Maintaining HIV and TB Testing in the Context of COVID-19

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Content

• Potential Impact of COVID-19 on HIV and TB testing

• Initial Efforts by African CDC/WHO to Strengthen COVID-19 Diagnostics in Africa

• Ensuring Coordinated HIV, TB and COVID-19 Testing

• Take Home Messages

• Questions
The COVID-19 pandemic presents several barriers and challenges to the HIV care continuum-(90-90-90).

- Quarantine, social distancing, community containment measures limit movement.
- Timely linkage to HIV care could be hindered.
- Hospital visits could be restricted because of implementation of city lockdowns or traffic controls.
- HIV prevention (condoms, PreP, VMMC, DREAMS etc)
- HIV testing services (routine serology, self-testing etc)
- Molecular diagnostics (viral load, EID, HIVDR etc)
- TB testing
- Allocation of resources for HIV care could be diminished.
Initial Efforts by African CDC/WHO to Strengthen COVID-19 Diagnostics in Africa
Among the assays published by WHO, Africa CDC is using the TIB Molbiol kit

<table>
<thead>
<tr>
<th>Country</th>
<th>Institute</th>
<th>Gene targets</th>
<th>Commercialized</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>China CDC</td>
<td>ORF1ab and N</td>
<td></td>
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<tr>
<td>Germany</td>
<td>Charité</td>
<td>RdRP, E</td>
<td>TIB Molbiol</td>
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<tr>
<td>Hong Kong</td>
<td>HKU</td>
<td>ORF1b-nsp14, N</td>
<td></td>
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<td>Japan</td>
<td>National Institute of Infectious Diseases,</td>
<td>Pancorona and multiple targets, Spike protein</td>
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<td></td>
<td>Department of Virology III</td>
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<td>Thailand</td>
<td>National Institute of Health</td>
<td>N</td>
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<tr>
<td>US</td>
<td>US CDC</td>
<td>Three N primers</td>
<td>IDT</td>
</tr>
</tbody>
</table>

Bold indicates protocols that have known cross-reactivity with SARS-CoV

Thermo Fisher targets orf1a, N gene and S gene
Seegene targets E, N and RdRp – used in UAE
BGI kit only has one non-disclosed target
Ensuring Coordinated HIV, TB and COVID-19 Testing
Leverage Existing Global Health Investments (some examples)

- WHO International Health Regulation (IHR)
- Global Health Security Agenda (GHSA)
- President’s Emergency Plan for AIDS Relief (PEPFAR)
- Global Fund to fight Malaria, HIV, TB
- Global TB initiatives from many organizations
- WHO Influenza Programs
- Unitaid – POC investments
Use Diagnostic Integration Approaches
Use Integrated sample transport system for HIV, TB, COVID-19
Use Integrated Data systems

• Avoid setting parallel data collection systems
• Dashboards
• Improve Laboratory Surveillance System
• Cross border surveillance systems
Address Biosafety and Waste Management Needs

- WHO- about 10% West Africa Ebola deaths were healthcare workers
- Infections moved from healthcare workers infected on the job (nosocomial transmission) to their families
- Already reports of many healthcare workers deaths from COVID-19
- Collecting, processing, testing, and disposal of waste all pose risk to the laboratory health care worker
- Systems for management and disposal of routine laboratory waste should be in place
- All PPE (gloves, mask, gowns, N95mask, waste disposal material, incinerators etc) must be in place.
COVID-19 Mitigation Strategies

• Consider options for timing and collection of specimens that allow for social distancing such as:
  • Reduce wait times for sample collection
  • Avoid crowded waiting rooms
  • Schedule and stagger appointments

• Streamline clinic flow so that patients for sample collection do not interact with multiple clinic providers

• If mobile testing or point of care services are available at the community level please consider expanding those options
Address Huge Supply Chain Issues

- There is lockdown in both production and receiving countries

- Disruption in air travel and border closure
  - Example, China and India – no production or product can’t move

- In receiving countries:
  - Lockdown, airport and warehouses closed, limited access to movement for lab and supply chain staff

- No PPE, limited access to reagents and consumables

- Consider the notion of ESSENTIAL workers to have additional support for transportation, accommodation etc:
  - Laboratory and supply chain staff are essential workers
Strengthen Collaboration Among Stakeholders

• Coordination with MOH other stakeholders

• Encourage formation of national task force to:
  
  – Coordinate discussions with diagnostic manufacturer
  
  – Quantification
  
  – Procurement and delivery
  
  – Unit cost negotiations (reagent rental/all-inclusive pricing)
  
  – In country testing
  
  – HR and instrument use
Prioritization of Patients for VL testing

- Pregnant and breastfeeding women
- Infants, children, and adolescents
- Viral load testing for people living with advanced HIV disease
- Those suspected of failing treatment
- VL not needed for transition to TLD
Prioritization of clinical-based HTS for those most in need

- Testing in ANC
- Diagnostic testing for individuals presenting (or admitted) to facilities with illness suspicious for HIV infection (Diagnostic testing)
- Individuals with TB, STIs, malnutrition
- Early infant diagnosis (EID) detection
- Partner/index/family testing may be offered for individuals presenting at facilities (passive testing)
- Testing in KP programs if ongoing and not facility based.
Take home Messages

- Take all measures to ensure increase COVID-19 testing does not negatively impact existing HIV and TB testing

- Develop SOPS to guide HIV and TB testing in the context of COVID-19

- Expect increase or common use of instruments, consumables, PPE, space and personnel and address accordingly

- Adjust staff time management (work shift, extended hours, overtime etc)

- Consider Integrated diagnostic approaches

- Anticipate supply chain delays and disruption and put necessary measures in place

- Consider lab and supply chain staff as ESSENTIAL WORKERS

- Strengthen coordination with MOH and other stakeholders