

Figure S1: Ebola Heat Map - Diagnostics available or needed for the key use cases

| Ebola | Target Use Setting | | | | | | |
|---|---|---|-----------------------------|-------------------------|-------------------------------|-------------------------------|-----------------------------------|
| | Facility-based testing and recommended diagnostic technology | | | | | | Non-facility-based testing |
| Intended Use of Test (Use Case) | 4. National Reference Lab | 3. Regional/ Provincial Lab | 2. District Hospitals | | | 1. Health Centers | 0. Health Posts, Field Settings |
| | NAAT, PRNT, ELISA | NAAT, ELISA | POC NAAT | ELISA | RDT | RDT | RDT |
| Non-outbreak setting | | | | | | | |
| Surveillance Diagnostics support syndromic surveillance systems (by adding specificity through diagnostic testing) | NAAT ¹ ELISA, sequencing | NAAT ¹ ELISA | Not cost effective | IgG, IgM, Ag ELISA ‡ | ELISA more sensitive | Multiple Ag RDTs ² | Multiple Ag RDTs ² |
| Syndromic diagnosis Clinical setting - detection of pathogen in syndromic case management (multiplex/panel diagnostics) | PCR panels available | PCR panels available | In development ¹ | IgM, Ag LDTs | Multiple Ag RDTs ² | Multiple Ag RDTs ² | Multiple Ag RDTs ² |
| Case management Confirmation of pathogen | NAAT ¹ sequencing, virus isolation | NAAT ¹ IgM, Ag ELISA | In development ¹ | IgG, IgM, Ag ELISA ‡ | RDT screening only | RDT screening only | RDT screening only |
| Outbreak setting | | | | | | | |
| Case management Diagnosis/confirmation of pathogen | NAAT ^{1,2} sequencing, virus isolation | NAAT ^{1,2} IgM, Ag ELISA ² | In development ¹ | IgG, IgM, Ag ELISA ‡ | Multiple Ag RDTs ² | Multiple Ag RDTs ² | Multiple Ag RDTs ² |
| Diagnostics stage legend: | | | | | | | |
| Platforms/tests available | | | | | | | |
| Lab/field trials ongoing or completed | | | | | | | |
| Under development | | | | | | | |
| Needed/needs improvement | | | | | | | |
| Not needed/not useful | | | | | | | |

¹Some NAAT/PCR tests may be region/strain specific; may require multiple tests or sequencing to ensure detection sensitivity

²Requires regulatory approval (may only have emergency authorization for detection/diagnosis)

‡ IgG more often used for detection in convalescent or post-infection phase