

1. Patient Unique ID code (write on each page): [ ][ ] [ ][ ] [ ][ ]

**FACILITY-BASED MORTALITY AUDIT (FBMA) FORM (PART A)**

Questions are written in normal font, Interviewer instructions in *Italic*, Instructions on skip patterns are underlined

2. Facility code:	[ ][ ]
3. Date of audit:	[ ][ ]/[ ][ ]/[ ][ ]
4. Field worker code:	[ ][ ]

**Demographic and basic clinical data from records or from clinical staff who tended the deceased, the TB clinical records and the TB register**

5. Patient Initials	[ ].[ ].
6. Date of birth	[ ][ ]/[ ][ ]/[ ][ ]
7. Gender	<input type="checkbox"/> Female <input type="checkbox"/> Male <input type="checkbox"/> Trans
8. Age of the patient (in years)	(if infant, use decimal) [ ][ ]

**RISK FACTORS AND VULNERABLE GROUPS**

9. Which (if any) risk factors did this patient have? Tick all that apply		
<input type="checkbox"/> HIV co-infection <input type="checkbox"/> diabetes <input type="checkbox"/> child under 5 <input type="checkbox"/> elderly (>60 yr) <input type="checkbox"/> pregnancy/postpartum <input type="checkbox"/> mentally ill <input type="checkbox"/> alcohol- addicted <input type="checkbox"/> drug-addicted <input type="checkbox"/> smoking <input type="checkbox"/> malnourished <input type="checkbox"/> previously treated for TB	<input type="checkbox"/> miner <input type="checkbox"/> factory worker <input type="checkbox"/> residence in an urban slum <input type="checkbox"/> former prisoner or prison staff <input type="checkbox"/> healthcare worker <input type="checkbox"/> soldier <input type="checkbox"/> refugee or internally displaced (IDP) <input type="checkbox"/> contact of a TB case	<input type="checkbox"/> marginalized man who had sex with men <input type="checkbox"/> sex worker <input type="checkbox"/> transgender <input type="checkbox"/> migrant <input type="checkbox"/> indigenous/minority ethnic grp <input type="checkbox"/> homeless <input type="checkbox"/> orphan or vulnerable child <input type="checkbox"/> other (specify) <input type="checkbox"/> Not known_____

**TIMING OF SYMPTOMS OF TB**

10. From the time this patient started feeling ill, what health complaints did he/she have, and when did those start?

*(Interviewer: First ask for the symptoms, then probe for the dates. Tick all options mentioned. DO NOT PROBE for symptoms, only for the dates . If exact date unknown- fill in: beginning of month=07, mid month=15, end of month = 22, if part of the month entirely unknown =99)*

Symptom	Tick all options mentioned	Date symptom started: dd/mm/yy
a. cough	[ ]	[ ][ ]/[ ][ ]/[ ][ ]
b. production of sputum	[ ]	[ ][ ]/[ ][ ]/[ ][ ]
c. chest pain	[ ]	[ ][ ]/[ ][ ]/[ ][ ]
d. haemoptysis (coughing blood)	[ ]	[ ][ ]/[ ][ ]/[ ][ ]
e. fever	[ ]	[ ][ ]/[ ][ ]/[ ][ ]
f. night sweats	[ ]	[ ][ ]/[ ][ ]/[ ][ ]
g. weight loss	[ ]	[ ][ ]/[ ][ ]/[ ][ ]
h. breathlessness	[ ]	[ ][ ]/[ ][ ]/[ ][ ]
i. fatigue	[ ]	[ ][ ]/[ ][ ]/[ ][ ]

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j. loss of appetite	[ ]	[ ][ ]/[ ][ ][ ]/[ ][ ][ ]
k. headache	[ ]	[ ][ ]/[ ][ ][ ]/[ ][ ][ ]
l. body pains	[ ]	[ ][ ]/[ ][ ][ ]/[ ][ ][ ]
m. other, specify .....code [ ][ ]	[ ]	[ ][ ]/[ ][ ][ ]/[ ][ ][ ]
n. other, specify .....code [ ][ ]	[ ]	[ ][ ]/[ ][ ][ ]/[ ][ ][ ]

