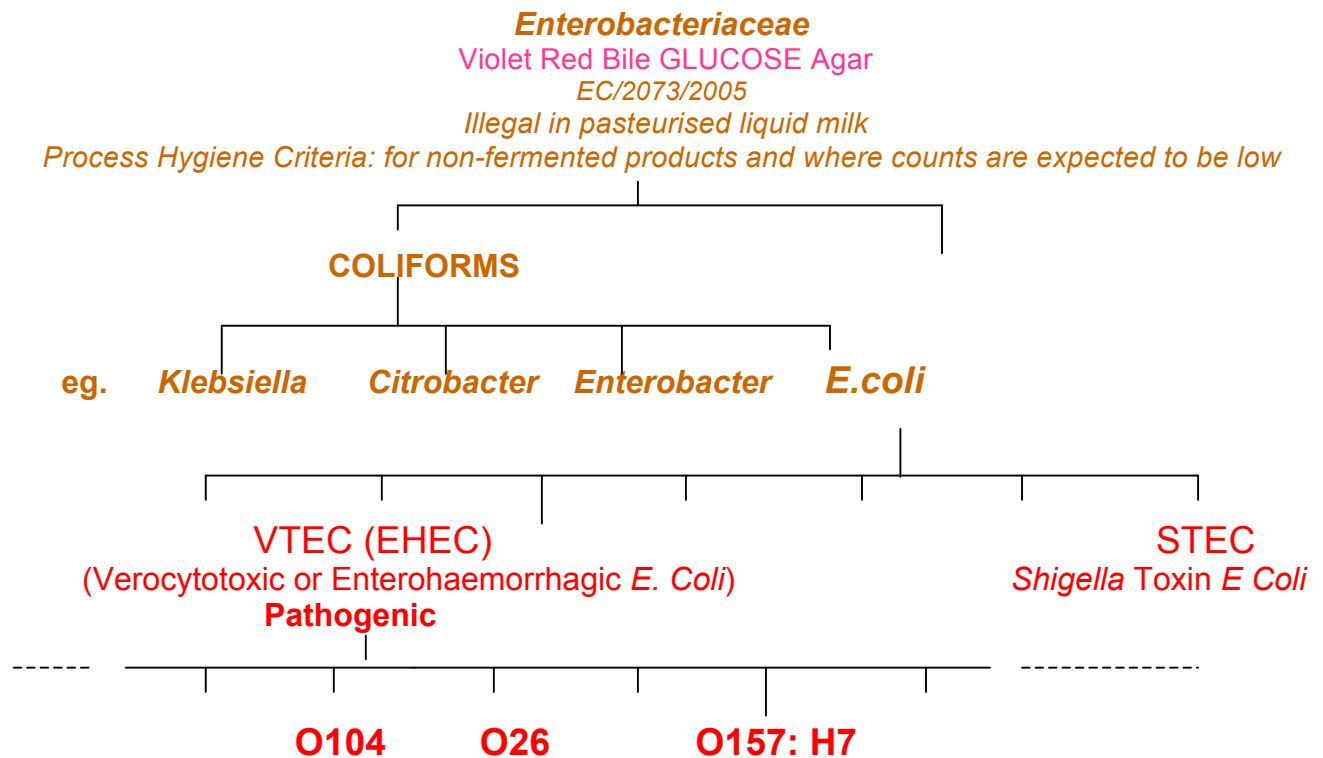


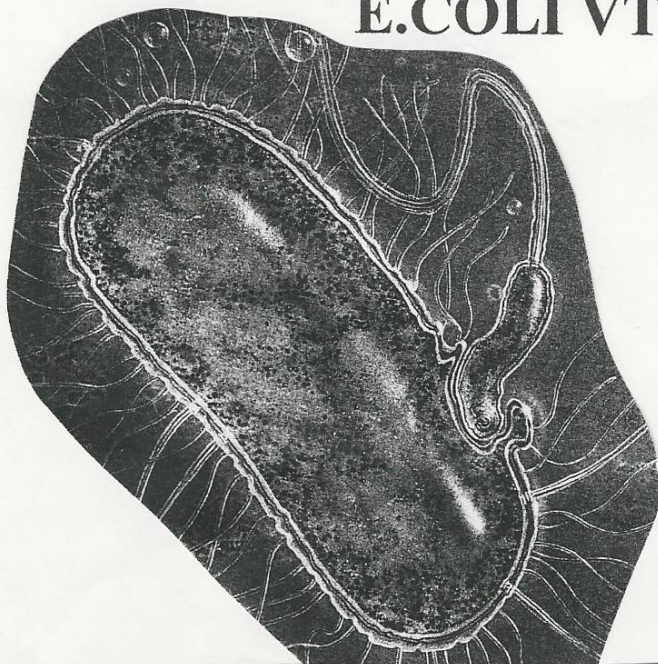
FAECAL CONTAMINATION

Groups of Faecal Organisms that can be tested for		
Indicators of poor hygiene	Coliforms	The collective terms for a number of families of bacteria that indicate poor hygiene practices : <ol style="list-style-type: none"> 1. Do not necessarily cause illness 2. Ferment lactose (milk sugar). 3. Produce gas 4. Destroyed by pasteurisation 5. Exist in the bowels of all humans and animals 6. EC/853/2004: <100 cfu/ml
	<i>E coli</i> (general –non-pathogenic)	
	<i>Enterobacteriaceae</i>	Generally, wider intestinal bacteria used for indicating hygiene post heat treatment,
Pathogenic	Pathogenic <i>E coli</i> eg. <i>VTEC O157, O26, 104, STEC</i>	Presence considered to be harmful to health or fatal. Legally required to be withdrawn from market

THE FAMILY TREE OF FAECAL CONTAMINATION



E.COLI VTEC H: 0157



VTEC 0157 Infection in West Yorkshire Associated with the Consumption of Raw Milk

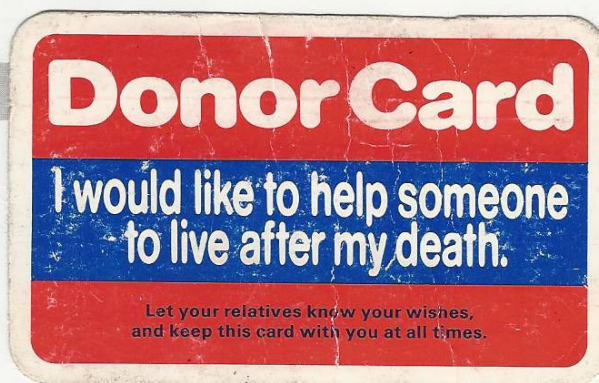
Executive Summary

The second outbreak of VTEC in England and Wales this year has recently been reported from West Yorkshire, where three people were affected. The first case to come to light was that of an elderly woman who presented with abdominal pain and diarrhoea. She regularly drank raw milk from a local producer. *Escherichia coli* O157 was isolated from both herself and from milk samples in her home.

Two further cases have been identified, one of which was also known to consume milk from this same source.

The farmer at the centre of the investigation was served a heat treatment order. Two cows and seven calves from his herd were found to be positive for *E. coli* O157. The first outbreak associated with raw milk occurred in Sheffield in 1993.

