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Correspondence



Western Pacific countries preparedness for monkeypox emergence: A call for action – Correspondence

Dear Editor,

The World Health Organization (WHO) declared monkeypox (MPX) a “Public Health Emergency of International Concern (PHEIC)” on July 23rd, 2022 due to increase in number of confirmed cases worldwide [1]. As of August 10th, 2022, more than 31747 confirmed cases with MPX were reported across 86 countries [2]. Approximately 98% of cases were reported from nations that have never reported MPX before, such as the Western Pacific Region (WPR) [3]. As of August 10th, 2022, only a few cases have been reported in WPR, accounting for <1% of all confirmed cases globally [2].

Transmission of MPX occurs through close or direct contact with skin lesions, respiratory droplets, and bodily fluids, and either with direct or indirect contact through contaminated fomites. With the recent increase in cases related to sexual activity, the possibility was raised that the virus can be transmitted through sexual contact [4,5], though there is still no clear evidence of sexual transmission through seminal or vaginal fluids. There have been reports of vertical transmission and fetal deaths [4].

Symptoms that typically present include fever, headache, muscle aches, backaches, swollen lymph nodes, chills, exhaustion, and a distinctive characteristic rash. Some serious complications that could occur include secondary infections, pneumonitis, encephalitis, and corneal infections [4,5]. The incubation phase typically lasts 6–13 days but can be as long as 21 days [6].

Historically, case fatality ratio (CFR) for MPX has ranged from 0 to 11% in the general population and has been documented to be higher in children, with a significant difference between clades [4,6]. MPX has a current CFR of around 3–6% [6].

As of August 10th, 2022, among the documented cases, males are in preponderance (>95%), especially those who have sexual contact with men (MSM). Taiwan may anticipate to become the first country in the region to detect a significant number of infections if the current trends of increasing numbers of cases among MSM continue. Taiwan is one of the most progressive countries in this regard, having provided equal rights to the LGBTQI+ community in the 2010s [7]. Furthermore, opening borders and easing the ban on international flights may make the situation worse. Most MPX cases in the region have been documented in New Zealand and Australia, both of which have previously opened their borders [7]. Likewise, relaxing the preventive steps that were put in place during the COVID-19 outbreak can make the situation worse.

The COVID-19 pandemic has put global health systems under enormous pressure, being overburdened, and affected their capacity by highlighting the challenges [8]. The WPR is no exception. The COVID-19 pandemic continued to have a catastrophic effect on the region throughout 2021, but it was by far the only health issue the region faced. However, the WPR has seen a marked skew in the relative phenomenal

success of COVID-19 pandemic control strategies [8].

WPR has been anticipating imported MPX cases ever since its emergence. Nearly half of the travel activity relative to the pre-COVID levels has been recorded across the region, along with increased border control, travel bans, and surveillance for MPX cases. Even though all governments acknowledge the importance of removing restrictions on international flights, many continue to adopt a cautious policy. Governments, organizations, communities, and individuals all have significant responsibilities in regulating COVID-19 as many nations and regions relax their public health regulations. This indicates a transition away from the pandemic response and toward a sustained management strategy. The sustained management strategy for COVID-19 in the WPR have been adjusted for the local environment, safeguarding the healthcare system, early identification, focused action measures at international borders.

Most governments only allow residents or those traveling for business, education, or health to travel internationally. Japan has upped the daily tourist limit to 20,000. Taiwan accepts international tourism but not foreign nationals. China has the toughest zero-COVID policy. New Zealand and Australia have opened their borders. WPR traffic has resumed to 50% of the pre-COVID levels. Many nations are hesitant about reducing travel restrictions for economic and social reasons [9]. Also, several WPR countries have ignored the pandemic guidance issued on COVID-19. Some WPR countries have maintained restrictions even though the severity of COVID-19 illness has decreased generally throughout the pandemic (thanks to vaccination). The government of Japan recommends citizens to avoid confined spaces. In May 2022, COVID-19 infections increased in Taiwan, causing the government to take action akin to sanmitsu, the 3 Cs approach of avoiding closed spaces, crowds and close-contact situations [10,11].

