



**COUNTY OF ORANGE  
HEALTH CARE AGENCY**

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**PUBLIC HEALTH  
EPIDEMIOLOGY & ASSESSMENT**

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To: Orange County Health Care Providers

**RE: *E. coli* O157**

We recently received an increase in reports of *E. coli* O157 in Orange County. **While we investigate these cases to try to identify a common source for these infections, we ask that you consider *E. coli* O157:H7 in your patients with bloody or unusually severe diarrhea and send stool cultures for *E. coli* O157:H7. In addition, all suspect or confirmed cases of *E. coli* O157:H7, hemolytic uremic syndrome, or positive Shiga toxin testing results should be reported immediately by phone to Orange County Public Health at 714-834-8180.**

***Description of Illness***

Diarrhea associated with *E. coli* O157:H7 illness often begins as non-bloody but usually progresses to bloody. It is often accompanied by severe abdominal cramping. Fever occurs in less than 1/3 of cases and, when present, may be low-grade. Hemolytic uremic syndrome (HUS) is a serious complication of *E. coli* O157:H7 infection that occurs in 4% to 10% of patients, usually within the first 2 weeks after onset of diarrhea. It is uncommon in adults and most cases occur in children under the age of 5 years. HUS is defined by the triad of microangiopathic hemolytic anemia, thrombocytopenia, and acute renal dysfunction. If patients with *E. coli* O157:H7 infection have no laboratory evidence of HUS three days after resolution of diarrhea, their risk of developing HUS is low. Fifty percent of HUS patients require dialysis; the mortality rate of HUS is 3% to 5%. Thrombotic thrombocytopenic purpura (TTP) is another complication of *E. coli* O157:H7 infection that can occur in adults.

***Laboratory Testing***

“*E. coli* O157:H7” must be specified on the laboratory request because the special culture medium required is not routinely set up in all labs. Although there is a test for the Shiga toxin produced by *E. coli* O157:H7, obtaining an isolate is critical so that pulsed field gel electrophoresis (PFGE) can be performed to see if the isolate matches those from other cases. All isolates of *E. coli* O157:H7 should be forwarded to the Orange County Public Health Laboratory for PFGE.

***Treatment***

Treatment consists of supportive care with correction of dehydration and electrolyte abnormalities. Anti-motility agents should not be used. Use of antibiotics is controversial, and most experts would not treat children with *E. coli* O157:H7 with antibiotics.

***Additional information***

For more information on *E. coli* O157:H7, see <http://www.cdc.gov/ecoli/>.

For a fact sheet for the public, see <http://www.ochealthinfo.com/epi/ecoli/EcoliFact.pdf>.