



SHORT COMMUNICATION

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Corona Virus Disease 2019 pandemic and the role of Quarantine in containment of the infection

Saurabh RamBihariLal Shrivastava¹, Prateek Saurabh Shrivastava²

¹Department of Community Medicine, Member of the Medical Education Unit and Institute Research Council, Shri Sathya Sai Medical College and Research Institute, Sri Balaji Vidyapeeth – Deemed to be University, Kancheepuram

²Department of Community Medicine, Shri Sathya Sai Medical College and Research Institute, Sri Balaji Vidyapeeth – Deemed to be University, Ammapettai, Nellikuppam, Chengalpeta District, Tamil Nadu, India

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Abstract

The Corona Virus Disease-2019 (COVID-19) pandemic has emerged as one of the most important global public health concerns and has raised serious objections towards the preparedness level and quality of response of health authorities to an infectious disease outbreak. Acknowledging these estimates and the fact that the disease has been spreading rapidly in different nations, it becomes an utmost priority to improve the quarantine practices prescribed under the International Health Regulations. It is ideal to implement such measures at the start of the outbreak, as it has a proven advantage of the introduction of the disease in the nation. The decision to implement quarantine should be taken after establishing suitable facilities with required provisions, presence of standard infection prevention & control measures, and presence of basic requirements to monitor health of quarantined individuals. In conclusion, in the ongoing COVID-19 outbreak, quarantine is an important intervention to delay the introduction of the infection in a nation and needs to be properly implemented to harvest better benefits and effective containment of the infection.

Keywords: COVID-19 pandemic, Quarantine, World Health Organization

Introduction

The Corona Virus Disease-2019 (COVID-19) pandemic has emerged as one of the most important global public health concerns and has raised serious objections towards the preparedness level and quality of response of health authorities to an infectious disease outbreak [1-3]. The recent global estimates clearly depict that as on 16 June 2020, the reported number of cases has increased to 7941791, while 434791 individuals have lost their lives due to the novel viral infection [2]. It is an alarming concern that 216 nations and territories have reported at least one confirmed case within their jurisdiction and on a cumulative note, the American region and the European region are the most affected [2,3].

In general, isolation refers to the separation of an individual who is symptomatic and this should be done for the period of communicability. On the contrary, quarantine refers to the restriction of the movement of the individual who are asymptomatic, but have been exposed to a confirmed case of the disease. Both isolation and quarantine practices have specific role in the effective containment of the infectious diseases.

Scope of Quarantine

Acknowledging these estimates and the fact that the disease has been spreading rapidly in different nations, it becomes an utmost priority to improve the quarantine practices prescribed under the International Health Regulations [2,3]. Quarantine refers to the restriction or separation of those individuals who are not sick, but has been exposed to the potential virus and thus should be kept away from the remaining population, with a single intention to facilitate early case detection [4]. It is ideal to implement such measures at the start of the outbreak, as it has a proven advantage of the introduction of the disease in the nation, nevertheless any irregularity on our part complicates the entire scenario by creating

*Corresponding Author: Saurabh RamBihariLal Shrivastava, Professor, Department of Community Medicine, Shri Sathya Sai Medical College and Research Institute, Sri Balaji Vidyapeeth (SBV) – Deemed to be University, Tiruppur - Guduvancherry Main Road, Ammapettai, Nellikuppam, Chengalpeta District - 603108, Tamil Nadu, India

even more number of opportunities of dissemination of the infection [4,5]. The present norm is to quarantine a contact of the disease for a period of 14 days from the last time they have been exposed to a laboratory confirmed case [5].

Pre-requisites

The decision to implement quarantine should be taken after establishing suitable facilities with required provisions, presence of standard infection prevention & control measures, and presence of basic requirements to monitor health of quarantined individuals [4]. With regard to the physical structure, the location should be well-ventilated and should have well-spaced beds, provisions to maintain hand hygiene, and provisions for a comfortable stay (viz. food, drinking water, baggage protection, team for medical assistance, system to establish communication with family members, etc.) should be ensured [1,4]. The infection prevention and control should aim to target early recognition (viz. detection of the disease by lab tests and treatment, adherence to hand hygiene & respiratory / droplet hygiene, etc.), administrative provisions (such as educating people about infection control measures, formulation of protocol to promote early detection & referral) and environmental provisions like disinfection of surfaces, safe disposal, training of health personnel, etc., has been advocated [4,5].

Supportive interventions

It is quite obvious that the quarantine practices won't succeed, if they are not supported with better health monitoring in the entire duration of the period, including monitoring of chronic ailments [2,4]. However, in order to minimize panic, anxiety and fear among the general population, it is vital to inform the population about the need and scope of quarantine [1,3]. At the same time, steps should be taken to inform the people about the recent developments at the earliest and that the health authorities are adhering to the standard

quarantine measures and infection prevention & control measures [2,4]. This will aid in better cooperation from the quarantined persons and their family members to the optimal level. Further, local assessment of the settings should also be done on a periodic basis and that too in accordance with the locally relevant cultural norms to promote better acceptance of the quarantine facilities [2-4].

Conclusion

In conclusion, in the ongoing COVID-19 outbreak, quarantine is an important intervention to delay the introduction of the infection in a nation and needs to be properly implemented to harvest better benefits and effective containment of the infection.

Conflict of interest

The authors declared that they have no conflict of interest.

Financial Disclosure

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