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PUBLIC HEALTH MANAGEMENT of ACUTE RESPIRATORY INFECTIONS (ARI) of Human Influenza of Zoonotic Origin

Chapter 3: Cases & Contacts (Human)

Please note that this document should be used in tandem with other Public Health Management of ARI documents.

Readers should not rely solely on the information contained with these guidance outputs. Guidance information is not intended to be a substitute for advice from other relevant sources including and not limited to, the advice from a health professional. Clinical judgement and discretion will be required in the interpretation and application of this guidance document. This guidance document is regularly reviewed based upon emerging evidence at national and international levels and national policy decisions. In tandem with this, the guidance will be formally reviewed on a three-year cycle.

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TABLE OF CONTENTS

1 SCOPE AND PURPOSE 6

2 LIST OF COMMONLY USED ABBREVIATIONS 7

3 BACKGROUND AND EPIDEMIOLOGY 8

3.1 Further Reading and Surveillance Data 8
3.2 Zoonotic Transmission Pathways 8
3.3 Key Zoonotic Influenza A subtypes 9
3.4 Emerging Animal Hosts 9
3.5 Receptor Binding and Human Susceptibility 9
3.6 Current Surveillance and Risk Assessment 10

4 DEFINITIONS 11

4.1 Animal Health Definitions 11
4.1.1 Confirmed Case (Animal) 11
4.1.2 Suspect/Probable Case (Wild Bird or Mammal) 11
4.1.3 Suspect Case (Domestic Pet including cat, dog, ferret) 12
4.1.4 Outbreak (Animal) 12
4.2 Human Contact Definitions 12
4.2.1 Animal Source Contact 12
4.2.2 Human Source Contact 13
4.2.3 Environmental Exposure 13
4.2.4 Laboratory Exposure 13
4.3 Human Case Definitions 13
4.3.1 Human Case Definition 13
4.3.2 Human Outbreak Definition 14
4.4 Personal Protective Equipment (PPE) for Animal Incidents 14
4.4.1 Minimum PPE Requirements for Animal Incidents 15
4.4.2 Recommended PPE Components 16
4.4.3 Veterinary Laboratory Staff 16
4.4.4 Management and Biosecurity for Animal Incidents 17
4.4.5 Training and Oversight 17

5 ROLES AND RESPONSIBITLTIES 18

5.1 Department of Agriculture, Food and the Marine (DAFM) 18
5.1.1 Data Collection 18
5.1.2 Data Transfer 19
5.2 Health Service Executive (HSE) – Public Health Teams 19
5.3 National Virus Reference Laboratory (NVRL) 20
5.4 Employers and Contracting Organisations 20
5.5 Laboratory Personnel 21
5.5.1 Animal Specimen Testing (DAFM) 21
5.5.2 Human Specimen Testing (NVRL) 21
5.6 Third-Party Contractors 22

6 ONE HEALTH APPROACH TO IZO MANAGEMENT 23

6.1 Purpose 23
6.2 Core Principles 23

6.3 Key Components 23
6.3.1 Joint Surveillance 23
6.3.2 Integrated Risk Assessment 24
6.3.3 Coordinated Response 24
6.3.4 Information Sharing 24
6.3.5 Communication 24

7 SURVEILLANCE AND REPORTING 25

7.1 Animal Surveillance 25
7.2 Human Surveillance 25
7.2.1 Role of HPSC 26
7.3 Laboratory Reporting 26
7.4 Notification Triggers 27
7.5 International Reporting 27
7.6 Environmental Surveillance: Wastewater Testing 27

8 PUBLIC HEALTH RISK ASSESSMENT (PHRA) AND CATEGORISATION 28

8.1 Principles of PHRA 28
8.2 Exposure Categories 28
8.2.1 Low Risk 28
8.2.2 Moderate Risk 29
8.2.3 High Risk 30
8.2.4 Animal Exposure in Special Populations 30

9 PUBLIC HEALTH MANAGEMENT OF HUMAN CONTACT(S) 32

9.1 Principles of Human Contact Management 32
9.2 Types of Follow-Up 32
9.2.1 Passive Monitoring 32
9.2.2 Active Monitoring 32
9.2.3 Post-Exposure Antiviral Prophylaxis (PEP) 33
9.2.4 Asymptomatic Swabbing 33
9.2.5 Symptomatic Contacts 34
9.2.6 Congregate Settings 35

10 CLINICAL MANAGEMENT OF HUMAN CASES 35

10.1 Purpose 35
10.2 Immediate Actions 35
10.3 Referral to HCID Pathways 36
10.4 Special Populations 36

11 PREVENTION AND CONTROL MEASURES 37

11.1 Infected Animal Premises (IP) 37
11.2 Public Settings 37
11.3 Occupational Settings 38
11.4 Laboratory Settings 40

12 SPECIAL CONSIDERATIONS 41

12.1 Paediatric Exposures 41
12.2 Maternity Exposures 42
12.3 Immunocompromised Individuals 42

12.4 Travel-Related Exposures 43
13 COMMUNICATION AND CO-ORDINATION 43
13.1 Routine Coordination 43
13.2 Escalation and Convening of an Incident Management Team (IMT) 44
13.2.1 Purpose 44
13.2.2 Criteria for Convening an IMT 44
13.2.3 Steps for Initiating an IMT 45
RESOURCES AND APPENDICES 47
13.3 Algorithms and Decision Tools 47
13.4 Templates and Letters 47
13.5 Surveillance and Sampling Tools 49
13.6 Reference Tables 52
13.6.1 Appendix A: PPE Requirements by Exposure Category 52
13.6.2 Appendix B: PPE Specifications for Laboratory Settings (DAFM) 53
13.6.3 Appendix C: PPE Specifications for Laboratory Settings (NVRL) - for handling samples not received in verified inactivation buffer 53
13.6.4 Appendix C: PPE Breach Definitions and Response Protocols 55
13.6.5 Appendix D: Contact Identification and Exposure Risks Categories 56
13.7 Occupational Exposure Categories 57
13.7.1 Appendix E: Occupational Exposure Categories – Poultry Outbreak Control 57
13.7.2 Appendix F: Occupational Exposure Categories – Wild Bird Incident Control 58
13.7.3 Appendix G: Occupational Exposure Categories – aligned by protection and training needed 58
13.8 Useful Contacts and Emails 60
13.9 Environmental Surveillance Resources 60
14 BIBLIOGRAPHY 61
15 EVIDENCE SOURCES 63

1 SCOPE and PURPOSE

This guidance document outlines the public health management of **human influenza of zoonotic origin (IZO)** in **non-healthcare settings**, with a focus on **occupational exposures**, **incidental contacts**, and **community-level response**. It is intended for use by public health professionals, veterinary practitioners, occupational health services, and other relevant stakeholders, including the **Department of Agriculture, Food and the Marine (DAFM)**.

The purpose of this guidance is to:

- Support **preparedness**, **risk assessment**, and **incident response** for zoonotic influenza events involving animals and potential human exposure.
- Provide protocols for the **identification, follow-up, and management** of human contacts and cases arising from exposure to infected birds, mammals, or contaminated environments.
- Promote a **One Health approach**, ensuring coordinated action between human and animal health sectors.
- Clarify roles and responsibilities across agencies and employers, particularly in settings such as poultry farms, zoos, live animal markets, and rendering plants.
- Guide the use of **personal protective equipment (PPE)**, **post-exposure prophylaxis**, and **surveillance strategies**, including asymptomatic swabbing and clinical referral pathways.
- Ensure consistency with international best practices following AGREE II review, including guidance from **UKHSA**, **ECDC**, **PHAC**, and **Australian and New Zealand health authorities (Section 15.0).**

This guidance does **not** cover the clinical management of confirmed human cases in hospital or healthcare settings, which is addressed in separate clinical protocols. **Where appropriate, the management of suspected or confirmed human cases may follow protocols established for High Consequence Infectious Diseases (HCID).** A brief overview of initial clinical response is included for context; detailed hospital-based management is outside the scope of this document.

2 LIST of COMMONLY USED ABBREVIATIONS

ABBREVIATION	MEANING
ARI	Acute Respiratory Infection
CDC	Centers for Disease Control and Prevention (USA)
CPHM	Consultant in Public Health Medicine
DAFM	Department of Agriculture, Food and the Marine
ECDC	European Centre for Disease Prevention and Control
FFP3	Filtering Facepiece Respirator (Class 3)
HCID	High Consequence Infectious Disease
HIZO	Human Influenza of Zoonotic Origin
HPAI	Highly Pathogenic Avian Influenza
HPSC	Health Protection Surveillance Centre
HRAI	High Risk Avian Influenza (e.g., H5, H7, H9, H10)
HSE	Health Service Executive
IAV	Influenza A Virus
IP	Infected Premises
IPC	Infection Prevention and Control
IZO	Influenza of Zoonotic Origin
MOH	Medical Officer of Health
NAS	National Ambulance Service
NVRL	National Virus Reference Laboratory
PEP	Post-Exposure Prophylaxis
PHAC	Public Health Agency of Canada
PPE	Personal Protective Equipment
RNA	Ribonucleic Acid
rt-PCR	Real-Time Polymerase Chain Reaction
SPHM	Specialist in Public Health Medicine
UKHSA	United Kingdom Health Security Agency
WHO	World Health Organization
WOAH	World Organisation for Animal Health

3 BACKGROUND and EPIDEMIOLOGY

Influenza A viruses (IAVs) are capable of infecting a wide range of animal species, with **wild waterfowl**—particularly ducks and shorebirds—serving as the primary natural reservoir. These birds often carry the virus asymptomatically, enabling persistent transmission within avian populations and spill over into other species, including humans. (1)

3.1 Further Reading and Surveillance Data

- For up-to-date epidemiological information on avian influenza and zoonotic influenza:
  HPSC (Ireland): **Respiratory Data Hub Integrated Reports - Health Protection Surveillance Centre**
- ECDC (EU): **Surveillance & Updates on Avian Influenza**
- WHO (World): **Global Health Observatory – Avian Influenza**
- DAFM (Ireland): **Avian Influenza Updates**
- WOAH (World): **Global Situation Reports**

3.2 Zoonotic Transmission Pathways

IAVs occasionally cross species barriers. **Pigs**, often referred to as "mixing vessels," can be co-infected with both avian and human influenza strains, facilitating **genetic reassortment** and the emergence of novel strains with pandemic potential. Direct transmission from birds to humans has been documented, notably with **H5N1**, which demonstrated the ability to bind to human respiratory epithelial receptors and cause severe disease. (2)

Transmission to humans typically occurs through:

- **Respiratory secretions**
- **Faecal contamination**
- **Environmental exposure**
- **Consumption of unpasteurised milk** (in ruminant-associated outbreaks)

3.3 Key Zoonotic Influenza A subtypes

- **H5N1**: First identified in birds in 1959; human cases emerged in 1997 in Hong Kong. Currently the dominant zoonotic influenza A subtype in humans globally.
- **H7N9**: More human cases than H5N1 between 2013–2019; no cases since April 2019.
- **H5N8**: Dominant in birds globally. (3)
- **H1N2**: Zoonotic influenza virus associated with pigs; requires separate consideration. (4)

Since late 2020, **H5N1 subclade 2.3.4.4b** has become the dominant zoonotic influenza virus, with wide variation in human disease severity. High-dose exposures (e.g., in enclosed poultry markets) are associated with more severe outcomes, while low-dose or indirect exposures tend to result in mild or asymptomatic infection. (5)

3.4 Emerging Animal Hosts

H5N1 has been detected in a growing range of mammalian species:

- **Cats, dogs, ferrets, raccoons**
- **Seals** (notably in North America and Europe)
- **Minks** (with mutations enhancing human cell binding)
- **Goats, sheep and cattle** (first reported in the US in 2024)

These spill over events raise concerns about viral adaptation and potential for sustained human-to-human transmission.

