RESULTS

of 500 diarrheal stool specimens, 41 Salmonellae, 23 Shigellae and 58 Enteropathogenic Escherichia coli were isolated. Along with the Enterobacteria, 5 isolates of Vibrio El Tor were found. The susceptibility of these enteropathogens were performed with ten antimicrobial agents; ampicillin, oxytetracycline, chloramphenicol, furazolidone, colimycin, neomycin, kanamycin, nalidixic acid, erythromycin and cotrimoxazole. The most effective agents against Salmonella, Shigella and Enteropathogenic Escherichia coli were co-trimoxazole, furazolidone, ampicillin and nalidixic acid. A little inferior to these drugs were neomycin and colimycin, Kanamycin was less effective. The well-known chloramphenicol and oxytetracycline which were previously to be shown excellent in inhibition of the organisms in these three groups, were no longer effective. All the results in this experiment were shown in Tables 5 to 10, and Diagrams 3 to 7.

Table 5

The organisms isolated from 500 diarrheal stool specimens

Organism	No.of isolating organism	Percentage
Aerobacter	31	6.2
Arizona	3	0.6
Citrobacter	8	1.6
Enterococci	18	3.6
Enteropathogenic Escherichia coli	58	11.6
Escherichia (non-painogenic)	398	79.6
Klebseilla	46	9.2
Froteus	84	16.8
Providence	9	1.8
Pseudomonas	52	10.4
Vibrio El Tor	5	1.0
Salmonella	. 41	8.2
Shigella	23	4.6

Table 6

Serological examination of Salmonella

	Number		Nu	mber of a	Number of agglutinable organisms	organisms	Was verkist verkjesja enkelnoge in verkindeste ensemblighet verkin. De si	i
Biotype	of	Poly valent	Group A	Group B	Group A Group B aroup C1,62 Group D	Group D	Group E	1
	Organism O & H		(Z-0,a-H)	(H-0,0-4)	(2-0,a-H) (4-0,b-H)(6,7-0,c-H) (9-0,d-H)	(H-p,0-6)	(H - 9)	5
Salmonella spp.	41	+	NA	NA	NA	NA	NA.	1
Salmonella typhi	27	+	1	•	1	+	,	
Salmonella paratyphi A	۷.	+	+	!		1	ı	
Salmonella paratyphi B	7	+	1	+		1	,	******
Salmonella peratyphi C	9	+		1	+		ı	
Salmonella gr. E	4	+	1	1	,	1	+	
	-							

agglutination

- = no agglutination

NA = not avialable

Table 7

Serological examination of Shigella

								The state of the s
Biotype	Number of.	Shigella dysenteriae	lla iae	Shigella flexneri	Shigella sonnei	Shigella	Shigella boydii polyvalent	Lyvalent
	organism	(1 - 2)	(3 - 10)	(3 - 10) (1 - 6, X and Y)	phase 1 and 2	1 (1 - 6)	2(7 - 11)	1 (1 - 6) 2(7 - 11) 3(12 - 15)
Shigella flexneri	77		•			•		-
Shigella dysenteriae	2	•	+	1	ı		1	
Shigella sonnei	9			•	+		•	•
Shigella boydii 1	-	1	•	•		+	•	1
Shigella boydii 2	-	•	•	1	1		+	•
Shigella boydii 3	-	ı	ı	1	•	ı	1	+

+ = agglutination

-- = no agglutination



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Table 8
Serological examination of enteropathogenic
Escherichia coli

OB antise	Escher				Reurc	No.of agglutinate enteropathogenic Escherichia coli
0 25	:	B 19	:	B	23	24
0 125	:	B 15				12
0 86	:	В 7			,	6
0 128	:	B 12				5
0 26	:	E 6				4
0 112	:	B 11				3
0 119	:	B 14				3
0 5 5	: 1	B 5				1

Table 9
Serological examination of Vibrio

Organism	No. of age	glutination
	Inaba	Ogawa
Vibrio El Tor	•	5

Table 10

The relationship between the age gramps and enteropathogenic organisms.

