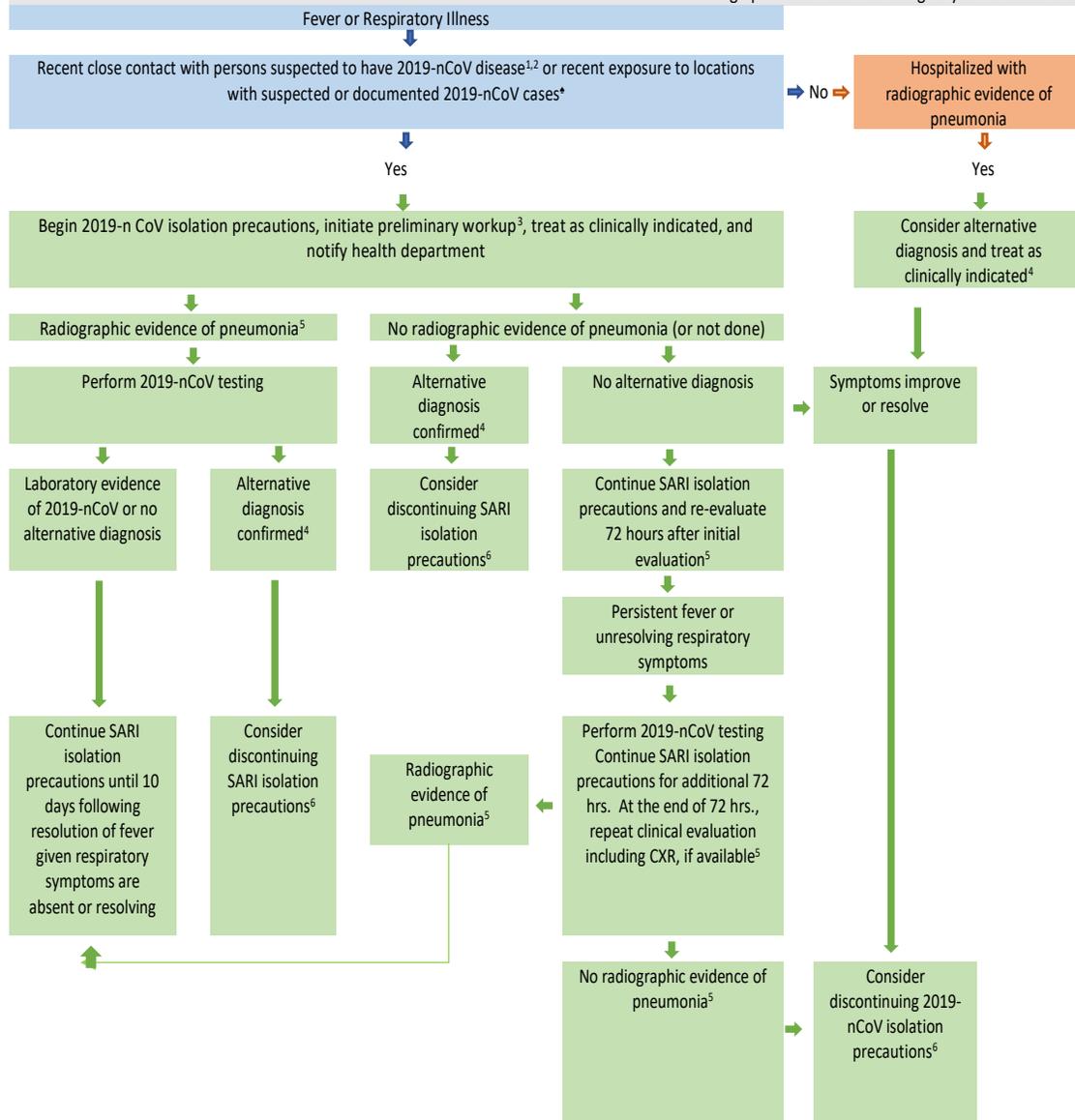


# Algorithm for the Management of Suspected 2019-novel coronavirus Cases in CARPHA Member States

Triage: recognize and sort all patients with SARI at first point of contact with health care system (such as the emergency department). Consider 2019-nCoV as a possible etiology of SARI<sup>1</sup> under certain conditions.  
Triage patients and start emergency treatments based on disease severity.



<sup>1</sup>Clinical description of 2019-nCoV disease and approach to treatment: WHO's Definitions of patients with SARI, suspected of nCoV\*: SARI: An ARI with history of fever or measured temperature  $\geq 38\text{ }^{\circ}\text{C}$  and cough; onset within the last  $\sim 10$  days; and requiring hospitalization. However, the absence of fever does NOT exclude viral infection.