3.5 Receptor Binding and Human Susceptibility

Avian IAVs preferentially bind to **α2,3-linked sialic acid receptors**, abundant in avian tissues, and present in the human lower respiratory tract and conjunctiva. Human-adapted IAVs must switch their binding preference to glycans with **α2,6-linked receptors**, found in the human upper respiratory tract. For efficient human transmission, avian strains must acquire mutations that shift receptor binding preference. (6)

3.6 Current Surveillance and Risk Assessment

The dominant H5N1 clade remains primarily avian adapted, with human cases representing **spill over events**. Surveillance data from **ECDC**, **WOAH**, and **DAFM** inform national risk assessments and guide public health response. (7)

A coordinated **One Health approach** is essential to monitor and respond to IZO threats, integrating animal health surveillance, environmental monitoring, and human case management.

4 DEFINITIONS

This section provides key definitions used throughout the guidance to support consistent interpretation and application in the public health management of influenza of zoonotic origin (IZO).

4.1 Animal Health Definitions

4.1.1 Confirmed Case (Animal)

An animal (bird or mammal) that has tested positive for IZO e.g. influenza A virus subtype H5N1 and is characterised as **Highly Pathogenic Avian Influenza (HPAI)**. Confirmation is typically via PCR and cleavage site analysis. Sequencing may be required to determine clade (e.g., 2.3.4.4b).

4.1.2 Suspect/Probable Case[1] (Wild Bird or Mammal)

A suspect/probable case in a wild bird or mammal is any animal that meets **both** of the following criteria:

1. Has been found dead or exhibiting clinical signs consistent with IAV infection (e.g., neurological or respiratory signs), **AND**
2. Meets **at least one of the following criteria:**
    - Has had confirmed or highly probable contact with a suspect or confirmed case of IZO (e.g. H5N1) in birds **OR**
    - Has been near an area with mass mortality in wild birds (such that the animal may have had contact with dead or dying birds) **OR**
    - Has been near a premises where an influenza outbreak has occurred in poultry (such that the animal may have had possible exposure to the virus within the previous three weeks).

[1] All **suspect cases in these species must be promptly reported to the Department of Agriculture, Food and the Marine (DAFM)**. While **not all birds or mammals will be tested**, diagnostic testing for influenza virus **may be arranged following a risk assessment conducted by DAFM**.

4.1.3 Suspect Case[1] (Domestic Pet including cat, dog, ferret)

A domestic cat, dog, or ferret presenting to a **veterinary practitioner** and fulfilling **all three criteria below** should be considered a **suspect case**:

- The animal is **exhibiting clinical signs of respiratory disease or neurological disease**, **or has died suddenly after exhibiting such signs**, **AND**
- **Other common differential diagnoses** for this clinical presentation have been **ruled out**, **AND**
- The animal has had **probable contact with IZO (e.g. H5N1) infected birds within the previous three weeks**, e.g., **contact with dead or dying birds**.

4.1.4 Outbreak (Animal)

An **animal outbreak** is defined as:

- Laboratory-confirmed detection of IZO (e.g., H5N1) in one or more birds or mammals on a premises, **OR**
- A higher-than-normal rate of morbidity or mortality consistent with IZO in a flock or group of animals, **OR**
- Laboratory-confirmed detection of a zoonotic influenza strain of public health significance in wild or domestic animals.

4.2 Human Contact Definitions

A human contact is any individual who meets **one or more** of the following criteria within **10 days of symptom onset of the source case:**

4.2.1 Animal Source Contact

- Close contact (within 1 metre) with infected or suspect birds or mammals (alive or dead), OR
- Handling contaminated materials (faeces, litter, carcasses), OR
- Entry into an infected premises without appropriate PPE.

4.2.2 Human Source Contact

- Close contact (within 1 metre for **≥ 15 minutes**) with a confirmed or probable human case of IZO (e.g. H5N1) OR
- Shared household or enclosed space with a symptomatic individual linked to an outbreak.

4.2.3 Environmental Exposure

- Environmental exposure refers to being physically present in an environment contaminated by infected animals or their secretions (e.g. poultry houses, barns, milking parlours, cull sites, rendering areas) without complete, correctly worn recommended PPE, or performing tasks that aerosolise or disturb contaminated material (e.g. mucking out litter, pressure washing, dry sweeping, handling raw milk), regardless of animal proximity.

4.2.4 Laboratory Exposure

A person who has:

- Unprotected handling or exposure during procedures involving specimens or cultures known to contain avian influenza virus including:
  - Handling primary clinical specimens, virus isolates, or cultures without appropriate biosafety precautions, **OR**
  - Being present during aerosol-generating procedures without appropriate respiratory and eye protection.

4.3 Human Case Definitions

4.3.1 Human Case Definition

- **Possible Case:** No definition available
- **Probable case:**

- Any person meeting the clinical[2] and the epidemiological[3] criteria. **OR**
- Any person meeting the laboratory[4] and epidemiological criteria.

- **Confirmed case:** Any person meeting the clinical and laboratory criteria.

4.3.2 Human Outbreak Definition

A **human outbreak** is defined as:

- **Two or more epidemiologically linked human cases of avian influenza (IZO), at least one of which must meet the confirmed case definition**, **AND**
- Occurring within a **defined time period and geographic area**, **AND**
- **Associated with a common exposure source** (e.g., infected premises, animal contact, contaminated environment).

4.4 Personal Protective Equipment (PPE) for Animal Incidents

PPE is essential to reduce the risk of infection during exposure to avian or animal sources of influenza virus. It is **strongly recommended** for individuals involved in outbreak control activities, including culling, clean-up, surveillance, laboratory testing, and environmental sampling. Further guidance for healthcare settings can be found in national infection prevention and control protocols **here**.

[2] **Clinical criteria:** at least one of the following: ARI, ILI, SARI, Conjunctivitis, Neurological presentation (e.g. encephalitis), Atypical presentations.
[3] **Epidemiological criteria:** in the 10 days prior to symptom onset, at least one of the following: close contact with a probable or confirmed human case of zoonotic influenza; close contact with an influenza-infected animal; having been in an environment (e.g. home farm, market, work) with suspected influenza-infected animals; laboratory exposure to zoonotic influenza virus.
[4] **Laboratory criteria:** at least one of the following; isolation of zoonotic influenza virus from clinical specimen; detection of zoonotic influenza virus nucleic acid in a clinical specimen; specific antibody response (four-fold or greater rise or single high titre).

4.4.1 Minimum PPE Requirements for Animal Incidents

In Ireland, **FFP3 respirators** are the standard for respiratory protection when managing IZO animal incidents or when in contact with a confirmed or suspected case.

To be considered **adequate**, PPE must meet **all** of the following criteria:

- The individual has been **trained** in correct donning and doffing procedures.
- The individual has been **fit-tested**[5] for the FFP3 respirator used, and fit-checked[6] on each use.
- PPE was **worn consistently and correctly** throughout the exposure period, with **no breaches**.

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[5] **Fit Testing (Face-Fit Testing)**

Fit testing is a formal, structured process used to confirm that a **specific make, model, and size of a tight-fitting respirator (e.g. FFP2/3)** can achieve an **adequate seal** on an individual wearer's face. It is a **one-off (and periodically repeated)** assessment carried out **before first use** of a respirator type and **whenever changes occur** that could affect fit.

Under **Irish health and safety legislation**, the **Health and Safety Authority (HSA)** requires that **tight-fitting respiratory protective equipment (RPE)** is **fit tested** to ensure it can provide the expected level of protection to the wearer.

Fit testing recognises that:

- Facial size and shape vary between individuals
- A single respirator model will not fit all users
- An inadequate seal renders the respirator **ineffective**, regardless of its filtration rating

Types of Fit Testing

Two fit-testing methods are recognised internationally and by the HSA:

- **Qualitative Fit Testing (QLFT)**
  - Pass/fail test based on the wearer detecting a test agent (e.g. bitter or sweet aerosol)
  - Suitable for **FFP2 and FFP3 filtering facepiece respirators**
  - Relies on the wearer's sensory response
  - Commonly used for disposable respirators
- **Quantitative Fit Testing (QNFT)**
  - Uses an instrument (e.g. particle counting) to provide a **numerical fit factor**
  - Objective and independent of the wearer's senses
  - Can be used for **all tight-fitting respirators**, including FFP3 and full-face masks
  - Particularly appropriate where **high levels of protection are required** or where qualitative testing is unsuitable.

Note: This guidance does **not mandate** one fit-testing method over another. Selection of qualitative or quantitative fit testing should be determined by the **employer's risk assessment**, the type of respirator used, and operational context, consistent with HSA and international best practice

[6] **Fit Checking (User Seal Check)**

A **fit check**, also referred to as a **user seal check**, is a **brief, routine self-check** performed by the wearer **each time a respirator is donned** to ensure that a proper seal is achieved for that individual use.

Fit checking:

- Is **not a substitute** for formal fit testing
- Does **not confirm long-term suitability** of a respirator
- Is an **essential day-to-day safety practice** to identify gross leaks or incorrect donning

Both **HSA** and international guidance emphasise that **fit testing and fit checking are complementary but distinct processes**.

4.4.2 Recommended PPE Components

ITEM	DETAILS
Respirator	FFP3 respirator (fit-tested); powered air-purifying respirator (PAPR) may be used for individuals with facial hair or prolonged exposure.
Eye Protection	Close-fitting goggles or face shields (anti-mist, no vents).
Gloves	Disposable nitrile gloves; heavy-duty rubber gloves for high-risk tasks. To reduce contamination risk during use; training and practice required to ensure contamination risk is minimised during doffing
Body Protection	Disposable fluid-resistant coveralls with integrated hood; waterproof apron if needed.
Footwear	Wellington boots or disposable boot covers; boots must be easily cleaned and disinfected.
Head Cover	Disposable mob cap or integrated hood; long hair should be tied back.
Hand Hygiene practice	Mandatory before and after PPE use; use soap and water or alcohol-based hand rub.

