



Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive

Infectious Disease News

HSE – South (Cork & Kerry)

Volume 11, Issue 2, December 2013



In this issue:

VTEC Notifications remain high

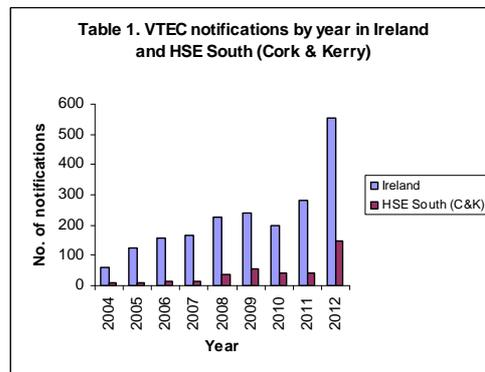
* If you would like any particular health topics covered in this newsletter please let us know at dph@hse.ie

Verotoxigenic E.coli (VTEC) notifications remain high

Ireland's VTEC Trends

Verotoxigenic E.coli (VTEC) bacteria are strains of E.coli that produce powerful verotoxins. E.coli O157 is the best known. There are several others including O26, O145, O11.

Ireland has one of the highest rates of VTEC notification in the world. The situation has become even more marked in recent years. There were 554 VTEC notifications nationally in 2012 (150 in the Cork/Kerry region). Children under 5 years remain the most vulnerable group.



Where does VTEC come from?

VTEC bacteria are commensals in the intestines of ruminant animals (e.g. cattle and sheep). They are excreted in animal faeces. There is, therefore, potential to contaminate animal hides, farm environments/soil, water, unpasteurised milk, raw vegetables or raw meat.

How do individuals get infected?

The bacteria are present in the faeces/manure of infected animals. People can pick up an infection either from animals through direct contact or from soil contaminated with manure or from food (e.g. raw meat) or from person to person spread.

Individuals have to swallow the bacteria before becoming infected. They excrete the bacteria in their own stools when infected.

How is infection prevented?

It is easy to see why hand washing (after contact with another case, after animal contact, before preparing or consuming food, after toilet use), together with drinking safe water, consuming pasteurised milk/milk products and the proper handling and cooking of food are key preventive measures.

Why Ireland's high levels?

This is not clear. There are some potential explanations.

Good surveillance? Our surveillance system and methods of active case finding are very sensitive. However, there is undoubtedly a high level of disease in the community.

High cattle numbers? We have a large ruminant animal population. Veterinary studies indicate that about 10% of our dairy cattle carry VTEC. Animals are healthy carriers.

Private drinking water supplies? One in ten of our population gets their drinking water from private supplies (including wells). Many such supplies are neither properly constructed nor maintained, putting them at risk of VTEC contamination. Surveillance of cases has shown that those whose primary water source is a private well have a greater risk of VTEC acquisition compared to the general population.

Department of Public Health
HSE South
Floor 2, Block 8
St Finbarr's Hospital
Cork
Tel: 021 4927601
Fax: 021 4346063
Email: dph@hse.ie
Web: www.hse.ie

Editors:

Dr Fiona Ryan
Consultant Public Health Medicine

Ms Benvon Deasy
Public Health Surveillance Scientist

Contributors:

Dr. Margaret O'Sullivan
Consultant Public Health Medicine

Ms Benvon Deasy
Public Health Surveillance Scientist

What are the symptoms?

VTEC

Incubation period

1-8 days (average 2-4 days)

Common symptoms

Diarrhoea, very often severe & bloody
Abdominal cramps, often severe
Loss of appetite
Flu-like symptoms

Recovery

Generally within 5-10 days *but hospitalisation not infrequent and possibility of HUS complication*

How is VTEC treated?

There is no specific treatment for VTEC infection. The illness is usually self-limiting, clearing itself within a week. Maintaining hydration is important. Antibiotics are not recommended, and are likely to increase the risk of getting complications such as Haemolytic Uraemic Syndrome (HUS).

Who needs to stay off work or school?

Exclusion of all cases from work/school or other institutional settings is advised until 48 hrs after diarrhoea/vomiting has stopped.

Very importantly, any case belonging to one of the following risk groups is excluded until two successive negative stool samples, taken at least 48 hours apart, have been obtained.

High Risk Groups

1. High-risk food handlers
2. Health care, child-care facility, or other staff who have contact with highly susceptible patients or with those for whom infection would have particularly serious consequences
3. Children <5 years attending child-care facilities
4. Older children & adults without good standards of personal hygiene

Unfortunately, some of those excluded may continue to carry VTEC for several weeks, and sometimes months. Exclusion is often a highly stressful time for the individuals and families involved.

Haemolytic Uraemic Syndrome (HUS)

Ireland has also seen an increasing number of VTEC-related cases of Haemolytic Uraemic Syndrome (HUS). HUS is characterised by progressive renal failure, associated with microangiopathic haemolytic anaemia and thrombocytopenia.

In 2012 there were 32 notified HUS cases (including 6 from this region). This complication of VTEC can arise in 5-8% of VTEC cases. Young children and the elderly are at greatest risk of HUS.

HUS

Onset

2-14 days after diarrhoeal onset

Symptoms may include

Tiredness
Extensive bruising/unusual bleeding
Swollen hands/feet/ ace
Oliguria

Recovery

Mortality about 5% in child HUS cases

Clinicians need to be very vigilant to the possibility of HUS after VTEC infection.

Departments of Public Health & VTEC

VTEC infection is notifiable. The Department of Public Health is involved with case surveillance, liaising with family doctors, providing advice on control of spread, screening close contacts and in identifying and managing outbreaks of VTEC infection.

There is close collaboration with environmental health officers and with veterinary colleagues where necessary, to try to identify the possible source of each case's infection with the aim of preventing further cases.