

Diarrheal Diseases

Principal Investigator : Joe D. Worsham, SFC

Associate Investigator : Chiraphun Duangmani, M.D.

OBJECTIVE: To monitor the occurrence of enteric pathogenic bacteria in diarrheal diseases in Thailand.

BACKGROUND: This laboratory was originally established to study diarrheal diseases in Thailand. It has become recognized and respected for the completeness of identification of enteric organisms, both by biochemical means and by serological techniques.

With the discovery of Vibrio parahaemolyticus as a probable cause of diarrhea in Thailand, certain aspects of SMRL's routine survey for enteric pathogens was de-emphasized. In August of 1971, it was determined that the routine survey of nursery employees at Children's Hospital in Bangkok could be conducted by the laboratory at that facility. This relieved some of the work load of the enteric identification laboratory and permitted more work to be done on research projects.

This laboratory continues to maintain a thorough and accurate capability to isolate and identify enteric pathogens.

RESULTS: Tables 1 through 4 indicate the findings of the enteric identification laboratory during the past year.

Table 1.
Enterobacteriaceae Isolated From Patients With Acute Diarrhea in Thailand

Month	Thai National					American National				
	No. of Specimens	No. of Patients	Salmonella	Shigella	Pathogenic E. coli	No. of Specimens	No. of Patients	Salmonella	Shigella	Pathogenic E. coli
Apr	235	84	6	1	86	3	3	—	1	—
May	178	76	1	2	59	5	5	1	—	3
Jun	275	87	2	1	87	2	2	—	—	—
Jul	331	101	2	1	122	3	3	—	—	2
Aug	140	74	—*	1	53	3	3	—	—	1
Sept	28	28	5	2	2	—	—	—	—	—
Oct	29	28	1	—	5	3	3	—	—	—
Nov	26	26	—	—	8	—	—	—	—	—
Dec	25	25	—	—	8	4	4	—	—	2
Jan	16	16	—	1	6	—	—	—	—	—
Feb	38	35	6	1	25	—	—	—	—	—
Mar	26	26	1	2	14	1	1	—	—	—
Total	1,347	606	24	12	475	24	24	1	1	8

* No isolation

Table 2.
 Salmonellae Species Isolated From Patients With Acute Diarrhea In Thailand
 (1 April 1971 — 28 March 1972)

Species	Thai National				American National			
	Children	Adults	Unknown	Total	Children	Adults	Unknown	Total
<u>S. derby</u>	3	1	—	4	—	—	1	1
<u>S. weltevreden</u>	1	—	—	1	—	—	—	—
<u>S. typhosa</u>	5	1	—	6	—	—	—	—
<u>S. anatum</u>	1	1	—	2	—	—	—	—
<u>S. poona</u>	7	—	—	7	—	—	—	—
<u>S. ndolo</u>	—	1	—	1	—	—	—	—
<u>S. lexington</u>	1	—	—	1	—	—	—	—
<u>S. meleagridis</u>	1	—	—	1	—	—	—	—
<u>S. stanley</u>	1	—	—	1	—	—	—	—
Total	20	4	—	24	—	—	1	1

Table 3.
Shigellae Species Isolated From Patients With Acute Diarrhea In Thailand
(1 April 1971.—28 March 1972)

Species	Thai National				American National			
	Children	Adults	Unknown	Total	Children	Adults	Unknown	Total
<u>Sh. flexneri 2</u>	5	—	—	5	—	—	—	—
<u>Sh. flexneri 3</u>	—	1	—	1	—	—	—	—
<u>Sh. flexneri 4</u>	1	—	—	1	—	—	—	—
<u>Sh. flexneri 6</u>	1	—	—	1	—	—	—	—
<u>Sh. sonnei form 1</u>	2	—	—	2	—	1	—	1
<u>Sh. dysenteriae 4</u>	1	—	—	1	—	—	—	—
<u>Sh. dysenteriae 7</u>	—	1	—	1	—	—	—	—
Total	10	2	—	12	—	1	—	1

Table 4.
 Pathogenic Escherichia coli Isolated From Patients With Acute Diarrhea In Thailand
 (1 April 1971—28 March 1972)

Serotypes	Thai National				American National			
	Children	Adults	Unknown	Total	Children	Adults	Unknown	Total
055 : B5	2	—	—	2	—	—	—	—
026 : B6	1	—	—	1	—	—	—	—
0127 : B8	30	1	—	31	—	—	—	—
0119 : B14	64	1	—	65	—	—	1	1
0112 : B11	1	—	—	1	—	—	—	—
0125 : B15	6	—	—	6	—	—	—	—
0126 : B16	149	—	—	149	—	—	—	—
0128 : B12	2	—	—	2	—	—	—	—
025 : B19 : B23	26	—	—	26	—	—	—	—
086 : B7	4	—	—	4	—	—	—	—
0111 : B4	4	—	—	4	1	—	—	1
334 a	137	2	—	139	—	2	3	5
B2C	44	—	—	44	1	—	—	1
B7a	1	—	—	1	—	—	—	—
Total	471	4	—	475	2	2	4	8