5. Public Health Management of Imported VHF

5.1 Irish Guidelines
Although VHF is not endemic in Western Europe, imported cases have occasionally arisen and countries need to be prepared to deal with this situation. Most countries have national guidelines on the management of imported cases. European guidelines have also been prepared.

The Irish guidelines on the public health management of VHF below draw on international guidelines and also on the issues reported in the case reports summarised in Appendix C.

Effective public health management of VHF is dependent on the immediate notification by clinicians of potential cases to the Director of Public Health /Medical Officer of Health (DPH/MOH), as soon as a High Risk case is suspected.

5.2 Notification of a Potential Case
Medical Practitioner Notification to the DPH/MOH
Prompt notification of suspected viral haemorrhagic fever to the local DPH/MOH is essential, as the DPH/MOH is statutorily responsible for the investigation and control of all suspected cases of VHF. Notification is a legal requirement.

“A medical practitioner, as soon as he or she becomes aware or suspects that a person on whom he or she is in professional attendance is suffering from or is the carrier of an infectious disease... shall forthwith transmit a written or electronic notification to a medical officer of health, and further in the case of ... viral haemorrhagic fevers (Lassa, Marburg, Ebola, Crimean-Congo),... give immediate preliminary notification thereof to a medical officer of health” (SI 707 of 2003)

The most likely site of presentation of a suspected case of VHF is in an acute hospital, either in the Emergency Department, or after admission. In this situation, the attending consultant should immediately notify the DPH/MOH, according to how the suspected case has been categorised, as per Algorithm (Appendix F).

Presentation at Points of Entry (ports and airports)
The MOH/DPH may be first notified of a potential case of VHF if a person becomes ill when on board a plane or ship. Under the Shipping Regulations (SI No. 4 of 2008) and Aircraft Regulations (SI No. 411 of 2009) the captain/pilot of the plane or ship is required to notify the DPH/MOH when he/she suspects that a person with an infectious disease is on board.

DsPH/MOH with points of entry in their geographic area should have protocols and procedures in place for the clinical and public health assessment of patients with potential infectious diseases of public health concern. These protocols should incorporate the need to consider if there is a risk of VHF, and the subsequent patient management, patient transport, infection control and contact management implications of this. An algorithm has been developed for the assessment of possible VHF cases presenting at airports (Appendix J), and may be further adapted as appropriate and used.

Threshold for Notification to the DPH/MOH
Medical practitioners should immediately notify all suspected cases that have been categorised as High Risk to the DPH/MOH, and should not wait until the diagnosis has been confirmed (Appendix F).

For patients who have been categorised as At Risk, i.e. febrile patients (fever >38°C or history of fever in the previous 24 hours) who have within 3 weeks before the onset of fever travelled in the specific local area of a country where VHF is endemic but who have no additional risk factors that would place them in the high-risk category, then notification to the DPH/MOH is not needed until confirmation, or if a VHF test is deemed necessary.
KEY ACTIONS FOR DPH/MOH ON NOTIFICATION
The key actions for the DPH/MOH to coordinate in the management of a case of VHF include:

- convening and chairing the Local Outbreak Control Team (OCT);
- leading the epidemiological investigation;
- identifying, categorising and monitoring contacts;
- communicating with health professionals, contacts and the media;
- participating in the National Public Health Outbreak Response Team (NPHORT) for a Public Health Emergency of International Concern (PHEIC), if convened;
- notifying HPSC, the National International Health Regulations (IHR) Focal Point, and European Early Warning and Response System (EWRS) national contact point, so that international notification occurs promptly if appropriate.

5.3 ACTIONS TO BE TAKEN BY THE DPH/MOH ONCE NOTIFIED OF A HIGH RISK POSSIBLE CASE
The time between notification of a High Risk case and laboratory confirmation (<24 hours) should be used:

1. to prepare for the key tasks of:
   a) setting up the outbreak control team which will coordinate the overall response to the incident;
   b) contact tracing.

2. to inform the Assistant National Director (AND) for Health Protection and the Director of HPSC, and in consultation with them, agreeing how the outbreak response will be organised, including the communications strategy.

The DPH/MOH should ensure that the hospital has been in contact with the National Isolation Unit at the Mater Misericordiae University Hospital to discuss transfer, and that appropriate laboratory investigations have been undertaken, in consultation with the National Virus Reference Laboratory.

