

UPI Journal of Pharmaceutical Medical, and Health Sciences

Content Available at www.uniquepubinternational.com

ISSN: 2581-4532

Review Article

A sudden occurrence of respiratory illness: novel corona virus disease (covid 19)

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Article History	Abstract
Received on: 28-04-2019 Revised on : 19-05-2020 Accepted on : 14-06-2020	Corona virus disease 2019 (COVID-19) is defined as illness caused by novel called as severe acute respiratory syndrome Corona virus 2. This was first identified in amid an outbreak of respiratory illness cases in Wuhan city, Hubei province, China. On January 30, 2020, the WHO declared the COVID 19 outbreak "global health emergency". Recently reported 249110 confirmed cases and about 12944 deaths and case present in 187 countries which include territories also. The central government of INDIA and of all other nations are paying the attention towards the preventive measures which are most necessary to Stop COVID-19. Mostly the lock down it is to maintain the distance with infected people. As Self Quarantine is the best way stop the spread of the virus. The multidrug therapy is effective to some extent but not complete cure and the work on vaccine development is going on. So it's better to look after the preventive measures.
Keywords Corona Virus Disease, Global Health Emergency, Self Quarantine, Multidrug Therapy.	
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https://doi.org/10.37022/jpmhs.v3i2.23	

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Introduction

Corona virus disease 2019 (COVID-19) is defined as illness caused by a novel corona virus previously called severe acute respiratory syndrome corona virus 2 (SARS-CoV-2; formerly called 2019-nCoV), which was first identified amid an outbreak of respiratory illness cases in Wuhan City, Hubei Province, China [1]. It was initially reported to the WHO on December 31, 2019. On January 30, 2020, the WHO declared the COVID-19 outbreak a global health emergency. On March 11, 2020, the WHO declared COVID-19 a global pandemic [2].

2019-2020 Outbreak as March 23, 2020 COVID 19 has been confirmed more than 249110 cases and confirmed deaths 12944 which includes 187 countries areas or

territories [1]. Laboratory-confirmed cases of COVID-19 on all continents except Antarctica. In the United States, cases of COVID-19 have been confirmed as of March 23, 2020, resulting in deaths. In India 433 cases with 8 death cases as per record of 23 march 2020.

COVID-19-related deaths in China have mostly involved older individuals (≥ 60 years) and persons with serious underlying health conditions. In the United States, attributable deaths have been most common in adults aged 85 years or older (10%-27%), followed by adults aged 65-84 years (3%-11%), adults aged 55-64 years (1%-3%), and adults aged 20-54 years (< 1%). As of March 16, 2020, no attributable fatalities have been reported in persons aged 19 years or younger. In the United States, patients aged 65 years or older have accounted for 31% of all reported COVID-19 cases, 45% of hospitalizations, 53% of admissions to the ICU, and 80% of fatalities attributable to the infection. Outside of china infection has been reported in an increasing number of countries as following [4].

Tab 01: Total Cased and Deaths Report by Country wise.

Country, Other	Total Cases	Total Deaths
China	81,093	3,270

Italy	59,138	5,476
USA	35,070	458
Spain	29,909	1,813
Germany	24,904	94
Iran	21,638	1,685
France	16,018	674
S. Korea	8,961	111
Switzerland	7,776	100
UK	5,683	281
Netherlands	4,204	179
Austria	3,631	16
Belgium	3,401	75
Norway	2,385	7
Sweden	1,934	21
Australia	1,709	7
Brazil	1,604	25
India	425	+29

INDIA Status Of COVID - 19 VICTIMS As reported on 23 March 23, 2020 the confirmed cases are counted as 433 and 8 death are also accounted [5].