4.4.3 Veterinary Laboratory Staff

Laboratory personnel handling animal specimens (e.g., faeces, tissue, swabs) must:

- Use PPE appropriate to the biosafety level of the procedure.
- Follow containment protocols (e.g., BSL-3 for viral culture).
- Be trained in safe handling of zoonotic pathogens.
- Use FFP3 respirators and eye protection when handling potentially infectious material.

  Full details are available in the following document: **Managing Exposure to Biological Agents in Laboratories**. (8)

4.4.4 Management and Biosecurity for Animal Incidents

- **Disposable PPE** must be discarded in sealed plastic bags.
- **Reusable PPE** must be cleaned and disinfected immediately after use.
- **Boot washing stations** (brushes, disinfectant, hot water) should be available at entry/exit points.
- **Third-party contractors** involved in outbreak control must **develop and maintain SOPs for PPE use and biosecurity compliance**.
    - SOPs are **not subject to formal review or approval by any authority in Ireland**; however, organisations are responsible for ensuring their SOPs meet best practice/international standards.
    - SOPs should be retained internally and made available to relevant authorities upon request for audit or inspection.
    - Responsibility for adequacy and compliance rests entirely with the organisation implementing the SOPs.

4.4.5 Training and Oversight

Effective PPE use depends on proper training and oversight. The following principles apply:

- **Training Availability:** PPE training should be accessible to all personnel who may enter biocontainment zones or handle potentially infected animals. Employers and contracting organisation are responsible for ensuring training is provided and maintained.
- **On-Site Support:** Contractors entering biocontainment zones must be assisted with correct PPE donning and doffing procedures to prevent breaches.
- **Community Guidance:** Individuals such as farm families, wildlife rehabilitators, and small flock owners should have **access to clear PPE guidance**, ideally through **national online resources, printed materials, or helplines**, rather than direct in-person training for all, which is not feasible at scale.
- **Facility Responsibility:** Facilities must ensure staff are aware of **national PPE standards and practices** and maintain internal oversight to verify compliance.

5 ROLES and RESPONSIBITLTIES

Effective management of IZO requires coordinated action across multiple sectors. This section outlines the key responsibilities of stakeholders involved in outbreak detection, response, and public health management.

5.1 Department of Agriculture, Food and the Marine (DAFM)

- Lead agency for **animal health surveillance**, outbreak investigation, and control measures in kept birds and mammals.
- Responsible for:
    - Declaring **infected premises (IP)**.
    - Coordinating **culling, disposal, and decontamination** activities.
    - Notifying **suspect and confirmed animal cases** to public health authorities.
    - Providing **risk assessments** for animal exposures.
    - Providing **timely exposure information to support** employer-led workplace risk assessments—both for DAFM staff and for external workers—and supporting engagement with medical services where indicated, in line with public health guidance.
    - Facilitating **testing of animal specimens** through designated laboratories.

DAFM staff are responsible for gathering essential information to enable public health actions when an animal (bird or mammal) is clinically suspected or confirmed as infected with influenza of zoonotic origin.

5.1.1 Data Collection

When human contacts meet the definition outlined in **Section 4.2**, local DAFM staff should:

- Identify all relevant human contacts for follow-up.

- **Explicitly notify contacts that their details will be shared for public health** purposes and explain the reasons for data transfer.
- Use a **standardised template to obtain core data for contact tracing,** including:
    - Name (or parent/guardian details for minors)
    - Age or date of birth
    - Address
    - Telephone number
    - Date and nature of animal contact

5.1.2 Data Transfer

The completed contact list should be securely transmitted to:

- The duty Consultant/MOH in the relevant Regional Department of Public Health.
- The National Health Protection Office (including the Health Protection Surveillance Centre) for incident notification only, no personally identifiable information is transferred to NHPO/HPSC.
- **Ensure GDPR compliance with all transfer of personally identifiable information (PII), as advised by HSE.**

Data sharing is authorised under public health legislation and facilitated through an **MOH Direction to DAFM**.

5.2 Health Service Executive (HSE) – Public Health Teams

- Lead agency for **human health surveillance**, contact tracing, and clinical management of exposed individuals.
- Responsible for:
    - Conducting **public health risk assessments** for human contacts.
    - Coordinating **passive and active follow-up**.
    - Advising on **post-exposure prophylaxis (PEP)** and **asymptomatic swabbing**.

- Managing **symptomatic contacts** and suspected human cases.
- Liaising with **NVRL** for laboratory testing.
- Providing **public messaging and risk communication**.

5.3 National Virus Reference Laboratory (NVRL)

- Responsible for:
  - Testing of **human specimens** for IZO (e.g. H5N1) **and notification of results promptly** to public health teams and HPSC.
  - Supporting testing of contacts, including guidance on swabbing protocols and sample prioritisation.
  - Advising on **sample collection, transport, and biosafety requirements** to ensure safe handling and compliance with international standards.
  - Coordinating with DAFM and HSE on **testing priorities** during outbreaks to optimise resource use and response speed.

5.4 Employers and Contracting Organisations

- Employers and contracting organisations **involved in high-risk activities (e.g., outbreak control, handling infected or suspect animals)** are responsible for:
  - Ensuring staff have access to appropriate PPE and fit-testing **where required for high-risk tasks**.
  - Providing training in donning/doffing and biosecurity **for staff engaged in outbreak response or suspect case handling**.
  - Facilitating access to medical services **where available and appropriate to the level of risk**.
  - Supporting referral pathways for exposed or symptomatic staff.
  - Ensuring compliance with health and safety legislation.

Note: For routine poultry farming, guidance should focus on **risk awareness and access to PPE guidance**, not mandatory fit-testing or occupational health for all workers.

5.5 Laboratory Personnel

5.5.1 Animal Specimen Testing (DAFM)

Includes staff in veterinary, environmental, and public health laboratories handling animal specimens potentially infected with IZO.

Personnel are responsible for:

- Handling animal specimens using appropriate containment protocols, including **Biosafety Level 3 (BSL-3)** procedures for high-risk materials.
- Using **FFP3 respirators** (fluid resistant, fit-tested/fit-checked) for *all* work involving potentially infectious specimens, consistent with **DAFM Appendix B requirements**.
- Wearing mandated PPE:
    - Closefitting anti-mist goggles or visor
    - Disposable fluid resistant coveralls with hood
    - Nitrile or heavy-duty gloves (vinyl gloves not permitted)
    - Additional head protection where splash risk exists
- Ensuring all aerosol generating procedures are carried out in a **Class II Biosafety Cabinet (BSC)**.
- Undertaking a **risk assessment** following any PPE breach.
- Reporting positive or suspect results to DAFM. Where findings indicate a potential or confirmed human health risk (e.g., zoonotic pathogens), DAFM must also notify HSE Public Health without delay, in line with national notifiable disease requirements.

5.5.2 Human Specimen Testing (NVRL)

Includes personnel handling human clinical specimens potentially infected with IZO.

Personnel are responsible for:

- Handling clinical specimens using applicable containment measures, including escalation to **BSL3 procedures** for high-risk material or where inactivation cannot be guaranteed.
- Using appropriate respiratory protection:
    - **FFP3 respirators** remain the standard for high-risk clinical laboratory work.
    - **FFP2 respirators** may be considered **in non-propagation settings** where engineering controls (e.g., certified Class II BSC, validated inactivation buffers) and administrative controls are in place, consistent with **NVRL Appendix C**.
- Wearing PPE as specified:
    - Disposable visor/face shield
    - Double nitrile gloves (inner pair long cuffed)
    - Disposable fluid resistant gown, wraparound gown with overshoes, or full Tyvek type coveralls
- Ensuring **all aerosol generating procedures** are performed in a **BSC**.
- Undertaking a **risk assessment** following any PPE breach.
- Reporting positive or suspect results to the **HSE Public Health** and following national notification requirements.

5.6 Third-Party Contractors

- Includes waste transport, environmental clean-up, and biosecurity support services.
- Responsible for:
    - Ensuring that there are observed **standard operating procedures (SOPs)** around necessary PPE and containment.

- Ensuring staff are **trained and medically fit** for outbreak control activities.
- Complying with **DAFM and HSE protocols**.

6 ONE HEALTH APPROACH to IZO MANAGEMENT

6.1 Purpose

IZO presents a complex public health challenge requiring coordinated action across **human, animal, and environmental health sectors**. A One Health approach ensures early detection, rapid response, and effective control measures to minimise risk to both human and animal populations.

6.2 Core Principles

- **Integration:** Surveillance, risk assessment, and response activities must be jointly planned and executed by human health, veterinary, and environmental agencies.
- **Collaboration:** Shared responsibility between HSE Public Health (Regional and National), Department of Health (DoH), Department of Agriculture, Food and the Marine (DAFM), National Virus Reference Laboratory (NVRL), and environmental health partners.
- **Transparency:** Timely exchange of data and risk intelligence across sectors and with international bodies (ECDC, WHO, WOAH).

6.3 Key Components

6.3.1 Joint Surveillance

- **Animal Health:**
  - Routine and targeted surveillance in poultry, wild birds, and susceptible mammals led by DAFM.

- **Human Health:**
    - Identification and monitoring of contacts, symptomatic individuals, and suspected/confirmed cases by HSE Public Health (both at national and regional levels).
- **Environmental Health:**
    - Wastewater testing and environmental sampling to detect viral RNA and assess community-level transmission risk. Wastewater testing for IZO in Ireland is currently under development.

6.3.2 Integrated Risk Assessment

- Combine epidemiological data from animal outbreaks, human exposures, and environmental contamination.
- Use dynamic risk categorisation to guide control measures and resource allocation.

6.3.3 Coordinated Response

- Activation of **multi-agency Incident Management Teams (IMTs)** for complex or high-risk incidents, with clear criteria and multi-agency representation.
- Joint decision-making on containment measures, antiviral distribution, and communication strategies.

6.3.4 Information Sharing

- Real-time reporting between DAFM, HSE, NVRL, and international partners.
- Secure data platforms for laboratory results and surveillance metrics.

6.3.5 Communication

- Unified messaging for healthcare providers, veterinary practitioners, industry and the public.
- Clear guidance on biosecurity, PPE, and exposure risk reduction.

7 SURVEILLANCE and REPORTING

Surveillance and timely reporting are essential components of the public health response to influenza of zoonotic origin (IZO). This section outlines the responsibilities, mechanisms, and triggers for surveillance and reporting in both animal and human health domains.

