Cure and discontinuation of treatment in a tuberculosis control state programme in Brazil: insights from dispensing data

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Background and Objective

- The effectiveness of tuberculosis (TB) control programmes depends critically on patients completing appropriate treatment.
- This study aimed to outline the cure and discontinuation rates of patients enrolled in the Pernambuco Tuberculosis Control Programme (PECT), based on dispensing data.

Setting and Methods

- Study was conducted in three sites in Recife, state of Pernambuco, Brazil.

8 general practice units + 1 polyclinic — **SITE A**

1 hospital for medium-complexity patients — **SITE B**

1 hospital for high-complexity patients — **SITE C**

- Data were collected between 07-11/2014, through reports from the stock management software for public pharmacies (HORUS) for PECT outpatients (n=948; 232, 348 and 368 in sites A, B and C, respectively)
- “Cure” was defined by the software as medicines collection for three, six or nine consecutive months without interruption, depending on the treatment scheme.
- “Discontinuation” was defined as a non-sequential collection of medicines or treatment interruption for two consecutive months or more.
- Patients were assigned an “undetermined” status if treatment was ongoing.
- Qui-squared test, Fisher’s exact test and bootstrap analysis were performed with R statistical computing.
- Ethical approval was granted.

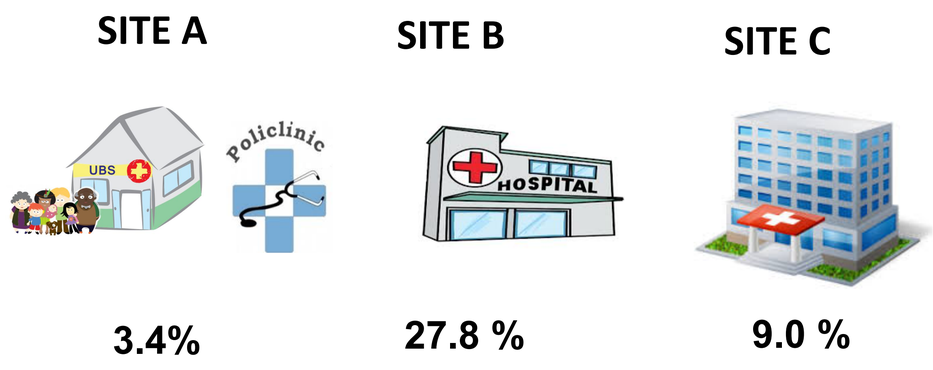
Main Outcome Measures

Cure and discontinuation rates for PECT outpatients.

Results

Rates for cure

Rates for treatment discontinuation



- Discontinuation rates were significantly different among the sites A, B and C ($p < 0.05$).
- Bootstrap analysis showed that the overall the proportion of patients with an "undetermined" status in each site did not significantly change these differences.

Conclusions

- Only site A had an acceptable discontinuation rate, in light of the World Health Organization recommendations.
- Pharmacists could use dispensing data to signal TB patients at-risk of discontinuation, and subsequently tailor interventions addressing its causes
- Site B had the greater number of patients which discontinued treatment. Patients co-infected with TB and HIV are firstly referred to this site, which may explain this finding.
- Our findings suggest the need of more intensive interventions in patients co-infected with TB and HIV, such as pharmaceutical care programmes.

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