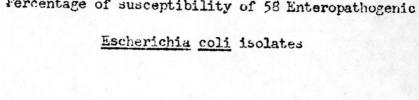
į.	Number of	Salmonella	ella	Shirella	11a	enterop Escheri	enteropathogenic Escherichia coli	Vib	Vibrio	Proteus	ens
ratients	specimens	No.	ÞZ	No.	88	No.	88	No.	88	No.	88
New borns	117	2	4.3	0	0	22	18,8	0	0	=	4.6
Children	232	31	13.4	17	4.3	7. 3 46. 19.8	19.8	6	0.9	0.9 58	25.0
Adults	151	٧.	3.3	9	0.4	0	0	~	1.3	1.3 15	6.6

The susceptibility tests. All the enteropathogenic organisms and 84 Proteus isolated were tested for their susceptibility to antimicrobial agents. The results were shown in Table 11 to 20. The antimicrobial agents used were:

- 1. Ampicillin
- 2. Chloramphenicol
- 3. Colimycin
- 4. Co-trimoxazole
- 5. Erythromycin
- 6. Furazolidone
- 7. Kanamycin
- 8. Nalidixic acid
- 9. Neomycin
- 10. Oxytetracycline

Percentage of susceptibility of 58 Enteropathogenic

Diagram 3



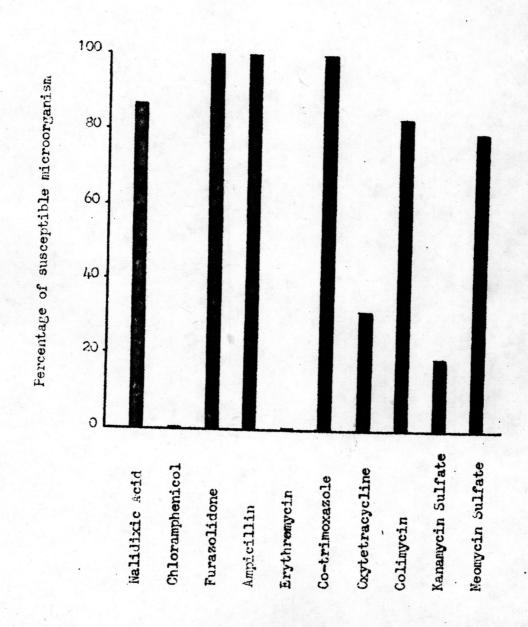


Diagram 4

Percentage of susceptibility of 41 Salmonella isolates

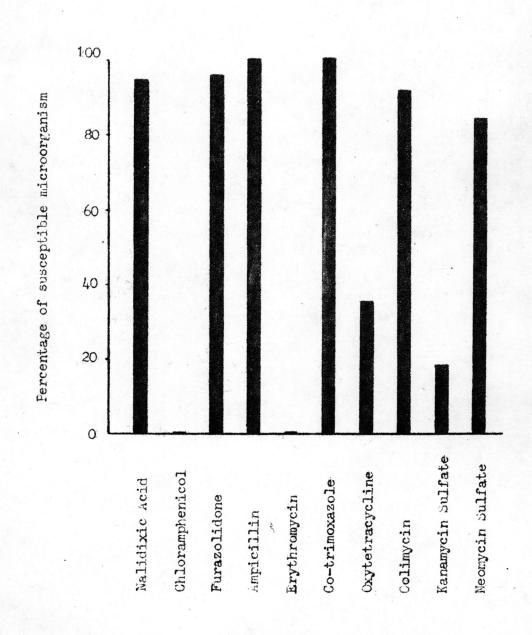


Diagram 5

Percentage of susceptibility of 23 Shigella isolates

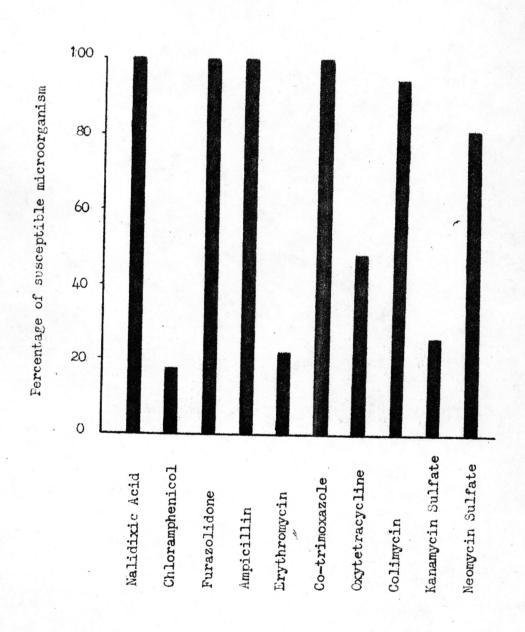


Diagram 6

Percentage of susceptibility of 5 Vibrio isolates

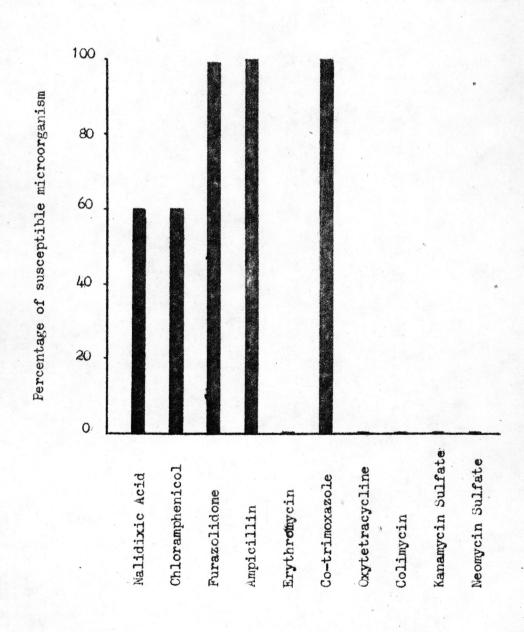


Diagram 7

