Overview of TB Administrative Infection Prevention and Control Strategies for COVID-19 response

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Stop TB Partnership Webinar
Presentation outline

- Background
- Administrative Control Measures in response to COVID-19
  - Key components of FAST strategy
    - Find TB cases, Actively screen, Separate safely & Treat Effectively
    - Overall Performance in FAST Implementing Hospitals
- IPC in Patient Homes
- Lessons Learnt
Background

COVID–19 pandemic has affected the TB response in South Africa

- Average weekly GeneXpert testing volumes for TB decreased by 48%
- Weekly number of persons tested positive for TB declined by 33%

TB has much to teach us about the tools that can help to mitigate the current pandemic

- Importance of infection control to reduce the risk of nosocomial infection; active surveillance, triaging in the health care setting, cough etiquette, rapid testing and diagnosis, isolation, treatment, contact tracing and public awareness
- Importance of community participation and other congregate settings
- Collaborations of national programs-HIV and non-communicable diseases (NCD)
Administrative Control Measures
Facility Risk Assessment

- Risk assessments conducted to evaluate preparedness, prevention and control of COVID-19 in facilities. Provinces have integrated the TB component for dual application for COVID-19 and TB.
  - Use of compliance dashboard to monitor IPC practices
    - Compliance dashboard
      - Green = in place
      - Orange = partially in place
      - Red = not in place
  - Integrated IPC plans that outlines a protocol for the prompt recognition, separation, provision of services, investigation for COVID-19, referral of patients presenting with TB symptoms or confirmed TB disease, prompt management of patients;
  - Quality improvement plans (QIPs) for each facility developed to help facilities attain minimum requirements, reviewed weekly by the Task Teams
Use of mHealth to strengthen administrative controls

Example: TBIPC Risk Assessment data currently collected and stored on IPConnect: [www.ipconnect-sa.org](http://www.ipconnect-sa.org)

- Zero rated application
- View the Dashboard - list of assessed facilities
- View the score of a Completed Assessment
- Print reports
- Flag areas for follow-up

![Bar chart](image)

Percentage of facilities with IPC plans and IPC guidelines in 11/45 facilities: Cape Winelands district

- Facilities with IPC Plan: 64.9% in 2018, 88.9% in 2019
- Facilities with IPC Guidelines: 60% in 2018, 77.78% in 2019
Capacity building of health care workers

- Education and training of relevant HCWs on guideline recommendations and monitoring of adherence if key to achieve successful implementation.

Community healthcare workers trained on IPC related issues on COVID-19 and TB during DOTS, contact screening, sputum collection

Virtual training of HCWs on TB, IPC & COVID-19
Capacity building of health care workers

- Fit testing and in-service training conducted
- Respirator Seal Check: required to help you ensure your respirator is sealing correctly but does not replace fit testing.
Find cases, Actively, Separate, Treat effectively

- Hospital-based TB transmission control
- General approach:
  - TB screening of hospitalized patients
  - Diagnosis supported by rapid molecular drug susceptibility testing
  - Expedited treatment with regimens tailored to resistance profiles

Triage and patient separation systems (i.e. management of patient flows to promptly identify and separate presumptive TB cases), prompt initiation of effective treatment and respiratory hygiene

Administrative measures must be put in place to limit transmission of TB and COVID-19 health care facilities
COVID-19 and TB Screening in FAST hospitals

- A standardized triage algorithm/questionnaire to determine the priority of patients
- All patients actively screened for TB and COVID-19 at hospital entrances
- Risk zoning used to manage queues:
  - Yellow- COVID-19 moderate risk zone- 1st screening station
  - Orange- COVID-19 high risk zone
  - Blue- COVID-19 low risk and protected zone
Example of an Integrated COVID-19/TB Screening Tool

- COVID-19 screening app.
- Report submitted NICD through the app and results communicated to the user.
- Patients that are symptomatic for other conditions (incl TB) are flagged on the system for further investigation.
Accurate diagnostic tests are essential for both TB and COVID-19.

All facilities screen and collect samples for COVID-19 but only dedicated hospital labs can test for COVID-19.

Separate safely

While waiting for a laboratory diagnosis, patients with COVID-19/TB signs and symptoms are:

- educated on respiratory hygiene (cough etiquette and separation)
- counselling to address COVID-19 related stigma and discrimination
- moved to a designated, well-ventilated area (quarantine ward for COVID-19 within the facility) away from other patients to prevent further spread of COVID-19/TB.
Impact of FAST implementation on TB program performance

- The FAST Approach overall Turnaround Time from sputum collection to treatment has reduced in hospital settings in 2018-2020, from 4.3 days to 1.0 days, through the TB South Africa Project's implementation of FAST in 14 hospitals in Gauteng Province.

- Time from diagnosis to treatment reduced from 3.5 days to 0.5 days within the same period

- Proportion of patients put on treatment increased from 61% to 100% within two or fewer days of sputum collection.
Performance: Unsuspected TB cases in wards admitting Key Populations

- FAST approach in key populations: implemented in all hospital wards (ANC, OHS, Maternity, ARV Clinic) allowing for case finding in wards which would not otherwise screen for TB.

