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Retrospective analysis of time to smear and culture conversion and treatment outcomes of rifampicin resistant tuberculosis patients treated with long and short course regimen at Tshepong Hospital (2015 –2018)

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Abstract MMed 1856389

Title

Retrospective analysis of time to smear and culture conversion and treatment outcomes of rifampicin resistant tuberculosis patients treated with long and short course regimens at Tshepong Hospital

Background

Shortened treatment regimens and novel therapies have become available for programmatic adoption due to toxicities and the prolonged duration of treatment required for drug resistant (DR) TB. Sputum smear and culture conversion to negative and successful treatment outcomes are important parameters to assess treatment effectiveness.

Objective

To compare responses and outcomes between short and long course DR TB treatment regimens at Tshepong Hospital, Klerksdorp, South Africa.

Methods

A retrospective review was conducted of patients diagnosed with rifampicin resistance and who were also smear and culture positive for *Mycobacterium tuberculosis* between January 2015 and June 2018. We compared patients receiving short course regimens and long course regimens using historical controls.

Results

Data from 285 of 1399 DR TB patients' records was analysed; 39.2% were on short course DR treatment, 61.8% on long course. Short course participants were less likely to smear convert at 2 months (42.2%), compared to those on long regimen (31.8%, *p=0.0209*) but culture conversion at 2 months was similar (45.9% v 47.2%, *p=0.7682*). A higher proportion of patients receiving short course treatment were cured or completed treatment (71.6% vs. 58.0%, *p=0.021*), and short course patients were less likely to have died (7.3% vs 22.7%, *p=0.0007*).

Conclusion

There was no statistical difference in time to culture conversion between the two treatment groups, however, short DR TB regimen was associated with better outcomes and significantly

lower mortality. Thus, advent of shorter and injection free regimens is a welcome development in the global fight against drug resistant TB.