HIV TESTING ALGORITHM

By Erasmus Mhizha (UZ-UCSF)

Outline

- Definition
- HIV Testing Methods
- MTN 003 Algorithms
- Interpretation
- MTN 018 Algorithms
- Interpretation
- Conclusion

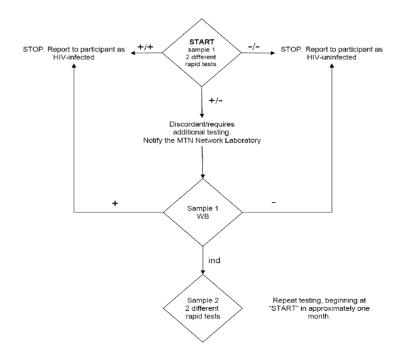
Definition: HIV Algorithm

 Steps followed to come up with a laboratory HIV diagnosis

HIV Testing Methods

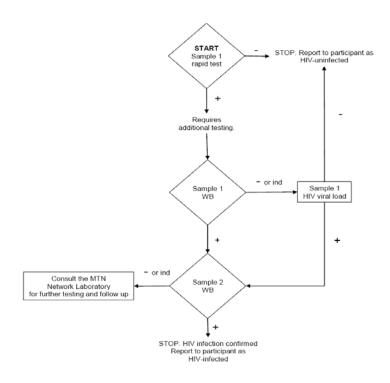
- Antibody Methods
 - -Rapids
 - -Western Blot (WB)
 - -ELISA
- Antigen Method
 - -P24
- HIV PCR
 - -Viral Load (HIV RNA)
 - -HIV DNA

MTN 003 :Screening



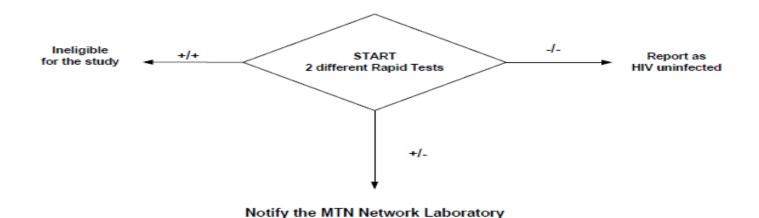
- Starts with 2 different rapids
- Further tests done on indeterminate results with NL notification
- NO HIV DNA testing
- Process started after a month if WB is inconclusive

Follow Up and Primary Endpoint



- Starts with 2 rapids
- Negative result confirms HIV uninfected
- Additional testing required for positives (WB)
- Viral load done if WB is negative or inconclusive
- Consultation with NL done on negative or indeterminate WB
- Negative viral load conclusive, positive is confirmed with a WB on a second sample a month later
- Negative or inconclusive result on second sample requires NL consultation
- Positive WB on second sample confirms infection
- Silent on indeterminate results from sample 1 rapids

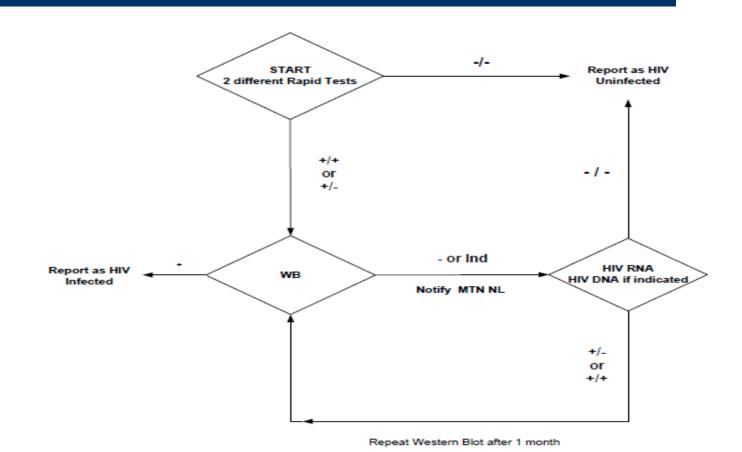
MTN 018 Screening & Enrolment



for follow-up.

- Starts with 2 different rapids
- Two positives or negatives confirmatory
- Indeterminate result requires NL notification
- Less costs
- Takes time to confirm diagnosis if there is delayed response from NL
- Participant management if result obtained is indeterminate

MTN 018:Follow-Up and Primary Endpoint Determination



- Starts with 2 rapids
- Negative results treated similarly
- Requires further testing for both indeterminate and positive results (WB)
- Positive WB is conclusive
- Negative or indeterminate WB calls for HIV RNA testing and DNA if indicated
- Notification of NL required
- Indeterminate or positive results require repeat WB after a month on a second sample

Conclusion

- Differentiate these two 'consult' and 'notify'
- Captures all possible outcomes from rapids