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Bulletin No. 28
December 30, 1983

DISEASE REPORTING HALTS MAJOR SALMONELLA EPIDEMIC

December 2, 1983, Joan Rodgers, Infection Control Nurse, Providence Hospital, Anchorage, notified the Epidemiology Office of a 17-month-old Anchorage boy with gastroenteritis whose stools were positive for Salmonella heidelberg. Both the infant and his mother were suffering severe diarrhea, vomiting, cramps, chills, and fever. They and their physician were concerned that the illness might relate to chili-cheese burgers eaten at an Eagle River restaurant the evening before they became ill.

December 5, Mrs. Rodgers reported three more patients with culture confirmed Salmonella heidelberg enteritis, all of whom gave a history of having patronized the same Eagle River restaurant within 48 hours before becoming ill. During the days that followed, patients with positive cultures were reported by Barbara Penny, Infection Control Nurse, Humana Hospital, and by private physicians in Anchorage, Palmer, Eagle River, and Wasilla. A special surveillance effort was initiated among Eagle River physicians for patients with gastroenteritis.

Identified patients with active diarrhea were interviewed and were asked to submit stool cultures to the South Central Regional Laboratory. The Anchorage Department of Health and Environmental Protection participated in the investigation.

There was sufficient information by December 8 to indicate the existence of an epidemic of Salmonellosis associated with patronage at the restaurant. Interviews with restaurant staff documented gastroenteritis among them, and stool cultures positive for Salmonella heidelberg were obtained from several food handlers. Management of the restaurant cooperated with the investigation; the restaurant was closed December 8.

Investigation (as of December 23, 1983) revealed 55 individuals whose symptoms began within 72 hours of having eaten at the restaurant. Of the 55, seven were hospitalized, and 27 had stool cultures positive for Salmonella heidelberg, a serotype relatively uncommon in Alaska. The chart below shows that all cases occurred within a two-week period beginning 11/26. Incubation period was between 10-90 hours with over 70% of patients becoming ill within 24 hours of eating at the restaurant. Symptoms included diarrhea, nausea, vomiting, chills, and fever. Patients were identified as residing in Anchorage (19), Eagle River (29), Chugiak (2), Wasilla (4) and Seattle (1).

Of the 55 identified patients, 10 had eaten at the restaurant more than one time during the week before they became ill, while 45 had only a single exposure. The 45 were interviewed in detail about what they had to eat, and for comparison, their table mates who did not become ill were also

questioned. Preliminary analysis indicated possible association between illness and consumption of chili, fruit garnishes, and omelets. Further analysis of the relationship between specific foods and illness is underway.

Despite having looked for other restaurants and institutions as sources of Salmonella heidelberg infections, we have not identified a source other than the single Eagle River restaurant. We are unaware of secondary transmission of Salmonella from restaurant-associated patients to their family members.

Control of this epidemic of Salmonellosis was facilitated by the rapid identification of a single restaurant as source, made possible by the prompt and enthusiastic reporting of Salmonella patients. This was very much in contrast to the protracted epidemic of Salmonella enteritidis related to a Fairbanks restaurant (Bulletin No. 25, week ending November 4, 1983, Epidemic Gastroenteritis Traced to Fairbanks Restaurants). In the current situation, the combined efforts of a patient, her physician, and especially the Infection Control Nurse of an Anchorage hospital led to early investigation of a major outbreak of Salmonella. Prompt institution of control measures prevented an epidemic which would have resulted in hundreds of cases. The importance of disease reporting by private physicians, hospital infection control nurses, and hospital laboratories cannot be underestimated.

(Reported by Joan Rodgers, Infection Control Nurse, Providence Hospital; Barbara Penny, Infection Control Nurse, Humana Hospital; T. Skala, D.O., D. Savikko, D.O., R. Myers, M.D., Eagle River; Dorothy Straub, Jean Leary, Mary Lee Cook, PHNs; Lynn Coad, Environmental Specialist; Rodman Wilson, M.D., Dan Janik, M.D., Anchorage Department of Health and Environmental Protection; Ilike Geistratus, Rose Tanaka, SCR Laboratory, Anchorage; and numerous patients, physicians, and hospital laboratories throughout South Central Alaska)

Gastroenteritis in Restaurant Patrons