Percentage of susceptibility of 84 Proteus isolates

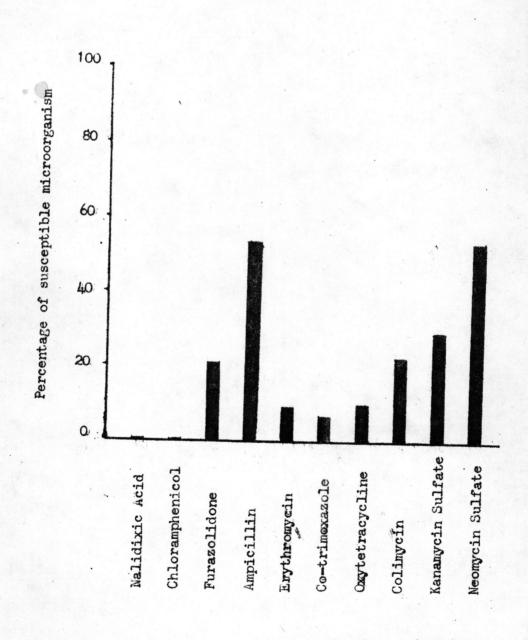


TABLE 11

Sensitivity of organisms to Ampicillin

(1 July 1972 to 28 February 1973)

	No of			7	Ir	nhibi	ted a	t mc	g/ml			
Organisms	Strain Tested	1	0.78	1.56	3.12	26.25	12.5	25	50	100	200	over 200
Salmonella paratyphi A	7	-	-	3	3	1	-	-	-	_	-	7
Salmonella paratyphi B	11	5	-	4	2	-	-	-	-	-	-	_
Salmonella paratyphi C	6	2	-	3	1	-	-	_	-	_	-	_
Salmonella typhi	13	9	-	4	-	-	_	-	-	_	_	-
Salmonella gr.E	4	-	-	4	-	-	-	-	-	-	-	-
Shigella flexneri 1-5	9	-	-	9	-	-	-	-	-	-	-	-
Shigella flexneri 6	3	1	-	2	-	-		-	-	-	-	-
Shigella dysenteriae	2	-	-	2	-	-		-	-	-	-	-
Shigella sonnei	6	-	-	4	2	_	-	-	_	_	-	-
Shigella boydii	3	-	-	3	-	-	-	-	-	-	-	-
Escherichia coli												
0 25 : B 19 : B 23	24	2	8	9	3	2		-	-	_	-	-
0 26 : В 6	4	1	2	ı	-		-	-	-	-	-	-
0 55 : B 5	1	-	-	1	_	-	-	_	_	_	_	-
0 86 : В 7	6	1	_	-	4	1	-	-	-	_	-	-
0 112 : B 11	3	-	1	-	2	-	-	-	-	_	-	-
0 128 : B 12	5	2	-	1	-	1	1	-	_	_	-	
0 119 : B 14	3	-	-	3	-	-	-		-	_	_	-
0 125 : B 15	12	2	-	4	-	5	1	-	-	-	-	-
Proteus mirabilis	58	15	-	7	6	-	3	3	9	4	3	8
Proteus vulgaris	13	4	-	-	-	-	-	-	-	1	1	7
Proteus rettgeri	4	1	-	-	2	1	-	-	_	_	_	-
Proteus morganii	9	5	-	-	-	-	-	-	-	2	-	2
Vibrio El Tor	5	·-	-	-	-	5	-	-	-	-	/ -	-