1a) Prepare to set up a Local Outbreak Control Team
The MOH/DPH is responsible for establishing the local OCT to coordinate the overall response to the incident. This is set out in the ID Regulations as follows:

“On becoming aware, whether from a notification or intimation under these regulations or otherwise, of a case or a suspected case of infectious disease or a probable source of infection with such disease, a medical officer of health, or a health officer on the advice of a medical officer of health shall make such enquiries and take such steps as are necessary or desirable for investigating the nature and source of such infection, for preventing the spread of such infection, and for removing conditions favourable to such infection.”

Members should be contacted at this stage, and informed that a suspected High Risk case has been identified. The membership should include ID physician/admitting physician, occupational health, hospital infection team, microbiology, haematology, hospital management, communications representative, representative from HPSC, and the AND for Health Protection. At this stage the communications strategy for the media and the public should be discussed and agreed locally and nationally with the hospital, the AND for Health Protection, and the Director of HPSC.

The DPH/MOH should consider whether additional resources will be needed locally to manage the outbreak control and contact tracing activities if the case is confirmed. Consideration should be given to putting the HSE Regional Crisis Management Team on standby alert.

1b) Prepare for contact tracing
Pre-existing plans, surveillance forms, contact leaflets, supplies of thermometers and arrangements for assessment of symptomatic contacts should be checked, reviewed, and amended or updated as needed.
In the case of suspected Lassa fever, check the arrangements in place and ensure availability of supplies of Ribavirin for chemoprophylaxis. Ensure availability of PPE, though it is unlikely to be needed for contact tracing.

2. Inform the Assistant National Director (AND) for Health Protection and the HPSC, and agree organisation of the national response
The DPH/MOH should immediately report High Risk suspected cases nationally to the AND for Health Protection and HPSC, Ireland’s national IHR Focal Point for communicable diseases. The purpose of this is to:

- agree how the outbreak response will be organised, including if and when the National Public Health Outbreak Response Team (NPHORT) is to be convened, how this will liaise with the Local Outbreak Control Team, and prepare the communications strategy for the incident;
- inform the Department of Health, and allow prompt international reporting to WHO (Appendix D).

5.4 ACTIONS BY DPH/MOH ONCE CASE IS CONFIRMED
5.4.1 Outbreak control

Local Outbreak Control Team
The local outbreak control team at the site of the incident should now meet. The DPH/MOH should convene and chair the Local Outbreak Control Team, in consultation with the hospital where the patient is being managed. This will be a major multidisciplinary collaborative effort. The role of the Local OCT is to:

- ensure appropriate management of the case, including arrangements for patient transfer to NIU, if medically safe;
- determine who is responsible for the assessment, categorisation and management of contacts, including those outside Ireland, the actions to be taken and the advice to be given;
- ensure appropriate infection control measures are in place and that staff are aware of potential infection risks;
- oversee the epidemiological and laboratory investigation;
- provide information to staff, the public and media;
- designate media spokespersons as per agreed media strategy, and ensure that there is no release of information to, or discussions with, the media without the agreement of all parties;
- agree all media statements and messages in advance with all parties, including NPHORT and Department of Health;
- link with the National Public Health Outbreak Response Team (NPHORT) and the National IHR Focal Point (NFP) at HPSC;
- prepare regular briefing reports for the AND HP and NFP;
- debrief and review procedures following the event;
- write an incident report.

National Public Health Outbreak Response Team (for PHEIC)
One confirmed case of VHF is considered a Public Health Emergency. It is likely that The National Public Health Outbreak Response Team Plan will be activated. The DPH/MOH should discuss activation with the named contact points at the National Focal Point at HPSC, NPHORT is activated by the named contact points following consultation with the Chief Medical Officer at the Department of Health. NPHORT will include the DPH/representative from the Local Outbreak Control Team, a representative from the National Virus Reference Laboratory, the National Isolation Unit, and other national experts as required.