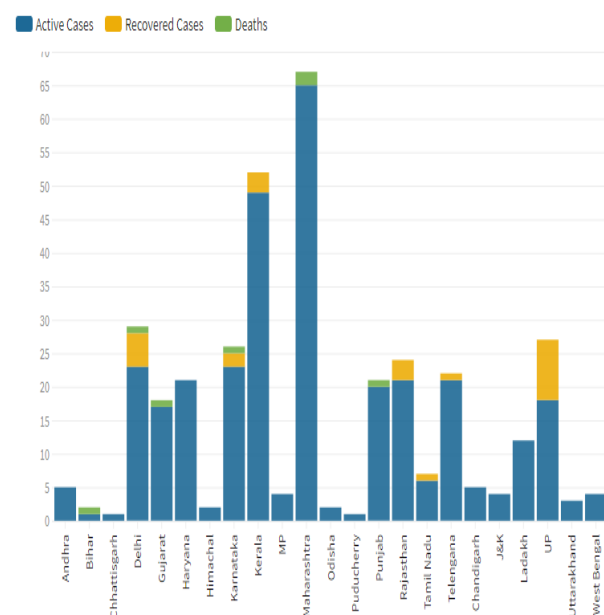


Fig 1: COVID-19 In India: Active Cases, and Patients Cured and Deaths.

Clinical Manifestations

The most common serious manifestation of COVID-19 upon initial presentation is pneumonia. Fever, cough, dyspnea, and abnormalities on chest imaging are common in these cases. Huang et al found that, among patients with pneumonia, 99% had fever, 70% reported fatigue, 59% had dry cough, 40% had anorexia, 35% experienced myalgias, 31% had dyspnea, and 27% had sputum production.

Diagnostic Testing

The test is a real-time reverse transcription-polymerase chain reaction (rRT-PCR) assay that can be used to diagnose the virus in respiratory and serum samples from clinical specimens⁶. Leukopenia, leukocytosis, and lymphopenia were common among early cases.

- Lactate dehydrogenase and ferritin levels are commonly elevated. Chest radiography
- Chest radiography may reveal pulmonary infiltrates. CT scanning
- CT scan may reveal ground-glass infiltrates or consolidation, almost always bilateral⁷.

Treatment And Prevention Of COVID-19

According to a consensus statement from a multicenter collaboration group in China, chloroquine phosphate 500-mg twice daily in tablet form for 10 days may be considered in patients with COVID-19 pneumonia. Wang et al reported that chloroquine effectively inhibits SARS-CoV-2 in vitro⁷.

General measures for prevention of viral respiratory infections include the following:

Handwashing with soap and water for at least 20 seconds. An alcohol-based hand sanitizer may be used if soap and water are unavailable. Individuals should avoid touching their eyes, nose, and mouth with unwashed hands. Individuals should avoid close contact with sick people. Sick people should stay at home (eg, from work, school). Coughs and sneezes should be covered with a tissue, followed by disposal of the tissue in the trash. Frequently touched objects and surfaces should be cleaned and disinfected regularly.

Infection Control

Patients who are under investigation for COVID-19 should be evaluated in a private room with the door closed (an airborne infection isolation room is ideal) and asked to wear a surgical mask. All other standard contact and airborne precautions should be observed, and treating healthcare personnel should wear eye protection⁷.

Treatment – Multidrug Therapy⁹

- The Indian Council of Medical Research (ICMR) has recommended the use of oseltamivir (Tamiflu or Fluvir), an antiviral used in

treatment of swine flu, along with symptomatic drugs.

- Combination of oseltamivir and symptomatic drugs are also used to treat symptoms like flu, fever, cough and Crocin is also used to treat body aches.
- ICMR has also got approval from the Drug Controller General of India (DCGI) to allow antiretrovirals – HIV medicine lopinavir/ritonavir – for treatment of Covid-19. It was earlier used during the outbreak of Severe Acute Respiratory Syndrome (SARS) in 2002, a fatal respiratory illness caused by another coronavirus.
- There is no vaccination or medicines, so doctors across the country are using different a mix of medicines to treat patients.

Guidance [10]

Clinical management of severe acute respiratory infection (SARI) when COVID-19 disease is suspected. Screening and triage: Screen and isolate all patients with suspected COVID-19 at first point of contact with health care system (such as the emergency department or outpatient department/clinic). Triage patients using standardized triage tools and start first-line treatments.

Immediate Implementation Of Appropriate Infection Prevention And Control (IPC) Measures.

- ✓ Initiate IPC at the point of entry of the patient to hospital. Screening should be done at first point of contact at the emergency department or outpatient department/clinics. Suspect patients should be given a mask and directed to separate area. Keep at least 1 m distance between suspected patients. Standard precautions should always be applied in all areas of health care facilities.
- ✓ Standard precautions include hand hygiene and the use of personal protective equipment (PPE) when in indirect and direct contact with patients' blood, body fluids, secretions (including respiratory secretions) and non-intact skin. Standard precautions also include prevention of needle-stick or sharps injury; safe waste management; cleaning and disinfection of equipment; and cleaning of the environment.
- ✓ In addition to standard precautions, health care workers should do a point-of-care risk assessment at every patient contact to determine whether additional precautions (e.g. droplet, contact, and/or airborne) are required.
- ✓ Pregnant patients: COVID-19 testing of symptomatic pregnant women may need to be prioritized to enable access to specialized

care.

MANAGEMENT OF MILD COVID-19: SYMPTOMATIC TREATMENT AND MONITORING

- ✓ Management of mild COVID-19: symptomatic treatment and monitoring
- ✓ Provide patient with mild COVID-19 with symptomatic treatment such as antipyretics for fever.
- ✓ Counsel patients with mild COVID-19 about signs and symptoms of complicated disease. If they develop any of these symptoms, they should seek urgent care through national referral systems.
- ✓ Management of severe COVID-19: oxygen therapy and monitoring Give supplemental oxygen therapy immediately to patients with SARI and respiratory distress, hypoxaemia or shock and target $> 94\%$.

MANAGEMENT OF CRITICAL ILLNESS AND COVID-19: SEPTIC SHOCK

- ✓ Recognize septic shock in adults when infection is suspected or confirmed AND vasopressors are needed to maintain mean arterial pressure (MAP) ≥ 65 mmHg AND lactate is ≥ 2 mmol/L, in absence of hypovolemia.

Adjunctive Therapies For Covid-19: Corticosteroids

- ✓ For pregnant women: WHO recommends antenatal corticosteroid therapy for women at risk
- ✓ Caring For Pregnant Women With Covid-19
- ✓ Pregnant women with a suspected, probable or confirmed COVID-19 infection, including women who may need to spend time in isolation, should have access to woman-centred, respectful skilled care, including obstetric, foetal medicine and neonatal care, as well as mental health and psychosocial support, with readiness to care for maternal and neonatal complications.

Caring For Infants And Mothers With Covid-19: Ipc And Breastfeeding

- ✓ Infants born to mothers with suspected, probable or confirmed COVID-19 infection should be fed according to standard infant feeding guidelines, while applying necessary precautions for IPC.
- ✓ In situations when severe illness in a mother due to COVID-19 or other complications prevent her from caring for her infant or prevent her from continuing direct breastfeeding, mothers should be encouraged and supported to express milk, and safely provide breast milk to the infant, while applying appropriate IPC measures.

CARING FOR OLDER PERSONS WITH COVID-19

- ✓ For older people with probable or suspected COVID-19, provide person-centered assessment, including not only conventional history taking, but a thorough understanding of the person's life, values, priorities and preferences for health management.
- ✓ Early detection of inappropriate medication prescriptions is recommended to prevent adverse drug events and drug interactions for those being treated with COVID-19.

suspected: Interim guidance V 1.2. WHO
reference number: WHO/2019-
nCoV/Clinical/2020.4.

Conclusion

COVID -19 is life threatening disease but it can be prevented. The central government of INDIA and of all other nations are paying the attention towards the preventive measures which are most necessary to STOP COVID-19. Mostly the lock down it is to maintain the distance with infected people. As SELF QUARNITINE is the best way stop the spread of the virus. The multidrug therapy is effective to some extent but not complete cure and the work on vaccine development is going on. So it's better to look after the preventive measures.

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