7.1 Animal Surveillance

Lead Agency: Department of Agriculture, Food and the Marine (DAFM)

DAFM is responsible for:

- Conducting **routine and targeted surveillance** in poultry, wild birds, and susceptible mammals.
- Coordinating **sampling and testing** of suspect cases through designated veterinary laboratories.
- Monitoring for **mass mortality events** in wild birds or mammals.
- Reporting **confirmed and probable animal cases** to public health authorities.
- Maintaining a national database of **infected premises (IP)** and surveillance zones.
- Liaising with international bodies such as **WOAH** and **ECDC** for cross-border surveillance.

Triggers for enhanced surveillance include:

- Detection of IZO in domestic or wild animals.
- Unusual morbidity or mortality patterns.
- Identification of zoonotic strains with known human pathogenicity (e.g., H5N1, H7N9, H1N2).

7.2 Human Surveillance

Lead Agency: HSE Public Health Teams (both national and regional).

Public health surveillance includes:

- Identification and follow-up of **human contacts** of infected animals or contaminated environments.

- Monitoring of **symptomatic individuals** with relevant exposure history.
- Coordination of **asymptomatic swabbing** for moderate and high-risk contacts.
- Notification of **probable and confirmed human cases** to HPSC via national surveillance systems.
- Integration with **HCID protocols** where applicable.
- Communication with **healthcare facilities if a known case or surveillance contact deteriorates and requires medical attention**, to ensure preparedness and continuity of care.

Surveillance may be:

- **Passive**: Individuals monitor symptoms and report if they become unwell.
- **Active**: Daily contact by public health teams to assess symptom development.

7.2.1 Role of HPSC

- **National-level monitoring and reporting** of contacts and cases, including collation of data from regional public health teams.
- **Onward reporting to ECDC** and **WHO** in line with international obligations.
- **Maintenance of national surveillance databases** for avian influenza and other zoonotic infections.
- **Provision of technical guidance** on case definitions, reporting timelines, and integration with HCID protocols.

7.3 Laboratory Reporting

Laboratories (NVRL and DAFM-designated labs) are responsible for:

- Timely testing and confirmation of IZO in human and animal specimens.
- Immediate notification of **positive or urgent results** to referring the referring clinician/microbiologist and, where appropriate (e.g. positive results or scenarios covered under public health legislation), to relevant National and Regional Public Health teams (including the HPSC).
- Coordination with HSE and DAFM on **sample prioritisation** and biosafety.
- Ensuring **secure data transmission** and traceability of specimens.

7.4 Notification Triggers

Notification to public health and HPSC should occur when:

- A **confirmed or probable animal case** is identified, which will identify asymptomatic human contact(s).
- A **human contact(s)** develops symptoms consistent with IZO.
- A **human cluster of illness** occurs in a setting with known animal exposure with confirmed IZO.
- A **laboratory-confirmed human case** is detected.

7.5 International Reporting

- DAFM and HSE (including HPSC) will report relevant findings to:
  - **WOAH** (animal cases)
  - **ECDC** (human contact and case surveillance data)
  - **WHO** (human cases with pandemic potential)

7.6 Environmental Surveillance: Wastewater Testing

Wastewater surveillance may be used as a supplementary tool to detect viral RNA from zoonotic influenza viruses in human populations. This approach is particularly useful in settings where symptomatic testing is limited or where silent transmission is suspected. Surveillance of IZO in wastewater is under development in Ireland and is under consultation as part of the EU Wish programme. **Home | EU-WISH.**

In line with ECDC's coordinated **One Health investigation framework**, (9) wastewater testing can support:

- **Early warning** of community-level transmission
- **Monitoring of viral shedding trends**
- **Integration** with animal and human surveillance data

Collaboration with environmental health, local authorities, and academic partners is recommended to establish sampling protocols and interpretation frameworks.

8 PUBLIC HEALTH RISK ASSESSMENT (PHRA) and CATEGORISATION

PHRA is central to determining the appropriate public health response for individuals exposed to IZO. This section outlines the principles and categories used to assess exposure risk and guide follow-up, prophylaxis, and surveillance.

8.1 Principles of PHRA

- Risk assessment should be **dynamic**, taking into account:
    - The specific influenza A subtype and clade (e.g., H5N1 2.3.4.4b), including any known clinical severity and transmissibility characteristics.
    - The nature, duration, and intensity of exposure.
    - The use and adequacy of **personal protective equipment (PPE)**.
    - The setting of exposure (e.g., enclosed vs. open-air).
    - The individual's vulnerability (e.g., pregnancy, immunocompromised status).
- The **Consultant in Public Health Medicine (CPHM)** or designated public health lead is responsible for determining the level of follow-up required.

8.2 Exposure Categories

Exposure is categorised into **low**, **moderate**, or **high risk**, based on the likelihood of infection and the adequacy of PPE.

8.2.1 Low Risk

- Exposure occurred with **appropriate use of PPE** (fit-tested FFP3 (fit checked on each use), eye protection, gloves, gown).
- No known breach in PPE use.
- Examples:
    - Trained personnel involved in culling or surveillance in non-infected zones.

- Laboratory staff handling specimens under BSL-3 conditions with full PPE.

Public Health Actions/Management:

- **No isolation required.**
- **Passive monitoring** only for 10 days post-exposure.[7]
- Continue normal activities.
- No prophylaxis or swabbing required unless symptoms develop.
- Provide clear information on symptoms (e.g. fever, cough, sore throat, conjunctivitis) and emphasise the need for prompt self-reporting and immediate action if symptoms develop.

8.2.2 Moderate Risk

- Exposure occurred **without PPE** or with **inadequate use of PPE** in low-density or open-air settings.
- Examples:
  - Handling a single dead wild bird in a park/other outdoor setting without gloves.
  - Farm worker exposed to faeces or litter from suspect animals without respiratory protection.

Public Health Actions/Management:

- **No full isolation**, but **limit close contact with vulnerable individuals** (pregnant, immunocompromised).
- **Passive monitoring** for 10 days.[7]
- **Consider antiviral post-exposure prophylaxis (PEP) as early as possible, if within 7 days of exposure,** for moderate-risk contacts.
- Consider asymptomatic swabbing (days 2, 5, and 8), with prompt testing of swabs (if collected) post-exposure for moderate contacts if operationally feasible and resources will allow.

[7] **Active monitoring** should be considered where resources permit for individuals with cognitive impairment or for individuals living in congregate settings, as there is a risk that passive surveillance in a high risk setting with residents either reluctant to or not understanding request to report any emergent symptoms risks disease amplification and overspill into wider community.

- Provide clear information on symptoms (e.g. fever, cough, sore throat, conjunctivitis) and emphasise the need for prompt self-reporting and immediate action if symptoms develop.

8.2.3 High Risk

- Exposure occurred **without PPE** or with a **breach in PPE** in high-density or enclosed settings.
- Examples:
    - Handling sick or dead animals in a barn or poultry house.
    - Direct contact with infected birds or mammals in confined spaces.
    - Unprotected exposure to aerosolised virus or contaminated fluids.

Management:

- **Advise limiting social interactions**, especially with vulnerable individuals.
- **Avoid attending work in healthcare or high-risk settings** for 10 days post exposure**.**
- **Passive monitoring** for 10 days.[7]
- **Offer antiviral PEP as early as possible, if within 7 days of exposure**, for high-risk contacts.
- Recommend asymptomatic swabbing (days 2, 5, and 8), with prompt testing of swabs (if collected) post-exposure for high-risk contacts if operationally feasible and resources will allow.
- Advise avoidance of contact with vulnerable individuals (e.g., pregnant persons, immunocompromised).
- Provide clear information on symptoms (e.g. fever, cough, sore throat, conjunctivitis) and emphasise the need for prompt self-reporting and immediate action if symptoms develop.

8.2.4 Animal Exposure in Special Populations

8.2.4.1 Pregnant Individuals

- Considered higher risk due to increased susceptibility to severe influenza.

- Should be prioritised for **active follow-up**, **antiviral PEP**, and **early clinical assessment** if symptoms develop.
- Antiviral PEP should be initiated through consultation with maternity services.
- Exposure risk should be assessed based on proximity, duration, and setting.

8.2.4.2 Children

- Risk assessment should focus on the **setting and duration of exposure**, rather than PPE use, as children are unlikely to be wearing PPE.
- Consider:
    - Whether exposure occurred in a **confined space** (e.g., barn, poultry house).
    - Whether the child had **direct contact** with infected animals/caregiver (i.e. parent or guardian) or contaminated materials.
    - Duration and intensity of exposure.
- **Swabbing is generally feasible in children**, including self-administered or assisted swabbing, provided age-appropriate instructions and support are given.
- Decisions should still consider **child comfort, cooperation, and clinical judgment**, and may involve assistance from a parent or healthcare professional where needed.
- There is **no routine contraindication** for swabbing in children; case-by-case consideration applies only in exceptional circumstances (e.g., severe distress or medical complexity).
- Antiviral PEP should be initiated through consultation with paediatric services.

8.2.4.3 Immunocompromised Individuals

- May be at increased risk of severe disease.
- Should be considered for **enhanced monitoring**, **early antiviral treatment**, and **avoidance of further exposure**.

9 PUBLIC HEALTH MANAGEMENT of HUMAN CONTACT(s)

9.1 Principles of Human Contact Management

- Human contacts are managed based on:
  - **Exposure risk category** (low, moderate, high)
  - **Use and adequacy of PPE**
  - **Virus-specific risk** (e.g., clade 2.3.4.4b)
  - **Individual vulnerability** (e.g., pregnancy, immunocompromised)
  - **Setting of exposure** (e.g., enclosed vs. open-air)
- The **Consultant in Public Health Medicine (CPHM)** or designated public health lead determines the appropriate follow-up pathway.

*Refer to **Appendix D** for a quick-reference table on contact definitions and exposure risk categories.*

9.2 Types of Follow-Up

9.2.1 Passive Monitoring

- Most contacts will undergo passive follow-up.
- Individuals are provided with:
  - Information on symptoms of zoonotic influenza.
  - Instructions to self-monitor for 10 days post-exposure.
  - A **contact letter** indicating monitoring status and guidance for seeking medical care if symptoms develop.

9.2.2 Active Monitoring

Active monitoring involves daily contact (via phone, text, or email) by public health teams for 10 days following the last exposure. It is reserved for:

- **High-risk exposures**, particularly in enclosed or high-density settings.

- **Vulnerable individuals**, including those who are pregnant or immunocompromised.
- **Individuals with cognitive impairment,** where passive monitoring may be unreliable.
- **Residents of congregate settings**, such as shared accommodation for poultry workers or institutional care settings.

