

Verotoxigenic *E. coli* (VTEC) – includes *E. coli* O157

Background Information

VTEC (verotoxigenic *E. coli* – also known as Vero-cytotoxin producing *E. coli*) are a group of bacteria that cause diarrhoeal disease in humans. The disease can range from mild gastroenteritis to severe bloody diarrhoea and in some can develop in to a serious, potentially fatal illness.

Organism

VTEC – many strains of *E. coli* including *E. coli* O157

Incidence and Transmission

VTEC is an uncommon cause of diarrhoeal disease in the UK. It is easily spread because very few bacteria are required to cause infection.

It is spread via consumption of undercooked, infected meat and meat products and via faeces-contaminated water. It can also be spread via contaminated vegetables and other ready to eat foods or via contact with contaminated soil. It can be spread via direct or indirect contact with infected animals.

It can be spread from person to person by faecal-oral transmission.

Occupations and processes where VTEC may present a risk

Occupational exposure to VTEC may occur in those who:

- are in contact with infected animals or humans;
- are in contact with materials or products from infected animals; or
- are in contact with contaminated water or soil.

Occupations where there may be a risk of occupationally acquired VTEC include:

- farmers;
- vegetable pickers;
- workers on open farms – from contact with lambs and calves;
- workers in the rural leisure industry – from contact with animal faeces;
- workers in outdoor leisure industries in contact with water, eg watersports instructors;
- sewage and waste water workers;
- veterinary surgeons;
- abattoir workers, meat processing plant workers and butchers; and

- healthcare and care workers.

Clinical Information

The incubation period is usually 3–4 days (can be 1–8 days).

Symptoms range from mild diarrhoea to severe bloody diarrhoea with fever and stomach cramps. In rare cases VTEC can cause serious illness, including kidney damage and blood clotting disorders. In rare cases the disease can be fatal.

Anyone with severe symptoms should seek immediate medical attention. There is no specific treatment available for VTEC apart from rehydration therapy and most patients will recover within two weeks. Patients with kidney damage or blood clotting disorders will require specialist treatment in hospital.

Control

The following control measures reduce the risk of infection:

- Good occupational hygiene practices should be followed, especially washing with warm water and soap.
- Suitable protective clothing should be worn.
- Avoid swallowing water when participating in watersports.
- A suitable disinfectant should be used.

Further Information

[Public Health England – VTEC](#)