ASEAN Biodiaspora Virtual Center

Media Monitoring for Infectious and Emerging Diseases

GLOBAL & ASEAN REGION

"Missing Virus Samples in an Australian Laboratory"

12 December, 2024

With Support by:

This report is the result of media monitoring on infectious and emerging diseases happening around the world and among the ASEAN Member States. In order to improve pandemic and epidemic preparedness and response in the ASEAN Region, we provide this report three times a week starting from January 2024.

Event Description

On December 9, 2024, the Queensland government in Australia reported that numerous vials containing dangerous live virus samples have gone missing from the Public Health Virology Laboratory (Slattery, 2024). The public health department and Queensland Health have been tasked with investigating the circumstances surrounding the disappearance of these vials. [Full article]

The missing samples were last accounted for in 2021 due to a biosecurity failure (Thomson, 2024). This incident was uncovered in August 2023, following a malfunction of a freezer that led to the improper transfer of the samples without the necessary documentation. Out of the 323 missing vials, nearly 100 contained Hendra virus, two contained hantavirus, and 223 contained lyssavirus. Hendra virus, first identified in Australia in the mid-1990s, primarily affects horses but can also infect humans, with a fatality rate of 57%. Hantavirus is transmitted by rodents and can cause Hantavirus Pulmonary Syndrome (HPS), which has a mortality rate of around 38%. Lyssavirus is closely related to rabies and also presents a high mortality risk. [Full article]

The Queensland Health Department has not determined if the missing samples were destroyed or improperly removed but emphasizes that there is no evidence suggesting theft or weaponization (Aylmer, 2024). The investigation is concentrating on protocol violations during the transfer process that might have led to the loss of these samples. [Full article]

Experts stated that viruses lose their infectiousness quickly when not stored under proper conditions (Slattery, 2024). Although there is a theoretical risk if exposure occurs shortly after removal from a freezer, this scenario is considered highly unlikely. [Full article] However, other experts have raised concerns about the potential risks of missing virus samples falling into malicious hands (Online, 2024). They emphasized the importance of heightened vigilance and comprehensive investigations to ensure the secure handling of dangerous pathogens, particularly in light of recent global health crises. [Full article]

Response

In response to this breach, an investigation has commenced to ascertain how these samples went missing and why it took nearly two years for the issue to be identified. Queensland Health has initiated retraining for staff and is reviewing laboratory protocols to prevent similar incidents in the future. [Full article]

Authorities have reassured the public that there is no immediate health risk since the viruses would degrade outside of ultra-cold storage conditions, rendering them non-infectious (Slattery, 2024). It is likely that standard laboratory procedures resulted in their destruction, and no recent cases of related infections have been reported in Queensland. The focus remains on understanding and addressing the procedural breaches that occurred during the transfer of these samples. [Full article]

Reference

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