



Department of Health and Social Services
Joel Gilbertson, Commissioner

Division of Public Health
Karen Pearson, Director

Section of Epidemiology
John Middaugh, MD, Editor

3601 C Street, Suite 540, P.O. Box 240249, Anchorage, Alaska 99524-0249 (907) 269-8000
24-Hour Emergency Number 1-800-478-0084

http://www.epi.hss.state.ak.us

Bulletin No. 31 December 18, 2002

Gastroenteritis in Ketchikan – Interim Report #2 Illness Spreads to Other Communities

We recently reported on a large ongoing outbreak of gastrointestinal illness in Ketchikan, most likely caused by Norwalk-like virus (NLV).¹ Since then, similar clusters of gastrointestinal illness have been reported from Juneau and Craig. In addition, an outbreak of vomiting and diarrhea in an Anchorage daycare center in October was recently confirmed as NLV.

Ketchikan: As of December 16, questionnaires were completed on 200 case-patients in Ketchikan. The median age was 22 years; the range was 1 month to 93 years, 130 (65%) were female.

The mean duration of illness was 2 days. 43 (22%) saw a health care provider; 2 (1%) were hospitalized. 17 (9%) were given prescription medications for their illness. 157 (79%) had household contacts with a similar illness, and 73 (37%) had contact with children in a childcare setting during the seven days before illness. An outbreak of similar illness occurred at a naval camp near Ketchikan (SEAFAC) during the first week of November.

Symptoms	Patients
Nausea	83%
Vomiting	78%
Diarrhea	86%
Abdominal cramps	74%
Feverishness	49%
Chills	58%
Headache	50%
Body aches	59%
Fatigue	71%

Figure 1 shows onset dates of case-patients from Ketchikan, as well as SEAFAC personnel and their household contacts. The first case-patient at SEAFAC became ill on November 3; he had flown in that day from Bellingham, WA. Several SEAFAC patients were Ketchikan residents.

Juneau: 18 members of a Juneau dance troupe, including some of their chaperones, became ill with nausea, vomiting and diarrhea from December 6 to 10. Illness lasted 48 hours. The troupe traveled by ferry to Wrangell on December 4 and may have been exposed while onboard. Department of Environmental Conservation sanitarians worked with the two ferries on which the troupe traveled to assure that thorough disinfection and sanitation procedures were conducted. The investigation is continuing.

Craig: Over 75 elementary students were absent during several days in November with nausea, vomiting and diarrhea. Students from the middle school and high school also reported similar illness.

Anchorage: On October 1, 2002, a child vomited in the older infant room of an Anchorage day care center. Between October 1-17, 2002, 21 other daycare children and staff suffered gastrointestinal illness. Five cases of secondary transmission were identified among family members of ill children. Cultures of stools from five children were negative for enteric bacteria; two of the stools were positive for Norwalk-like Virus at the Centers for Disease Control and Prevention (CDC). Sequencing of the NLV obtained from the children's stools showed that the strain was similar to the strain found on recent cruise ships outbreaks.

Discussion: These outbreaks are probably caused by NLV. Stool samples from ill individuals in Ketchikan and Juneau are being analyzed at CDC. NLV is thought to be the most common cause of gastrointestinal illness in the U.S. Once present in a community, it is hard to eradicate due to its low infectious dose and numerous routes of transmission. NLVs are stable in the environment, resistant to freezing and somewhat resistant to heat inactivation by cooking. As few as 100 viral particles can cause illness.

An NLV strain similar to that seen on recent cruise ship outbreaks was found in an Anchorage daycare. Secondary spread to the community points to the ease with which the virus is spread through person-to-person transmission. Alaskans may face further outbreaks of NLV in other areas of the state as residents travel during the Holiday Season. Outbreaks of NLV have been reported in parts of Canada and the Lower 48 states, as well as several cruise ships.

The most immediate and effective way to prevent or decrease the spread of NLV is through frequent and meticulous hand washing. Food establishments should remind employees about the need for frequent hand washing and review proper hand washing procedures with their employees. Ill food handlers, bartenders and waitresses who have gastrointestinal symptoms should not work. In addition, food establishments should not allow any workers who have been sick with gastrointestinal symptoms to return to work until they have been free of symptoms for at least 72 hours.

Bulletins addressing NLV outbreaks with previous recommendations as well as an NLV Fact Sheet are available at our website: <http://www.epi.hss.state.ak.us>.

Recommendations:

1. Families with illness compatible with NLV (nausea, vomiting, diarrhea) should emphasize frequent hand washing for all family members. Persons who have gastrointestinal symptoms should not prepare meals and/or party foods.
2. Where illness has been observed, cleanup should use chlorine bleach at higher than normal concentration after episodes of vomiting (5000 ppm = 2 1/2 cups/gallon). Hard surfaces (counter tops, bathroom surfaces, doorknobs, handrails, telephones and floors) should be cleaned and then disinfected daily using chlorine bleach (1000 ppm = 1/2 cup/gallon).
3. Food establishments should prevent employees with gastrointestinal symptoms from working. Employees should not work for at least 72 hours after symptoms have resolved.
4. Clusters of any gastrointestinal illness should be reported to the Section of Epidemiology during working hours (907-269-8000) or after hours (1-800-478-0084).

¹State of Alaska Epidemiology *Bulletin*: Outbreak of Gastroenteritis in Ketchikan – Interim Report, No. 30, December 12, 2002.

Figure 1.

Cases of Gastroenteritis by Onset Date-- Ketchikan, AK 2002

