



Norovirus Outbreak at University Golf Tournament in Travis County

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Norovirus Epi

Symptoms: Diarrhea, vomiting, nausea, stomach pain

Incubation: 12-48 hours

Duration: 1-3 days

Infectious period: while symptomatic and during the first few days after recovery

Transmission: person-to-person

- Eat food or drink liquids contaminated with norovirus
- Touch surfaces/objects contaminated with norovirus
- Direct contact with someone who is infected with norovirus
- Ingesting aerosolized vomit or diarrhea infected with norovirus

Prevention: Handwashing, Disinfection, Exclusion



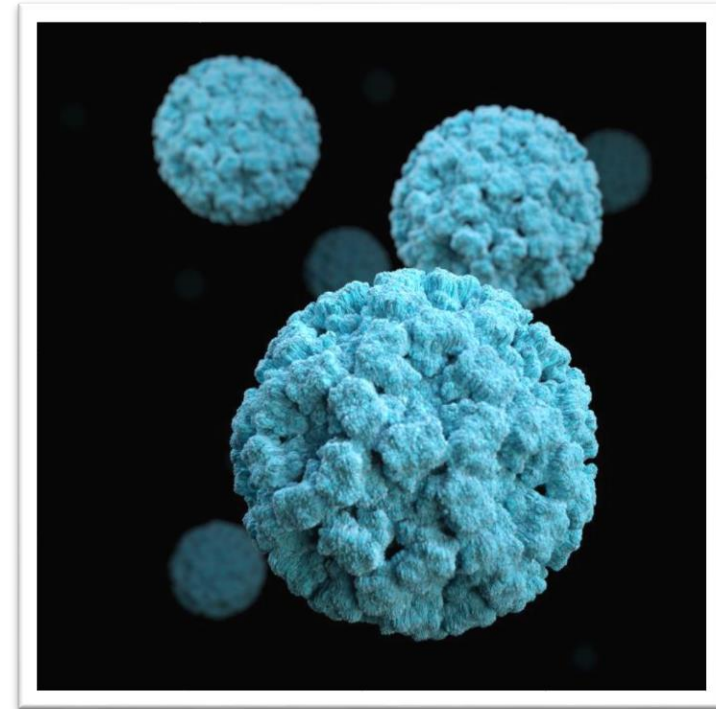
Norovirus Lab

33 different norovirus genotypes have been described

Noroviruses that infect humans are caused by 3 genogroups GI, GII, and GIV

In 2017-2018, predominate genotype reported to CDC was GII per CaliciNET*

In 2017, predominate genotype reported to DSHS through NORS was GII**



*Source: CaliciNET data: <https://www.cdc.gov/norovirus/reporting/calicinet/data.html>

**Source: Texas Department of State Health Services, Emerging and Acute Infectious Disease Branch
Prepared: September, 2018

Number of Norovirus Outbreaks Reported in NORS by Setting, 2017, Texas*

Setting	Count
Hospital	1
Long-term care/nursing home/assisted living facility	22
Other, specify (mental health clinic)	1
School/college/university	3
Unknown	1
Total	28



*Source: Texas Department of State Health Services, Emerging and Acute Infectious Disease Branch
Prepared: September, 2018

NORS Outbreaks by Mode of Transmission and Pathogen, Texas, 2013-2017*

Pathogen	Mode of Transmission						Total
	Food	Water	Person-to-person	Animal	Environmental	Indeterminate	
Salmonella	50	0	3	31	2	17	103
STEC	8	0	1	0	1	4	14
Listeria	5	0	0	0	0	0	5
Shigella	3	0	107	0	5	20	135
Campylobacter	5	0	1	0	0	13	19
Cyclospora	6	0	0	0	0	0	6
Norovirus	7	0	89	0	6	26	128
Vibrio	1	0	0	0	0	0	1
Other pathogen	1	0	1	0	1	5	8
Unknown	61	18	38	0	1	68	186
Total	147	18	240	31	16	153	605

