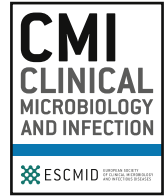




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## Letter to the Editor

## Celebrating Eid-ul-Adha in the era of the COVID-19 pandemic in Pakistan: potential threats and precautionary measures

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## To the Editor,

Eid-ul-Adha is an annual religious festival observed by Muslims, expected to be celebrated in early August this year, during which nearly 8 million animals are sacrificed in Pakistan [1]. Celebration of this festival during the COVID-19 pandemic is quite challenging amid an alarming resurgence of positive cases nationwide. In most Muslim countries, slaughter of animals during the festival is controlled and confined to specific places [2]. However, the pattern of animal slaughter changes in accordance with the various cultural and religious beliefs in Pakistan. These changes include factors such as transport of animals for sale from rural to urban areas, little regulation of animal sales, advanced purchase of animals, freelance and non-professional butchers, slaughter of animals in public areas, crowds of spectators around the butcher to watch the slaughter and in-house social gatherings [1–3]. Since celebration of the festival cannot be cancelled because of religious obligations, we felt inclined to share potential threats that could lead to a sharp spike in COVID-19 cases during preparations for Eid-ul-Adha.

In Pakistan it is a common practice for cattle farmers to travel from rural to urban areas to sell their animals before Eid-ul-Adha. These farmers sell their animals directly to the purchasers at designated markets. However, many of them move around the cities to sell at the roadside or in commercial and residential areas.

These traders along with the remaining animals move back to their home towns immediately after the festival [4,5]. Currently, Pakistan is experiencing an unprecedented rise in COVID-19 cases, which are primarily confined to urban areas. Since approximately 64% of the population of Pakistan is rural, such widespread rural–urban–rural migratory activities may further cause the situation to deteriorate in the country by facilitating disease transmission to COVID-19-free regions. Keeping in view the low literacy rate in the rural population, containment of COVID-19 will be a great challenge for the health authorities and may result in a sharp rise in cases.

Another challenge during this festival will be congested animal selling points, which could serve as potential sources of disease spread (Fig. 1). Since the government of Pakistan allows limited livestock markets on the outskirts of the cities, thousands of people rush to these places, resulting in congestion and crowds. Moreover, these markets lack compliance with safety and health protocols because of low literacy among animal handlers. These factors may facilitate human-to-human disease transmission and subsequent spillover to rural areas. Moreover, because of limited healthcare and administrative facilities in rural areas, implementation of preventive measures may be difficult or even impossible.

We believe that Eid-ul-Adha poses logistic challenges and requires effective planning to avoid any possible catastrophe. Keeping in view the high risks of disease spread during the festival, we want to share a few suggestions to avoid any possible surge in COVID-19 cases.

- The potential risks of COVID-19 spread during Eid-ul-Adha must be communicated to the public in timely and effective manners through electronic media in order to create a sense of responsibility.
- Online purchase will be an effective approach during the current health crisis. Various websites in Pakistan provide facilities for online purchase through which people can choose animals to be delivered to their doorsteps. Alternatively, purchasers can also request slaughter of the selected animals on their behalf and the meat delivered to their home. Encouraging people in this practice will help to reduce crowds in the cattle markets, thereby facilitating movement control measures.

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Fig. 1. Animal market in Peshawar, Pakistan before the Eid-ul-Adha festival. Source: [http://www.xinhuanet.com/english/2018-08/19/c\\_137402622.htm](http://www.xinhuanet.com/english/2018-08/19/c_137402622.htm).

- Livestock markets should be limited to designated places. Administrative authorities should monitor illegal cattle markets that spring up in cities and towns. Moreover, the principles of social distancing must be ensured during purchase. The provision of sufficient space for animals, and availability of face masks, gloves and hand sanitizers should be mandatory in the markets.
- In-house slaughtering of animals by non-professional butchers is a common practice in Pakistan. Prohibition of such activities and limiting killing of animals to slaughterhouses will control the movement of people and spectators during the festival. Many Muslim countries have confined slaughtering to designated places in the presence of veterinarians in order to combat Crimean–Congo haemorrhagic fever [2].
- A systematic educational campaign on precautionary measures such as social distancing and the use of protective equipment should be considered for the staff at abattoirs.
- Animal traders should be encouraged to practice self-quarantine for at least 14 days before going back to their home towns. Moreover, post-festival surveillance programmes need to be in place for timely identification of variations in patterns of incident cases.

As the COVID-19 pandemic is ongoing, health authorities must remain on high alert, and special measures should be taken for aggressive surveillance during the festival. The government must refocus their energy and provide sufficient finances in order to implement controlling measures during Eid-ul-Adha.

#### Transparency declaration

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#### References

- [1] Mallhi TH, Khan YH, Sarriff A, Khan AH. Crimean-Congo haemorrhagic fever virus and Eid-ul-Adha festival in Pakistan. *Lancet Infect Dis* 2016;16:1332–3.
- [2] Leblebicioglu H, Sunbul M, Memish ZA, Al-Tawfiq JA, Bodur H, Ozkul A, et al. Consensus report: preventive measures for Crimean-Congo hemorrhagic fever during Eid-al-Adha festival. *Int J Infect Dis* 2015;38:9–15.
- [3] Karim AM, Hussain I, Lee JH, Park KS, Lee SH. Surveillance of Crimean-Congo haemorrhagic fever in Pakistan. *Lancet Infect Dis* 2017;17:367–8.
- [4] Atif M, Saqib A, Ikram R, Sarwar MR, Scahill S. The reasons why Pakistan might be at high risk of Crimean Congo haemorrhagic fever epidemic; a scoping review of the literature. *Virology* 2017;14:1–7.
- [5] Mallhi TH, Khan YH, Tanveer N, Khan AH, Qadir MI. Commentary: surveillance of Crimean-Congo haemorrhagic fever in Pakistan. *Front Public Health* 2017;5: 132.