

Word Count: 2,171

Abstract word count: 200

References: 15

Table: 1

Key words: recurrent tuberculosis; DOTS; Malawi

Short Running Title: Recurrent tuberculosis in Malawi

ABSTRACT

- Setting
- Objective
- Design
- Results
- Conclusion

IJTLD or PHA : structured abstract – 200 words

ABSTRACT

- **Setting:** All hospitals in Malawi that register TB
- **Objective:** To determine whether patients registered as New TB have been previously treated
- **Design:** Cross-sectional, prospective study involving a structured interview of TB patients
- **Results:** There were 1254 patients registered as “new TB” of whom 94 (8%) had recurrent TB
- **Conclusion:** Patients with recurrent TB are incorrectly registered and are being missed under routine programme settings

INTRODUCTION

- Describe the present situation and the background as to why you have carried out this study
- Avoid a long comprehensive review
- State clearly the aim and objectives of the study

INTRODUCTION

Setting the scene (1)

- Africa is currently faced by two intersecting epidemics – HIV and tuberculosis (TB)
- This has resulted in an large increase in case notifications, with increasing morbidity and mortality in HIV-infected TB patients.

INTRODUCTION:

Previous studies (2)

Previous studies have found that recurrence is increased in patients who were infected with HIV (references)

Therefore where HIV-infection rates are high we should find increased recurrence rates of TB

INTRODUCTION:

The problem and study rationale (3)

- In Malawi, despite rising HIV-prevalence rates (refs), relapse TB cases have stayed the same and there have been no registered cases of recurrent smear-negative PTB or EPTB
- Our hypothesis is that the NTP is missing recurrent TB under routine program conditions

INTRODUCTION:

The aim of the study (4)

The aim of this study was to determine whether patients who had been registered as “New TB” had been previously diagnosed and treated as relapse smear-positive Pulmonary TB and recurrent smear-negative TB?

METHODS

- **Study design (descriptive, case-control, cohort)**
- **Setting – general and study site**
- **Participants**
- **Data variables to be collected:**
 - exposure and outcome variables
 - data collection instrument
 - data validation
- **Sources of data**
- **Analysis and statistics (sample size calculation, if needed)**
- **Ethics approval**

Design

- This was a cross-sectional, prospective study involving a structured interview of TB patients

Setting and site visits

- General: Malawi is a small country in Africa with high HIV and TB burden. There is a country-wide DOTS Programme and all patients spend the first two months of TB treatment in hospital receiving initial phase therapy
- Site visits: **All** hospitals in the country that register and treat patients with TB were visited. These included 3 central hospitals, 22 district hospitals and 18 mission hospitals
- Timing of the visits: These hospitals were visited between January and June 1999 as part of the routine NTP supervision

Participants (patients)

- **All** patients who were in hospital receiving treatment during the initial phase and who were registered as “New TB” were interviewed using a structured questionnaire
- Patients were identified by going round the TB wards in a set fashion and all those present in or by their beds were interviewed

Variables, data collection, validation

- Variables that were collected from interview included: -TB registration no, age, sex, type of TB, **previous history of TB**
- Those with previous history of TB were asked: when, what type of TB, was treatment completed
- Data was collected into a structured questionnaire
- Validation of data on previous TB was done using TB identity cards wherever possible

Sources of data

- All patients in their TB beds were interviewed
- Patients who were out of the TB ward and could not be traced were not included

Analysis and statistics

- Data were entered into EPI-INFO software, version 6.4
- The chi-square test was used to compare differences in proportions between groups (odds ratios with 95% confidence intervals)
- Differences at 5% level ($p < 0.05$) were regarded as significant. This was a national sample and sample size was not calculated.

Ethics approval

- The study was approved by the TB programme management group
- Ethics approval was obtained from the Malawi National Health Science Research committee

RESULTS

- Report just the facts
- Avoid duplication in text and tables
- Tables / Figures should be clear as stand alones
- Statistics - avoid comparing everything in sight

Basic demographic data

- There were 1254 patients with “New TB”
- There were 575 men and 679 women
- The mean age (SD) was 35 (12) years

The main findings

The frequency of a previous episode of TB in patients registered as a “New case” for those with all types of TB and with different types of TB is shown in Table 1.

Table 1: Previous TB in patients registered as having “New Tuberculosis”

Type of TB	Registered as “New”	Previous TB
All types	1254	94 (8%)
Sm+ve PTB	746	34 (4.5%)
Sm-ve PTB	282	40 (14%)
EPTB	226	20 (9%)

Trans Roy Soc Trop Med Hyg 2000; 94: 247-249

Only 9 out of 94 previous episodes
were validated with the patient
producing an Identity card

Statistics

Compared to patients with smear-positive PTB, a previous episode of TB was significantly more common in :-

- patients with smear-negative PTB
(OR 3.5, 95% CI 2.1 - 5.7, $p < 0.001$)
- patients with EPTB
(OR 2.0, 95% CI 1.1 - 3.7, $p < 0.05$)

DISCUSSION

- Brief summary of findings and what is new
- Strengths and limitations of the study
- The possible reasons for the findings
- How the findings compare with other studies
- What are the implications of the study

[Don't just restate the results]

Brief summary

- This study confirms our hypothesis that in the setting of a TB control program patients with a previous episode of TB were not being identified and were not being properly registered as either “relapse” or “recurrent TB”.
- Incorrect registrations were more common in patients with smear-negative PTB and EPTB.

Strengths of the Study

- Country-wide study and therefore probably representative of the situation in Malawi
- Same methods of selecting patients and going round the wards were used and therefore no methodological biases
- Study report adhered to STROBE Guidelines (*Lancet 2007, 370, 1453-7*)

Limitations of the study

- Episode of previous TB was based mainly on the patient's history, and this may have been incorrect. We could only validate the findings in a small proportion of patients with Identity cards
- This was an operational study and therefore there is no information about how many patients treated for smear-negative PTB and EPTB actually had TB

Limitations of the study (cont)

- A systematic enquiry about why TB program staff failed to correctly register previously treated patients was not carried out and therefore the reasons for incorrect registration are not known.

Possible reasons for findings

- TB officers do not ask the right questions
- Patients do not disclose treatment status
- No guidelines from NTP about what to do with recurrent smear-negative TB, and therefore no point in knowing the patient category

Comparison with previous studies

No previous studies done

Implications: recurrent TB is being missed and therefore we need to:-

- discuss the problem with all NTP staff in a national seminar (incorrect treatment, incorrect data reported to Malawi / WHO)
- issue guidelines from the central unit to all districts about how to manage recurrent TB
- incorporate guidelines into a revised national TB manual

CONCLUSION

This study has identified a weakness of reporting in the Malawi NTP, and steps are being made to rectify the situation

REFERENCES

- Do them manually
- Or Use Reference Manager or End Notes
- Ensure that the reference style in the narrative and in the reference list is done for that journal
- Check that references in narrative match those in the reference list

Final Bits and Pieces

- Acknowledgements: those who rendered assistance; financial support; those who read the paper and gave helpful comments
- Conflicts of interest: especially industry links: but usually we say “None declared”
- Author contributions: who did what?

Electronic submission

- Usual format
- Can be frustrating!
- Explore the program – see what is required?
- Assemble all the pieces beforehand
- Tables/figures separate?