**Supporting Information:**

**What is the cost of diagnosis and management of drug resistant tuberculosis in South Africa?**

**Table S1:** Frequency and duration of hospitalization, outpatient/clinic visits, treatment and diagnostic/monitoring tests during the period of treatment for drug sensitive tuberculosis, multi-

drug resistant tuberculosis and extensively drug-resistant tuberculosis according to the South African Drug Resistant TB guidelines. The reported frequencies refer to the period from diagnosis till the end of treatment.

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| **Component** | **DS-TB** | **MDR-TB** | **XDR-TB** |
| **Smear** **positive converters** | **Smear** **positive** **non converters** | **Smear** **negative** | **Retreatment** | **Culture converters** | **Culture** **non converters** | **Culture converters** | **Culture** **non converters** |
| Hospital, outpatient and clinic visit frequency | Hospital inpatient months (hospitalized patients only) | ND | ND | ND | ND | 4 months | 12 months | 6 months | 12 months |
| Hospitaloutpatient visits | ND | ND | ND | ND | Once per month during intensive phase, every 2 months in continuation phase | Twice per month during intensive phase, every month in continuation phase |
| Clinic visits(check-up) | 1 at diagnosis, 2 during Rx | 1 at diagnosis, 3 during Rx | 1 at diagnosis, 3 during Rx | 1 at diagnosis, 4 during Rx | Once a month for monitoring ADRs (outpatients only) | Once a month for monitoring ADRs (outpatients only) |
| DOTS clinic visits(administering drugs) | 1st 2 weeksof Rx | 1st 2 weeksof Rx | 1st 2 weeksof Rx | daily during intensive phase | Daily for duration of Rx(outpatients only) | Daily for duration of Rx (outpatients only) |
| Treatment regimen and duration | Length ofintensive phase | 2 months | 3 months | 2 months | 3 months | 6 months | 12 months | 6 months | 12 months |
| Intensive phaseregimen | R-H-Z-E | R-H-Z-E | R-H-Z-E | R-H-Z-E-S | Km-Z-Mxf-Eto-Trd | (Primary) Cm-Z-Mxf-Eto-Trd-PAS-Cfz(Acquired) Cm-Z-Mxf-Clm-Aug-  hdH -PAS-Cfz |
| Length of continuation phase | 4 months | 4 months | 4 months | 5 months | 18 months | - | 18 months | 3 months |
| Continuation phaseregimen | R-H | R-H | R-H | R-H-E | Z-Mxf-Eto-Trd | (Primary) Z-Mxf-Eto-Trd-PAS-Cfz(Acquired) Z-Mxf-Clm-Aug-  hdH -PAS-Cfz |
| Diagnostic and monitoring test frequency | Sputum smear microscopy | 2 at diagnosis, 4 during Rx | 2 at diagnosis, 5 during Rx | 2 at diagnosis, 5 during Rx | 2 at diagnosis, 5 during Rx | At diagnosis andmonthly | At diagnosis andmonthly |
| Sputumliquid culture | ND | After 2 months of Rx | At diagnosis | At diagnosis | At diagnosis andmonthly | At diagnosis andmonthly |
| 1st line DST | ND | ND | ND | At diagnosis | At diagnosis | At diagnosis |
| 2nd line DST | ND | ND | ND | ND | At diagnosis | At diagnosis and after 6 months of Rx | At diagnosis | At diagnosis and after 6 months of Rx |
| Chest X-ray | ND | ND | at diagnosis | at diagnosis | At diagnosis and every 6 months | At diagnosis and every 6 months |
| Full blood count | ND | ND | ND | ND | Baseline (every 6 months in HIV-infected) | Baseline (every 6 months in HIV-infected) |
| Urea | ND | ND | ND | ND | Baseline | Baseline |
| Kidney (creatinine, potassium) | ND | ND | ND | ND | Monthly during intensive phase | 1.5 per month during intensive phase |
| Liver (ALT, AST, Bilirubin) | ND | ND | ND | ND | Every 3 months | Every 3 months |
| TSH | ND | ND | ND | ND | Every 6 months | Every 4 months |
| Audiogram | ND | ND | ND | ND | Monthly during injectable phase and every 3 months in continuation phase | Monthly during injectable phase and every 3 months in continuation phase |
| CD4 count (HIV only) | Once during Rx period | Every 6 months | Every 6 months |
| Viral load (HIV only) | Once during Rx period | Every 6 months | Every 6 months |

ND – not routinely done, R - Rifampicin, H - Isoniazid, Z - Pyrazinamide, E - Ethambutol, S - Streptomycin, Km – Kanamycin, Mxf - Moxifloxacin, Eto - Ethionamide, Trd – Terizidone, Cm - Capreomycin, PAS – para-amionsalicylic acid, Cfz – Clofazimine, Clm - Clarithromycin, Aug - Augmentin, hdH - high dose Isoniazid

DST – Drug susceptibility test, AST - aspartate aminotransferase, ALT - alanine aminotransferase, TSH – Thyroid stimulating hormone, Rx – Treatment, DOTS – Directly Observed Treatment Short Course, ADR - Adverse drug reaction