



Opinion of the Health Security Committee on zoonotic avian influenza

December 2023

1. BACKGROUND: AVIAN INFLUENZA IN THE EU/EEA

1 Since 2020, highly pathogenic avian influenza (HPAI) belonging to A(H5N1) clade
2 2.3.4.4b viruses have caused large epidemics in wild and kept birds in the EU/EEA leading
3 to mass mortality events in wild birds and serious losses to the poultry industry. Moreover,
4 since October 2022, the virus has more frequently infected mammalian species, in
5 particular wild carnivores, fur farm animals, marine mammals and pets. In October 2022,
6 an outbreak of avian influenza occurred in a fur farm in Spain and outbreaks are affecting
7 farmed foxes, minks and racoon dogs in Finland ⁽¹⁾. Direct or indirect contact with wild
8 birds could have initiated these outbreaks, however investigations on the source are still
9 ongoing. In France A(H5N1) virus was detected in a domestic cat presenting neurological
10 and respiratory symptoms ⁽²⁾ and Italy reported asymptomatic infections among a
11 domestic cat and five dogs ⁽³⁾. These animals were kept in establishments where outbreaks

⁽¹⁾ Lindh E, Lounela H, Ikonen N, Kantala T, Savolainen-Kopra C, Kauppinen A, et al. Highly pathogenic avian influenza A(H5N1) virus infection on multiple fur farms in the South and Central Ostrobothnia regions of Finland, July 2023. *Euro Surveill.* 2023;28(31):2300400. <https://doi.org/10.2807/1560-7917.ES.2023.28.31.2300400> PMID: 37535475

⁽²⁾ Briand FX, Souchaud F, Pierre I, Beven V, Hirchaud E, Hérault F, et al. Highly pathogenic avian influenza A(H5N1) Clade 2.3.4.4b virus in domestic cat, France, 2022. *Emerg Infect Dis.* 2023;29(8):1696-8. <https://doi.org/10.3201/eid2908.230188> PMID: 37379514

⁽³⁾ Moreno Ana, Bonfante Francesco, Bortolami Alessio, Cassaniti Irene, Caruana Anna, Cottini Vincenzo, Cereda Danilo, Farioli Marco, Fusaro Alice, Lavazza Antonio, Lecchini Pierdaveide, Lelli Davide, Maroni Ponti Andrea, Nassuato Claudia, Pastori Ambra, Rovida Francesca, Ruocco Luigi, Sordilli Marco, Baldanti Fausto, Terregino Calogero. Asymptomatic infection with clade 2.3.4.4b highly pathogenic avian influenza A(H5N1) in carnivore pets, Italy, April 2023. *Euro Surveill.* 2023;28(35):pii=2300441. <https://doi.org/10.2807/1560-7917.ES.2023.28.35.2300441>

12 of HPAI were confirmed in poultry (Italy) or in the vicinity of an outbreak in poultry
13 (France). In Poland, during the summer 2023, an outbreak of respiratory and neurological
14 symptoms occurred in cats, with 25 cats testing positive to A(H5N1). The source of this
15 outbreak has not been identified. Simultaneously, in the Republic of Korea another HPAI
16 outbreak in cats was reported ⁽⁴⁾ and a study conducted in the Netherlands has detected
17 asymptomatic infections in domestic and stray cats ⁽⁵⁾.

18 In the EU/EEA, to date no human infections with avian influenza A(H5N1) have been
19 detected. In Spain, two asymptomatic poultry farm workers participating in culling
20 activities tested positive for virus clade 2.3.4.4b virus. However, the lack of symptoms, the
21 low viral load, and the absence of specific H5 antibodies against the A/H5 virus suggested
22 that those were environmental contaminations and not productive or systemic
23 infections ⁽⁶⁾.

24 There is an extensive set of EU legislation ⁽⁷⁾ ⁽⁸⁾ ⁽⁹⁾ ⁽¹⁰⁾ protect workers from risks to
25 health and safety. This is to be fully implemented by the countries, also in establishments
26 with risks for HPAI outbreaks. Measures include physical distancing, enhanced
27 ventilation, dust- and aerosol-avoiding measures (for example, when cleaning and
28 handling litter), and using appropriate personal protective equipment (PPE).

29 **2. RATIONALE FOR THE PREPARATION OF THIS OPINION**

30 Although the circulating HPAI viruses are still predominantly adapted to avian receptors,
31 mutations that are markers of virus adaptation in mammals have been identified mainly in
32 viruses isolated from infected mammals. In Finland sequencing analyses of avian influenza
33 viruses isolated from fur farms suggest a possible transmission between mammals at
34 affected fur farms via contact through animal secretions, feed or contaminated bedding and
35 care equipment ⁽¹¹⁾. To date there have been no human infections detected in Finland nor
36 in other EU Member States and EEA countries over the course of similar events.

