**The burden and clinical presentation of pulmonary tuberculosis in adults with severe respiratory illness in a high HIV prevalence setting, 2012-2014- (Supplementary Material)**

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**Supplementary table1: Comparison of characteristics and presentation of individuals≥ 15 years of age tested and not tested for tuberculosis (N=2486)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **Tested for tuberculosis** | **Not tested for tuberculosis** | **Univariate analysis** | | **Multivariable analysis** | |
| **OR (95% CI)** | **P-value** | **OR (95% CI)** | **P-value** |
| Age | 15-24 | 170/2097 (8) | 236/389 (9) | Reference |  | Reference |  |
|  | 25-44 | 1145/2097 (55) | 174/389 (45) | 0.7 (0.5-1.1) | 0.098 | 0.7 (0.5-1.2) | 0.184 |
|  | 45-64 | 619 /2097 (30) | 125/389 (32) | 0.9 (0.6-1.4) | 0.819 | 1.0 (0.6-1.6) | 0.945 |
|  | 65+ | 163 /2097 (8) | 54/389 (14) | 1.6 (1.0-2.5) | 0.064 | 1.4 (0.8-2.3) | 0.256 |
| Female gender | | 1102/2096 (53) | 222/389 (57) | 1.2 (1.0-1.5) | 0.103 |  |  |
| Tshepong | | 1388/2097 (66) | 228/389 (59) | 0.7 (0.6-0.9) | 0.004 | 0.7 (0.5-0.9) | 0.002 |
| Duration of symptoms >14 days | | 1368 /2097 (65) | 252/389 (65) | 1.0 (0.8-1.3) | 0.863 |  |  |
| History of any cough | | 1980/2096 (94) | 332/389 (85) | 0.3 (0.2-0.5) | <0.001 | 0.3 (0.2-0.5) | <0.001 |
| History of fever | | 798/2083 (38) | 145/386 (38) | 1.0 (0.8-1.2) | 0.782 |  |  |
| Night sweats |  | 1339/2094 (64) | 216/389 (74) | 0.7 (0.6-0.9) | 0.002 | 0.7 (0.6-0.9) | 0.023 |
| Underlying medical condition\* | | 228/2096 (11) | 47/389 (4) | 1.1 (0.8-1.6) | 0.487 |  |  |
| Diabetes | | 60/2095 (3) | 17/389 (4) | 1.5 (0.9-2.7) | 0.118 |  |  |
| HIV-infected | | 1437/1877 (77) | 247/344(72) | 0.8 (0.6-1.0) | 0.056 |  |  |
| Mine Exposure | | 241/2067 (12) | 31/384 (8) | 0.7 (0.5-1.9) | 0.041 |  |  |
| Influenza- positive | | 113/2053 (6) | 18/376 (5) | 0.9 (0.5-1.4) | 0.572 |  |  |
| Pneumococal coinfection\*\*\* | | 254/1901 (13) | 34/346 (10) | 0.7 (0.5-1.0) | 0.072 |  |  |
| Viral co-infection | | 588/2053 (29) | 72/376 (19) | 0.6 (0.4-0.8) | <0.001 |  |  |
| Required oxygen | | 718/2029 (35) | 151/377 (40) | 1.2 (0.9-1.5) | 0.084 |  |  |
| Started on antibiotics | | 1975/2056 (96) | 357/385 (93) | 0.5 (0.3-0.8) | 0.004 |  |  |
| Started on TB treatment\*\*\* | | 892/1918 (46) | 164/342 (48) | 1.1 (0.8-1.3) | 0.621 |  |  |
| Duration of hospitalization | |  |  |  |  |  |  |
| <3 days | | 349/1918 (18) | 45/354 (13) | Reference |  |  |  |
| 3-7 days | | 805/1918 (42) | 137/354 (39) | 1.3 (0.9-1.9) | 0.130 | 1.3 (0.9-1.9) | 0.167 |
| 8+ days | | 764/1918 (40) | 172/354 (49) | 1.8 (1.2-2.9) | 0.002 | 1.7 (1.1-2.4) | 0.007 |
| Died during admission | | 219/2001 (11) | 100/369 (27) | 3.0 (2.3-3.9) | <0.001 | 3.0 (2.3-4.1) | <0.001 |

Underlying conditions included any of the following: Asthma, other chronic lung disease, chronic heart disease (valvular heart disease, coronary artery disease, or heart failure excluding hypertension), liver disease (cirrhosis or liver failure), renal disease (nephrotic syndrome, chronic renal failure), immunocompromising conditions excluding HIV infection (organ transplant, immunosuppressive therapy, immunoglobulin deficiency, malignancy), neurological disease (cerebrovascular accident, spinal cord injury, seizures, neuromuscular conditions) or pregnancy. Comorbidities were considered absent in cases for which the medical records stated that the patient had no underlying medical condition or when there was no direct reference to that condition.   
\*\**lytA* PCR positive for *Streptococcus pneumoniae* on blood specimen  
\*\*\* started on TB treatment at current admission (excludes those already on TB treatment at time of admission (n=144))

