

**GENERAL PREVENTIVE AND THERAPEUTIC MEASURES REQUIRING AGAINST  
INFECTIOUS DISEASES: APPROACHES TO SUPPRESS RISK OF PANDEMIC  
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Article Received on 20/05/2021

Article Revised on 10/06/2021

Article Accepted on 30/06/2021

**ABSTRACT**

Infectious diseases can spread from one to another and provenances of such cases are very high in current scenario due to the diversified environmental and climatic conditions. The spread of such diseases can be prevented by adopting some precautionary measures and in this way the pandemic consequences of infectious diseases can be prevented. Pathogens including viruses, bacteria and fungi, etc. can cause such diseases. These types of infectious diseases may spread *via* direct or indirect contact, infected water and foods can also become source of infectious disease, etc. People with compromised immunity are on highest risk of infections. Spread of infections can be control by adopting various preventive measures including frequent hand washing, restriction of airborne droplet, decontamination of persons, disinfection of equipment, quarantine procedure, frequent screening or pathological test and immunization, etc. Present article described general preventive and therapeutic measures requiring against infectious diseases.

**KEYWORDS:** *Ayurveda, Infections, Pandemic, Nursing.***INTRODUCTION**

The transmission of pathogenic microorganisms (viruses, bacteria, parasites and fungi) are major source of infectious disease. These diseases transmits from person to person, through droplets while coughing or sneezing, contact with infectious agent in environment, from mother to foetus and contact with infected objects, etc. Wheezing, coughing, skin rash, fatigue, fever, burning sensation, chills, congestion, muscle aches, headache, and diarrhea and vomiting, etc. are common symptoms of infectious diseases. Suppressed immune systems, patient under gone organ transplant, unvaccinated person, healthcare workers, frequent travelers and diseased person are on high risk of such disease therefore it is prime duty of health care nurse to take care of such types of people on priority basis.

Viruses that can multiply inside healthy cells, bacteria, single-celled organisms, different kinds of fungus and

parasites that live inside host bodies can become causative organism of infections. Diagnosis of infectious diseases can be done using variety of laboratory tests such as; blood test, urine analysis, stool test, other body fluids examination and culture test to detect sensitivity.

The treatment of such diseases involves utilization of antibiotics in case of bacterial infection, antiviral drugs specifically for viral infections, anti-fungal drugs for fungal infections along with supportive therapies to restore normal health condition and early recovery from diseased state. Increased fluid intake, psychological counseling, anti-inflammatory and analgesic drugs along with preventive measures can also helps to combat against infectious diseases.

Hepatitis, influenza, diphtheria, conjunctivitis and tuberculosis, etc. are common infectious diseases. The continuous spread of infectious disease amongst

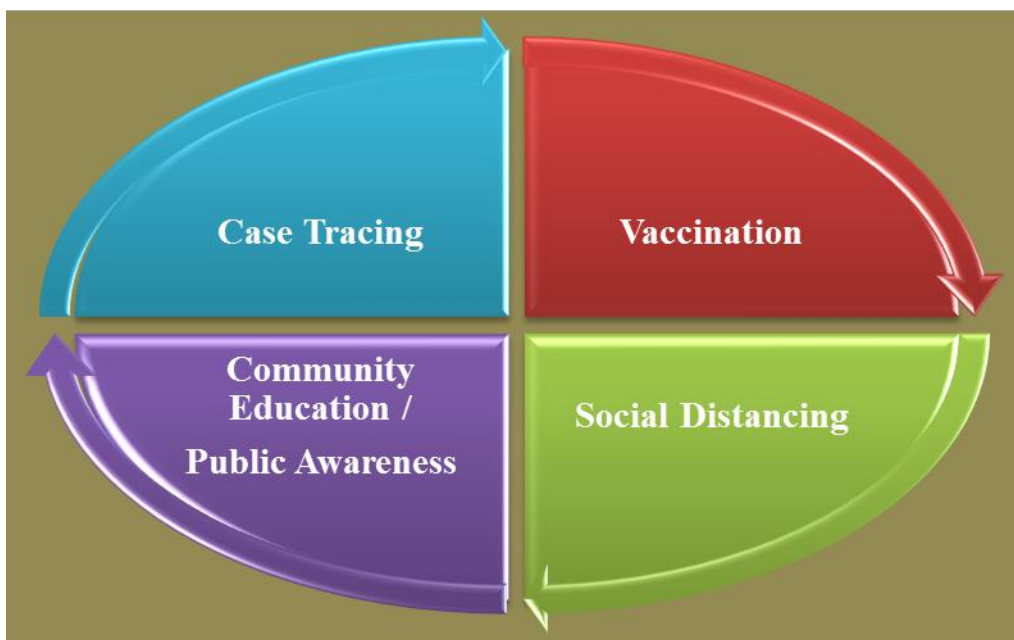
large population termed as pandemic condition, the pandemic situation not only impart health burden but also causes economic disaster. The health regulatory suggested many preventing measures to control spread of pandemic infections. The health care system currently applying some preventing approaches as depicted in **Figure 1** to control spread of current pandemic outbreak.