9.2.3 Post-Exposure Antiviral Prophylaxis (PEP)

- **Oseltamivir** 75 mg once daily for 10 days is recommended for moderate and high-risk adult contacts.
- Should be initiated **as soon as feasible and only where the last exposure occurred within the previous 7 days**.
- Paediatric dosing is weight-based; refer to **summary of product characteristics** (SPC). (10)
- Considerations:
    - Pregnancy: use if benefit outweighs risk.
    - Renal impairment: dose adjustment required.
    - Children <1 year: consider antiviral PEP with specialist paediatric advice, based on national guidelines and clinical judgement.

9.2.4 Asymptomatic Swabbing

Asymptomatic swabbing is recommended for **moderate and high-risk contacts**, particularly those exposed in enclosed settings or with known breaches in PPE.

9.2.4.1 Swabbing Schedule

- **Day 2**, **Day 5**, and **Day 8**, with prompt testing of swabs (if collected) post-exposure if operationally feasible and resources will allow.
- Self-administered nose and throat swabs coordinated by Regional Public Health Teams.
- Samples are sent to **NVRL** for testing.

9.2.4.2 Children

- Swabbing is generally feasible with age-appropriate support; case-by-case consideration for very young or distressed children.
- Decisions should be made **case-by-case**, considering:
    - Exposure setting (e.g., enclosed barn vs. open field).
    - Duration and intensity of contact.
    - Clinical vulnerability or underlying conditions.
    - Input from paediatric services.
- Where swabbing is not possible, **enhanced symptom monitoring** should be implemented, and any symptom (fever, cough, sore throat, conjunctivitis or respiratory distress) must be promptly reported to local public health team and relevant paediatric services for further assessment and action.

9.2.5 Symptomatic Contacts

- Any contact developing symptoms must:
    - **Immediately self-isolate**, and avoid close contact with others, especially vulnerable individuals.
    - Contact Regional Public Health Team during office hours for guidance and risk assessment.
    - Contact closest **Emergency Department** out of hours/after working hours of regional Public Health Team for urgent evaluation.
        - **Where possible, telephone the ED or relevant healthcare setting in advance** to self-report their exposure status.
        - **On arrival, immediately notify staff that they are known contact** to ensure appropriate IPC measures are implemented promptly.
    - Instruct the contact to wear appropriate face mask before and during clinical assessment to reduce transmission risk.
    - Present with **contact letter** and Eircode for triage and IPC precautions.
    - Be swabbed by clinician, undergo clinical assessment, and start appropriate treatment based on clinical findings and national protocols.

9.2.6 Congregate Settings

- Contacts identified in shared accommodation (e.g., poultry worker billets, dormitories, or other group housing) may require:
    - **Enhanced surveillance**, including active monitoring for symptom development, if operationally feasible and resources will allow.
    - **Group-level risk assessment** to determine the likelihood of transmission within the setting.
    - **Consideration of antiviral prophylaxis and asymptomatic swabbing for co-residents**, based on exposure risks and national protocols.
    - **Clear communication of IPC,** including mask use, hand hygiene, and limiting close contact with vulnerable individuals.
    - **Rapid escalation to Public Health Team(s),** if multiple contacts become symptomatic, to assess for potential outbreak status.

10 CLINICAL MANAGEMENT of HUMAN CASES

10.1 Purpose

This section provides summary information for public health awareness only. Full clinical management must follow HCID protocols and hospital infectious disease guidance and this can be found here.

It provides a high-level overview of the initial clinical response to suspected or confirmed human cases of IZO. It is not intended to replace detailed clinical protocols or hospital-based management guidance.

10.2 Immediate Actions

- **Isolate the patient** in a single occupancy room, ideally a negative pressure ventilation room.
- **Initiate PPE protocols** for healthcare workers (FFP3 respirator, gown, gloves, eye protection).

- **Notify Regional and National Public Health Team** and **National Virus Reference Laboratory (NVRL)**.
- **Start antiviral treatment** (e.g., oseltamivir) if the case definition is met.

10.3 Referral to HCID Pathways

Suspected or confirmed cases of IZO should be managed in accordance with **High Consequence Infectious Disease (HCID)** pathways, including:

- **National HCID protocols** for isolation, diagnostics, and escalation.
- **Hospital-based infectious disease teams** for clinical decision-making.
- **HSE Public Health: National Health Protection Office and AMRIC guidance** for infection prevention and control.

For full clinical management, refer to:

- HSE **HCID Clinical Pathways**
- UKHSA **HCID Guidance**
- ECDC **HCID Resources**

10.4 Special Populations

- **Pregnant individuals** and **children** may require tailored clinical pathways. Refer to paediatric infectious disease and maternity services for input.
- **Immunocompromised patients** should be managed in consultation with specialist teams.

11 PREVENTION and CONTROL MEASURES

Preventing human infection with IZO requires a coordinated approach across animal health, public health (both national and regional), occupational safety, and laboratory biosafety. This section outlines key measures for infected premises, public settings, occupational environments, and laboratory settings.

11.1 Infected Animal Premises (IP)

Where IAV or other zoonotic influenza viruses are confirmed or suspected:

- **Access Control**:
  - Only essential personnel should enter the premises.
  - Limit the number of individuals exposed to infected animals or contaminated environments.
- **PPE and Training**:
  - All personnel must be trained in PPE donning, doffing, and disposal.
  - Only individuals medically fit to wear PPE and take antivirals should be involved in control activities.
- **Information Provision**:
  - All involved should receive information on symptoms of IZO and instructions on what to do if symptoms develop.
- **Environmental Decontamination**:
  - Follow DAFM protocols for cleaning and disinfection.
  - Ensure proper disposal of carcasses, litter, and contaminated materials.

11.2 Public Settings

- **General Public Advice**:
  - Do not touch sick or dead wild birds or mammals.
  - Report dead wild birds or mammals to DAFM via the **avian check portal** or DAFM website.
- **Safe Handling Practices**:
  - Current evidence indicates that **IZO is not transmitted to humans through properly cooked food.** (11)

- However, **avoid consuming raw or undercooked animal products (e.g., meat, eggs, unpasteurised milk) and do not consume food originating from premises with confirmed outbreaks unless processed and certified safe by competent authorities**. Follow standard food safety guidelines; no confirmed human cases have occurred via consumption, but caution is advised.

- **Environmental Risk**:
  - Avoid areas with visible contamination (e.g., bird faeces, carcasses).
  - Do not allow children to play in areas where dead birds or animals have been found.

11.3 Occupational Settings

Includes poultry farms, zoos, slaughter plants, rendering plants, wildlife rehabilitation centres, and transport services.

- **Biosecurity Protocols**:
  - Employers must implement **site-specific biosecurity measures** appropriate to their operations.
  - Include **boot washing stations, PPE disposal areas, and restricted zones** to prevent cross-contamination.

- **Health Advice and Support for Exposed Workers**
  - Employers must ensure that workers who experience high-risk exposures, PPE breaches, or who have underlying vulnerabilities (e.g., pregnancy, immunocompromise, or other relevant medical conditions) have timely access to appropriate health advice. This may include signposting staff to internal or external clinical support pathways as appropriate to organisational structures. International guidance (WHO, UKHSA, ECDC, PHAC, and Australia/New Zealand) emphasises a risk-proportionate approach, whereby workers receive tailored advice based on exposure type, vulnerability, and operational context.
  - This guidance does not mandate routine Occupational Health referral for all exposed individuals; however, **employers should ensure that mechanisms exist for workers to obtain medical advice following**

significant exposure events or where additional assessment is required.

- **Occupational Considerations**:
  - Employers must **ensure access to medical services where available**, particularly in large facilities or outbreak response settings.
  - This is **not a blanket requirement for all small farms and facilities**, but facilities with significant workforce exposure should provide **pathways for antiviral prophylaxis and clinical referral** during outbreaks.
- **Contractor Compliance**:
  - **Third-party contractors must have SOPs** in place covering **PPE use, donning/doffing procedures, and containment measure**s before participating in outbreak control activities.
  - Staff must be trained in these SOPs and medically screened as appropriate for high-risk tasks.
- **Vaccination**:
  - Seasonal influenza vaccination is recommended for all personnel who could be involved in outbreak response and those in regular contact with pigs, poultry, or waterfowl, to reduce the risk of co-infection and diagnostic confusion.
- **Regulatory and Governance Caveat:**
  - **Where deficiencies in procedures, training, equipment, or compliance are identified—either through risk assessment, incident review, or audit—these should be referred through appropriate governance and regulatory channels.**
  - This may include engagement with:
    - The **Health and Safety Authority (HSA)**, in relation to workplace safety, respiratory protective equipment, training, or compliance with occupational health and safety legislation; and
    - The **Department of Agriculture, Food and the Marine (DAFM)**, where issues relate to animal health controls, biosecurity measures, or statutory responsibilities during animal disease incidents.

- Responsibility for addressing identified deficiencies rests with the **employer or contracting organisation**, in line with applicable legislation and regulatory oversight.

11.4 Laboratory Settings

Includes veterinary, environmental, and public health laboratories handling animal or human specimens potentially infected with IZO.

- **Containment and Biosafety**:
  - All procedures involving high-risk specimens (e.g., tissue, faeces, swabs) must be conducted under **BSL-3 conditions** where applicable.
  - Use of **Class II biosafety cabinets** is mandatory for aerosol-generating procedures.
- **PPE Requirements**:
  - FFP3 respirator (fit-tested)
  - Eye protection (goggles or face shield)
  - Disposable fluid-resistant gown or coveralls
  - Double nitrile gloves
  - Head cover if splash risk is present

PPE sits at the lowest level of the hierarchy of controls; engineering and administrative measures remain the primary safeguards. FFP3 respirators are preferred for high-risk procedures; however, FFP2 respirators may be considered in non-propagation settings where other controls are in place. In any laboratory scenario involving a PPE breach, a risk assessment should be undertaken.

- **Training and Oversight**:
  - Laboratory staff must be trained in zoonotic pathogen handling and emergency procedures.
  - Regular fit-testing and PPE competency checks should be conducted.
- **Waste and Specimen Management**:
  - All biological waste must be treated as infectious and disposed of according to national biosafety protocols.

- Specimen transport must follow **UN3373** or **UN2814** guidelines depending on classification.

- **Reporting and Notification:**
  - Laboratories must **notify relevant authorities (HSE Public Health including HPSC for human samples, DAFM for animal samples)** of any positive or suspect results promptly.
  - Ensure **timely data submission to national surveillance systems** and onward reporting to ECDC/WHO where required.
  - Maintain **traceability of specimens and results** for audit and outbreak investigation purposes.

12 SPECIAL CONSIDERATIONS

Certain populations and settings require tailored public health approaches due to increased vulnerability, complexity of exposure, or limitations in standard surveillance and control measures. This section outlines considerations for paediatric, maternity, immunocompromised, and travel-related exposures.

