Commentary

Home versus institutional isolation of mild COVID-19 patients

After months of lockdown for controlling the COVID-19 pandemic, the country is in the process of gradually releasing the lockdown, which comes amidst a steady increase in cases. As the patient numbers have begun to surge, hotspot regions in the country are running short of beds. The policy of hospitalizing all COVID-19 cases was at least partly responsible for this shortage and was also a drain on the state exchequer. Based on a public interest litigation (PIL) in the Supreme Court, a direction was given to reconsider this policy. On April 27, 2020, the Ministry of Health and Family Welfare issued home self-isolation guidelines,\(^1\) which recommended home isolation of COVID-19 patients who are presymptomatic or with very mild symptoms. This is a welcome move, as this could reduce the number of cases that need to be hospitalized by 4/5\(^{th}\) and conserve beds for the care of patients with serious illness, for whom hospitalization is mandatory. It is also likely to reduce the quantum of infectious patients in the hospitals, thus reducing the risk of infection to health-care personnel and also the vulnerable patients who may visit the hospital for the care of non-COVID-19-related problems. Furthermore, there would be a reduction in the requirement of personal protective equipment.

However, this practice is not without its risks. Data from Israel\(^2\) show that home self-isolation was successful only in 57% of patients. The reasons mentioned for noncompliance were financial noncompensation and inadequate information for the public on strict home quarantine. In an article recently published in the Lancet, Dickens et al.\(^3\) compared modeled trajectories of the pandemic using the data from China where these patients were in isolation facilities and from USA and Europe where home self-isolation was followed. They found that if the mild and asymptomatic patients were home isolated, the reduction in cases would only be 20% as opposed to institutional isolation, which could reduce the cases by 57%.

In a resource-limited country like India, there are several challenges to home isolation. Overcrowding and lack of personal space is a major problem. Those living in small houses and slums would find it nearly impossible to follow isolation requirements to reduce the risk to household contacts. The joint family is a factor not only with regard to large number of people living under a single roof but also the presence of vulnerable elderly family members. These would be very suboptimal situations for home isolation. The Ministry of Health guidelines on home self-isolation\(^4\) mention the presence of a 24 × 7 care giver as a requirement. Therefore, before recommending home self-isolation, an assessment of the homes, the social situation, and the availability of a reliable caregiver would be required. The use of hostels, hotels, and other facilities as COVID care centers should be seriously explored. Every effort should be made to make the patients feel comfortable and this would ensure more people with symptoms would come forward to be tested and if required, willingly subject themselves to isolation outside their homes. Government has also mandated that patients must download the Aarogya Setu App and keep it active at all times to be eligible for home isolation.\(^5\) This is expected to make sure that patients do not disregard isolation and travel away from their place of isolation.

The other fear with home isolation is failure to pick up deterioration of the patient. COVID-19 is notorious for causing significant lung damage without proportionate symptoms. An interesting terminology called ‘happy hypoxia’ has emerged with regard to certain COVID-19 patients, whose oxygen levels have dropped precipitously, despite having only mild symptoms. This is not new to COVID-19, but can happen in any condition that causes a shunt physiology, a lack of excessive dead space, and preserved lung compliance,\(^6\) as also in COVID-19. Hence, while in self-isolation for COVID-19, daily monitoring of the patients’ symptoms and vital signs, especially oxygen saturation by a finger pulse oximeter, should be carried out. Finger pulse oximeter is today inexpensive and is a readily available device.

The goal is to identify signs of deterioration early and ensure that those requiring hospitalization are shifted to the hospitals without delay. It may be a good idea to provide the home caregiver a checklist of the patient’s symptoms and teach the use of the finger pulse oximeter and obtain a daily report. While home isolation is going to increase dramatically and is a step forward, it should be permitted with sufficient checks and balances. Institutional isolation should be used as often as required, albeit not in hospitals.

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