Louisiana

LOUISIANA HEALTH AND HUMAN RESOURCES ADMINISTRATION
DIVISION OF HEALTH

MONTHLY MORBIDITY REPORT

Provisional Statistics

FROM THE

OFFICE OF PUBLIC HEALTH STATISTICS

Reported Morbidity
November, 1975

SUSPECTED CHEMICAL POISONING FROM AN ORANGE DRINK MACHINE-CROWLEY, LOUISIANA

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On September 10, 1975, the Epidemiology Unit was notified that approximately 30 sixth grade students attending an Acadia Parish elementary school become ill shortly after eating the noon meal on Monday, September 8, 1975. An investigation was conducted by the local health unit with assistance from the State's Bureau of Laboratories and the Epidemiology Unit.

The noon meal on September 8 included beef stew, peas and carrots, cole slaw, pineapple slices, biscuits, milk, and an orange drink. A questionnaire was administered to 15 of the ill students and to 10 of their classmates who were not ill to develop food specific attack rates and to characterize the illness. Analysis of the food histories could not implicate any item as the vehicle, but consumption of the orange drink seemed possibly related with illness (P=.12). The illness was characterized by nausea (100%), abdominal cramping (87%), vomiting (80%), dizziness (33%), diarrhea (20%), chills (13%), and no fever. It began about 30 minutes after eating the meal and lasted for less than two hours. No hospitalizations were required.

Further questioning concerning the orange drink revealed (1) that it was prepared in a machine in the school's cafeteria, (2) that many students had complained that day about its "metallic" taste, and (3) that the school principal had ordered the drink not be served once the illness occurred. Chemical analysis of the drink and its individual ingredients was performed by the Bureau of Laboratories; the heavy metal selected for analysis was copper. The individual ingredients, city water and an orange syrup, tested .1 ppm and 5.45 ppm, respectively. The mixture, before being subject to CO_2 gas in the machine's mixing chamber, tested 0.16 ppm. The mixture after bubbling in the chamber for a few minutes tested 1.15 ppm, for 12 hours 11.40 ppm. Additional questioning of the cafeteria employees revealed that the machine had not been cleaned before the start of the weekend, September 6-7, but rather had been left running. Hence the orange drink served at the suspect noon meal had been allowed to sit in the mixing chamber for 3 days.

An investigation of the machine and its owner revealed the following:

(1) The machine involved in this outbreak is a modified milk shake machine with a mixing chamber that consists of 60% copper alloy.

(2) Since 1969 the owner had known that

this type of machine (model 890 or 925L "Freez King" water cooled milk shake machine, purchased from Tastee-Freez International, Incorp., Des Plaines, Illinois) was designed only for the handling of dairy products and that by modifying the machine for dispensing carbonated slush, there could be a "toxic" effect from the reaction of the carbonation on the metal parts.

(3) Many of these machines have been distributed to state public schools.

On December 5, 1975, the LHHRA, Milk and Dairy Products Unit, recommended to the owner that the machines be removed from operation because of their potential health risk. They are to be returned to operation only after appropriate adjustments are made to the mixing chamber (e.g. such as stainless steel coating of the mixing chamber).

SYPHILIS: VDRL vs. FTA-ABS

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The Bureau of Laboratories of the Division of Health offers the quantitative VDRL test and the Fluorescent Treponemal Antibody-Absorption (FTA-ABS) Test to aid in diagnosing syphilis. At least 5 ml of whole blood or 2 ml of serum should be submitted in a clean collection tube. Take care not to subject blood specimens to agitation or extreme temperatures. Blood should be allowed to clot at room temperature and then be stored under refrigeration (do not freeze) until shipping. A Request for Laboratory Examination form should be completed in dark pencil, entering the name of the test requested under "Purpose of Examination." The form should be wrapped around the dry tube and securely bound with a rubber band.

The FTA-ABS test is not designed for routine usage. It should be employed only if repeated reactive VDRL's cannot be explained or if there is a clinical suspicion of syphilis in conjunction with a negative VDRL.

The VDRL may be non-reactive when the primary chancre first appears, but the test will become reactive within 4 weeks. The VDRL is nearly always reactive to 16 dilutions or more in secondary (early infectious rash) syphilis. Since the titer rises rather rapidly and then tends to subside after a year or so, early syphilis should be considered in any young patient with VDRL titers of 8 dilutions or more. The classical features of secondary syphilis in association with a VDRL reactive to 16 dils or greater is diagnostic.