Once a potential Public Health Emergency of International Concern (PHEIC) is detected, a rapid, skilled public health assessment and response is then needed. IHR requires State Parties to assess all reports within 48 hours and to notify WHO through the National Focal Point if the event is notifiable. NPHORT is activated to coordinate this public health assessment and response.
The role of NPHORT is:

- to carry out an initial rapid epidemiological assessment of the potential PHEIC;
- to co-ordinate the descriptive and analytical epidemiological investigation, and the collection, collation and dissemination of information from the different areas and bodies involved locally and nationally;
- to evaluate the potential wider importance of the incident locally, nationally and internationally and determine if it is a PHEIC;
- to report its findings to the NFP within 48 hours and then to produce regular update reports;
- to advise the NFP on any local, regional, national and international control measures needed in the light of the findings. This advice will be communicated by the NFP to the relevant parties, e.g. HSE, Department of Health, other Government Departments, WHO etc;
- to produce a final report, with lessons identified following closure of any potential PHEIC investigation. This report is for the NFP, and then for onward communication to WHO, and other interested parties.

5.4.2 Contact tracing
This is done by public health in conjunction with the hospital team (Infectious Disease consultant/admitting clinician, infection control, clinical microbiologist, and occupational health physician).

An contact is defined as a person who has been exposed in the previous three weeks to a symptomatic infected person or to a symptomatic infected person’s secretions, excretions or tissues.

The following steps should be taken:

- identify the type of VHF. Consider the stage of the illness and the level of viraemia at the time of exposure – infectiousness increases with progression of clinical illness;
- determine if the patient has/had acute respiratory symptoms with intense coughing or sneezing prior to diagnosis, and from this any possibility of potential airborne spread via blood tainted secretions;
- trace the movements of the index patient for up to 3 weeks prior to onset of illness with a view to establishing the source of infection;
- from the index patient or his/her proxy, prepare a list of all potential contacts who are at risk of developing the disease (Appendix K);
- identify and interview all potential contacts using a standardised form (Appendix L) and assign a risk category to these potential contacts (see Box 1 below);
- use the high-risk contact surveillance form (Appendix M) to log the surveillance of high-risk contacts. Duration of contact tracing and surveillance depends on the VHF identified (e.g. 21 days post last exposure for Lassa fever, Marburg and Ebola, 13 days for CCHF).

Note: If the patient had acute respiratory symptoms, this will then affect the type of surveillance needed – there may be a need to expand contact tracing to include those who shared the same airspace. This will be assessed on a case-by-case basis. Please see Section 3.2 on mode of transmission and Appendix H for further details on the evidence for transmission of VHFs.

The risk categorisation determines the nature and type of actions needed subsequently.
**BOX 1**

**RISK CATEGORISATION**

**Casual/no-risk contacts**
Casual/no risk contacts are those with no direct contact with the patient or body fluids, or who just had casual contact e.g. sharing a room with the patient, without direct contact with body fluids, or who shared the same airplane, same hotel, visited the patient’s home etc. They should be informed of the absence of risk, and be given an advice leaflet (available from HPSC) and a contact number to phone if concerned.

**Close /low-risk contacts**
Close contacts are persons who had direct contact with the patient, and where proper precautions including PPE had been carried out e.g. contacts who provided routine medical/nursing care, or were involved in transport of the patient, or handled clinical/laboratory specimens while wearing PPE. Close contacts also includes those who were living with the patient, or who had skin to skin contact with the patient, including hugging, or shaking hands when ill.

**High-risk contacts**
High risk contacts are those who had unprotected exposure of their skin or mucous membrane (e.g. mucosal exposure to splashes, needlestick injury) to potentially infectious blood or body fluids (urine or secretions), including unprotected handling of clinical/laboratory specimens, or at autopsy, or resuscitation. It also includes those who kissed or had sexual intercourse with the patient.

**Contact tracing of passengers on a flight**
If the case was on a flight when symptomatic, a risk assessment should be undertaken as to whether other passengers are at risk, and contact tracing activities undertaken on the basis of this risk assessment. Recent guidelines from ECDC propose the following actions in relation to three of the VHF as follows:

<table>
<thead>
<tr>
<th>VHF</th>
<th>Timing of flight</th>
<th>Symptomatic during flight</th>
<th>Who to include in contact tracing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ebola, Marburg</td>
<td>Consider if flight within previous 21 days</td>
<td>Contact trace only if symptomatic on the flight</td>
<td>• Passengers and crew with direct contact with body fluids – obtain this via records of significant events during the flight from the airline</td>
</tr>
<tr>
<td>and Lassa</td>
<td></td>
<td></td>
<td>• Passengers +/- 1 seat in each direction</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Crew members of plane section of index case</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Cleaning staff for plane section of index case</td>
</tr>
</tbody>
</table>

*Figure 1 Relevant area for trace-backs, viral haemorrhagic fevers (Lassa, Marburg, Ebola) ECDC Risk assessment guidelines for diseases transmitted on aircraft 2nd ed. Stockholm: ECDC, 2010*
Figure 2 Risk assessment algorithm, viral haemorrhagic fevers (Lassa, Marburg, Ebola) from ECDC Risk assessment guidelines for diseases transmitted on aircraft 2nd ed. Stockholm: ECDC, 2010

Event reported

Probable or confirmed case?