⁽⁴⁾ <https://www.mafra.go.kr/home/5109/subview.do?enc=Zm5jdDF8QEB8JTJGYmJzJTJGaG9tZSUyRjc5MiUyRjU2NzAzMSUyRmFydGNsVmllcy5kbyUzRg%3D%3D>

⁽⁵⁾ <https://afludiarly.blogspot.com/2023/11/netherlands-utrecht-university-study-of.html>

⁽⁶⁾ Aznar E, Casas I, González Praetorius A, Ruano Ramos MJ, Pozo F, Sierra Moros MJ, et al. Influenza A(H5N1) detection in two asymptomatic poultry farm workers in Spain, September to October 2022: suspected environmental contamination. Euro Surveill. 2023;28(8):2300107. <https://doi.org/10.2807/1560-7917.ES.2023.28.8.2300107> PMID: 36820643

⁽⁷⁾ Directive 89/391/EEC on the introduction of measures to encourage improvements in the safety and health of workers at work (the Framework Directive)

⁽⁸⁾ Directive 2000/54/EC on the protection of workers from risks related to exposure to biological agents at work

⁽⁹⁾ Directive 89/656/EEC on the minimum health and safety requirements for the use by workers of personal protective equipment at the workplace

⁽¹⁰⁾ Regulation (EU) 2016/425 on personal protective equipment

⁽¹¹⁾ Lindh E, Lounela H, Ikonen N, Kantala T, Savolainen-Kopra C, Kauppinen A, Österlund P, Kareinen L, Katz A, Nokireki T, Jalava J, London L, Pitkäpaasi M, Vuolle J, Punto-Luoma AL, Kaarto R, Voutilainen L, Holopainen R, Kalin-Mänttari L, Laaksonen T, Kiviranta H, Pennanen A, Helve O, Laamanen I, Melin M, Tammiranta N, Rimhanen-Finne R, Gadd T, Salminen M. Highly pathogenic avian influenza A(H5N1) virus infection on multiple fur farms in the South and Central Ostrobothnia regions of Finland, July 2023. Euro Surveill. 2023 Aug;28(31):2300400

37 ECDC assesses the risk of infection with currently circulating avian H5 influenza viruses
38 of clade 2.3.4.4b in Europe as low for the general population in the EU/EEA, low to
39 moderate for occupationally or otherwise exposed people to infected birds or mammals
40 (wild or domesticated).

41 In the context of more frequently identified and reported infections among wild mammals,
42 high-density mammalian population (i.e. fur farms) and pets, the virus might adapt to infect
43 more efficiently humans. In addition, with the upcoming influenza season, there is an
44 increased risk of reassortment between different influenza viruses including zoonotic one,
45 like the H1N1 subtype that circulates in kept and wild pigs.

46 The European Commission has conducted and planned a series of initiatives over the last
47 months in line with the call for a One Health approach included in the Serious Cross-
48 Border Threats to Health (SCBTH) Regulation 2022/2371.

49 This opinion of the Health Security Committee is a call to action to promote prevention
50 and preparedness in the light of the risks associated with the large circulation of H5N1
51 virus in the last seasons and the upcoming seasonal human influenza period. The actions
52 recommended may be also relevant for the prevention of, preparedness for and response to
53 other subtypes of avian influenza A relevant for public health.

54 **3. CALL FOR ACTION**

55 **3.1 ONE HEALTH APPROACH**

56 Ensure that Standard Operation Procedures are in place guaranteeing close cooperation
57 and swift communication between the human health and veterinary authorities at all levels,
58 including setting up coordination bodies and relevant joint governance structures when
59 necessary.

60 When possible, set up integrated surveillance systems building on existing networks, legal
61 frameworks and know-how fostering data exchange and joint assessments. Review and
62 identify areas where diagnostic pathways to ensure effective surveillance in animals and
63 humans (including genomic surveillance) might need to be updated.

64 Foster joint outbreak investigation and response when human and animal populations are
65 affected in the outbreak. Encourage joint integrated training activities, workshops and
66 simulation exercises. Ensure rapid alert of public health authorities by veterinary services
67 in situations of detection of avian influenza with zoonotic potential (e.g. preferably even
68 before confirmation by genomic sequencing) and ensure sustained effective bidirectional
69 communication between animal and human health authorities.

