

Informative Note: Human infection caused by avian influenza A(H5) virus in Chile

31 March 2023

Situation Summary

On 29 March 2023, the National Focal Point for the IHR of Chile notified the Pan American Health Organization / World Health Organization (PAHO/WHO) of a confirmed case of human infection caused by avian influenza A (H5)¹ virus. The infection was confirmed by the National Influenza Center (NIC) of the National Public Health Institute of Chile (ISP, per its acronym in Spanish).

The case corresponds to a 53-year-old man, resident in the coastal area of the Antofagasta Region, located in northern Chile. The case has no history of comorbidities, nor trips or displacements. On 13 March 2023, his symptoms began, presenting with a cough, sore throat, and dysphonia. On 22 March 2023, he was transferred to the Regional Hospital of Antofagasta, where he was hospitalized due to dyspnea, with the diagnosis of Severe Acute Respiratory Infection (SARI). Here, a nasopharyngeal swab sample was taken, with negative results for Polymerase Chain Reaction (PCR). On 23 March the case was admitted to the Intensive Care Unit and on 24 March antiviral treatment (oseltamivir) and antibiotics were started. The patient has been kept in respiratory isolation with mechanical ventilation under multidisciplinary management and is currently in severe condition.

On 27 March a bronchoalveolar sample was taken for PCR analysis, which tested positive for nonsubtypeable influenza. The sample was sent to the ISP, which reported on 29 March that the sample was positive for avian influenza A(H5). On 31 March, the NIC sent the patient's samples to the WHO Collaborating Center for further characterization.

Between December 2022 and February 2023, highly pathogenic avian influenza (HPAI) has been detected among wild aquatic birds (pelicans and penguins) and marine mammals (sea lions) in the Antofagasta Region, where the case resides. According to the epidemiological investigation, the most plausible hypothesis of contagion was through environmental exposure, given the massive death of sea lions and wild birds found on the beach near his home. So far, three close contacts have been identified, all with negative results for Influenza, as well as 9 contacts among healthcare workers.

This is the first human case of avian influenza A(H5) reported in Chile and the third in the Region of the Americas; the first case had been reported in the United States of America² on 29 April 2022 and the second in Ecuador³ on 9 January 2023. Globally, since 2003, a total of 873 human infections, including 458 deaths, with avian influenza A(H5N1)⁴ virus have been reported to WHO.

¹ Ministry of Health of Chile. MINSAL reports first human case of avian influenza in Chile. 29 March 2023. Available from: <u>MINSAL reports</u> first human case of avian influenza in Chile - Ministry of Health - Government of Chile

² WHO. Avian influenza A (H5N1) - United States of America. 6 May 2022. Available from: <u>https://bit.ly/3YKs6k0</u>

³ WHO. Avian influenza A (H5N1) - Ecuador. 18 January 2023. Available from: <u>https://bit.ly/3TRYXml</u>

⁴ WHO. Number of cumulative confirmed cases of avian influenza A(H5N1) reported to WHO, 2003-2023. March 3, 2023. Available from: <u>https://www.who.int/publications/m/item/cumulative-number-of-confirmed-human-cases-for-avian-influenza-a(h5n1)-reported-to-who-2003-2023-3-march-2023</u>

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Public Health Response

- The local authorities are carrying out an epidemiological investigation and the follow-up of contacts in the family, community environment and in healthcare facilities.
- The intersectoral activities have been carried out by the Ministry of Health of Chile, the Agricultural and Livestock Service (SAG) of the Ministry of Agriculture of Chile, the National Fisheries and Aquaculture Service of Chile (SERNAPESCA), among others, in order to provide monitoring of Avian Influenza outbreaks in the Antofagasta region.
- Active monitoring of the population with respiratory symptoms and exposure to wild birds, poultry and mammals, people exposed to the virus and suspected cases.
- Seasonal vaccination in risk groups according to the guidelines of the National Immunization Program.
- Regarding risk communication, the population has been informed about this case, in addition to prevention measures through messages for different audiences.

PAHO/WHO is supporting the Chilean health authorities in managing this event.

Since November 2022, PAHO has been alerting countries about the increasing detection of HPAI outbreaks among birds and the risk of infections in humans due to exposure to infected poultry or contaminated environments.

PAHO offers countries recommendations to strengthen intersectoral work on surveillance, early detection, and investigation of influenza events at the human-animal interface, which are available from: <u>https://bit.ly/3UQrg4d</u>.