Symptoms during flight?

Detection within 21 days after flight?

EBOLA

MARBURG

Incidents involving exposure to body fluids of case during flight?

Case status *

Start collecting passenger information and ask for specific incidents during the flight

Contact tracing:
- Passengers +/- 1 seat
- Cabin crew of plane section of index case
- Cleaning crew of plane section of index case
- Passenger and crew with known direct contact to the index case

* If the diagnosis cannot be laboratory confirmed (e.g. if clinical samples are unavailable), contact tracing should be considered if the clinical and epidemiological picture is strongly suggestive of a VHF as the likely diagnosis

[Probable case is a clinically compatible case with an epidemiological link]
5.4.4 Management of contacts
This is summarised in Table 13.

Surveillance of low-risk/close contacts
Low-risk/close contacts should be asked to self monitor for fever once the diagnosis has been confirmed and report any temperature above 38°C or any symptom of illness to the assigned person in the Department of Public Health/acute hospital responsible for contact surveillance (as agreed at OCT). Low-risk/close contacts should be provided with an information leaflet, a digital thermometer if needed, and a contact number for the person to contact in case symptoms develop. This should continue for 21 days* after the person's last contact with the index patient or fomite. There is no need for restriction on work or movement unless they suffer a rise in temperature above 38°C at which time they should be immediately isolated in hospital and be assessed as a potential VHF patient. Those incubating the infection are in general not infectious before the onset of symptoms. The close contact should be advised not to donate blood when under surveillance. Serological testing of contacts is not advised.

Surveillance of high-risk contacts
High-risk contacts should be placed under active surveillance once the diagnosis has been confirmed. High-risk contacts should be asked to record their temperature twice daily and report any temperature above 38°C or any symptom of illness to the assigned person in the Department of Public Health/acute hospital responsible for contact surveillance (as agreed at OCT). High-risk contacts should be asked to phone the contact surveillance person at an agreed time each day as part of active surveillance. (Continue for 21* days after the person's last contact with the index patient or fomite). They should be provided with an information leaflet, and a digital thermometer if needed. There is no need for restriction on work or movement within Ireland unless they suffer a rise in temperature above 38°C at which time they should be immediately isolated in hospital and assessed as a potential VHF patient. Those incubating the infection are in general not infectious before the onset of symptoms. The high-risk contact should be advised not to donate blood when under surveillance. Serological testing of contacts is not advised. High-risk contacts should be advised not to travel abroad when under surveillance.

* Note duration of contact tracing depends on the maximum incubation period for the specific VHF diagnosed in the index case.

5.4.5 Prophylaxis
For Lassa fever and CCHF high-risk contacts
Ribavirin may be considered for post-exposure prophylaxis (PEP) for high-risk contacts of patients with Lassa fever or CCHF, although experience is limited, and Ribavirin is not well tolerated by contacts.

Bausch et al reviewed the literature concerning the use of oral Ribavirin as PEP for Lassa fever and proposed guidelines for its use.65 They state that the decision to use PEP for any given exposure is based on a risk/benefit analysis, taking into account aspects of the disease (mode of transmission, attack rate, incubation period, pathogenesis and mortality), the drug (efficacy, adverse effects, ease of administration and cost) and the patient (willingness or anxiety regarding PEP, premorbid conditions and concomitant medications).

Having reviewed each of these elements, they argued against liberal use of Ribavirin as PEP as the secondary attack rate for Lassa fever is low, the efficacy of Ribavirin PEP is unknown, reaching the MIC or IC₅₀ is not assured using tolerable oral doses, adverse events are frequent and may pose a challenge to the patient in distinguishing them from early signs of Lassa fever itself, and provision of PEP may lead to a relaxing of needed infection control precautions.