TABLE 12

Sensitivity of organisms to Chloramphenicol

(1 July 1972 to 28 February 1973)

Organisms	No of Strain				Inhi	bited	atr	ncg/n	11			
	tested		0.7	81.56	3 .1 2	6.25	12.5	25	50	100	200	ove: 200
Salmonella paratyphi A	7	-	-	-	-	-	-	_	-	-	2	5
Salmonella paratyphi B	11	-	-	-	-	-	-	1	5	3	-	2
Salmonella paratyphi C	6	-	_	_	-	-	-	-	1	1	1	3
Salmonella typhi	13	-	-	_	_	-	-	2	6	3	-	2
Salmonella gr.E	4	-	-	-	-	-4	-	-	2	-	1	1
Shigella flexneri 1-5	9	-	-	-	_	-	1	3	1	-	1	3
Shigella flexmeri 6	3	-	-	-	-	-	-	-	2	-	-	1
Shigella dysenteriae	2	-	-	-	-	-	2	-	-	-	-	-
Shigella sonnei	6	-	-	-	-	-	1	-	1	2	1	1
Shigella boydii	3	-	-	-	-	-	-	1	-	1	-	1
Escherichia coli												
0 25 : B 19 : B 23	24	_	_	-	-	-	_	1	3	4	7	9
0 26 : B 6	4	_	_	_	-	-	_	_	2	1	1	_
0 55 : B 5	1	_	-	-	_	-	eta.	-	_	1	_	-
0 86 : В 7	6	_	_	-	_	_	_	_	-	1	1	4
0 112 : B 11	3	-	_	-	_	-	-	_	-	1	1	1
0 128 : B 12	5	_	_	-	-	-	_	-	-	2	1	2
0 119 : B 14	3	-	_	_	_	_	_	-	_	1	2	_
0 125 : B 15	12	~	-	-	-	-	••	-	4	-	2	6
Proteus mirabilis	58	_	_	_	_	-	-	_	-	_	14	44
Proteus vulgaris	13	-	_	-	-	-	_	-	- .	_	-	13
Proteus rettgeri	4	-	-	-	_	-	-	-	_	_	1	3
Proteus morganii	9	-	-	-	-	-	-	-	-	2 ·	:	5
Vibrio El Tor	5	-	_	-	-	-	3	-	-	1	1	-

TABLE 13

Sensitivity of organisms to Colimycin (1 July 1972 to 28 February 1973)

Organisms	No of Strain				Inh	ibit	ted a	t mc	g/ml			
	Tested		0.78	1.56	3.12	6.25	12.5	25	50	100	200	ove: 200
Salmonella paratyphi A	7	-	-	-	3	2	2	_	-	-	_	_
Salmonella paratyphi B	11	-	-	_	4	3	1	3	_	-		_
Salmonella paratyphi C	6	3	-	_	-	-	3	_	_	-	1 25	_
Salmonella typhi	13	7	-	3	1	_	1	1	_	-	_	_
Salmonella gr.E	4	-	-	1	-	-	-	3	-	-	-	-
Shigella flexneri 1-5	9	4	-	4	1	-	-	-	-	_	-	-
Shigella flexneri 6	3	2	-	-	1	-	-	_	_	_	_	_
Shigella dysenteriae	2	_	-	1	1	_		-	-	_	_	<u></u>
Shigella sonnei	6	_	-	1	1	2	1	1	_		_	_
Shigella boydii	3	2	-	-	1	-	-	_	-	-	-	-
Escherichia coli				4								
0 25 : B 19 : B 23	24	8	6	3	4	_	_	3	_	_	_	
0 26 : В 6	4	1	_	_	2	_	_	1	_	_		
0 55 : B 5	1	-	_	_	1	_	_	_	_	_		
0 86 : B 7	6	2	_	-	2	_	_	2		_	70	
0 112 : B 11	3	1	_	-	1	_	-	_	_			
0 128 : B 12	5	-	2	_	1	_	2	-		_	_	
0 119 : B 14	3	_	2	1	_	_	-	_		_		
0 125 : B 15	12	3	5	2	-	2	-	-	-	-	-	-
Proteus mirabilis	58	_	-	5	_	-	-	8	_	6	_	39
Proteus vulgaris	13	-	-	9	-	-	-	_		_	_	4
Proteus rettgeri	4	-	-	-	-	_	_	_	2	_	-	4
Proteus morganii	9	-	-	4	-	-	-	1	-	-	-	4
Vibrio El Tor	5	-	-	-	-	-	_	-	-	_	_	5