12.1 Paediatric Exposures

Children may be exposed to IZO through incidental contact with infected animals, contaminated environments, or infected individuals. Key considerations include:

- **Exposure Assessment**:
  - Focus on **setting and duration** of exposure rather than PPE use.
  - Consider proximity to infected animals, enclosed spaces, and environmental contamination.
- **Swabbing and Surveillance**:
  - Swabbing may not be feasible in younger children, particularly if it causes significant distress.
  - Decisions should be made **case-by-case** with input from paediatric services.
  - Where swabbing is not possible, **enhanced symptom monitoring** should be implemented, and any symptom (fever, cough, sore throat,

conjunctivitis or respiratory distress) must be promptly reported to local public health team and relevant paediatric services for further assessment and action.
    - Active follow-up may be appropriate in high-risk settings or where passive surveillance is unreliable.
- **Clinical Management**:
    - Paediatric dosing of antiviral PEP should follow weight-based protocols.
    - Early referral to CHI Paediatric Infectious Disease for input is advised for symptomatic cases.

12.2 Maternity Exposures

Pregnant individuals are at increased risk of complications from influenza infection.

- **Risk Assessment**:
    - Prioritise active follow-up and early clinical assessment.
    - Consider gestational age and comorbidities.
- **Prophylaxis and Treatment**:
    - Oseltamivir may be used if the benefit outweighs potential risks.
    - Antiviral PEP should be initiated through review at maternity services.
    - Initiate treatment promptly if symptoms develop.
- **Infection Prevention**:
    - Avoid exposure to infected animals, raw milk, or contaminated environments.
    - Use adequate PPE if exposure is unavoidable.
- **Vaccination**:
    - Seasonal influenza vaccination is recommended during pregnancy.

12.3 Immunocompromised Individuals

Individuals who are immunocompromised may be at increased risk of severe disease and prolonged viral shedding.

- **Surveillance**:
    - Consider active monitoring and early intervention.
    - Avoid reliance on passive reporting alone.

- **Clinical Management**:
    - Early antiviral PEP is recommended.
    - Referral to specialist care may be required.

12.4 Travel-Related Exposures

Individuals returning from regions with known outbreaks of IZO may present with exposure risk.

- **Assessment Criteria**:
    - Contact with live bird markets, farms, or wild animals.
    - Attendance at events or locations with known outbreaks.
- **Management**:
    - Screen for symptoms and exposure history.
    - Consider testing and antiviral PEP based on risk assessment.

13 COMMUNICATION and CO-ORDINATION

Effective communication and coordination are essential during incidents involving IZO, particularly when managing large numbers of contacts, complex settings, or high-risk environments. This section outlines protocols for internal coordination, external communication, and escalation procedures, including the convening of an **Incident Management Team (IMT)**.

13.1 Routine Coordination

- **Interagency Communication**:
    - Regular updates between HSE Public Health Teams, DAFM, NVRL, and other stakeholders.
    - Shared access to case definitions, surveillance data, and laboratory results.
- **Contact Management Systems**:
    - Use of secure platforms to track contacts, follow-up status, and swabbing outcomes.

- Ensure timely notification of symptomatic contacts and laboratory-confirmed cases.

- **Public Messaging**:
  - Clear, consistent communication to the public regarding risks, protective measures, and reporting pathways.
  - Coordination with HSE Communications and DAFM for joint statements if required.

13.2 Escalation and Convening of an Incident Management Team (IMT)

13.2.1 Purpose

An IMT should be convened to coordinate the response to complex or high-risk incidents, with clear criteria and multi-agency representation, particularly in settings where transmission risk is elevated and standard control measures may be insufficient.

13.2.2 Criteria for Convening an IMT

An IMT should be considered when one or more of the following apply:

- Multiple linked contacts of IZO are identified within a defined setting (e.g., poultry farm, shared accommodation, school, prison).
- High-risk setting characteristics:
  - High-density living or enclosed environments.
  - Frequent close contact among residents, staff, or attendees.
  - High turnover of individuals (e.g., admissions, transfers).
  - Vulnerable populations (e.g., immunocompromised, paediatric, maternity).
- Operational challenges limiting implementation of standard IPC measures.
- Barriers to isolation or cohorting (e.g., limited space, staffing).
- Disruption to essential services (e.g., food supply, education, security).
- Need for coordinated multi-agency response.

13.2.3 Steps for Initiating an IMT

1. **Initial Notification**

Contact the Regional Department of Public Health promptly upon identification of a suspected or confirmed outbreak meeting the above criteria.

2. **Information to Provide**
    - Number of contacts.
    - Exposure dates and epidemiological links.
    - Description of the setting and population affected.
    - Control measures already implemented.
    - Specific challenges encountered (e.g. isolation capacity, staffing, access to testing or treatment).

3. **IMT Composition**

The IMT should include representatives from:

- Public Health (Chair or Co-Chair)[8]
- Facility or site management
- Infection Prevention and Control (IPC)
- Clinical/healthcare services
- Communications (if required)
- DAFM (if animal exposure is ongoing or suspected)

4. **IMT Objectives**
    - Confirm the outbreak and assess its scope.
    - Review and advise on testing strategy and case definitions.
    - Recommend proportionate IPC measures.
    - Support continuity of essential services.
    - Coordinate communication with staff, residents, families, and the public.
    - Determine criteria for declaring the outbreak over.

[8] Depending on the nature and setting of the incident, the IMT Chair will vary. For incidents occurring in healthcare or hospital settings, Public Health will actively participate as a core IMT member; however, Hospital Management will Chair the IMT, supported by Clinical Microbiology and Infection Prevention and Control (IPC) teams. This ensures leadership remains within the operationally responsible organisation, while Public Health provides expert guidance on risk assessment, surveillance, testing strategy, and public health control measures. In non-healthcare or community settings, Public Health may Chair or Co-Chair the IMT depending on the scale and risk profile of the incident.

5. **Documentation and Follow-Up**
    - Ensure minutes and action points are recorded.
    - Assign responsibilities and timelines.
    - Monitor implementation of agreed actions.
    - A structured lessons-learnt process should be undertaken following the incident, including development of an After-Action Review (AAR) in line with WHO, ECDC, UKHSA and PHAC methodologies. The AAR should summarise the incident timeline, key decisions made, operational challenges, what worked well, and areas for improvement. A written report should be produced and shared with relevant agencies to support organisational learning and strengthen future preparedness and response capacity.

RESOURCES and APPENDICES

This section provides supporting materials, tools, and contact information to assist public health professionals, veterinary practitioners, and other stakeholders in the implementation of this guidance.

13.3 Algorithms and Decision Tools

- **Algorithm 1**: Public Health Response to a human exposure of confirmed/suspect case in animal
- **Algorithm 2**: Management of symptomatic contacts under public health surveillance.
- **Algorithm 3**: Management of possible human IZO cases not under surveillance.
- **Infographic 1**: Escalation criteria for convening an Animal Disease Incident Management Team (IMT).

13.4 Templates and Letters

- **Contact Letter**: For individuals under surveillance.

[***INSERT REGIONAL DEPARMTENT of PUBLIC HEALTH DETAILS]***

Dear [Recipient Name],

You have been identified as a **contact of a confirmed or probable case of Influenza of Zoonotic Origin (IZO)**. This letter provides important information about your health monitoring and what actions you should take.

Your Monitoring Status

☐ **Active Monitoring** – A Public Health team will contact you daily for 10 days after your last exposure.

☐ **Passive Monitoring** – You will monitor yourself for symptoms for 10 days after your last exposure (or for the duration of antiviral prophylaxis, if prescribed).

Symptoms to Watch For

Please monitor for:

- Fever (≥38°C)
- Cough, sore throat, or shortness of breath
- Conjunctivitis (eye redness)
- Unusual fatigue or severe illness

What To Do If Symptoms Develop

- **Immediately self-isolate.**
- **During office hours:** Contact your Regional Public Health Team at [Insert Contact Number].
- **Out of hours:** Contact your local Emergency Department or call the National Ambulance Service (NAS) at [Insert Phone/Email]
- Inform healthcare providers that you are an IZO contact and **bring this letter with you**.

Additional Instructions

- **Do not attend your GP practice or GP out-of-hours service without phoning first. If you become symptomatic, you must contact healthcare services in advance so appropriate infection prevention & control (IPC) precautions can be put in place**.
- Avoid close contact with vulnerable individuals (e.g., elderly, immunocompromised).
- Do not attend work or school if symptomatic.
- If you have been provided antiviral medication, complete the full course as directed.

Contact Information

- **Regional Public Health Team:** [Insert Phone/Email]
- **National Ambulance Service:** [Insert Phone/Email]
- **Further Guidance:** [Insert HPSC link]

If you have any questions, feel free to contact your regional Department of Public Health.

Yours sincerely,

[***NAME, TITLE, and CONTACT INFORMATION***]

13.5 Surveillance and Sampling Tools

- **Swabbing Kits**: Instructions for self-administered nose/throat swabs.

These kits are used for asymptomatic individuals identified as moderate or high-risk contacts. Swabbing is coordinated by Regional Public Health Teams and processed by NVRL.

Instructions should include:

- **Kit contents**:
    - 3 swabs (for days 2, 5, and 8 post-exposure)
    - Inactivation buffer tubes
    - Biohazard bag
    - Instruction leaflet