They recommend the use of Ribavirin PEP for Lassa fever exclusively in the event of a high-risk exposure defined as one of the following:
• penetration of skin by a contaminated sharp instrument, e.g. needle stick injury;
• contamination of mucous membranes or broken skin with blood or bodily secretions, e.g. blood splashing in the eyes or mouth;
• participation in emergency procedures (e.g. CPR, intubation or suctioning) without use of appropriate PPE;
• prolonged and continuous exposure in an enclosed space without use of appropriate PPE (e.g. healthcare worker accompanying patient during medical evacuation).

They noted also that titres of Lassa virus in blood and bodily secretions correlate with disease severity, and the most infectious patients are those with severe clinical conditions, usually late in the course of their disease.

The approach by Bausch is proposed for Ireland.

The oral regimen is 35mg/kg loading dose (maximum dose of 2.5g) followed by 15mg/kg (maximum dose 1g) three times a day for 10 days. The dose should be decreased in persons known to have significant renal insufficiency (creatinine clearance < 50ml/min).

It should be started immediately after the high-risk exposure, but not before counselling of the patient by the doctor. The prescribing doctor is likely to be the Infectious Disease clinician.

Patients should be informed:
• to take it with food;
• that the efficacy of PEP for Lassa fever is unknown;
• that although there are no major risks to its use, minor adverse effects often occur.

If the index case tests negative for Lassa fever, the PEP should be stopped.

If the contact develops symptoms of Lassa fever, they should be tested rapidly for Lassa fever and treatment should be switched to the IV form. Ribavirin PEP may prolong the incubation period for Lassa fever. Frequent but mild side effects should be expected, particularly anaemia. The patient on PEP should be seen frequently and assessed when on PEP for side effects.

Relative contraindications include severe anaemia or haemoglobinopathy, pregnancy and breast feeding, coronary artery disease, renal insufficiency, decompensated liver disease and known hypersensitivity. Baseline haemoglobin and haematocrit should be measured. Complete blood count and bilirubin level should be rechecked 5-7 days after initiation of the drug, and Ribavirin should be stopped or the dose should be readjusted if significant anaemia is noted.

These guidelines may also be used for PEP for other arenaviruses causing haemorrhagic fever and for CCHF.

5.4.2 National and International Notification

Formal notification to HPSC and by HPSC to the World Health Organization

The DPH/MOH should notify HPSC when a High Risk case is first identified and then again on confirmation of the case. In turn, HPSC is obliged to the World Health Organization (WHO) under the International Health Regulations (2005).

Under the International Health Regulations (2005), if a case of VHF is notified, there is a legal requirement on Ireland to use Annex 2 of the IHR, the decision instrument for the assessment and notification of events that may constitute a Public Health Emergency of International Concern, and to notify WHO if appropriate (Appendix D). This is done by the IHR National Focal Point at HPSC. An event of VHF (Ebola, Lassa, or Marburg) “shall always lead to utilisation of the algorithm in Annex 2, because this disease has demonstrated the ability to cause serious public health impact and to spread rapidly internationally”.

Formal notification to HPSC and by HPSC to the World Health Organization

The DPH/MOH should notify HPSC when a High Risk case is first identified and then again on confirmation of the case. In turn, HPSC is obliged to the World Health Organization (WHO) under the International Health Regulations (2005).
### Table 13: Summary of Management of Contacts

<table>
<thead>
<tr>
<th>Risk Category</th>
<th>Description</th>
<th>Action and Advice</th>
</tr>
</thead>
<tbody>
<tr>
<td>No risk / casual contacts</td>
<td>No direct contact with the patient or body fluids</td>
<td>1. Inform of the absence of risk &lt;br&gt; 2. Give no risk/casual contacts fact sheet (available from HPSC) &lt;br&gt; 3. Advise to call if concerned following reading fact sheet &lt;br&gt; 4. No further action</td>
</tr>
<tr>
<td>Low risk / close contacts</td>
<td>Direct contact with the patient (e.g. routine medical/nursing care) or handling of clinical/laboratory specimens - if proper precautions carried out, including PPE</td>
<td>1. Record own temperature twice daily for 21 days* following last contact with the patient/fomite &lt;br&gt; 2. Give low-risk/close contacts fact sheet (available from HPSC) &lt;br&gt; 3. Inform Director of Public Health immediately if contact reports symptoms</td>
</tr>
<tr>
<td>High risk</td>
<td>Direct contact with the patient's blood, urine or secretions, or at autopsy</td>
<td>1. Record own temperature twice daily for 21 days* following last contact with the patient/fomite &lt;br&gt; 2. Give high-risk fact sheet (available from HPSC) &lt;br&gt; 3. Inform Director of Public Health immediately if contact reports symptoms compatible with VHF and further risk assessment is required</td>
</tr>
</tbody>
</table>

*duration depends on type of VHF

NOTE: If the patient has respiratory symptoms or the viral haemorrhagic fever is a new novel agent, then contact tracing may also need to include airborne contacts.