Due to the slow transmission between individuals, the lengthy incubation period, and the low number of cases in WPR, ring vaccination is useful for controlling the present MPX multi-country outbreak. Moreover, it offers several advantages, such as simplicity of execution, efficiency in using scarce resources (such as vaccines and personnel) in countries such as Mongolia [12], less likelihood of transmission, fewer vaccinations needed to complete the ring, and higher effectiveness in remote areas with tiny populations (i.e., Mongolia) [13].

There is still no specific vaccine to prevent MPX infection; however, the smallpox vaccine has been shown to have an 85% cross-immunity rate [5]. The smallpox vaccine is the mainstay of MPX transmission prevention [5]. The effectiveness of the smallpox drug currently on the market has not been thoroughly investigated for treating MPX infection, however, they are under study. These drugs include immune globulin, tecovirimat, and Brincidofovir [4].

The status of immunization is unclear because of the small number of

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documented cases of monkeypox in WPR. Further clinical trials of tecovirimat (TPOXX, ST-246), cidofovir (Vistide), and Brincidofovir (CMX001, Tembexa) to assess their efficacy in treatment of monkeypox are recommended.

Although ACAM2000 has only been authorized for smallpox, it has been made accessible for MPX through an Expanded Access Investigational New Drug (EA-IND) procedure, hence JYNNEOS is the only licensed vaccine against both diseases. Immunization against MPX is possible after infection. There is currently no information on JYNNEOS or ACAM2000 vaccinations concerning the present outbreak. The efficacy of these vaccines is unknown during this multi-country outbreak; thus, those who have been immunized should avoid close skin-to-skin contact with a person who has MPX. While the JYNNEOS vaccination is now in low supply in the USA and throughout the world, more vaccines are likely to become accessible soon. Although ACAM2000 is widely prescribed in the USA, it comes with a higher risk of side effects and contraindications [14,15].

To stop the outbreak in WPR, quick fixes must be implemented. The population should be made more aware of the problem and steps must be taken to prevent it as part of the solutions. Keep a distance away from anyone who has a rash that resembles MPX. Furthermore, people with monkeypox should not touch their rash or scabs [16]. It is important to avoid sharing eating utensils or cups, and kissing, hugging, cuddling, or having sex with someone who has MPX. The same goes for handling or touching an MPX case bedding, towels, or clothing. Using an alcohol-based hand sanitizer or frequent hand washing with soap and water are both crucial for preventing transmission [16].

WPR should begin contact tracing by identifying those who have contact with a MPX patient. If a person knows their partner may have had MPX and they have had multiple sexual partners in an area where MPX is known to exist, they must isolate themselves. Anyone who has recently traveled to regions where MPX cases are present should also be given special attention. It is important to advise people against visiting places where the disease is widespread.

The disease has primarily affected MSM [17]. Therefore, avoiding stigmatization is crucial. Finally, those in the medical field who conduct monkeypox testing must be safeguarded. The medical facility where MPX is treated should have adequate protective medical equipments.

In conclusion, the comprehensive collection of surveillance data has substantial implications for efficient management and prevention of the disease. To mitigate the current outbreak, governments and policy decision makers should take measures to raise awareness on MPX and develop different educational programs for healthcare workers and general community in the current situation. The WPR countries still have an urgent need to strengthen their population health and surveillance capacities to facilitate right data collection, surveillance, preparedness, preventive, and response efforts to MPX. Early screening, particularly in the MSM community in WPR countries, has a significant role in detection of unknown, suspected, and confirmed cases. Even though COVID-19 and monkeypox are two different viral infections, there is no doubt that COVID-19 and MPX may co-exist, and the consequence can be fatal as the combination can make patients more immunocompromised. However, it is unclear why the number of cases has not increased more dramatically. Some experts attribute this to people heeding warnings about the COVID-19 pandemic and limiting their foreign travel as a result. Finally, since MPX cases are increasing dramatically around the world, researchers should focus on the reasons behind the small number of confirmed cases in WPR countries.

Data statement

Data not available/not applicable.

Provenance and peer review

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