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# Review on Avian Flu

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**Abstract:** ***The World Health Organization (WHO) contemplates the Avian Influenza viruses a public health threat with pandemic possible. The upcoming human influenza pandemic, if seeded by the avian influenza a virus, is approximate to have a possible mortality rate of beyond a hundred million. Outbreaks in poultry come to be connected with human transmission. WHO has recorded 258 certified human infections with a mortality rate of more than 50%. Bird - to - human transmission of the H5N1 influenza virus is SUITABLE by the oral - fecal way. The most productive defense in opposition to influenza pandemic prospective a directed vaccine to extract a specific immune response regards the strain or strains of the influenza virus. However, up to there is an influenza pandemic, there is no proof that antiviral used in the treatment of an outbreak would reduce morbidity (disease condition) or mortality (death rate). Monitoring of the human populations for the highly pathogenic H5N1 is being managed. Infection - control is estimated and an emergency response plan is analyzed.***

**Keywords:** Avian influenza, H5N1, WHO, viruses, birds, infection

## 1. Introduction

- Avian influenza refers to the disease caused by infection with Avian (**bird**) Influenza **(flu**) type Viruses, informally known as BIRD FLU.
- This virus occurs naturally among wild aquatic birds worldwide and can infect domestic poultry and other bird and animal species.
- Out of the three viruses (A, B, C) influenza, a virus is a zoonotic infection with a natural reservoir almost entirely in birds.
- Avian influenza A virus usually does not infect people, rare cases of human infection with these viruses have been reported. [(1)]

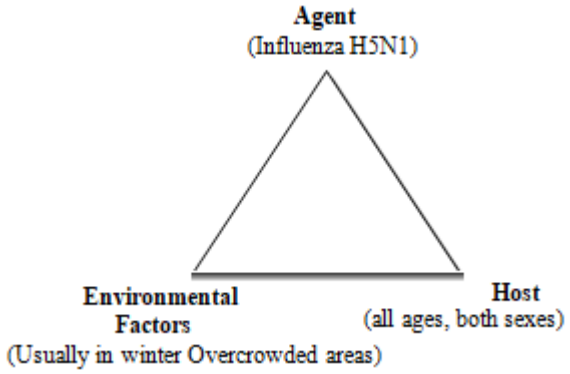
## 2. Incidence

- First detected in 1997 during a poultry outbreak in Hong Kong, China**.**
- Later on again, remerged in China in March 2013.
- In India, the first reports of bird flu came from the village of Navapur in the Nan durbar districts of Maharashtra on 19 February 2006.
- On November 27, Assam 1$^{st}$ detected the disease. [(2)]

## 3. Definition

This is a disease of birds, caused by the A (H5N1) virus that can occasionally infect humans having significant exposure to infected birds\poultry. [(2)]

## 4. Epidemiological Determinants




## 5. Mode of Transmission

Droplet nuclei (sneezing, coughing, or talking) ([4])

## 6. Risk Factors

- The greatest risk for bird flu seems to be contacted with sick birds.
- Or with surfaces contaminated by their feathers, saliva, or drooping.
- A poultry farmer.
- A traveler visiting affected areas.
- Exposed to infected birds.
- Someone who eats undercooked poultry or eggs.
- A healthcare worker caring for infected patients.
- A household member of an infected person**.** [(5)]

## 7. Incubation Periods

3 TO 7 DAYS. [(4)]

## 8. Symptoms

- Cough
- Fever
- Sore throat
- Muscle ache
- Headache

- Nausea and vomiting diarrhea
- Conjunctivitis [7]

## 9. Diagnostic Evaluation

- rRt - PCR (Real - time reverse transcriptase, PCR - preferred diagnostic test) which gives results in 3 hours [2]
- Auscultation
- white blood cell differential
- nasopharyngeal culture
- chest X - ray. [9]

## 10. Complications

- Pneumonia
- Pink eye (conjunctivitis)
- Kidney dysfunction
- Reyes syndrome
- Heart problems [2]

## 11. Treatments

- Treatment of this virus includes antiviral medication and often requires intensive supportive care. Health agencies (World health organization) currently recommend antiviral drugs, **oseltamivi, zanamivir**and for the treatment and prevention of avian influenza viruses along with supportive care.
- The U. S government is currently stockpiling the h5n1 vaccine in case the virus begins easy person - to - person transmission. Currently, there is no vaccine to protect against h7n9 types of bird flu. [7]

## 12. Prevention and Control

- Veterinarians, who encounter or suspect this disease, must follow their country - specific rules for informing the proper authorities.
- Unusual mortality between wild birds must be reported (e. g., to state, tribal, or federal natural resource agencies).
- The control of disease in poultry, commercial sectors, requires better risk management.
- Some of the basic needs for better agricultural practices like training of workers in best management and insecurity practices, in particular poultry cullers, establishing a insecurity environment to isolate poultry from possible
- Avian Influenza virus conveys, providing a source of clean water, providing a feed grant that is fixed and free of pollutes, and safe disposal of carcasses from known infected farms. [7]
- Protective measures for zoonotic avian influenza viruses include controlling the source of the virus and using Personal Protective Equipment (PPE).
- The monitoring of travelers that arrive in a country, with quarantine approaches, the closure of bunch places, such as public transportation and schools, could also be necessary actions. [4]

**Nursing Management**

1) Early identification, separation, and reporting of possible causes.
   - Start infection control precaution promptly when avian flu infections are suspected.
   - Use universal precautions are required. The mask should be properly shabby if the mask becomes moist, it should be thrown away in biochemical waste.
   - Gloves should be used when there is a touch with body fluid and blood.
   - Gowns to use when there is a pursuit that involves holding the patient close mainly used in the pediatric patient.
   - Eye protection should be used to stop accidental shower of secretions.
2) Infection control:
   - Hand washing before and after each patient care and after removing personal protective equipment.
   - Suitable environmental cleaning and spill management.
   - Relevant handling of waste.
3) Respiratory hygiene.
   - Put something on their mouth and nose with tissues when coughing.
   - Use a mask on the time of coughing.
   - Do hand hygiene.
   - Stand or sit at least 1 meter away from other persons.
4) Care of patient during discharge:
   - If a patient is discharged span possibly unmoving infectious family members should be taught about personal hygiene.
   - All Family members should be taught to ignore poultry and other domestic animals that have been sick.
   - Investigate the patient's condition by the public health.
5) Care of dead:
   - Separate the body from the isolation.
   - Personal protective equipment (PPE) to be used byall nurses.
   - Thebody should be sealed in a waterproof body bag before removal from the isolation room.
   - No leaking of body fluids should occur and the outside of the bag should be clear.
   - After removing PPE, do hand washing.
   - If family members want to see the dead body then allowed it, if the patient died during the infection period the family should wear gloves and gown and do hand washing

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