The quantitative VDRL is performed by diluting the serum in geometric progression and is reported at the highest dilution in which the specimen is reactive. Differences of one dilution (i.e. 2 dils to 4 dils, or 128 dils to 64 dils) on subsequent tests are not significant. However, a two dilution rise (4 dils to 16 dils) may indicate early infection or reinfection. A notable exception to this is in congenital syphilis in adults where titers may be high and fluctuate greatly.

Unfortunately, all serologic tests for syphilis may be reactive after the patient is treated. Generally, the longer a patient has had the disease before treatment, the longer the test will remain reactive. The VDRL declines more rapidly after treatment than does the FTA-ABS. The VDRL should become non-reactive within a year after treatment for primary syphilis and within 18 months after treatment in the secondary stage. VDRL's for patients treated later in the infection may slowly decline to non-reactive or remain reactive for life.

The passive transfer of reagin from an adequately treated mother to the fetus will cause the infant to have a reactive syphilis serology. The reactive VDRL due to passively transferred reagin usually reverts within 3 months, but a rising titer suggests congenital syphilis. The decision to treat the serologically reactive infant usually depends on the history of the mother rather than the laboratory results.

NEW INFLUENZA STRAIN ISOLATED

An influenza A2 virus slightly different by laboratory testing from the Port Chalmers and Scotland A2 strains has been isolated from cases in Taiwan, Philippines, Australia, and New Guinea. This new strain, called the Victoria A2 strain, has not been isolated in the United States. Moreover, there have been no influenza outbreaks this fall in the continental United States according to the Center for Disease Control.

Current influenza vaccine contains antigen from Port Chalmers and Scotland A2 strains and from Hong Kong B strain. These strains were prevalent throughout the world last year. The Port Chalmers A2 strain caused the epidemic in New Orleans in January and has again been recently isolated in several states. To date, neither A nor B strains have been isolated in Louisiana this influenza season. The current vaccine does not contain antigen from the Victoria A2 strain; however, theoretically the vaccine may provide some protection against the new strain. Evidently the new strain shares some important immunologic features with the Port Chalmers strain.

Whether or not the Victoria A2 strain will be a problem in Louisiana this year is not known. Physicians are encouraged to support surveillance efforts and report to their local health unit any suspicious clusterings of upper respiratory illness. Viral cultures of suspicious cases should be attempted. Pharyngeal swabs or throat washings placed in any type of transport media (i.e. brain-heart infusion broth is preferred) should be kept cold, frozen if possible, and sent at once for processing to: Dr. Robert Gohd, Viral Laboratory, Charity Hospital of New Orleans, 1532 Tulane Avenue, New Orleans, Louisiana 70112. Serology, both acute and convalescent specimens, should be sent directly to your regional laboratory. Please label each specimen with name and address of patient, patient's age and sex, type of culture desired (e.g. "viral culture for influenza"), and doctor's name and address. Questions about viral isolations can be addressed to Dr. Robert Gohd at (504) 524-9654.

NOTE: Notice was received on December 12, 1975 from the Public Health Service, Center for Disease Control, Atlanta, Georgia, that Victoria A2 strain was isolated in November from school children in Honolulu, Hawaii. Influenza B strains were also isolated and are undergoing antigenetic analysis.

HEAD LICE CONTROL

Head lice infestation is an important problem to parents, school officials, and other institutional groups. Control of the problem is made difficult in settings conducive to close exposure. Past investigations have shown transmission to occur by sharing of combs and brushes or by coats hung next to each other.

Diagnosis is not easy. The only symptom is intense scratching, possibly leading to secondary scalp infection. Adult lice are 4 mm long and may be seen among hair shafts. Nits (louse eggs) are tiny oval globules about 1 mm in size stuck onto hair shafts. They are not easily brushed off and are easily felt as "hard lumps" on the hair shaft.

Once identified, control measures should include the home contacts and school contacts as well as the individual. Moreover ALL AFFECTED MEMBERS OF A GIVEN HOUSEHOLD (SCHOOL, ETC.) MUST BE TREATED SIMUTANEOUSLY otherwise cure will be temporary. An outline of head lice control measures follows:

1. Individual Treatment
   - A. Carefully examine <u>all</u> members of the family for evidence of infestation.
   - B. Infected individual should shampoo with one of the following medications:
     - Tisit
     - A-200 Pyrinate liquid or gel
     - Carbacide powder
     - Cuprex
     - Bornate lotion
     - Kwell (gamma benzene hexachloride)
     - Derbac Tac medicated soap

     Repeat treatment in 10 days to kill newly hatched lice.
   - C. After shampooing, remove all nits with fingernails or a fine tooth comb.
   - D. Carefully wash all <u>brushes</u> and combs.
   - E. In severe or re-infected cases, 1% Malathion may be dusted into the hair and allowed to remain 24 hours before shampooing.