<sup>2</sup>Surveillance case definitions for nCoV\* **Suspect case**: A. Patients with severe acute respiratory infection (fever, cough, and requiring admission to hospital), AND with no other etiology that fully explains the clinical presentation AND at least one of the following: • a history of travel to or residence in the city of Wuhan, Hubei Province, China in the 14 days prior to symptom onset, or • patient is a health care worker who has been working in an environment where severe acute respiratory infections of unknown etiology are being cared for. B. Patients with any acute respiratory illness AND at least one of the following: • close contact with a confirmed or probable case of 2019-nCoV in the 14 days prior to illness onset, or • visiting or working in a live animal market in Wuhan, Hubei Province, China in the 14 days prior to symptom onset, or • worked or attended a health care facility in the 14 days prior to onset of symptoms where patients with hospital-associated 2019-nCoV infections have been reported. **Probable case**: Probable case: A suspect case for whom testing for 2019-nCoV is inconclusive or for whom testing was positive on a pan-coronavirus assay. **Confirmed case**: A person with laboratory confirmation of 2019-nCoV infection, irrespective of clinical signs and symptoms. \*see <https://www.who.int/health-topics/coronavirus>

<sup>3</sup>Clinical work-up: Clinicians should work up patients as clinically indicated. Depending on symptoms and exposure history, initial diagnostic testing for patients with suspected 2019-N-CoV disease may include: Complete blood count (CBC) with differential, Chest radiograph, Pulse oximetry, Blood culture, Sputum Gram's stain and culture, Testing for viral respiratory pathogens, notably influenza A and B and respiratory syncytial virus, or Legionella and pneumococcal urinary antigen testing if radiographic evidence of pneumonia (adults only). An acute serum sample and other available clinical specimens (nasopharyngeal and oropharyngeal swab in ambulatory patients and sputum (if produced) and/or endotracheal aspirate or bronchoalveolar lavage in patients with more severe respiratory disease; serum for serological testing, acute sample and convalescent sample (this is additional to respiratory materials and can support the identification of the true agent, once serologic assay is available; and urine) should be saved for additional testing until a specific diagnosis is made. 2019-N-CoV testing may be considered as part of the initial work-up if there is a high level of suspicion for 2019-N-CoV disease based on exposure/ travel history. For additional details see WHO Interim Laboratory testing for 2019 novel coronavirus (2019-nCoV) in suspected human cases <https://www.who.int/health-topics/coronavirus/laboratory-diagnostics-for-novel-coronavirus> and CDC's 2019-N website <http://www.cdc.gov/ncidod/2019-n/> for specialized laboratory testing options available through the Laboratory Response Network (LRN).

<sup>4</sup>Alternative diagnosis: An alternative diagnosis should be based only on laboratory tests with high positive-predictive value (e.g., blood culture, viral culture, Legionella urinary antigen, pleural fluid culture, transthoracic aspirate). TB culture is recommended but applicable only in those countries with that lab capacity. In some settings, PCR testing for bacterial and viral pathogens can also be used to help establish alternative diagnoses. The presence of an alternative diagnosis does not necessarily rule out co-infection with 2019-N-CoV.

<sup>5</sup>Radiographic testing: Chest CT may show evidence of an infiltrate before a chest radiograph (CXR). Therefore, a chest CT should be considered, if available, in patients with a strong epidemiologic link to a known case of 2019-N-CoV disease and a negative CXR 6 days after onset of symptoms. Alternatively, the patient should remain in 2019-N isolation, and the CXR should be repeated on day 9 after symptom onset.

<sup>6</sup>Discontinuation of 2019-N isolation precautions: 2019-N isolation precautions should be discontinued only after consultation with the local public health authorities and the evaluating clinician. Factors that might be considered include the strength of the epidemiologic exposure to 2019-N-CoV, the nature of contact with others in the residential or work setting, the strength of evidence for an alternative diagnosis, and evidence for clustering of pneumonia among close contacts. Isolation precautions should be discontinued on the basis of an alternative diagnosis only when the following criteria are met: (1) Absence of strong epidemiologic link to known cases of 2019-N-CoV disease (2) Alternative diagnosis confirmed using a test with a high positive-predictive value (3) Clinical manifestations entirely explained by the alternative diagnosis (4) No evidence of clustering of pneumonia cases among close contacts (unless >1 case in the cluster is confirmed to have the same alternative diagnosis) (5) All cases of presumed 2019-N-CoV disease identified in the surrounding community can be epidemiologically linked to known cases or locations in which transmission is known to have curbed.

\* Contact Follow-up: The Public Health Department should be advised of any suspected cases in order to carryout follow-up of any close contacts.