- Overall, the project detected 14% (n=1,539/10960 cases) Q3 2017- Q4 2019: ARV wards (1,045 patients), isolation (55), staff clinic (72), pediatric (288) labor and maternity (46) and ANC wards (33).
Performance: implementation of LF-LAM

Results of the implementation of LF-LAM in 42 implementing sites among immunocompromised people also at high risk for COVID

<table>
<thead>
<tr>
<th>DATA ELEMENT</th>
<th>Total</th>
<th>Year 3 (Oct 17-Sep 18)</th>
<th>%</th>
<th>Year 4 (Oct 18-Sep 19)</th>
<th>%</th>
<th>Year 5 (Oct 19-Mar 20) 6 months</th>
<th>%</th>
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<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td></td>
<td>No. (#)</td>
<td>%</td>
<td>No. (# 14)</td>
<td>%</td>
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<tr>
<td>Number of HIV positive patients with low CD4 count (less than or equal to 100 cells/ul)</td>
<td>2551</td>
<td>878</td>
<td>34%</td>
<td>1227</td>
<td>446</td>
<td></td>
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</tr>
<tr>
<td>Number of HIV positive patients who are seriously ill and regardless of low CD4 count</td>
<td>4513</td>
<td>587</td>
<td>12%</td>
<td>1147</td>
<td>2799</td>
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<tr>
<td>Total Number of HIV positive patients eligible</td>
<td>7084</td>
<td>1465</td>
<td>20%</td>
<td>2374</td>
<td>3245</td>
<td></td>
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<tr>
<td>Number of clients LAM tested</td>
<td>5753</td>
<td>81%</td>
<td>98%</td>
<td>1642</td>
<td>69%</td>
<td>2968</td>
<td>91%</td>
</tr>
<tr>
<td>Number tested LAM positive</td>
<td>1861</td>
<td>32%</td>
<td>27%</td>
<td>561</td>
<td>34%</td>
<td>909</td>
<td>31%</td>
</tr>
<tr>
<td>Number initiated on TB treatment</td>
<td>1717</td>
<td>92%</td>
<td>95%</td>
<td>470</td>
<td>84%</td>
<td>876</td>
<td>96%</td>
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<tr>
<td>Number done Xpert/MTB Rif</td>
<td>1619</td>
<td>94%</td>
<td>74%</td>
<td>145</td>
<td>31%</td>
<td>220</td>
<td>25%</td>
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The 3-fold increase in case detection from 391 in FY3 to 909 in FY5 is due to an increasing number of hospitals implementing LF-LAM.
Other existing practices for TB infection control

Example: *South Africa*
Infection Prevention & Control in the Community

- Community care workers (project funded grantees) ensuring continuity of TB services in the context of COVID-19.
- NGOs conducted door to door screening for both TB and COVI-19.
  - In May 2020 Care Ministry and Tokollo Foundation screened 3447 people, 66 symptomatic for TB and referred COVID-19 symptomatic patients to DoH for testing, 3 (4.5%) tested for TB and started on treatment.

Door to door campaigns at shopping malls and taxi ranks
Infection Prevention & Control in Patient Homes

- Use of household risk assessment intensified to support patients through:
  - screening
  - contact tracing,
  - referring symptomatic people to clinics for testing
  - counselling to ensure TB patients adhere to treatment
  - educate patients on IPC

Door to door screening in the community
Lessons Learned

Integration of TB activities to support COVID-19 interventions at Philadelphia hospital in Limpopo province

- 27 persons under investigations for COVID-19 were admitted in Isolation Unit of Philadelphia hospital in May 2020.
- They came in as referrals from household COVID-19 screening contacted by the community health workers.
- After admission, they were tested for COVID-19 and all found to be negative.
- All 27 patients screened for TB and tested for TB by XpetMTB/Rif.
- From the 27 patients tested for TB, 4 were found to DS-TB positive; 2 males and 2 females
- All four (4) identified patients were all linked to TB care
## Lessons Learned

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<th>Successes</th>
<th>Challenges and Gaps</th>
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<td>Political will: Buy-in and support at national, provincial, district and facility level</td>
<td>Infrastructural problem for separation</td>
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<td>Implementers empowered, took leadership in adaptation. Peer learning sessions to improve motivation and confidence</td>
<td>Lack of commitment from staff- missing patients</td>
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<td>Time to commencement of treatment reduced from 42 hours to less than 12 hours among DS-TB patients</td>
<td>Restricted Scope of Practice for nurses in hospitals. LF-LAM Doctor-driven, leads to treatment delays</td>
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<td>Expanding access to LF-LAM has improved time to effective treatment; collaboration with HIV program strengthened</td>
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<td>Surveillance of TB among HCWs improved; raised awareness of occupational TB risk.</td>
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<td>Integration of Continuous Quality Improvement (CQI) Model to remedy identified gaps</td>
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<td>Monitoring of IPC activities improved; facilities reporting on IPC indicators</td>
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Acknowledgements

- National Department of Health (NDoH)
- Limpopo Provincial Department of Health
- Eastern Cape Provincial Department of Health
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- Gauteng Provincial Department of Health
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We Beat TB South Africa

Thank you

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