**Supplementary table 2: Demographic and clinical factors associated with acute (≤14 days) vs. chronic (>14 days) presentation among HIV-infected individuals ≥ 15 years with laboratory- confirmed tuberculosis, July 2012-August 2014 (N=424)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **Acute presentation**  **n/N (%)** | **Chronic presentation**  **n/N (%)** | **Univariate analysis** | | **Multivariable analysis** | |
| **OR (95% CI)** | **P-value** | **OR (95% CI)** | **P-value** |
| Age | 15-24 | 7/102 (7) | 26/322 (8.1) | Reference |  | Reference |  |
|  | 25-44 | 78/102 (76) | 222/ 322 (69) | 1.3 (0.5-3.1) | 0.550 | 1.3 (0.4-3.9) |  |
|  | 45-64 | 16/102 (16) | 69/322 (21) | 0.9 (0.3-2.3) | 0.769 | 0.6 (0.2-2.2) |  |
|  | 65+ | 1/102 (1) | 5/322 (2) | 0.7 (0.1-7.4) | 0.800 | 2.4 (0.2-35.5) |  |
| Female gender | | 60/102 (59) | 167/322 (52) | 1.3 (0.8-2.1) | 0.220 |  |  |
| Tshepong Hospital | | 69/102 (68) | 220/322 (68) | 1.0 (0.6-1.6) | 0.898 |  |  |
| History of any cough | | 89/102 (87) | 312/322 (97) | 0.2 (0.1-0.5) | 0.001 | 0.2 (0.1-0.7) | 0.009 |
| History of fever | | 82/178 (46) | 205/322 (42) | 1.3 (0.8-2.0) | 0.249 |  |  |
| Night sweats |  | 61/101 (60) | 238/321 (74) | 0.5 (0.3-0.9) | 0.009 | 0.4 (0.2-0.7) | 0.005 |
| Underlying medical condition\* | | 2/102 (2) | 12/322 (4) | 0.5 (0.1-2.3) | 0.393 |  |  |
| Diabetes | | 1/102 (1) | 2/322 (1) | 1.2 (0.1-17.6) | 0.708 |  |  |
| Low CD4 count\*\* | | 44/72 (61) | 184/238 (77) | 0.5 (0.3-0.8) | 0.007 | 0.4 (0.2-0.7) | 0.003 |
| Mine Exposure€ | | 7/101 (7) | 40/316 (13) | 0.5 (0.2-1.2) | 0.119 |  |  |
| Influenza- positive | | 8/100 (8) | 11/317 (3) | 2.4 (0.9-6.2) | 0.066 |  |  |
| Pneumococcal coinfection\*\*\* | | 13/97 (13) | 18/292 (6) | 2.4 (1.1-5.0) | 0.026 |  |  |
| Viral co-infection | | 35/100 (35) | 92/317 (29) | 1.3 (0.8-2.1) | 0.258 |  |  |
| Required oxygen | | 38/100 (38) | 81/317 (25) | 1.2 (1.1-2.9) | 0.017 |  |  |
| Started on antibiotics | | 96/100 (96) | 302/320 (94) | 1.4 (0.5-4.3) | 0.526 |  |  |
| Started on TB treatment\*\*\*\* | | 61/95 (64) | 244/296 (82) | 0.4 (0.2-0.6) | <0.001 | 0.4 (0.2-0.7) | 0.003 |
| Receiving HAART | | 33/72 (46) | 146/244 (46) | 0.9 (0.6-1.7) | 0.943 |  |  |
| Duration of hospitalization | |  |  |  |  |  |  |
| <3 days | | 14/94 (15) | 49/302 (16) | Reference |  |  |  |
| 3-7 days | | 42/94 (45) | 37/302 (45) | 1.1 (0.5-2.1) | 0.841 |  |  |
| 8+ days | | 38/94 (40) | 116/302 (38) | 1.1 (0.6-2.3) | 0.701 |  |  |
| Died during admission | | 8/100 (8) | 35/312 (11) | 0.7 (0.3-1.5) | 0.362 |  |  |

Underlying conditions included any of the following: Asthma, other chronic lung disease, chronic heart disease (valvular heart disease, coronary artery disease, or heart failure excluding hypertension), liver disease (cirrhosis or liver failure), renal disease (nephrotic syndrome, chronic renal failure), immunocompromising conditions excluding HIV infection (organ transplant, immunosuppressive therapy, immunoglobulin deficiency, malignancy), neurological disease (cerebrovascular accident, spinal cord injury, seizures, neuromuscular conditions) or pregnancy. Comorbidities were considered absent in cases for which the medical records stated that the patient had no underlying medical condition or when there was no direct reference to that condition.   
\*\**lytA* PCR positive for *Streptococcus pneumoniae* on blood specimen  
\*\*\* CD4 categorized as Normal (CD4+ T-lymphocytes ≥200) or low (CD4+ T-lymphocytes <200/mm3)  
\*\*\*\* Started on TB treatment at current admission; excludes those already on TB treatment at time of admission (n=28)  
€ Any history of having worked in the mine