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MYSTERY DIARRHEA AT ALASKA PSYCHIATRIC INSTITUTE

On June 27, the Epidemiology Office was requested to investigate an acute outbreak of gastrointestinal illness at the Alaska Psychiatric Institute. Cases were reported among residents of a locked unit for the criminally insane. No cases were reported among staff members working in any API units. Epidemiologic investigation proved difficult indeed. Several residents recorded as having diarrhea by API staff claimed, when questioned directly, that they had not been ill. Discrepancies existed between what was on the daily API menu and what residents claimed to have eaten. Difficulty was encountered in obtaining stool samples. Samples of foods eaten the day preceding the outbreak were unavailable for testing.

Of 22 residents in the locked unit, 13 claimed to have been ill. Their illness was characterized by diarrhea (100%), abdominal pain (69%), nausea (38%), chills (8%), bloody stools (8%), and vomiting (0). Residents who were ill suffered a median of three diarrheal stools. Onset of diarrhea as reported by 12 of the 13 affected residents is shown on the chart below. (one resident was uncertain as to onset)



Illness lasted 1-24 hours. Rates of illness were calculated by age, location of bedroom within the unit, length of stay on the unit, and race. While some clustering of cases by race and by bedroom within the unit occurred, no significant associations were observed.

Residents and staff of the unit claimed that no food was brought in from outside API during the two days prior to the beginning of this outbreak. While three cases were said to have occurred on other units at API, we could not confirm this. Residents on all units eat foods sent out from a common kitchen. A list of foods likely to have been eaten the day before the outbreak was compiled, and food-specific attack rates were developed based on answers to a questionnaire presented to residents

individually. While a number of foods appeared to be associated with illness, none provided a convincing explanation for the occurrence of cases in some residents and not in others.

Several stool samples were obtained from residents who had complained of diarrhea but no enteric pathogens were isolated. No new cases developed during the week following this outbreak.

Symptoms reported and circumstances elaborated by our investigation point to a bacterial etiology. While we feel Clostridium perfringens is a likely bacterial candidate, the food sent to the unit where illness occurred should have differed little from that sent to the eight other units which were unaffected. No specific food was implicated by analysis of food-specific attack rates. Discovery of the etiology of an outbreak of gastrointestinal illness can be difficult. When an outbreak is suspected, early investigation and collection of appropriate specimens of food and biologic samples for laboratory analysis offer the best hope of determining the cause.

(Reported by Philip D. Hardie, M.D., Medical Officer, Alaska Psychiatric Institute, Sue McKechnie, Department of Environmental Conservation).