High Mortality at a DR-TB Admission Facility in Mangaung, Free State Province, South Africa

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EXECUTIVE SUMMARY

DR-TB mortality remains high despite improved regimens

01 DR-TB in South Africa kills roughly 20–25% of patients, a toll frequently driven by HIV co-infection.

02 A retrospective mortality audit was conducted across 2024 at a Free State DR-TB admission facility.

03 92% of referred patients were initiated on treatment, yet the risk of mortality stayed high.

04 Mangaung Metro carries the province's largest DR-TB caseload and a consistently high death rate.

BACKGROUND

Drug-resistant TB carries a high mortality burden in South Africa

- 20–25% of DR-TB patients die, frequently
- driven by HIV co-infection.
- MDR-TB and XDR-TB are the most severe drug-resistant forms of the disease.
- Bedaquiline-based regimens have significantly improved survival.
- Death rates nonetheless remain high in high-prevalence settings.

20–25%

of patients diagnosed with DR-TB

die from the disease nationally

STUDY AIM

To report on the high mortality of patients diagnosed with MDR-TB and XDR-TB admitted at a district hospital DR-TB unit in Mangaung Metro, Free State

METHODOLOGY

A retrospective 2024 mortality audit using the national DR-TB register

DESIGN & DATA

- Retrospective investigation of 2024 data.
- Source: Electronic Drug-resistant TB Register (EDRweb).
- Death data for the district hospital extracted and compared.

AUDIT & ANALYSIS

- Mortality audit conducted across Q1–Q4 2024.
- Statistical analysis in Excel 2000 and STATA 15.
- Quarterly figures compared to track mortality over the year.

STUDY POPULATION

62 patients were referred to the DR-TB admission facility in 2024

62 (45/62)

patients referred from outreach and primary healthcare clinics

92% of referred patients were initiated on treatment

RESULTS · MORTALITY

Patients died

9

Mangaung Metro

Experienced the highest death rate at 31% (3)
Deaths occurred within an average of 7 days of admission

- These early deaths point to advanced disease at the time of referral.
- Delays between diagnosis, referral, and admission
- Pre-treatment mortality is not captured by narrow the window for intervention.
- treatment-outcome figures alone.

Note: a full quarter-by-quarter mortality breakdown was truncated in the source abstract and is not reported here.

RESULTS · GEOGRAPHY

Mangaung Metro carries the province's largest DR-TB caseload

- Mangaung Metropolitan Municipality reports the highest DR-TB caseload in the Free State.
- Concentrated burden places sustained pressure on the admission facility.
- High local demand reinforces the need for early case-finding and rapid referral.

PROVINCIAL BURDEN

Mangaung Metro

Largest share of drug-resistant TB cases among Free State districts

RESULTS · DEMOGRAPHICS

DR-TB struck people in their most economically active years

20–39

years — the age band of the majority of admitted patients

- Most admitted patients fell within the 20–39year age group.
- This is the prime working and child-rearing age, amplifying social and economic impact.
- The age profile reflects the broader HIV and TB burden in the province, (**23/31**)

DISCUSSION

High initiation rates have not translated into low mortality

- Despite a 92% treatment-initiation rate, mortality at the facility remained high — echoing the national 20–25% toll.
- Deaths before treatment suggest patients arrive with advanced disease, often compounded by HIV co-infection.
- A young patient profile (20–39 years) magnifies the human and economic cost of each death.
- Earlier case-finding and faster referral are needed to reach patients before disease becomes irreversible.

CONCLUSION

Reducing DR-TB mortality demands earlier, faster intervention

Mortality among admitted MDR-TB and XDR-TB patients
in Mangaung remains unacceptably high despite strong
treatment initiation — underscoring the need for early

THANK YOU

QUESTIONS WELCOME