**The following preventing measures can control spread of infectious diseases**

- ✚ Frequent washing of hands and maintenance of general hygiene.
- ✚ Disinfecting surfaces & objects at home & working place.
- ✚ Covering of nose and mouth to restrict droplet during sneezing & coughing.

- ✚ Avoidance of close contact with sick people.
- ✚ Avoidance of sharing of items with diseased peoples.
- ✚ One should avoid eating or drinking food prepared by infected person.
- ✚ Isolation or quarantine procedure
- ✚ Avoid frequent travelling of infected region.

Controls of border to limit movement of individuals to the affected areas, frequent screening for test confirmation, tracking recent contact of infected individuals, separation of infected person from society, uses of appropriate equipments or cloths to protect healthcare workers from infections and community awareness, etc. are helpful to restrict transmission of infectious diseases.



**Figure 1: Preventing approaches to control spread of current pandemic outbreak**

**Advisory guideline to control infections**

- ❖ One should report to the health care centre immediately after appearance of pandemic symptoms.
- ❖ It is also advised to remain careful while working around animals since many pathogens can transmit from animal to human.
- ❖ Be careful while having sexual conduct, it is advised to have safe intercourse to avoid any chances of sexually transmitted diseases.
- ❖ Acquire good habits; one should eat freshly cooked food properly in desire quantity, sleep at least for 7-8 hours, and avoid late night awakening and include exercising in daily routine.
- ❖ Avoidance of tobacco and drug abuse, excessive consumption of alcohol also to be avoided.
- ❖ One should isolate itself as being feel suspect of infection and should not hide facts with physician related to the diseases.

**Role of Immunization**

Immunization/Vaccination is very effective approach to control pandemic infection, it is considered essential as well as cost effective intervention against pandemic outbreak. The effective vaccination in many countries restricted cases of infectious diseases such as; yellow fever, pertussis, rubella, polio, diphtheria, pneumococcal diseases, rotaviruses, mumps, influenzae and measles, etc. In context to immunization medical nurse can play pivotal role to meet success of any vaccination programme. Public education campaigns to spread awareness about vaccination and safety data of vaccinations, etc. are some key factors which can help to improve acceptance of people towards vaccination programme.

**Role of Pathological Test/Screening**

Screening of individuals to know their health status whether have been infected or not. The frequent screening gives idea about infected person so he/she can

isolate immediately to prevent others being infected. Screening many times gives idea about the stage of disease thus person requiring personalized medication can be treated effectively on the basis of outcome of early screening process.

#### **Role of social distancing and patient isolation**

Person exposed to contagious disease, come in contact with infected person, possessing symptoms of infection or tested positive for infection must be isolated from others so to prevent others to become infected. Where an outbreak is serious & contagious then in such cases infected person should be isolated in separate room in home or in isolation centre or in health care centre.

#### **Role of Public Health Countermeasures**

Disease surveillance and hygienic measures, etc. can also help to control pandemic infections. Public health countermeasures can work very effectively when there is no issues related to ethical and human rights concerns.

#### **Role of Medical Treatment**

Antibiotics are medicines that fight bacterial infections, these drugs either kill or stop multiplication of bacteria. These drugs prevent pathogenesis of microorganism and help the body to recover from infectious state. Antiviral drugs specifically work against viral infection, inhibiting a virus's multiplication, antiviral drugs help in the treatment of HIV, herpes and influenza, etc. infections. The therapy which boosts the immune system can also be employed to enhance disease resistance power against microbial infections.

#### **CONCLUSION**

Infectious diseases spread from infected to healthy individual, the spread of infectious diseases can be prevented through some precautionary measures and uses of antimicrobial drugs help in the treatment of diseases caused by microorganism. Viruses, bacteria and fungi, etc. are major pathogens that can cause such diseases. The transmission of infectious diseases occurs through direct or indirect ways. People with diminished state of immunity are mainly considered susceptible for being infected therefore such people require extra care along with elderly and children. Preventive measures including frequent hand washing, decontamination of persons, disinfection of equipment/surface/object, restriction of airborne droplet, quarantine procedure and immunization, etc. can help to control spread of infectious diseases. Rapid diagnosis, case management reporting, monitoring of trends and contact investigations, etc. are also useful approaches to combat against pandemic spread of infectious diseases.

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