

Management Guidelines of COVID-19 patients: Outpatient and Inpatient

First Version

March 2020

The Guideline was prepared in Azadi Teaching Hospital.

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Contents

Definitions

Suspect case

Probable case

Confirmed case

COVID-19 Risk Factors

Outpatient management protocol

- 2 drugs regimen

Inpatient management protocol

- 3 drugs regimen
- 4 drugs regimen

Definitions:

Suspect case

If the patient satisfies epidemiological and clinical criteria, they are classified as a suspect case.

Epidemiological criteria

- Travel to epidemic areas with COVID-19 in the 14 days before the onset of illness.
- or**
- Close or casual contact in the 14 days before illness onset with a confirmed case of COVID-19.

Clinical criteria

- Fever
- or**
- Acute respiratory infection (e.g. shortness of breath or cough) with or without fever.

Probable case:

A suspect case for whom testing for COVID-19 is inconclusive or is tested positive using a pan-coronavirus.

Confirmed case

A person who tests positive to a validated specific SARS-CoV-2 nucleic acid test or has the virus identified by electron microscopy or viral culture, at a reference laboratory.

Risk Factors of COVID-19:

These are patients with an increased risk of acquiring COVID-19

1- Immunodeficiency

- Patients on steroid therapy
- Patients on chemotherapy
- Organ transplant patients
- HIV patients

