

Hemolytic Uremic Syndrome, Post-diarrheal

2011 Case Total	7	2011 Incidence Rate	0.19 per 100,000
2010 Case Total	11	2010 Incidence Rate	0.30 per 100,000

Hemolytic Uremic Syndrome (HUS) is a condition characterized by an acute onset of microangiopathic hemolytic anemia, renal injury and thrombocytopenia, with the majority of cases preceded by a diarrheal illness. In 2011, the incident rate of HUS in Oklahoma represented a 36% decrease from 2010. Post-diarrheal HUS became a nationally notifiable disease in 2000, and since that time, Oklahoma's incidence rate has been similar to the national incidence. From 2002 to 2011, the median annual number of reported HUS cases in Oklahoma was 5 (range: 2 to 51), and the overall case fatality rate was 3%.

In 2011, ages of post-diarrheal HUS cases ranged from 8 months to 68 years of age with a median of 3 years. The highest incidence rate occurred among persons less than 5 years of age (1.89 per 100,000, n = 5), followed by cases 5 – 9 years of age (0.39 per 100,000, n = 1), and 60 – 69 years of age (0.27 per 100,000, n = 1). Cases occurred among residents of seven Oklahoma counties.

The diagnosis of HUS is made through evaluation of a combination of laboratory test results. Anemia with microangiopathic changes shown on a peripheral blood smear was documented for 6 (86%) of the cases. Of those with microangiopathic changes (non-exclusive), schistocytes were most commonly seen (83%) compared to helmet cells (33%) and burr cells (17%). Both hematuria and proteinuria were reported in 71% of cases. Additionally, elevated creatinine was documented for 71% of cases and thrombocytopenia in 100% of cases. An etiologic agent was identified in six (86%) of the cases, which were *E. coli* O157:H7 (n = 5) and *E. coli* O121 (n = 1) with results confirmed by the Oklahoma State Department of Health, Public Health Laboratory.

Descriptive and Clinical Summary of Reported Hemolytic Uremic Syndrome Cases, Oklahoma, 2011 (N = 7)

	Frequency (%)	Rate/100,000
Gender		
Male	2 (29%)	0.11
Female	5 (71%)	0.26
Age	Median Age: 3 years (Range: 8 months – 68 years)	
Race		
White	6 (86%)	0.22
Two or More Races	1 (14%)	0.45
Non-Hispanic or Latino Ethnicity	7 (100%)	0.20
Symptoms		
Diarrhea	7 (100%)	--
Abdominal Cramps	6 (86%)	--
Bloody Diarrhea	5 (71%)	--
Vomiting	4 (57%)	--
Fever	1 (14%)	--
Hospitalized for this disease	7 (100%)	--
Hospitalization duration	Median Hospitalization: 16 days (Range: 11 days – 31 days)	
Died due to this disease	0 (0%)	--