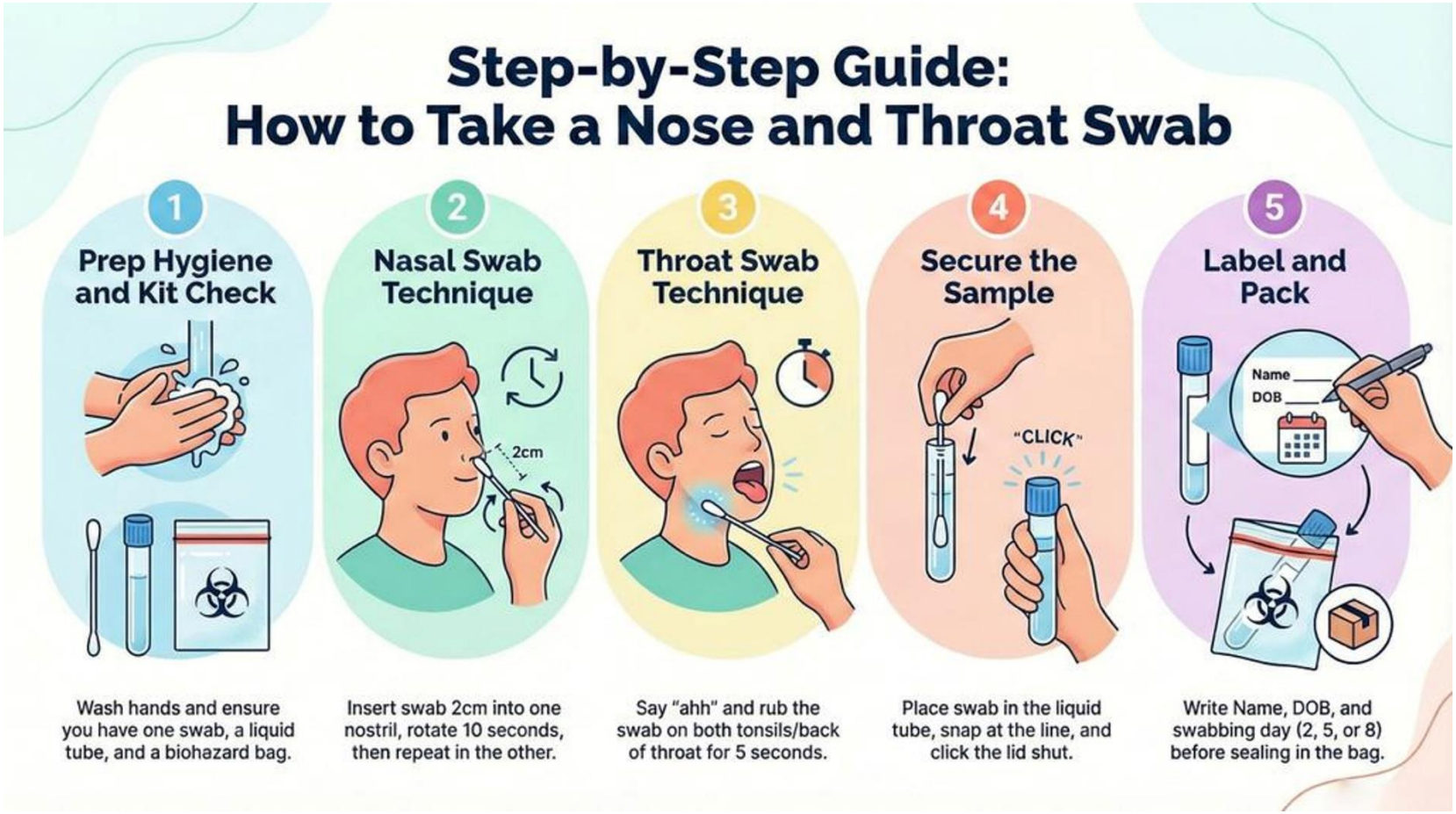
- **Step-by-step guide**:
    - Wash hands thoroughly before handling the kit.
    - Open swab and gently insert into one nostril, rotate for 10 seconds.
    - Repeat in the other nostril.
    - Use the same swab to swab the throat (tonsillar area), avoiding contact with tongue.
    - Place swab into buffer tube and seal.
    - Label with name, date, and swab number (e.g., Day 2).
    - Store in provided biohazard bag.

- **Collection**:

- Regional Department of Public Health will arrange collection all swabs after Day 8.
- Ensure all swabs are stored at room temperature unless otherwise instructed.

- **Contact**:
  - Include Regional Public Health contact details for support.

Note: Children are not routinely swabbed under this protocol. Special arrangements may be required for paediatric contacts.



Storage and Collection: Store at room temperature unless told otherwise. Public Health will arrange collection after Day 8.
Children: A parent or guardian may assist. If swabbing cannot be completed, Public Health will advise enhanced symptom monitoring.

- **Specimen Request Forms**: For submission to NVRL can be located **here**.
- **Daily Monitoring Log**: For active surveillance contacts.

13.6 Reference Tables

13.6.1 Appendix A: PPE Requirements by Exposure Category

EXPOSURE CATEGORY	SETTING	MINIMUM PPE REQUIRED	ADDITIONAL NOTES
Category 1	Prolonged exposure to infected live birds in confined space	Coveralls with integrated hood, FFP3 respirator, nitrile gloves, heavy-duty gloves, eye protection, Wellington boots	PAPR may be required for facial hair or high-risk exposure
Category 2	Brief exposure to infected birds or contaminated materials	Same as Category 1	Risk assessment required based on activity and location
Category 3	Surveillance in contact flocks	Same as Category 1	Precautionary principle applies in endemic settings
Category 4	Handling wild birds in restricted zones	Same as Category 1	Applies during large die-offs or confirmed outbreaks
Category 5	Handling wild birds outside restricted zones	Same as Category 1	Risk assessment required based on activity and location
Category 6	No direct exposure (e.g., admin, logistics)	None	Information and awareness only

13.6.2 Appendix B: PPE Specifications for Laboratory Settings (DAFM)

PPE ITEM	SPECIFICATION	USE CASE
Respirator Mask (FFP3)	Fluid-resistant, fit-tested	Required for all work involving potentially infectious specimens, not only aerosol-generating procedures
Eye Protection	Close-fitting goggles, anti-mist, no vents	Goggles must fit over respirator without vents and anti-mist must be fit over respirator; visor acceptable with risk assessment.
Gloves	Nitrile or heavy-duty rubber	Vinyl gloves not recommended due to leakage risk.
Coveralls	Disposable, fluid-resistant, with hood	Integrated feet optional; hair tied back if no hood.
PAPR	Positive pressure respirator with helmet	For personnel unable to wear FFP3 due to facial hair or medical reasons.

13.6.3 Appendix C: PPE Specifications for Laboratory Settings (NVRL) - for handling samples not received in verified inactivation buffer

PPE ITEM	SPECIFICATION	USE CASE
Respirator Mask (FFP2)*	Fluid-resistant, disposable, well-fitted	Required for all work involving potentially infectious specimens, not only aerosol-generating procedures.**
Eye Protection	Disposable face shield/visor	Visor should be disposable, cover entire facial area and must fit over respirator.
Gloves	Nitrile	Two pairs of nitrile gloves (double gloving) should be always worn. The inner pair should be long cuffed ensuring no skin is exposed.
Coveralls	Disposable, fluid-resistant, solid front, wrap around gown	Tyvek or similar microporous fabric. Hair should be tied back.

	and disposable overshoes or full body coveralls.	Shoes with heels or open toe/open heal shoes should not be worn.

Update:

** FFP3 respirators remain the standard for high-risk laboratory tasks; however, FFP2 respirators may be considered in non-propagation settings where engineering controls are in place. Where PPE breaches occur, a risk assessment should be undertaken.*

*** All aerosol generating procedures must be carried out in a BioSafety Cabinet (BSC).*

13.6.4 Appendix C: PPE Breach Definitions and Response Protocols

TYPE OF BREACH	DEFINITION	RECOMMENDED RESPONSE
Respirator Breach	Improper fit, removal during exposure, valve not shrouded	Immediate risk assessment; consider antiviral prophylaxis
Glove Breach	Torn, punctured, or removed during exposure	Hand hygiene; assess exposure risk
Eye Protection Breach	Goggles removed or not worn during splash risk	Monitor for symptoms; consider swabbing if high-risk
Coverall Breach	Torn or improperly doffed	Decontamination; reassess PPE training
PAPR Failure	Battery or filter malfunction	Remove from exposure; replace unit; reassess fit and training

13.6.5 Appendix D: Contact Identification and Exposure Risks Categories

CONTACT [9]TYPE	CRITERIA	EXPOSURE CATEGORY
Animal Source Contact	- Close contact (within 1 metre) with infected or suspect birds/mammals (alive or dead) - Handling contaminated materials (faeces, litter, carcasses) - **Entry into infected premises without PPE**	**High Risk**
	- Fully protected contact (appropriate PPE, no breach)	**Low Risk**
	- Protected contact with minor risk factors (e.g., brief exposure, partial PPE)	**Moderate Risk**
Environmental Exposure	- Direct exposure to contaminated environments (barns, poultry houses)	Risk depends on PPE use: Low (full PPE), Moderate (partial PPE), High (no PPE)
Human Source Contact	- Close contact (within 1 metre for ≥15 minutes) with confirmed/probable human case - Shared household or enclosed space with symptomatic individual	**High Risk** if unprotected; **Moderate Risk** if partial PPE

[9] **Definition of Close Contact:**
Within **1 metre** of the source, **without adequate PPE** or with a **breach in PPE**, within **10 days of exposure**.

13.7 Occupational Exposure Categories

13.7.1 Appendix E: Occupational Exposure Categories – Poultry Outbreak Control

Purpose:
To provide a quick reference for categorising individuals involved in outbreak control activities on infected poultry premises.

ROLE/ACTIVITY	LOCATION	EXPOSURE CATEGORY
Farm staff, manager, owner	Inside infected premises	1
DAFM Veterinary Inspector / TAO	On site	1
Sealing crew (1 vet, 2 AOs)	Inside house	1
Sealing crew	Outside house	2
Gas delivery driver	Periphery	2
Fire brigade staff	Inside house	1
Fire brigade staff	Outside house	2
Fire brigade supervisor	Periphery	2
Catching and slaughter crew (if not gassing)	Inside house	1
Collection team(s) for dead birds	Inside house	1
Driver of waste transport vehicle **	Vehicle cabin	2 or 6
Staff in intake area of rendering plant **	Intake zone	2 or 6
Staff dealing with litter, feed, water	Inside house	1
Staff erecting and operating site facilities (portacabins, canteen, toilets)	Periphery	6
Personnel removing bagged PPE	Periphery	6
Engineers/environmental technicians assessing burial/composting sites	Periphery	6
TAO/Garda security	Periphery	6
Staff working off-site: active surveillance in contiguous flocks	Off-site	3
Staff operating road checks	Off-site	6

Notes:

- Individuals may move to a higher risk category if exposure changes; appropriate PPE and prophylaxis must follow.

Category assignment for waste transport and rendering plant staff depends on exposure factors:

(a) Manual vs. automatic loading
(b) Cabin separation from loading compartment
(c) Direct contact with waste or contaminated vehicle interior

13.7.2 Appendix F: Occupational Exposure Categories – Wild Bird Incident Control

Purpose:
To categorise individuals assisting in control of incidents involving wild birds, based on HPAI H5N1 status and activity risk level.

ROLE/ACTIVITY	Category if HPAI H5N1 not detected in Ireland	Category if HPAI H5N1 detected in wild birds in Ireland
Wildlife rangers	5	4
DAFM Veterinary Inspector	5	4
DAFM TAOs	5/6	4
Other LA staff	5/6	4
Wild bird collection teams (large die-off suspected HPAI): DAFM staff, Army, Civil Defence, others	4	4
Drivers of waste transport vehicles **	5	2 (large die-off)
Staff in intake area of rendering plant **	5	2
Staff manning roadblocks (if present)	6	6

Notes:

- Categorisation depends on **risk assessment and exposure level**, not geographic zones.
- Waste transport and rendering plant staff category depends on **direct exposure factors**.
- **Restriction zones (Protection Zone 3 km, Surveillance Zone 10 km)** apply only to poultry/captive bird outbreaks and are lifted 30 days after preliminary cleansing and disinfection. They do **not apply to wild bird incidents**, so the previous “Restricted Zone” concept is removed for clarity.

