Supplemental file 2. Algorithm for classifying children at risk of serious infection

**Febrile patient meeting entry criteria for study**
With available samples for biomarker discovery (RNA, proteomic, metabolomic)

**Categorization of patients based on clinical data**

- **BACTERIAL syndrome**
  - Toxic shock syn.
  - LRTI/empyema
  - CSF/empyema/Nec.
  - Bronchiectasis
  - Pleuritis
  - Pyelonephritis

- **Symptoms viral OR bacterial**
  - Meningitis
  - Encephalitis
  - Neutropenia
  - Sepsis/septic shock
  - Peritonitis
  - Mucositis
  - Orocutaneous
  - Stomatitis
  - Neutropenia
  - Bronchiectasis

- **VIRAL syndrome**
  - Bronchiolitis
  - Viral-induced wheezing group
  - Varicella
  - Herpes simplex

- **Other febrile syndrome**
  - Not bacterial or viral
  - Infection without infection
  - Other cause of fever

**Review clinical investigation results**
Bacteriology, virology, radiology, hematology, chemistry

- **Sterile-site pathogenic bacteria, match syndrome**
  - Definite Bacterial
  - Probable Bacterial
- **Bacterial syndrome but no bacteria identified**
  - CRP > 40 mg/L
- **Viral syndrome but no virus identified**
  - CRP < 60 mg/L
- **Virus identified that matches syndrome**
  - Neutrophils ≤12 x 10^9/L
- **Minor illness & insufficient clinical information**
  - Other infection, eg malaria
- **Other infection or inflammatory syndrome**
  - Other infection
  - Infection or inflammation

Legend:
Following discharge, clinical phenotypes were assigned after review of all available clinical and laboratory data including biochemistry, haematology, radiology and microbiology. CRP C-reactive protein

*DB/PB/unknown bacterial or viral: patients CAN have identified viral co-infection*