### TB DIAGNOSIS AND MANAGEMENT

Date that the patient first sought medical attention for symptoms? 09/09/99 if unknown			[ ][ ]/[ ][ ][ ]/[ ][ ][ ]
11. How many visits to the formal health care system were made before TB was diagnosed?		[ ][ ]	
12. Why was the TB investigation initiated? (choose 1)			[ ][ ]
1=Patient sought care for TB symptoms	4= active case finding/screening		
2=Routine screening of an HIV+ client	5=Other (specify): .....		
3=Referral from other health facility	99=don't know		
13. On what basis was the TB diagnosis made? (tick all that apply)			
a. Physical exam findings	1=yes, 0=no, 99=don't know	[ ][ ]	
b. Chest X-ray	1=yes, 0=no, 99=don't know	[ ][ ]	
c. Sputum sample(s)	1=yes, 0=no, 99=don't know	[ ][ ]	
d. Needle aspirate	1=yes, 0=no, 99=don't know	[ ][ ]	
e. TST/IGRA	1=yes, 0=no, 99=don't know	[ ][ ]	
f. Other (specify, below)	1=yes, 0=no, 99=don't know	[ ][ ]	
g. Specify:			
14. Was TB diagnosis confirmed mycobacteriologically?	1=yes, 0=no, 99=don't know	[ ][ ]	
15. If yes, how was TB diagnosis confirmed? (tick all that apply)			
a. Confirmed by smear microscopy	1=yes, 0=no, 99=don't know	[ ][ ]	
b. Confirmed by liquid or solid culture	1=yes, 0=no, 99=don't know	[ ][ ]	
c. Confirmed by GeneXpert/Rif	1=yes, 0=no, 99=don't know	[ ][ ]	
16. Date that the TB diagnosis was made? 09/09/99 if unknown		[ ][ ]/[ ][ ][ ]/[ ][ ][ ]	
17. Type of TB?	1=PTB S+, 2=PTB S-, 3=EPTB 99=unknown	[ ][ ]	
18. New or retreatment case?	1=new, 2=relapse, 3 failure, 4= return after default, 5=other, 99=unknown	[ ][ ]	
19. Date when the patient was notified of his/her TB diagnosis ? (07/07/77 if not notified, 09/09/99 if unknown)		[ ][ ]/[ ][ ][ ]/[ ][ ][ ]	
20. Date when TB treatment started?		[ ][ ]/[ ][ ][ ]/[ ][ ][ ]	
21. If TB treatment was never started, what was the main reason?	1=Drug stock out, 2=TX Consultations needed, 3=Patient refusal, 4=Early death, 5= contraindication, 6=not authorized to dispense TB TX, 7=waiting list for TB TX, 8=other	[ ][ ]	
22. What were the other reasons? (if any)			
23. If TB treatment started more than 48hrs after TB diagnosis, what was the main reason?	1=Drug stock out, 2=TX Consultations needed, 3=Patient refusal, 4=Early death, 5= Other	[ ][ ]	
24. What were the other reasons? (if any)			
25. Did the patient have drug resistant TB?	1=yes, 0=no, 99=unknown	[ ][ ]	

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26. Which TB Treatment regimen was the patient following?	1= Cat I, 2=Cat II, 3 =Other, 99=unknown, 77=noTX	[ ][ ]
27. Were sputum samples taken and examined at the appropriate times?(i.e, at 2 months and 5 months)	1=yes, both times 0=no, 3= once only, 77=not applicable	[ ][ ]
28. Was the patient started on retreatment regimen if the 5 months sputum was positive?	1=yes, 0=no, 77=not applicable 99=don't know	[ ][ ]
29. How was TB treatment	1=Fully adherent (more than 90% of doses taken) 2=Between 70%-90% of doses taken 3=Less than 70% of doses taken 77=not applicable, treatment had just begun 99=unknown	[ ][ ]
30. What other patient factors (if any) impacted quality of TB CARE?	1=language barriers, 2= facility abandonment,3= collaboration challenges, 4=lack of family/ supporters, 5=other, 77=not applicable, 99=unknown	[ ][ ]