This will be assessed on a case-by-case basis.
HPSC reporting to the European Union, under Decision 2119, EC
In addition, Member States of the European Union are required to notify other Member States and the European Commission via the Early Warning and Response System (EWRS) in the event of:

1. Outbreaks of communicable diseases extending to more than one Member State of the Community;
2. Spatial or temporal clustering of cases of disease of a similar type, if pathogenic agents are a possible cause and there is a risk of propagation between Member States within the Community;
3. Spatial or temporal clustering of cases of disease of a similar type outside the Community, if pathogenic agents are a possible cause and there is a risk of propagation to the Community;
4. the appearance or resurgence of a communicable disease or an infectious agent which may require timely coordinated Community action to contain it;
5. manifestation of a disease or an occurrence that creates a potential for a disease pursuant to Article 1 of the International Health Regulations (2005) which is a communicable disease pursuant to Annex to Decision No 2119/98/EC and related measures to be notified to the World Health Organisation under Article 6 of the International Health Regulations (2005).

Detection of a case of VHF (once confirmed as per case definitions, Appendix N) would trigger an EWRS alert. This is done by the named national network contact points, Dr. Darina O’Flanagan, Director of HPSC or by Dr. Kevin Kelleher, Assistant National Director, Health Protection, Health Services Executive.

5.5 PREPAREDNESS ACTIVITIES
VHF is a very unusual condition and has not been diagnosed to date in Ireland. However, due to the nature of the disease, the implications for contacts and the need for contact tracing, it is important to maintain preparedness to deal with a case.

The DPH/MOH should request that hospital management and/or Consultants in Emergency Medicine ensure that the VHF algorithm is visible in local Emergency Departments, with up-to-date contact numbers and web links, and information on VHF endemic areas and current outbreaks should be readily accessible by the DPH/MOH (http://www.hpsc.ie/hpsc/A-Z/Vectorborne/ViralHaemorrhagicFever/).

The DPH/MOH should agree with local Consultants in Emergency Medicine how best to circulate information on current outbreaks as they are notified (WHO IHR alerts, EWRS etc). For regular disease alerts, emergency department staff should be advised to go to the website. For urgent and recent alerts that are not currently in the public domain on websites, but that front-line staff need to know without delay, the DPH/MOH should discuss how best to do this with hospital management and Consultants in Emergency Medicine.

The DPH/MOH should work with hospital and GP colleagues to incorporate VHF specific requirements (importance of travel history, algorithms, danger/warning signs, and how to identify countries where VHF outbreaks are occurring) in communicable disease education and training within the hospital and primary care setting.

The DPH/MOH should use the national guidance to inform a local plan for response in the case of notification of a case. This would include protocols at points of entry, procedures for management of suspected cases, OCT arrangements, media management, protocols for accessing Ribavirin, up-to-date contact lists etc. The plan should also take into consideration the arrangements needed if the VHF case is part of a bioterrorism incident. This locally developed plan and procedures should be exercised, in conjunction with Emergency Planning.

Checklist
A summary checklist of actions for the DPH, in advance of any case occurring, and in the event of a case arising is available in Appendix O.
5. Public Health Management of Imported VHF

The Management of Viral Haemorrhagic Fevers in Ireland/HPSC 2012

Figure 3 Summary of notification processes

- At-risk suspected case of VHF
- Test result positive
- High-risk suspected case of VHF
- Medical officer of Health/Director of Public Health
- Health Protection Surveillance Centre
- IHR National Focal Point
- European Early Warning Response System contact point
- World Health Organisation
- Early Warning and Response System

If case is confirmed

Apply algorithm in Annex 2 of IHR (2005) and report to WHO if fulfills criteria

Notify

Notify

Notify immediately