70 **3.2 HUMAN HEALTH SECTOR ACTIONS**

71 **a. Reporting of avian influenza in humans**

72 Laboratory confirmed human infections with avian influenza and other novel influenza
73 strains are notifiable under the International Health Regulations and through the Early
74 Warning and Response System, in line with EU Regulation 2022/2371 on serious cross-
75 border threats to health. Use the European alert and response systems (EWRS, EpiPulse)

76 and the European Surveillance System (TESSy) for notification, exchange of information
77 and monitoring of human infections.

78 b. Strengthening respiratory infections surveillance

79 Consider the ECDC proposal on a risk-based targeted approach for testing for avian
80 influenza viruses in areas with ongoing avian influenza outbreaks in poultry and detections
81 in wild birds and other animals ⁽¹²⁾. The focus should be on outbreaks and severe
82 respiratory or unexplained neurological disease cases in humans. Wastewater surveillance
83 could be considered as an additional monitoring system.

84 c. Monitoring humans exposed to infected animals: follow up and testing

85 Monitor closely persons exposed to infected animals (either occupationally or through
86 contact with infected birds, pets, other mammals, etc.) for 10-14 days for the development
87 of symptoms. The ECDC suggests to consider testing those exposed independently from
88 symptoms taking into account their level of exposure. If symptoms develop after exposure
89 to an infected animal, the person should be isolated, tested and public health authorities
90 should be informed. ECDC provided specific guidance on testing ⁽¹³⁾.

91 d. Preventing human exposure and infection

92 Consider discussing with National Immunisation Technical Advisory Groups to include
93 people at risk of occupational exposure to HPAI among those groups for which seasonal
94 influenza vaccine is recommended and free of charge. Specific national vaccination
95 programmes against seasonal influenza, will decrease the risk of co-infection with seasonal
96 and animal influenza viruses and therefore decrease the risk of emergence of a reassortant
97 influenza virus with pandemic potential.

98 In addition, countries should also consider pre- and post-exposure prophylaxis with
99 antivirals in persons occupationally exposed to infected animals.

100 e. Ensuring health and safety at work for farm and other concerned
101 workers

102 Ensure that the relevant EU legislation to protect workers from health and safety risks is
103 fully implemented, including by ensuring the availability and correct use of personal
104 protective equipment for professionals working in settings with exposures to HPAI,
105 including veterinarians, ornithologists, pathologists.

106 f. Ensuring availability for and use of personal protective equipment by
107 healthcare professionals

108 Infection Prevention and Control guidance and treatment protocols, including training on
109 the use of personal protective equipment (PPE) should be in place in referral hospitals for
110 the management of human avian influenza virus infections. Recommended PPE for
111 healthcare workers taking care of patients with avian influenza virus infection includes eye
112 protection, FFP2 respirator, water resistant gown and gloves.

(12) <https://www.ecdc.europa.eu/en/publications-data/avian-influenza-infections-surveillance-eu-eea>

(13) <https://www.ecdc.europa.eu/en/publications-data/zoonotic-influenza-virus-infections-humans-testing-and-detection>

113 g. Preparedness and Medical Countermeasures

114 Finalise national preparedness plans against pandemic influenza / respiratory viruses,
115 including medical countermeasures (MCM) response. Participate in EU-wide exercises on
116 avian influenza.

117 Gather and share with the Health Emergency preparedness and Response Authority
118 (HERA) information on national capacities, strategies, gaps and needs for MCM response
119 (including on diagnostics, vaccines, therapeutics and personal protective equipment for
120 human use), in order to inform EU support to MCM research and development, as well as
121 the organisation of joint procurement where relevant. The scope and granularity of
122 information to be shared, and means for sharing this information, will be agreed with MS
123 within the HERA governance bodies (HERA Board and Advisory Forum).

124 h. Raising awareness and pro-active risk communication

125 Participate in seminars/webinars organised by ECDC to update and inform animal and
126 public health experts of different networks working on avian influenza and surveillance.
127 In these scientific seminars, experts from countries, ECDC, EFSA and the EU Reference
128 Laboratory share the latest information on outbreaks, investigation protocols or other
129 ongoing projects.

130 Continue to develop and implement actions providing information and raising awareness
131 on avian influenza and potential human exposure or infection to target health professionals,
132 particularly in areas with ongoing avian influenza outbreaks in poultry and detections in
133 wild birds or other animals. Ensure clear advice to the public on avoiding contact with sick
134 and dead animals. Provide clear instructions regarding contacting and reporting to relevant
135 health authorities.

136 Consider using/adapting the ECDC infographics ⁽¹⁴⁾ ⁽¹⁵⁾ and short videos to support
137 awareness-raising among the public.