### HIV DIAGNOSIS AND MANAGEMENT

31. Under what circumstances was HIV test conducted?	1=PICT of TB patient, 2=VCT, 3=part of clinical work-up, 99=unknown, 5=patient already known to be HIV+ (skip to Q.x)	[ ][ ]
32. Date that a blood sample(s) was taken for HIV test	[ ][ ]/[ ][ ]/[ ][ ]	
33. What was the HIV test result?	1= HIV positive, 2= HIV negative, (skip to Q. X) 3=indeterminant, 88=not tested, 99=missing result	[ ][ ]
34. Date that the HIV diagnosis was made? 09/09/99 if unknown	[ ][ ]/[ ][ ]/[ ][ ]	
35. Date of HIV post-test counseling (09/09/99 if unknown)	[ ][ ]/[ ][ ]/[ ][ ]	
36. Was anti-retroviral therapy (ART) started in hospital or was the patient on ART when diagnosed with TB?	1=yes, 0=no (skip to #), 3=already on ART, 99=unknown	[ ][ ]
37. Date when ART was started?	07/07/77= HIV NEG 08/08/88=not tested 09/09/99= unknown	[ ][ ]/[ ][ ]/[ ][ ]
38. If ART was not started, what was the main reason?	1=Drug stock out, 2=TX Consultations needed, 3=Patient refusal, 4=Early death, 5= contraindication, 6=not authorized to dispense ART, 7=waiting list, 8=other	[ ][ ]
39. Other reasons for no ART provision to HIV+ TB patients		
40. How was ART adherence?	1=Fully adherent (at least 90% of doses taken) 2=Between 70%-90% of doses taken 3=Less than 70% of doses taken 77=no ARTs started, 99=unknown	[ ][ ]
41. Was Cotrimoxazole (CPT) started?	1=yes, 0=no, 77=not applicable: HIV NEG, 88=not tested, 99=missing (skip to #)	[ ][ ]
42. When was Cotrimoxazole started?	[ ][ ]/[ ][ ]/[ ][ ]	

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43. If Cotrimoxazole was not started, what was the main reason?	1=Drug stock out, 2=TX Consultations needed, 3=Patient refusal, 4=Early death, 5=contraindication, 6=not authorized to dispense ART, 7=waiting list, 8=other		[ ][ ]
44. Result and date of latest CD4 count before discharge/death?	[ ][ ][ ] 999=if unknown	[ ][ ][ ] 999=if unknown	[ ][ ]/[ ][ ]/[ ][ ] (09/09/99 if unknown)
45. Was HIV diagnosed before TB?	1=yes, 0=no (skip to #)		[ ][ ]
46. If yes, was client prescribed Isoniazid Preventive Therapy (IPT)?	1=yes, 0=no 77=n/a		[ ][ ]
47. If no, why not?			
48. What other factors influenced HIV care?			

### CLINICAL CARE IN HOSPITAL

49. Date admission to hospital?	[ ][ ]/[ ][ ]/[ ][ ]	
50. Was patient weighed upon admission?	1=yes, 0=no, 99=unknown [ ][ ]	
51. What was patient's body weight at admission	In kg	[ ][ ]
52. CD4 count at admission	9999=if unknown	[ ][ ][ ][ ]
Indicate the total number of times the following tests were performed between admission and discharge/transfer/death?		
53. Body weight measured		[ ][ ]
54. Respirations measured		[ ][ ]
55. Pulse measured		[ ][ ]
56. Blood pressure taken		[ ][ ]
57. Temperature Measures		[ ][ ]
58. Chest Sounds Measured		[ ][ ]
59. Hemoglobin/Anemia Measured		[ ][ ]
60. Other Diagnostic Blood Tests	Specify:	[ ][ ]
61. Liver Function Tests		[ ][ ]
62. Urine Tests		[ ][ ]
63. Chest X-Ray Performed		[ ][ ]
64. How long was the largest time span between clinical assessments by a clinician?	In hrs	[ ][ ][ ]
65. Were signs of worsening condition noted? (tick yes if respiration rate >30/min, pulse >120/min, or temperature >39°C? or other unstable vital)	1=yes, 0=no, 99=unknown [ ][ ]	
66. Were actions taken to address the worsening condition?	1=yes, 0=no, 99=unknown [ ][ ]	

