Communicable Disease Update

Public Health Department, Health Service Executive South (SE)

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In this Issue

Editorial Team

Dr. John Cuddihy
Director of Public Health

Dr. Marrita Mahon
Surveillance Scientist

Ms. Bernadette O'Connor
Surveillance Scientist

Dr. Colette O'Hare
Surveillance Scientist

Administrator

Ms. Pamela Brennan
Email: pamelat.brennan@hse.ie

Infectious disease notifications can be sent to:

Public Health Department
HSE South (SE)
Lacken
Dublin Road
Kilkenny
Tel.: 056 7784142
Fax: 056 7784599
www.hse.ie/publichealth

Data were provided by Waterford Regional Hospital Laboratory, Senior Medical Officers, Communicable Disease Control Nurses, General Practitioners, Hospital Clinicians, Environmental Health Officers, and the STI Clinic.

Ebola Virus Disease and Ireland

There have been no cases of Ebola Virus Disease (EVD) in Ireland and the risk of having a case here is considered to be very low. However, since the first reports of the outbreak and, particularly since it was declared a Public Health Emergency of International Concern, the government, Department of Health and HSE have made preparations for that eventuality. A comprehensive suite of guidance documents and resources is available on the website of the Health Protection Surveillance Centre at www.hpsc.ie. The approach in Ireland will follow the same principles as elsewhere: case isolation and management, safe laboratory services, comprehensive contact tracing and communication and advice to the public.

There is currently a system in place to identify humanitarian aid workers from Ireland who have travelled to outbreak affected countries and to make an assessment of their potential exposure to EVD on their return. The assessment is made, on return, by a Specialist in Public Health Medicine (SPHM). If there has been any exposure to EVD a regime to monitor for temperature and symptoms is put in place. In the event of a returned person under surveillance developing a temperature or symptoms they will contact a SPHM who will organise further assessment in hospital, if necessary.

In the extremely unlikely event that a patient who might pose a risk of EVD, either telephones a GP surgery or presents in person, **the GP should follow the EVD risk assessment for use in General Practice (the GP Algorithm) available at www.hpsc.ie/A-Z/Vectorborne/ViralHaemorrhagicFever/Ebola/EBolaInformationforGeneralPractitioners/File.14977.en.pdf.**

The preferred method of assessment is over the telephone rather than having a patient arrive in the surgery. Advice can be obtained from the Department of Public Health at 056-7784142.

Ebola Virus Disease

Introduction

Ebola virus disease (EVD) is a severe, often fatal, disease caused by the Ebola virus. It first appeared in 1976 in two simultaneous outbreaks in Sudan and the Democratic Republic of Congo. EVD has since caused sporadic outbreaks in several African countries.

Current Outbreak

There is currently a very extensive and ongoing outbreak of Ebola Virus Disease (EVD) affecting a number of countries in West Africa. Cases of EVD associated with this outbreak first appeared in December 2013 and the World Health Organisation (WHO) issued an international alert in March 2014. This is the largest ever outbreak of EVD and on August 8, 2014, WHO declared the Ebola outbreak in West Africa to be a Public Health Emergency of International Concern. The countries with intense transmission include Guinea, Sierra Leone and Liberia, although there have also been cases in Spain, the United States of America, the United Kingdom, Nigeria, Mali and Senegal.

The WHO issues weekly updates on the outbreak. These are available at http://www.who.int/csr/disease/ebola/situation-reports/en/

As of 18th January 2015 there have been 21,689 reported cases in the outbreak, with 8,626 deaths. Sierra Leone has been hardest hit, with a reported 10,340 cases and 3,145 deaths, Liberia has had a reported 8,478 cases and 3,605 deaths and Guinea a reported 2,871 cases and 1,876 deaths. Reported case incidence continues to fall in Guinea, Liberia and Sierra Leone. There have been 828 health-care worker infections reported in the intense-transmission countries, with 499 deaths.

In response to the outbreak the United Nations established a Mission for Ebola Emergency Response (UNMEER) in September 2014. The main activities of UNMEER include:

- Case management
- Case finding, access to laboratory services, contact tracing
- Safe and dignified burials
- Community engagement and social mobilization

Transmission

It is thought that fruit bats are the natural Ebola virus hosts in the wild. Ebola is introduced into the human population through close contact with the blood, secretions, organs or other bodily fluids of infected bush animals found ill or dead or in the rainforest.

Within humans, Ebola virus is spread through direct contact (through broken skin or mucous membranes) with blood and body fluids (urine, faeces, saliva, vomit and semen) of a living or dead person with Ebola. It can also be spread through direct contact with items that have been contaminated with the virus, such as soiled clothing, bed linen or used needles. It can be transmitted through unprotected sexual contact with patients who have recently recovered from the disease. Burial ceremonies in which mourners have direct contact with the body of a deceased Ebola patient can play an important role in the spread of the virus. There is currently no evidence to support airborne transmission of Ebola virus.

The usual incubation period between infection with Ebola virus and development of symptoms is between eight and 11 days. However, it may take up to 21 days for symptoms of infection to develop. Transmission from an asymptomatic patient (i.e. during the incubation period of EVD) has not been documented. An infectious person becomes more infectious as EVD progresses, because the volume of the infecting virus increases and the infection results in increased production of infected body fluids. Ebola virus is easily inactivated by chemical disinfectants, including alcohol and chlorine and by heat.

Symptoms

Ebola disease usually has a sudden onset, with fever (38.6°C or higher), fatigue, muscle pain, headache and sore throat. This is followed by vomiting, diarrhoea, rash, symptoms of impaired kidney and liver function, and in some cases, both internal and external bleeding (e.g. oozing from the gums, blood in the stools). Other symptoms may include stomach pain or rash.