13.7.3 Appendix G: Occupational Exposure Categories – aligned by protection and training needed

Purpose:
This appendix outlines exposure categories, recommended vaccination, PPE requirements, and training for individuals involved in outbreak control activities.

Exposure Category for Worker	Exposure	Vaccination	PPE	Training	Monitoring	Comments
1	Exposure to infected or highly suspect HPAI H5N1 live birds in confined space for prolonged period.	Flu vaccine (in season)	Coveralls with hood; Nitrile gloves; Heavy duty gloves; FFP3 respirator; PAPR; Eye protection; Wellington boots	Yes	Monitor PPE fit and use	Precautionary principle applies in endemic situations. Higher risk with more birds and longer exposure.
2	Exposure to infected or HSIA live birds briefly; exposure to dead birds; contaminated material.	Flu vaccine (in season)	As above	Yes	Monitor PPE fit and use	Risk varies by activity, duration, and setting. Risk assessment required.
3	Active surveillance in contiguous flocks & contact flocks.	Flu vaccine (in season)	As above	Yes	Monitor PPE fit and use	Precautionary principle applies in endemic situations.
4	Exposure to injured, sick or dead wild birds in restricted zone when HPAI H5N1 on Island of Ireland.	Flu vaccine (in season)	As above	Yes	Monitor PPE fit and use	Risk assessment as for category 2.
5	Exposure to isolated injured, sick or dead wild birds outside restricted zone or when HPAI H5N1 not on Island but risk elsewhere.	Flu vaccine (in season)	As above	Yes	Monitor PPE fit and use	Risk assessment as for category 2.
6	Assisting in outbreak control not exposed to known hazardous material.	None	None	Information only	None	Low risk.

Footnotes:

1. Offer vaccination with seasonal human influenza vaccine for personnel in categories 1–4.
2. Head covers may not be necessary if coveralls with integrated hood are worn.
3. Vinyl gloves are not advised as they tear easily.
4. Industrial weight gloves for high-risk tasks.
5. Respirator mask (FFP3): disposable vs powered air purifying respirator (PAPR).
6. Eye protection: anti-mist goggles without vents, compatible with respirators.
7. Monitor appropriateness, quality, fit, maintenance and use of PPE.
8. Endemic disease refers to permanent presence in a region or population.

13.8 Useful Contacts and Emails

- **Regional Public Health Teams**: Regional contact details.
- **HPSC On-Call**: **healthprotection@hpsc.ie**
- **DAFM Helpline**: For reporting animal cases or seeking advice.
- **NVRL**: For specimen coordination and emergency testing.

13.9 Environmental Surveillance Resources

- **Wastewater Testing Protocols**: Guidance on sampling, RNA detection, and interpretation. **National Wastewater Surveillance Programme - Health Protection Surveillance Centre**
- **ECDC One Health Investigation Toolkit**:

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15 EVIDENCE SOURCES

In the development of this guidance, the following evidence sources were referred to:

Name of Source and Document	Weblink of Source	Summary
UKHSA Avian influenza: managing human exposures to incidents in birds or animals	https://www.gov.uk/government/publications/avian-influenza-managing-human-exposures-to-incidents-in-birds-or-animals	Guidance for the public health management of avian influenza incidents, and sporadic human cases and their contacts. Uses **algorithm-based guidance** for case management and contact tracing. Clear **risk stratification** and **PPE protocols**. Includes **HCID country lists** and **travel-related exposure criteria.**
ECDC Guidelines for surveillance of avian influenza	https://www.ecdc.europa.eu/en/infectious-disease-topics/avian-influenza/strategies-and-guidelines/guidelines-surveillance-avian	**This document summarises** the key guidelines for surveillance of avian influenza in humans, highlighting how strengthened sentinel and molecular systems developed during the COVID-19 pandemic now support monitoring of influenza and other emerging respiratory viruses. It emphasises the importance of integrated SARI surveillance, timely virus characterisation, and sharing of sequence data through platforms such as GISAID, EU databases, and WHO collaborating centres to track virus evolution and support vaccine development. The guidance underscores the need for coordinated information exchange between animal health, public health, and occupational safety authorities in line with One Health principles. It also outlines mandatory reporting pathways for human avian influenza infections, including rapid notification through the EU Early Warning and Response System (EWRS), the International Health Regulations (IHR), ECDC's EpiPulse platform, and systematic data submission to The European Surveillance System (TESSy) following EU case definitions.
ECDC Facts about avian influenza in humans	https://www.ecdc.europa.eu/en/infectious-disease-topics/avian-influenza/disease-information/facts-about-avian-influenza-humans	This document summarises the key facts about avian influenza, outlining its origins, modes of transmission, impacts on bird populations, and associated human health risks. It provides an overview of major avian influenza virus subtypes affecting Europe, recent large-scale outbreaks in wild and farmed birds, and evidence regarding human exposure and infection in the EU/EEA. The document also highlights current surveillance efforts, the rarity of human illness, and the importance of early detection to prevent potential spread or emergence of new pandemic strains.

ECDC Coordinated One Health investigation and management of outbreaks in humans and animals caused by zoonotic avian influenza viruses	https://www.ecdc.europa.eu/en/publications-data/avian-influenza-coordinated-one-health-investigation-outbreaks	When investigating and controlling outbreaks caused by zoonotic avian influenza viruses (AIV), a One Health approach is key. However, knowledge-sharing on AIV-specific One Health strategies, tools and action plans remains limited across the EU/EEA. It is crucial to establish responsibilities, capacity requirements, and collaboration mechanisms during 'peace time' to enable timely and effective outbreak investigations and management. This report focuses on five scenarios for outbreak investigation and management of zoonotic AIV at the human animal-environment interface, emphasising key actions for the stakeholders involved. The document primarily highlights the collaborative framework necessary for interdisciplinary coordinated responses, referring to more detailed guidance and technical reports published elsewhere when applicable. Three scenarios are triggered by suspected outbreaks in animals, including kept animals of listed species, non-listed species, companion animals and wild birds/mammals. The other two scenarios are initiated by a probable human case or detection of the virus in wastewater or environmental samples (e.g. surface water or other sources). All scenarios require cross-sectoral coordination and a One Health approach. While the specific sequence of actions and communication needs may differ across scenarios, the overarching response mechanisms for outbreak investigations and management remain consistent. By presenting each scenario alongside the integrated actions of stakeholders, the report identifies critical development needs, such as tools (e.g. communication and data sharing platforms); key points for information exchange across sectors, triggers for joint risk assessments, and gaps in existing knowledge. The document should assist in developing guidance documents to facilitate coordinated One Health investigations and the management of outbreaks in humans and animals caused by zoonotic avian influenza viruses
Public Health Agency Canada Guidance on human health issues related to avian influenza in Canada (HHAI)	https://www.canada.ca/en/public-health/services/publications/diseases-conditions/guidance-human-health-issues-avian-influenza.html	**This document summarises** key guidance on managing human health risks associated with avian influenza, outlining potential exposure sources, definitions of affected sites and contacts, and criteria for identifying outbreaks in animals and humans. It explains that avian influenza is primarily a bird disease but can occasionally infect humans through close contact with infected animals, contaminated environments, or improper handling of raw animal products. The guidance describes the roles and responsibilities of public health, animal health, and occupational safety authorities across all levels of government, emphasising a One Health approach and the need for strong information-sharing systems to enable rapid response. It details surveillance processes, case definitions, public health

		measures, infection prevention requirements—including PPE use—risk assessment for exposed individuals, and recommendations for antiviral treatment and prophylaxis. The document also outlines considerations for seasonal and pandemic influenza vaccines and highlights the importance of early detection, coordinated outbreak management, and protection of individuals involved in animal outbreak response.
Health New Zealand Avian influenza	https://www.tewhatuora.govt.nz/for-health-professionals/clinical-guidance/communicable-disease-control-manual/avian-influenza#at-risk-and-priority-populations	This document summarises New Zealand's public health guidance for managing avian influenza, outlining the epidemiology, risks, and clinical features of both highly pathogenic (HPAI) and low pathogenicity (LPAI) avian influenza, which are notifiable diseases. It explains that human infection is rare and typically occurs after prolonged close contact with infected animals, with human-to-human transmission being extremely uncommon. The guidance describes at-risk populations, routes of transmission, prevention measures, laboratory testing expectations, notification and reporting pathways, and detailed procedures for case investigation, isolation, treatment, and wellbeing support. It also provides frameworks for assessing and managing contacts and people exposed to infected animals, along with antiviral prophylaxis recommendations. While no human outbreaks have occurred in Aotearoa New Zealand, the chapter sets out outbreak definitions, control measures, and cross-agency responsibilities, aiming to ensure a consistent, equitable, and culturally safe public health response.
Australian Centre for Disease Control National guidelines for avian influenza: protecting people who work with birds and wildlife	https://www.cdc.gov.au/system/files/2025-09/cdna-national-guidelines-for-avian-influenza-protecting-people-who-work-with-birds-and-wildlife.pdf	**This document summarises** Australia's national guidelines for protecting people who work with birds, wildlife, and other animals that may carry avian influenza. It outlines key information on avian influenza viruses, how they spread, the risk to humans, and symptoms of infection, while emphasising that most human cases result from close contact with infected animals or contaminated environments. The guidelines set out employer responsibilities under work health and safety legislation, recommend preparedness steps before an outbreak, and provide actions to take during an outbreak—including minimising exposure, reporting illness, and supporting seasonal influenza vaccination. Detailed infection-prevention measures are included, such as hygiene requirements, safe workplace setup, ventilation, and the correct selection, use, and disposal of PPE like P2/N95 masks, gloves, coveralls, and eye protection. The guidance also highlights the heightened risk for some groups, including Aboriginal and Torres Strait Islander peoples, and stresses the importance of timely communication with public health units, biosecurity authorities, and workers to reduce the risk of avian influenza in occupational settings.
HSE Public Health: National Health Protection Office, HSE AMRIC:	https://www.hpsc.ie/a-z/hcid/guidance/Final%20H	**This document summarises** the *Infection Prevention and Control (IPC) Guidance for the Management of Suspected or Confirmed High-Consequence Infectious Diseases (HCIDs)* in acute healthcare settings, as published by Ireland's Health Protection Surveillance

Antimicrobial Resistance and Infection Control Team	**CID%20IPC%20Guidance%20update%2024.10.%202025.pdf**	Centre (HPSC). The guidance outlines the purpose, scope, and key principles for safely identifying, assessing, and managing patients with suspected or confirmed HCIDs, including definitions of relevant pathogens, preparedness requirements, and essential IPC measures.