

## Letter to the Editor

## Vietnam's first H9N2 case: A wake up call for global health authorities

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Avian influenza is an emerging zoonotic disease with potential to cause pandemics [1–4]. Vietnam has reported its first reported human infection with the H9N2 avian influenza virus on April 9, 2024 [1,5]. This case involves a 37-year-old male from Tien Giang Province living nearby poultry market, who developed fever on 10 March and was admitted to hospital on March 16, 2024 (Fig. 1) [5]. Over the next few days, patients developed severe pneumonia with bilateral pleural effusion, and was admitted to intensive care unit (ICU). The patient was managed with antiviral drugs and antibiotics and was in severe condition. Interestingly, the case was detected via severe viral pneumonia surveillance, which shows the effective surveillance strategy employed by Vietnam. Following this, PCR testing was done, which confirmed the presence of H9N2 avian influenza virus. 15 close contacts with the case are being self-monitor with no symptoms reported in these [5]. This case magnifies the perennial threat posed by zoonotic diseases, particularly in regions where humans and animals closely intersect.

The global fight against infectious diseases requires constant vigilance. Avian influenza, particularly the H9N2 strain, while typically resulting in mild human disease, poses significant threats under certain conditions, especially in individuals with preexisting health issues. The case in Vietnam showcases the virus's capability to induce severe respiratory conditions, necessitating intensive care and highlighting the potential for fatal outcomes if such viruses were to mutate or manage wider spread. Vietnam's swift response to this case, involving rigorous contact tracing, surveillance, and public health interventions, demonstrates a commendable adherence to the protocols established by global health governance bodies such as the World Health Organization (WHO) [1]. This rapid response is crucial in containing the potential spread of the virus, but it also underlines a broader necessity: the need for robust health surveillance systems worldwide, particularly in regions with dense populations and significant wildlife interaction.

The occurrence of this case near a poultry market where daily trade occurs cannot be overlooked. Markets such as these are potential hotspots for the transmission of zoonotic diseases. They emphasize the need for improved biosecurity measures, regular health checks, and greater public awareness about the risks associated with live animal markets. Furthermore, this case should serve as a catalyst for increased

investment in global health security. Developing nations, often the battlegrounds for these outbreaks due to denser wildlife-human interfaces and varying levels of health infrastructure, need more robust support from the international community. Strengthening health systems, enhancing laboratory capacities, and broadening access to healthcare can turn the tide against the threat of zoonoses.

The WHO's assessment of the low risk to the general population is reassuring. However, the health agency also reminds us of the importance of preparedness. Every human infection with a new influenza subtype must be treated as a potential harbinger of a wider threat. This includes sustained funding for research into vaccines and antiviral drugs that are effective against a broad spectrum of influenza viruses.

In conclusion, while the risk to the general population from the H9N2 virus remains low, the first human case in Vietnam is a stark reminder of the unpredictable nature of influenza viruses. Continued surveillance, research, and preparedness are the bulwarks against the emergence of a virus that could lead to the next pandemic.

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**Declaration of financial interests**

The authors declare to have no financial interests relevant to this study to disclose.