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Which actions were taken?	67.	
	68.	
	69.	
	70.	
	71.	
72. How much time elapsed between the time when worsening was noted and when actions were taken?	In hrs	[ ][ ][ ]
73. Were treatment complications identified?	1=yes, 0=no, 99=unknown	[ ][ ]
74. What treatment complications were found (if any)? (77=none)		
75. In addition to TB, did the patient suffer from any other infectious diseases?	1=yes, 0=no, 99=unknown	[ ][ ]
76. Did patient receive other treatment/support beyond TB treatment?	1=yes, 0=no, 99=unknown	[ ][ ]
a. IV fluids	1=yes, 0=no, 99=unknown	[ ][ ]
b. Corticosteroids	1=yes, 0=no, 99=unknown	[ ][ ]
c. Diuretics	1=yes, 0=no, 99=unknown	[ ][ ]
d. Bronchodilators	1=yes, 0=no, 99=unknown	[ ][ ]
e. Supplementary food	1=yes, 0=no, 99=unknown	[ ][ ]
f. Other (describe:.....)	1=yes, 0=no, 99=unknown	[ ][ ]
77. How long was the largest time span between clinical assessments by a clinician?	In hrs	[ ][ ][ ]
78. Were there delays in provision of medication due to stock outs?	1=yes, 0=no, 99=unknown	[ ][ ]
79. If yes, which ones?		
80. What was the length of time between when blood was drawn and when test results were acted upon?	In hrs (99=unknown, 77=not applicable if no tests or TX)	[ ][ ][ ]
81. Was there a need for patient financial contributions to cover the costs of tests and/or treatments?	1=yes, tests only, 2=treatment only, 3= tests and treatment, 0=no, 99=unknown, 77=not applicable	[ ][ ]
82. Did patient's financial constraints contribute to delay in timely testing and/or treatment?	1=yes, 0=no, 99=unknown, 77=not applicable	[ ][ ]
83. Was the patient discharged from the hospital?	1=yes, 0=no	[ ]
84. Date of hospital discharge		[ ][ ]/[ ][ ]/[ ][ ]
85. What was the main reason for discharge?	1=To receive palliative care 2=Request of patient or relatives 3=Condition allowed ambulatory treatment 4=Transfer to another facility 5= Other (specify)	
86. What was patient's weight at discharge	In kg	[ ][ ]
87. Where was patient transferred?		
88. Why was the patient transferred?		

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**MORTALITY**

89. Did the patient die?	1=yes, 0=no	
90. If yes, when did the patient die?		[ ][ ]/[ ][ ]/[ ][ ]
91. If no, date of treatment outcome		[ ][ ]/[ ][ ]/[ ][ ]
92. Where did the patient die?	1=at home, 2=in this hospital, 3=in hospice, 4=other health facility 5= other (specify)	[ ]
93. What was the direct cause of death?		
94. What is the source of information on cause of patient's death	1= necropsy, 2= verbal autopsy, 3= clinical data, 99=unknown, 77=not applicable	[ ][ ]
95. What was the underlying cause of death?	1=TB, 2= other opportunistic infection of HIV, 3= other, 99=unknown, 77=not applicable	[ ][ ]
96. On what basis was this determined?		
97. What were the contributing causes of death?		

98. Additional details that may be pertinent for performance improvement: