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The Corona care – Prevention is better than cure

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ABSTRACT

The threat of coronavirus disease caused by a novel coronavirus SARS-Cov2 is becoming a life-threatening situation across the globe. In the affected countries and regions, numerous measures have been taken to reduce the person-to-person virus transmission as well as to curb the outbreak. In the case of infectious pandemics like this, prevention is always better than cure. The specific focus of preventive measures is more on the susceptible population of children, healthcare providers, and older people. Many of the people practice safety measures without proper knowledge as to whether these measures are sufficient or not to prevent the spread of the virus. It is therefore highly relevant to be aware of the preventive measures for Corona to practice it effectively. The primary preventive measures to be implemented are the regular practice of hygiene, social distancing, avoiding person-to-person contact, judicious use of masks, the practice of screening, and quarantine. Along with these, the usage of secondary preventive measures and avoidance of risk factors need to be exercised appropriately. The current review highlights the practice of salient primary measures, secondary measures, and screening measures along with the elaboration of risk factors which will be advantageous in adding to the knowledge and awareness about effective prevention for Covid 19.



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measures have been implemented in many countries to reduce the person-to-person virus transmission as well as the outbreak. The focus of prevention is more on the susceptible population of children, healthcare providers, and older people (Rothan and Byrreddy, 2020).

The question arises in everybody's mind as to whether the safety measures practised are sufficient or not. The golden rule for any disease is "prevention is better than cure". It is therefore highly relevant to be aware of the primary as well as secondary preventive measures to curb the spread of the virus effectively.

The current review highlights the preventive measures to be practised by the individuals and the risk factors to be avoided, which will be useful in curbing the spread of COVID viral infection. The preventive measures can be classified as primary measures, secondary measures, and screening measures (WHO, 2020b). Along with the practice of pre-

INTRODUCTION

The threat of coronavirus disease or COVID-19 has brought the entire world to a standstill. It is a viral infection caused by a novel coronavirus SARS-Cov2 or Severe Acute Respiratory Syndrome Coronavirus2. The virus has a zoonotic origin. Numerous

ventive measures, knowledge and awareness of the risk factors of Corona will be an added advantage aiding in effective prevention.

Primary preventive measures

1. Practice of hygiene: Regular washing of the hands with soap and water or cleaning the hands using an alcohol-based hand sanitizer is recommended as this will effectively kill the virus. While coughing or sneezing, mouth and nose should be covered with a tissue and the tissue should be discarded in a closed wastebasket. Immediately, hands should be washed.

Touching specific parts of the face like eyes, nose, and mouth without washing the hands should be avoided as these are entry points for the virus.

2. Avoiding person-to-person contact: Avoid mingling in crowded areas. Always maintain a minimum distance of 3 feet or one metre between yourself and your contact. This will be effective in avoiding the cough spray through which the virus can spread.

3. Diet: Partaking plenty of healthy nutritious well-cooked food is recommended. It is safe to avoid intake and handling of raw or under cooked animal products.

4. Avoiding market areas where live animals are handled, especially in virus affected regions.

5. Getting in touch with a healthcare professional as soon as one perceives symptoms of cough, fever, and breathing difficulties. For their safety as well as their family's safety, it is mandatory to share their travel history with them (Centers for disease control and prevention, 2020).

6. Handling and using masks: In community settings, as per WHO guidelines, persons lacking respiratory problems need not wear medical masks as sufficient evidence supporting its efficacy in protecting uninfected people does not exist. However, in countries as per local cultural habits, masks can be used. Definite use of mask and medical care is advised for individuals suffering from fever and/or showing symptoms of respiratory problems. The usage of the mask should be combined with regular prevention and control measures (WHO, 2020a). Proper hand washing with soap or alcohol-based sanitizer should be practised before wearing a mask (Desai and Mehrotra, 2020). As per randomized clinical trials conducted in community and healthcare settings, early use of face masks and hand hygiene followed by compliance has a higher chance of preventing infection. Though reusable cloth masks are being widely used, especially in Asian countries, neither sufficient clinical research nor well-defined policies exist regarding their use.

7. Practice of social distancing: Several countries are executing compulsory measures of social distancing so that viral transmission can be inhibited and delayed. They implemented various options such as closing of educational institutions, offices, lockdown of cities, practice of screening at railway stations and airports, restricting of movement, work from home, and effective quarantining. The correct scheduling and period of the social distancing measures are crucial to its success (Mahtani *et al.*, 2020; Lewnard and Lo, 2020).

8. Practice of screening and quarantine: Screening has a vital role as a preventative measure to detect a potential health problem in an individual who doesn't have any signs & symptoms. The primary purpose of screening is to diagnose the prevailing health problem early and treat it more effectively.

Screening should be done in a multiphase level to aid further management of the disease. Mandatory screening should be done for all travellers who make an entry or exit across country borders to control further spread. In light of the rapidly alarming situation, travellers returning from affected areas should be given primary importance for screening as it mainly spreads through close contact with infected persons. Details regarding their travel, proximity with sick people, symptoms of infection, and body temperature should be collected. A key tool in curtailing the spread of the virus is to follow self-monitoring of travellers who have travelled from affected areas for 14 days and follow the local guidelines in the existing nation. Symptomatic travellers should get the help of domestic health workers initially through phone for further assistance. In a few scenarios, if needed, travellers returning from affected areas should be quarantined. It is prudent for international travellers who are sick to delay or avoid their travel to affected areas, in particular for elderly persons and people with chronic diseases.

A well-planned approach with a sufficient number of trained health professionals should be assigned for screening depending on the volume of travellers and carefully protect themselves by maintaining social distancing [1 metre of spatial separation]. Sick travellers may be identified by various methods such as self-reporting and visual observation. Important information about COVID-19 disease can be conveyed to travellers through active and targeted communications at the point of entry. A proper screening tool should be used for detection by using thermal imaging cameras and avoiding manual thermometer to ensure no physical contact with skin or mucous membrane.

Drive through screening centre is an effective

Table 1: WHO categorization to describe transmission pattern of COVID-19

Category Number	Category Name	Definition
1	No cases	Countries/territories/areas with no cases
2	Sporadic cases	Countries/territories/areas with one or more cases, imported/locally detected
3	Clusters of cases	Countries/territories/areas experiencing cases, clustered in time, geographic location and/or by common exposures
4	Community transmission	Countries/territories/areas experiencing larger outbreaks of local transmission defined through an assessment of factors including, but not limited to: Large number of cases not linkable to transmission chains Large number of cases from sentinel lab surveillance Multiple unrelated clusters in several areas of the countries/territories/areas

screening tool implemented in some countries where the main advantage is that the teste does not need to step out of the car throughout the procedure of registering, questioning, examining, collecting of samples, and relaying of instructions.

Advantages of opting for this method

1. Safer and more efficient screening tool
2. Productive testing capacity
3. Prevention of unwanted cross-infection from screening rooms

Isolating and interviewing of sick travellers suspected for COVID-19 should be done. The suspected sick travellers should be placed in well-ventilated rooms by maintaining social distancing. Suspected COVID-19 patients should be provided with separate bathrooms for their use. Awareness about the health condition and the need for isolation of the suspected sick travellers should be created to their family. Training should be provided for using adequate hand hygiene techniques, maintaining social distancing, maintaining source control, and instructing sick travellers about the benefits of respiratory hygiene.

Some countries have imposed strict quarantine measures to identify people at possible risk, which include people who have travelled along with infected members via air and water (CDC, 2020b). At times, the practice of strict quarantine may have significant psychosocial effects which might lead to long-standing consequences (Mahase, 2024; Brooks et al., 2020).

9. Vaccines:At present, vaccines are in the developmental stage, and it will take time before being available in the market (NIH, 2020). mRNA vaccine

(mRNA-1273), which has a small portion of genetic code copied from the virus is currently under phase 1 clinical trials in the United States (Clinicaltrials, 2020). China has started human clinical trials on an experimental adenoviral vector vaccine (Chinese Clinical Trial Registry, 2020).

10. Management of contacts:Individuals with suspected COVID-19 are advised to monitor their health for 14 days from the last day of suspected contact. A person to be designated as a contact should satisfy the following criteria from 2 days before and up to 14 days after the onset of symptoms in infected persons.

1. Face to face contact with COVID-19 patient within 1-meter distance for 15 minutes
2. Health professionals who treat patients directly without using proper personal protective equipment
3. Travelling actively with COVID-19 patients without maintaining proper social distancing
4. Sharing workspace and household gathering with COVID-19 patients for any duration (Lorenzo, 2020).

Precautionary measures for contacts

Symptomatic individuals should inform health professionals, start using medical masks as soon as becoming symptomatic, keep away from public transportation, practise respiratory and hand hygiene measures, practise self-isolation from other population and clean the contact surfaces thoroughly.

Secondary preventive measures

The key to successful prevention of virus transmission is the early identification of new cases.

All the suspected and confirmed COVID-19 cases should be immediately isolated and reported to local health authorities. Standard preventive and infective control measures as per local protocol should be practised. Mandatory use of standard precautionary procedures for contact, droplet, and airborne infections is recommended for symptomatic patients (WHO, 2020b).

Risk factors:The strong risk factors can be categorized as three groups - the risk factors for detecting a case as suspected or probable or confirmed case.

Suspected case

A person should have an acute respiratory infection with a recent travel history of visiting or residing in a COVID-19 infected area during the two weeks before the onset of symptoms.

Probable case

A person with acute respiratory infection who has been in contact with a suspected or virus-infected individual in the last two weeks before the onset of symptoms.

Confirmed case

Confirmed laboratory findings are mandatory, irrespective of the clinical signs and symptoms (WHO, 2020c).

In Table 1 provided below, a clear categorization of the COVID-19 transmission pattern by WHO has been given.

Elderly who are 65 years of age or more and people of any age group having serious underlying medical conditions like asthma, chronic diseases, and HIV are at higher risk of contracting the infection (CDC, 2020a). Unlike other common viral infections like adenovirus, rhinovirus, and influenza, COVID-19 does not worsen the condition and severity among immunosuppressed patients, patients undergoing transplantation, and immunosuppressive treatments irrespective of any age group (Lorenzo, 2020).

While active cigarette smoking has no significant association with severity of COVID-19 (Lippi and Henry, 2020), the most common co morbid conditions for COVID-19 infected patients are hypertension, diabetes and cardiac and pulmonary diseases (Yang et al., 2020).

CONCLUSION

Covid-19 viral spectre outbreak is spreading across different countries at an increasingly alarming rate. It requires a more focused approach on preventive measures and identification of high-risk factors such

as extremes of age group and comorbidity. Precautionary measures such as compulsory practise of social distancing, self-isolation, usage of personal protective equipment, adequate hand hygiene along with respiratory hygiene and effective quarantining are required right now to prevent further community transmission. Proper screening by early detection of contacts, self-monitoring of travellers travelling from affected areas, creating awareness among the population about signs and symptoms of the disease, and promoting people to self-report will aid in the effective management of the spread of coronavirus. It will further help in curbing the current devastating scenario.

Conflict of interest

The authors have no conflict of interest to declare.

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