138 **3.3 ANIMAL HEALTH SECTOR ACTIONS**

139 Even if HPAI in Europe is currently only affecting animals with no human cases reported,
140 public health authorities rely on certain animal health actions – notably the rapid sharing
141 of information - to inform subsequent public health action (e.g. rapid testing of potentially
142 infected individuals, quarantine, etc.). Considering that HPAI is now affecting a number
143 of mammals, that the circulation of viruses in mammals increases their zoonotic potential
144 and that some mammals can be "mixing virus vessels" potentially leading to the emergence
145 of new strains of the virus, HPAI surveillance and control measures in animals are crucial
146 also to help prevention and preparedness action on the human health side.

147 a) Surveillance and response in animal populations

(14) [Poster: Effective hand-washing \(europa.eu\)](#)

(15) [Infographic: Using face masks in the community \(europa.eu\)](#)

148 Explore options to extend and enhance surveillance (including genomic surveillance, in
149 line with the guidance ⁽¹⁶⁾ of the EU Reference Laboratory for Avian Influenza) of avian
150 influenza in animals (birds and mammals), in accordance with the EU legal requirements
151 (Union surveillance programme in CDR (EU) 2020/689 ⁽¹⁷⁾ as amended by CDR (EU)
152 2023/1798) which prompts relevant information sharing if the disease occurs in mammals.

153 Countries can explore additional actions or response in line with art 257 (on the Emergency
154 measures to be taken by the competent authority of the Member State in the territory of
155 which an outbreak of a listed disease or emerging disease, or a hazard occurred) or art 171
156 (on National measures designed to limit the impact of diseases other than listed diseases)
157 of the Regulation (EU) 2016/429 ⁽¹⁸⁾.

158 Ensure early, regular and consistent availability of information of avian influenza viral
159 genetic characteristics of virus from infected animals in order to assess timely the potential
160 zoonotic risk, as well as the results of any epidemiological investigation including also
161 those regarding asymptomatic animals. This information should be immediately and
162 efficiently shared with relevant human health authorities in order to allow implementation
163 of public health measures and development of medical countermeasures.

164 Consider preparing national guidance for close involvement and coordination (animal and
165 human health authorities) in investigation of avian influenza outbreaks including among
166 mammals when there is potential zoonotic risk, from the predominant strains circulating
167 in the affected area to allow for early awareness and thus support rapid prevention,
168 preparedness and response action on the human health and veterinary side (while
169 respecting the requirements of the EU legislation).

170 Where vaccination of poultry and captive birds is planned, according to EU legislation and
171 considering EFSA recommendations weighting its pros and cons also as a measure to limit
172 an outbreak of zoonotic avian influenza, ensure surveillance in accordance with EU
173 legislation, including post-vaccination surveillance in line with Delegated Regulation (EU)
174 2023/361. The results of this surveillance, especially any detected or suspected
175 identification of escape mutants, should be communicated to public health authorities,
176 establishing an effective bidirectional communication flow.

177 b) Reinforcing HPAI awareness

178 Reinforce HPAI awareness in veterinary services, veterinarians, medical doctors, poultry
179 and captive bird keepers, fur animal keepers, zoos staff, pet animal keepers, hunters,
180 wildlife organisations and other relevant groups.

181 c) Continuing preparedness measures

182 Continue high level HPAI preparedness, prevention including biosecurity in poultry
183 production systems, and ensure laboratory capacity to investigate zoonotic potential.
184 Biosecurity should be also ensured in fur animal farms, where protection of farmed
185 mammals from wild birds (especially seabirds and waterfowl) should be prioritized, as for

⁽¹⁶⁾ <https://www.izsvenezie.com/documents/reference-laboratories/avian-influenza/useful-resources/guidance-representative-genomic-avian-influenza-virus.pdf>

⁽¹⁷⁾ http://data.europa.eu/eli/reg_del/2020/689/oj

⁽¹⁸⁾ <https://eur-lex.europa.eu/eli/reg/2016/429/oj>

186 EFSA guidance. Reinforce HPAI preparedness in animal species other than birds,
187 including fur animals.

188 d) Participating in active surveillance project for wild birds

189 Consider to participate in active surveillance for wild birds: EFSA is preparing the launch
190 of a grant to perform pilot project focusing on targeted active wild bird surveillance at
191 certain relevant areas of Europe to detect which viruses are entering along the most
192 important wild bird flyways. A pilot project ⁽¹⁹⁾ done at one location was successful and
193 in this follow up project the number of sites will be expanded.

(19) <https://efsa.onlinelibrary.wiley.com/doi/epdf/10.2903/sp.efsa.2022.EN-7791>