2- Past medical history

- CV diseases
- Hypertension
- Chronic pulmonary diseases
- DM
- BMI > 40

3- Age

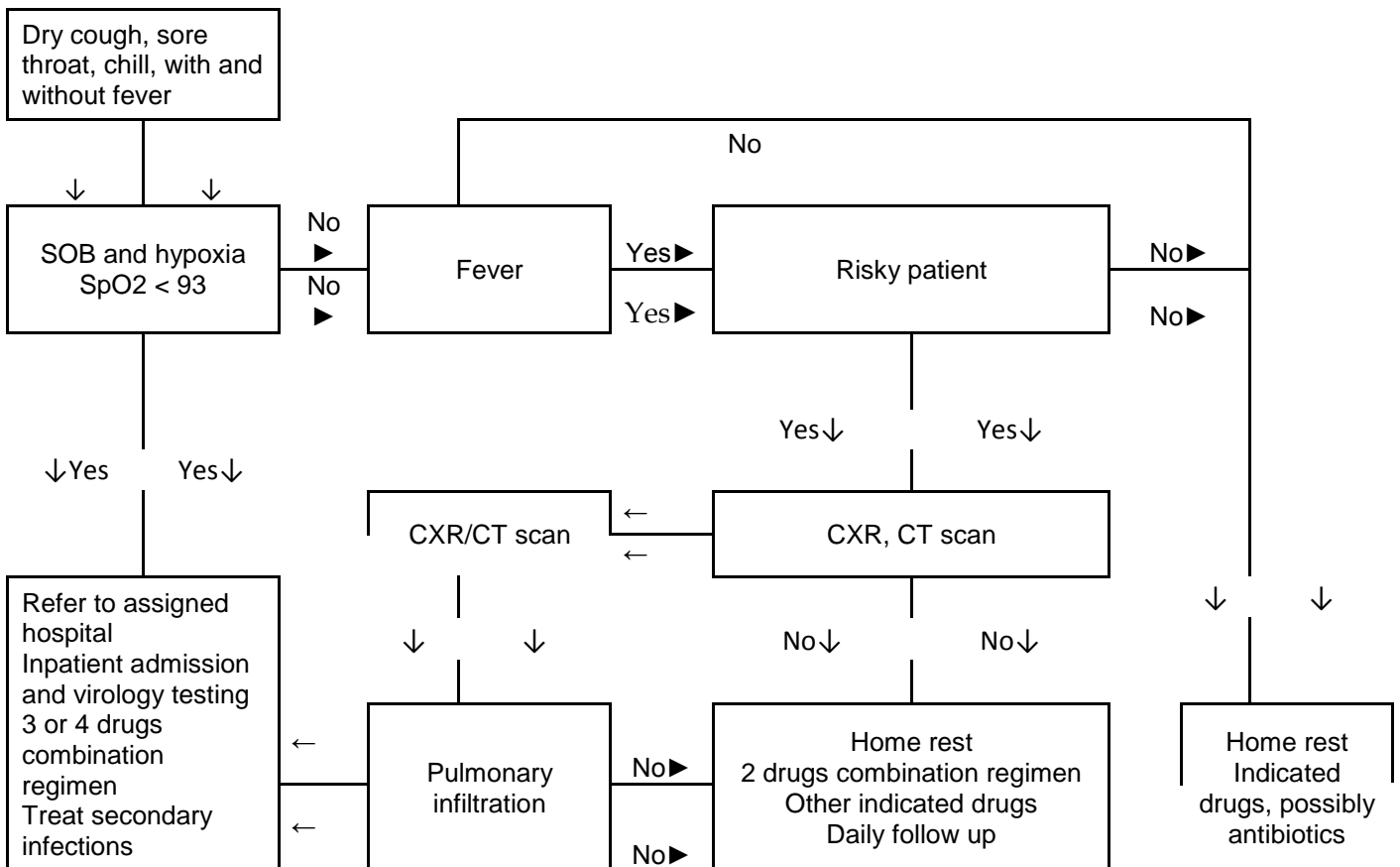
- > 50 yr

Outpatient management:

Patients who are presented with sore throat, dry cough, and chill with or without fever should undergo thorough medical evaluation. The patient in the initial stage may present with an infection without fever; the patient may have respiratory symptoms alone. High grade fever is not common.

A- Patients with SOB and O2 saturation (pulse oximetry) less than 93% should be referred to assigned hospital in each district (e.g. Burn and plastic surgery hospital, Duhok). Please be advised that SOB and hypoxemia may be a predictor of severe pneumonia. Therefore, O2 saturation under 93% and SOB need oxygen therapy and isolation precautions.

B- Feverish ($T \geq 37.8^{\circ}\text{C}$) patients without SOB that belongs to high risk category should undergo radiological investigations are mandatory. CT scan (HRCT) is more sensitive than CXR for diagnosing viral pneumonia. The CT scan findings in viral pneumonia may include rapid progression form bilateral patchy infiltration to ground glass appearance. In case of radiological finding the patient should be referred to the assigned hospital.



Febrile patients with normal radiology (or those without access to radiological investigations) should receive an outpatient treatment with 2 drugs regimen with isolation measures in home.

Antibiotic treatment for secondary bacterial infection may be prescribed. In such circumstances, health education and patient's instruction about isolation in home, drug use, and alarming signs and symptoms that demand hospital admission should be advised.

Two drugs regimen

Oseltamivir 75 mg po bid + Hydroxy choloquine sulfate 200mg po bid /Chloroquine phosphate 150mg po bid for 5 days

Outpatient patients should undergo daily evaluation through phone calls. Once such patient complains from one of the below clinical features, they must consult assigned center:

- 1- SOB and difficulty breathing
- 2- Increase cough episodes
- 3- Fever does not respond to treatment
- 4- Deterioration of level of consciousness

These clinical parameters should be evaluated on a daily bases and should be recorded in a standard form.

C- Patients without SOB who are febrile or afebrile but not risky group are recommended to have home isolation and clinical evaluation. According to clinical examination, antibiotics may be prescribed.

It is worthy to mention that COVID-19 patients with positive CRP and lymphopenia (lymphocyte count ≤ 1100 /ml) need special care and strict evaluation in home.

Inpatient management:

Shortness of breath and hypoxemia may be a predictor of severe pneumonia. If SOB and hypoxemia (SpO₂ < 93%) are present, proper isolation and O₂ therapy are recommended.

Furthermore, risky patients without SOB but with positive radiology findings should be referred to the assigned hospital.

In the assigned hospital, in addition to specimen collection and appropriate isolation, a treatment regimen should be prescribed. COVID-19 infection may suppress immunity and lung function, subsequently may result in secondary bacterial infection. In such circumstances, antibiotics should be prescribed. Please keep in mind *staph aureus* and pneumococcal infection.

1. Three drugs therapy:

Oseltamivir 75mg po bid + Hydroxy chloroquine sulfate 200mg po bid OR chloroquine phosphate 150mg po bid + Lopinavir/Ritonavir (200/50mg) po 2 *2 for 5 days.

The treatment regimen can be extended to 14 days according to the patient's clinical response.

2. Four drugs regimen:

The following clinical features are indication of critical patient:

- a. RR \geq 24
- b. BP < 90/60
- c. Multi lobular infiltration (CXR/CT scan)
- d. Hypoxemia

Oseltamivir 75mg po bid + Hydroxy chloroquine sulfate 200mg po bid OR chloroquine phosphate 150mg po bid + Lopinavir/Ritonavir (200/50mg) po 2 *2 + Ribavirin 200mg po (1200mg) for 5 days.

*The treatment regimen can be extended to 14 days according to the patient's clinical response.

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