

Supplementary Table I. Pathogens tested when an event is detected (Adapted from VRDL algorithm)

Severe acute respiratory illness (SARI)

Sputum	Blood	Nasopharyngeal swab
<ul style="list-style-type: none"> ■ Culture and sensitivity for bacterial pathogens ■ (<i>S. pneumoniae</i>, <i>H. influenzae</i>, <i>N. meningitidis</i> etc.) ■ Microscopy for TB ■ Cartridge based nucleic acid amplification test (CBNAAT or TruNAAT for TB 	<ul style="list-style-type: none"> ■ Blood culture and sensitivity 	<ul style="list-style-type: none"> ■ Real time polymerase chain reaction (RT- PCR) for <ul style="list-style-type: none"> ● SARS-CoV2 ● Influenza A&B ● Human parainfluenza 1-4 ● Rhino virus ● Human corona virus 4 types ● Human metapneumo virus ● Human boca virus ● Adeno virus ● Respiratory syncytial virus A/B ● Mycoplasma pneumoniae ● Parecho virus ● Next generation sequencing (NGS) for above pathogens

Acute encephalitis syndrome (AES)

Blood	Cerebrospinal fluid
<ul style="list-style-type: none"> ■ IgM Elisa for Zika, Japanese encephalitis, West Nile fever 	<ul style="list-style-type: none"> ■ IgM Elisa for Zika, Japanese encephalitis, West Nile fever ■ GeneXpert for tuberculosis ■ RT PCR for <ul style="list-style-type: none"> ● Japanese encephalitis ● Zika ● West Nile virus ● Chandipura virus ● Human enterovirus ● Nipah virus ● Human herpes virus 1 ● Varicella zoster virus ● Rabies virus ● Epstein barr virus ● Cytomegalovirus ■ Next generation sequencing (NGS) for above pathogens

Acute febrile illness with hemorrhage (AFIH)

<ul style="list-style-type: none"> ■ IgM Elisa for dengue, Kyasanur forest disease, leptospirosis ■ Malaria smear test or rapid diagnostic kit test ■ Blood culture for Meningococcus ■ RT PCR for Kyasanur forest disease, hanta virus, Crimean Congo haemorrhagic fever, Alkhurma virus, yellow fever, Ebola, marburg, rift valley fever ■ NGS for above pathogens

Acute febrile illness with rash (AFIR)

Blood	Nasopharyngeal swab
<ul style="list-style-type: none"> ■ IgM Elisa for dengue, measles, Kyasanur forest disease, leptospirosis, scrub typhus ■ Blood culture for meningococcus ■ RT PCR for scrub typhus, Kyasanur forest disease, hanta virus, Crimean Congo haemorrhagic fever, Alkhurma virus, yellow fever, Ebola, marburg, rift valley fever ■ Next generation sequencing (NGS) for above pathogens 	<ul style="list-style-type: none"> ■ RT PCR for measles