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E.coli 0157 – facts and figures for trainers

- 987 cases of *E. coli* 0157 have been confirmed in 1997 to date. This is an 80% year on year increase.
 - 26 outbreaks have occurred to date in 1997, 31% of which were reported to hospital.
 - *E. coli* 0157 is a much talked-about organism since this country's largest outbreak in Lanarkshire at the end of 1996, which killed 20 people.
 - Most of the *E. coli* found in human intestines are harmless but Vero Cytotoxin-producing *E. coli* (VTEC) produce potent toxins and can cause severe illness in man. VTEC are responsible for a range of illnesses which may be severe and sometimes fatal, particularly in infants, young children and the elderly. The most important VTEC strain associated with human disease is 0157.
 - 0157 VTEC can lead to a range of symptoms, including bloody diarrhoea and haemolytic uremic syndrome (HUS). HUS is characterised by acute renal failure and haemolytic anaemia. It is the major cause of acute renal failure in children in Britain as well as several other countries.
 - HUS develops in up to 10% of patients infected with 0157 VTEC. Some patients, usually adults, also show neurological complications.
- The incubation period prior to diarrhoea is usually 3 days, but can be from 1-14 days. In fit adults, symptoms will disappear within two weeks. Renal or neurological complications can remain for life. Bacteria are excreted for up to a week, but can survive much longer, particularly in children.
- Asymptomatic carriers of 0157 VTEC have been reported.
 - The fatality rate of 0157 VTEC infections is 1-5%, but can be much higher.

Figures courtesy of Public Health Laboratory Service.