Diagnosis

Laboratory findings include low white blood cell and platelet counts and elevated liver enzymes. Confirmation that symptoms are caused by Ebola virus infection is made using a combination of assays detecting antigen, nucleic acid, antibody IgM or IgG and by electron microscopic and cell culture techniques. Laboratory testing on non-inactivated samples should be conducted under maximum biological containment conditions.

Treatment and vaccines

There is as yet no proven treatment available for EVD. However, supportive care, rehydration with oral or intravenous fluids, and treatment of specific symptoms, improves survival.

A range of potential treatments including blood products, immune therapies and drug therapies are currently being evaluated. No licensed vaccines are available yet, but two potential vaccines are undergoing human safety testing.

References available on request.

By
Dr. Sarah Doyle, Specialist in Public Health Medicine

Influenza News

A report from the US Centers for Disease Control and Prevention published in January 2015 estimates the effectiveness of the current influenza vaccine to be 25%. This is because the majority of the circulating H3N2 viruses have changed from the H3N2 vaccine virus due to antigenic drift. **Vaccination is still strongly recommended for all those in the at risk groups** because it will reduce severe illness and hospitalisation from H3N2 infection and also because the other two virus strains in the vaccine may still circulate. http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6401a4.htm?s_cid=mm6401a4_w

As of 15th of January 2015, Influenza like illness (ILI) rates were **ABOVE** the baseline threshold. Therefore, the use of antiviral drugs for those in risk groups for complicated influenza is now recommended in line with *Guidance on the use of antiviral agents for the treatment and prophylaxis of influenza 2014-2015*, available at www.hpsc.ie .

Summary of infectious diseases notified in 2014

Disease	Cases[1]	Disease	Cases[1]
Bacterial Meningitis (not otherwise specified)	5	Lyme Disease (Neuroborreliosis)	2
Campylobacter infection	391	Malaria	5
Chickenpox – hospitalised cases	6	Measles	1
Chlamydia trachomatis	647	Meningococcal Disease	8
Clostridium difficile	198	Mumps	141
Cryptosporidiosis	55	Noroviral infection	39
Giardiasis	5	Pertussis	8
Gonorrhoea	64	Rotavirus	344
Haemophilis influenza (invasive)	12	Rubella	0
Hepatitis A (acute)	0	Salmonellosis	27
Hepatitis B acute and chronic	25	Shigellosis	5
Hepatitis C	37	Streptococcus group A (invasive)	18
Herpes Simplex (genital)	121	Streptococcus pneumoniae (invasive)	158
HIV	10	Syphilis	9
Influenza	211	Tuberculosis	31
Legionellosis	0	Verotoxigenic Escherichia coli infection	119
Leptospirosis	3	Viral encephalitis	7
Listeriosis	2	Viral Meningitis	35

[1] Provisional data.

The table above shows cases of infectious diseases notified in the **HSE (SE) area only** under Infectious Disease (Amendment) Regulations 2011 (S.I. No. 452 of 2011). Medical practitioners and clinical directors of diagnostic laboratories are required to transmit a written or electronic notification of a notifiable infectious disease to a Medical Officer of Health. Case definitions for notifiable diseases are available at www.hpsc.ie and notification form booklets are available from regional public health department offices, to which notifications should be returned.

Infectious disease notifications can be phoned to 056 7784142, faxed to 056 7784599 or posted to Public Health Department, HSE South (SE), St. Canice's Hospital, Lacken, Dublin Road, Kilkenny.

Mumps

There is currently a national increase in cases of mumps, in particular among those aged 17-25 years. To try and prevent further escalation of this situation:

- Any case of suspected mumps should be **excluded from childcare/school/ college/work/social contact** for **5 days** from the onset of symptoms.
- Frequent hand washing, especially after contact with secretions from the nose or throat is advisable.
- Eating and drinking utensils should not be shared with someone who is sick with mumps.

HIQA Safety Alert

Risk management of blood glucose monitoring in designated centres

The Health Information and Quality Authority (HIQA) has issued a safety alert in relation to blood glucose monitoring in certain healthcare settings. There have been many reported outbreaks of hepatitis B infection in long-term care and assisted living facilities in the US, UK and Europe, associated with blood glucose monitoring. The outbreaks have been attributed to confusion between different types of lancing devices, the inappropriate and incorrect use of lancing devices, and to poor infection prevention and control practices.

The Safety Alert provides guidance on the management of blood glucose monitoring equipment, risk assessment, hepatitis B vaccination and standard precautions to reduce the risk of transmission of blood-borne viruses through blood glucose monitoring.

The Safety Alert can be downloaded at:
http://www.hiqa.ie/system/files/Safety-alert-005-Blood-Glucose-Monitoring.pdf

Immunisation uptake for children at 12 and 24 months

Local Health Office	% vaccine uptake, Q2 2014					
	BCG_1	D_3*		$MenC_3$	PCV_3	MMR_1
	12 mths	12 mths	24 mths	24 mths	24 mths	24 mths
Carlow - Kilkenny	96	90	96	88	94	95
Tipperary South	98	94	98	90	95	96
Waterford	94	90	95	84	91	92
Wexford	96	96	95	89	92	93
Ireland	87	92	95	87	91	93

*D_3: Three doses of Diphtheria containing vaccine. In this table, uptake of D_3 is indicative of uptake of vaccines contained in the 5 in 1 or 6 in 1 combined vaccine.

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Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive

Public Health Department,
HSE (SE), Lacken, Dublin Road, Kilkenny.
Tel: 056 7784142

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