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Letter to Editor

Covid-19: Lessons from hospital preparedness for radiation accidents

Dear Editor,

The most rational way to cope with a potential risk is to prepare for a crisis. Health-care systems are cornerstones in reducing the impact of crises. Maintaining hospitals' readiness so that we can switch from theory to practical implementation once a hazard has been identified, and recover following the response, must be considered a priority in the cycle of incident management. Nevertheless, many partners are involved in managing incidents, and inconsistencies can arise in the postincident period, as seen in the current Covid-19 pandemic responses city by city in one country, let alone country by country.[1-3] This emphasizes the need for hospital preparedness before an incident happens, although this groundwork requires the implementation of scientific practice based on fruitful models developed around the world.

As key elements in hospital preparedness for coronavirus outbreaks and radiation accidents are similar, we are writing to share our extensive experience in preparedness and response to radiation emergencies due to proximity to the nuclear reactor in Bushehr, Iran.[4] An integrated and multidisciplinary approach toward regional management of casualties in the event of an infection pandemic like Covid-19 requires several pillars, including staff, the hospital's physical space, equipment, coordination, structure, organization, processes, guidelines, and information systems in intra- and intersectoral multidisciplinary arrangements. Coordination among the various hospital departments and with different nonhealth-care organizations is a fundamental principle in times of crisis. Regular maneuvers and continuous training of the numerous occupational groups involved in the response team are the key factors in maintaining the readiness and appropriate response of health-care systems to radiation emergencies. The measures already implemented in Bushehr might be a valuable strategy for the mitigation, preparedness, response, and recovery from the current viral pandemic and may partly explain why Bushehr was the last province in Iran to be infected and currently has the lowest infection and mortality death rates in our country.[5]

We recommend adding the appropriate preparedness necessities for an infection outbreak as an adjunct to the management of a radiation crisis and taking into account the diagnostic and therapeutic instruments for the management of the severe stage of acute radiation syndrome, as we have done in our 100-bed hospital, so it will be able to deal with severe coronavirus infections. This would be cost-effective and advance the potential for better and faster recovery.[5] Up to now, it may be thought that the performance of the health-care system in a radiation crisis setting is restricted to radiation emergencies. However, the current situation shows the necessity of preparedness for current and future deadly coronavirus outbreaks in addition to radiation accidents in radiation emergency settings. The suggested individualized response model with internal and systemic integrity and coherence among the key sectors in intra- and interorganizational management setups to handle all the managerial characteristics of a crisis is of pivotal importance.

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Conflicts of interest

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