*Source: Texas Department of State Health Services, Emerging and Acute Infectious Disease Branch
Prepared: September, 2018

Outbreak Investigation

Initial Notification

5/8/18 (Tuesday) morning: Tournament director notifies DSHS about several athletes and coaches sick with GI illness

DSHS notifies APH about outbreak

APH begins investigation

Virus at NCAA Women's Regional in Austin has players, coaches getting sick

By Ryan Herrington

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Courtesy of East Carolina athletics

Usually the queasy feeling in a player's stomachs while competing at NCAA Women's Regionals are simply due to the pressure of trying to help your team finish in the top six after 54 holes and claim a spot in the NCAA finals. But for coaches and competitors at the Austin Regional this week, the stomach issues appear to be something much worse.

Outbreak Setting – Golf Club

- University golf club hosted regional women's golf tournament May 7-9, 2018
- 18 collegiate teams from all over the US and Texas – 96 athletes, 44 coaches
- Teams spent May 5-6th practicing on course
- Course open to the public
- Teams stayed at 3 area hotels
- Lunch meals, snacks, and water were provided by the golf club – lunches were sack meals made in kitchen onsite
- Water coolers for self service and prepackaged snacks were placed on the course at two stations



Investigation Methods



- Tournament director provided list of coaches/teams and their contact information for interview
- Used general foodborne illness surveillance form to interview athletes and coaches on symptoms and 3-day food history
- Attempted to collect specimens on symptomatic cases
- Collected menus and daily orders from golf club for lunch service
- Notified environmental health to conduct a foodborne illness kitchen inspection
- Interviewed food handlers to determine if anyone was symptomatic or previously ill with GI illness

Results

- 17 total ill
- 10 of 96 athletes (10%), 6 of 44 coaches (14%) and 1 tournament representative reported ill
- Onsets of illness: 5/7/18 - 5/8/18
- 5 cases sought medical attention and 1 was hospitalized
- Hospitalized patient tested positive for Norovirus (genotype unspecified), stool cultures were negative

Results

- Common food exposure identified was food provided by the golf club for lunches on 5/6 and 5/7:
 - On 5/6, 8 of 10 interviewed reported eating chicken salad sandwich
 - On 5/7, 3 of 10 interviewed reported eating chicken salad sandwich
 - Other lunch items included cheeseburgers, tuna salad sandwich, turkey club sandwich, salad with chicken
- All athletes, coaches, and event staff used water coolers placed throughout the course 5/5-5/7
 - They stopped using coolers on 5/8 and transitioned to plastic water bottles
- 8 additional restaurants identified that teams reported eating from around Austin:
 - Not all teams dined at a single restaurant
 - Teams ate dinner meals together



Environmental Inspection



- Site visit conducted 5/10 and 5/11 to review deep cleaning procedures, food prep, menus, interview food handlers for symptoms of illness, hand hygiene education, worker exclusion policy, etc.
- Facility voluntarily closed the whole establishment including kitchen and clubhouse areas for 48 hours
- Disinfected the entire 16,000 sq. ft. facility with diluted bleach solution
- Three food handlers prepared chicken salad sandwiches on 5/6 and 5/7
 - None reported illness
 - No other event staff or kitchen staff reported illness
- Water coolers were discarded
- Facility reopened on 5/13/18

Conclusions and Last Steps

- Immediate implementation of prevention and control measures like setting up disinfection routines, hand hygiene education, excluding sick individuals, and removing shared use items (coolers) prevented further transmission of this outbreak
- Person to person transmission occurred either through consumption of contaminated food or by a commonly shared item(s)
- Lots of speculation from interviewed and worried well
- Tournament director sent an email notification to head coaches to provide norovirus information and education
- DSHS sent notification to affected states where athletes and coaches reside
- No additional cases were reported to APH