Test, test, test: COVID-19 and HIV testing updates

COVID-19 AND HIV: WEBINAR SERIES

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WHO updates on COVID-19 testing:
Policies, challenges and solutions

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Who to test

Several goals of COVID-19 testing:

- Slow or stop transmission
- Identify cases
- Lift economic and population restrictions

Though the WHO recommends all suspected cases be tested for COVID-19, prioritization may be necessary as capacity and/or resources are limited:

- key populations at highest risk of developing severe disease: elderly, those with co-morbidities, high contact industries, and health care providers
- people with symptoms severe enough for admission
- people who have symptoms regardless of severity
- close contacts
- all contacts

Global surveillance for COVID-19 caused by human infection with COVID-19 virus
Interim guidance
20 March 2020
How to test

Nasopharyngeal swabs

Nasal swabs

BAL

Sputum

Oropharyngeal swabs

Any and all sample types to be used for testing should be validated and indicated as an intended use by the supplier.

Research considerations: can other less invasive sample types be used?
WHO currently recommends the use of nucleic acid (also called ‘molecular’) testing to identify patients with COVID-19

- Several automated platforms exist: sample in, result out
- More manual, open platforms also exist: allow for greater access to test reagents and flexibility
- Testing biosafety standards being revised
- Necessary specimen handling and transportation should be considered

Laboratory testing for coronavirus disease (COVID-19) in suspected human cases.

Interim guidance
19 March 2020
What tests to use

• WHO does not currently recommend the use of antigen-detecting rapid diagnostic tests for patient care, although research into their performance and potential diagnostic utility is highly encouraged.

• WHO does not recommend the use of antibody-detecting rapid diagnostic tests for patient care, but encourages the continuation of work to establish their usefulness in disease surveillance and epidemiologic research.

  – Do antibodies confer immunity?
  – What are the rates of seroconversion?
  – Key interpretation challenges if used in diagnosis:
    • Inability to discriminate active from past infection
    • False negatives: early and late in infection
    • Over-reliance on test result rather than clinical acumen
    • Performance
Three molecular technologies have US FDA emergency use authorization (two with WHO prequalification emergency use listing review) that are commonly used by HIV and TB programmes – Abbott m2000, Cepheid Xpert, Roche cobas 6800/8800

A Diagnostics Consortium for COVID-19 has been developed that includes WHO, Unicef, Global Fund, World Bank, Unitaid, Gates Foundation, FIND, and CHAI

- Gathering information and data on tests in development
- Working with suppliers to negotiate access to tests as well as lower prices
- Developing an equitable allocation plan for distribution to LMICs
- Additional technologies will be brought into the consortium as available

Countries and partners are encouraged to consider a multi-pronged testing approach, not just relying on one technology or solely on automated technologies, due to limited test availability.
Some considerations for HIV and TB diagnostics

WHO encourages collaboration and sharing of currently existing molecular diagnostic platforms to support the COVID-19 preparedness response

- It will be essential to maintain current critical molecular diagnostic services, especially for:
  - Early infant diagnosis
  - HIV viral load testing for people living with advanced HIV disease and those suspected of failing treatment (non-suppressed), including pregnant and breastfeeding women
  - HIV viral load testing for infants, children, and adolescents
  - Tuberculosis testing in all patient groups
    [https://www.who.int/tb/COVID_19considerations_tuberculosis_services.pdf](https://www.who.int/tb/COVID_19considerations_tuberculosis_services.pdf)

- It is not recommended to move equipment to centralized settings in response to COVID-19 as that could cause significant disruptions to current testing networks