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**Ethical approval**

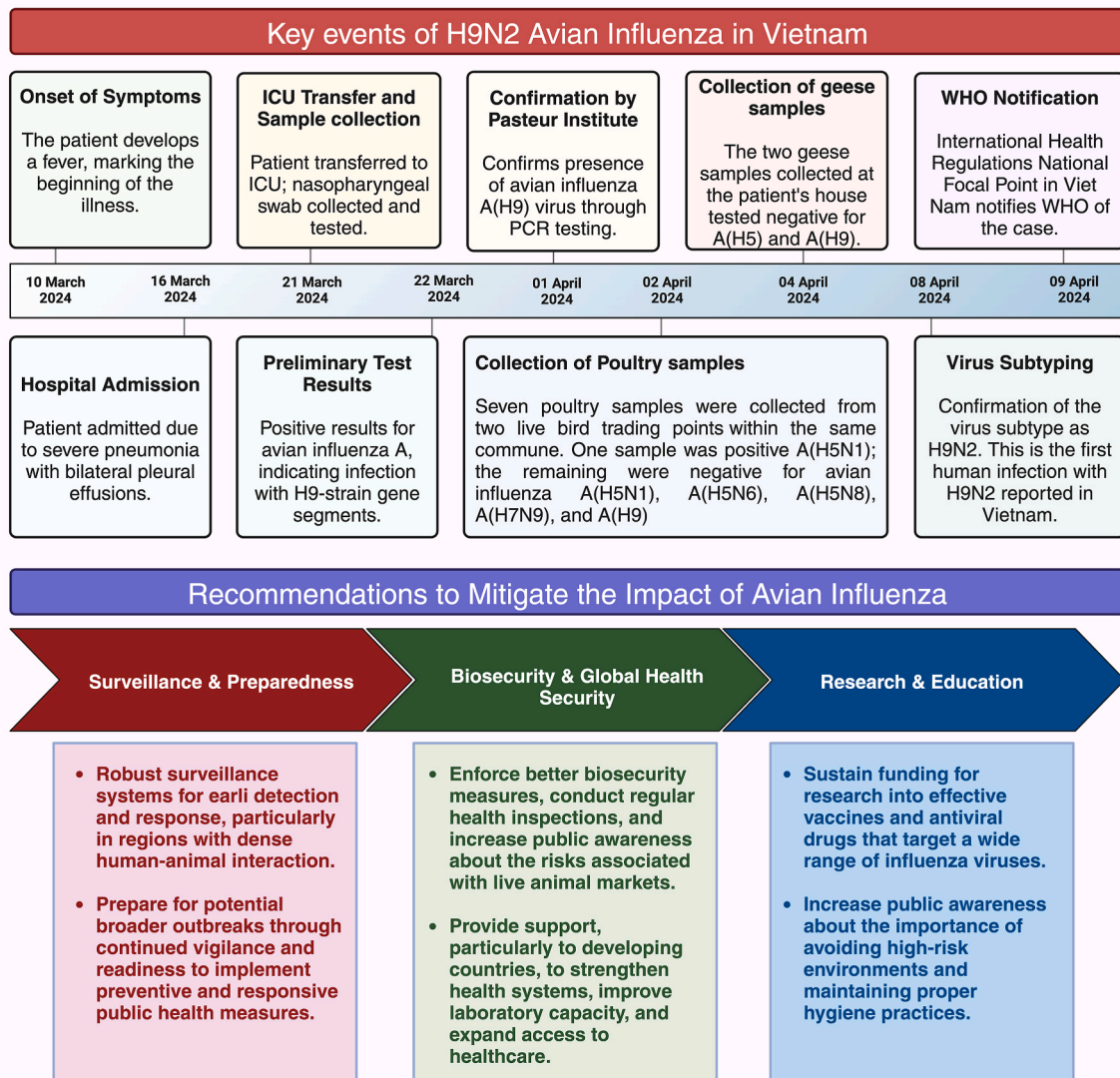
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**Fig. 1.** Key events and responses related to the first human infection with H9N2 avian influenza A in Vietnam and recommendations to mitigate the impact of avian influenza [Created with [BioRender.com.](https://www.biorender.com/)].

#### Informed consent

Not required as no patient data was collected or analyzed in this study.

#### Data availability statement

Data sharing is not applicable to this article as no datasets were generated or analyzed during the current study.

#### CRediT authorship contribution statement

**Ayush Anand:** Writing – review & editing, Visualization, Validation, Supervision. **Yash Aggarwal:** Writing – review & editing, Writing – original draft, Validation. **Mahendra Pratap Singh:** Writing – review & editing, Validation, Supervision. **Sanjit Sah:** Writing – review & editing, Validation, Supervision. **Ashish Gaur:** Writing – review & editing, Validation, Supervision. **Mahalaqua Nazli Khatib:** Writing – review & editing, Validation, Supervision. **Abhay M. Gaidhane:** Writing – review & editing, Validation, Supervision. **Sarvesh Rustagi:** Writing – review & editing, Validation, Supervision. **Nathnael Abera Woldehana:** Writing – review & editing, Validation, Supervision.

#### Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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