II. Home Control Measures
   - A. All clothing and bedding used within 1 month of infestation must be laundered in hot soapy water or dry cleaned.
   - B. 1% Malathion or one of the common household insecticides should be used to treat mattresses, upholstered furniture, and shelves on which head and neck apparel are stored.
   - C. Pets that are frequently cuddled by infected children may serve as a temporary (unintentional) refuge for head lice and may also be treated with shampoo or Malathion.

III. School Control Measures
   - A. Carefully examine <u>all</u> children in the same grade or classroom for head lice.
   - B. Keep all infected children out of school until free from lice and nits.
   - C. Keep children's clothing separate from that of other children at all times. Ideally each child should have an individual coat hook or locker.
   - D. Children should not share articles of clothing.

SELECTED REPORTABLE DISEASES

(By Place of Residence)

STATE AND PARISH TOTALS Reported Morbidity November, 1975	ASEPTIC MENINGITIS	DIPHTHERIA	ENCEPHALITIS	ENCEPHALITIS, POST INFECTIOUS	HEPATITIS A AND UNSPECIFIED	HEPATITIS B	TUBERCULOSIS, PULMONARY	MENINGOCOCCAL INFECTIONS	PERTUSSIS	RABIES IN ANIMALS	RUBELLA*	SEVERE UNDERNUTRITION	SHIGELLOSIS	TYPHOID FEVER	OTHER SALMONELLOSIS	TETANUS	MEASLES	GONORRHEA	SYPHILIS, PRIMARY AND SECONDARY
TOTAL TO DATE 19 74	140	0	16	5	564	167	503	46	20	21	130	18	163	10	229	3	12	22792	557
TOTAL TO DATE 19 75	129	0	35	10	532	178	476	38	56	7	290	12	117	10	221	5	1	19978	498
TOTAL THIS MONTH	4	0	4	0	50	18	48	2	5	0	1	0	3	0	17	1	0	1186	42
ACADIA																		6	
ALLEN																		5	
ASCENSION																		3	
ASSUMPTION																		1	
AVOYELLES					1													1	1
BEAUREGARD	1																	2	
BIENVILLE																		5	
BOSSIER					3		2											10	2
CADDO					2	2	4						1		3			123	3
CALCASIEU							1											68	
CALDWELL																			
CAMERON																		2	
CATAHOULA			1															3	
CLAIBORNE															1			5	
CONCORDIA	1				2		1								1			2	
DESOTO																		8	
EAST BATON ROUGE					3		3								2			57	1
EAST CARROLL																		9	
EAST FELICIANA																			
EVANGELINE																			
FRANKLIN																			
GRANT							1											4	
IBERIA																		3	
IBERVILLE							1											7	
JACKSON																		5	
JEFFERSON					18	3	3	1	1		1							68	6
JEFFERSON DAVIS					1													5	
LAFAYETTE							1											18	
LAFOURCHE																		10	
LASALLE																		1	
LINCOLN																		19	
LIVINGSTON																		4	
MADISON					1													5	
MOREHOUSE							2											19	
NATCHITOCHES																		13	
ORLEANS					4	10	1	1							1			313	23
OUACHITA			3				3									1		55	
PLAQUEMINES																		12	
POINTE COUPEE																			
RAPIDES						1	10								5			60	2
RED RIVER																		1	
RICHLAND																		1	1
SABINE																		4	
ST. BERNARD					2													2	
ST. CHARLES						1												1	
ST. HELENA					1		1											4	
ST. JAMES																		4	
ST. JOHN							1		1									6	
ST. LANDRY							2											10	
ST. MARTIN									1									10	
ST. MARY					1		1											4	
ST. TAMMANY					2		1											24	
TANGIPAHOA					1		2											20	
TENSAS																			
TERREBONNE					2				1									10	3
UNION							1											8	
VERMILION					1		2												
VERNON	2				4	1							2		3			87	
WASHINGTON							2		1									10	
WEBSTER															1			27	
WEST BATON ROUGE							1											7	
WEST CARROLL					1													2	
WEST FELICIANA																		11	
WINN							1											1	
OUT OF STATE																		1	

* Includes Rubella, Congenital Syndrome

From January 1 through November 30, 1975, the following cases were also reported: 4-Brucellosis: 1-Malaria (contracted outside the U.S.A.): 2-Rocky Mountain Spotted Fever