TABLE 14

Sensitivity of organisms to Co-trimoxazole

(1 July 1972 to 28 February 1973)

Organisms	No of Strain				I	nhib:	ited	at m	ncg/m	1	. 4.00	
	Tested	0.39	0.78	115	63.12	6.29	12.5	5 25	50	100	200	over
Salmonella paratyphi A		4	_	_	3	_	_					
Salmonella paratyphi B		11	_	_								-
Salmonella paratyphi C		6	_	_	_						-	•
Salmonella typhi	13	8		5					•	-	-	-
Salmonella gr.E	4	4	-	-	_	_	_	-	-	-	-	-
Shigella flexneri 1-5	9	2	2	5	_	_	_					
Shigella flexneri 6	3	1	_	2	_	_	_					-
Shigella dysenteriae	2	i	_	_	1					-	-	•
Shigella sonnei	6	3	_	2	1				. 7	_	-	-
Shigella boydii	3	1	-	2	_	-	-	-	-	-	-	-
Escherichia coli												
0 25 : B 19 : B 23	24	9	7	6	1	1		1.39				
0 26 : В 6	4	2	_	1	1	_				-	-	-
0 55 : B 5	1	1	_	_						-	-	-
0 86 : B 7	6	2	1	2	_	1						•
0 112 : B 11	3	1	_	2	_					•	•	-
0 128 : B 12	5	4	ı	_	-					-	-	-
0 119 : B 14	3	2	_	1	_				g g	-	-	
0 125 : B 15	12	4	4	1	3	-	_	_	-	-	_	-
Proteus mirabilis	58	_	_	-	_	_		15	25	10	8	
Proteus vulgaris	13	-	_	_	_			_	7	6	0	-
Proteus rettgeri	4	_	_				1		(-	-
Proteus morganii	9	-	-	-	-	1	3	40	5	2	2	
Vibrio El Tor	5	1.	1	1	2	-	-	-	-	-	-	-

Trimethoprim + Sulphamethoxazole.

TABLE 15
Sensitivity of organisms to Erythromycin
(1 July 1972 to 28 February 1973)

Organisms	No of Strain				In	hibit	ed a	t mc	g/ml			
OIGANIS	Tested	0.39	0.78	1.56	3 . 12	6.25	12.5	25	50	100	200	over 200
Salmonella paratyphi A	7	-	-	-	-	-	-	3	4	-	-	-
Salmonella paratyphi B	11	-	-	-	-	-	-	-	-	7	2	2
Salmonella paratyphi C	6	-	-	-	-	-	-	-	-	5	-	1
Salmonella typhi	13	-	-	-	-	-	-	1	12	-	-	-
Salmonella gr.E	4	-	-	-	-	-	-	•	4	-	-	-
Shigella flexneri 1-5	9	-	_		-	-	-	9	-	-	-	-
Shigella flexneri 6	3	-	-	1	-	-	-	2	-	-	-	-
Shigella dysenteriae	2	-	-	-	1	-	-	1	-	-	-	-
Shigella sonnei	6	-		-	-	2	-	3	-	-	1	
Shigella boydii	3	-	-	-	1	-	-	2	-	-	-	-
Escherichia coli											,	
0 25 : B 19 : B 23	24	-	_	_	-	_	-	_	-	5	3	16
0 26 : B 6	4	_	_	_	-	_	-	-	1	2	1	_
0 55 : B 5	1	-	_	_	_	-	-	-	-	1	_	-
0 86 : B 7	6	-	-	-	_	-	-	-	_	3	2	1
0 112 : B 11	3	_	-	_	-	_	-	-	2	1	-	_
0 128 : B 12	5	-	-	-	_	-	-	-	3	1	1	-
0 119 : B 14	3	-	-	_	-	-	-	_	2	-	1	-
0 125 : B 15	12	-	-	-	-	-	-	-	4	-	6	2
Proteus mirabilis	58	-		1	-	_	2	-	_	۷	2	53
Proteus vulgaris	13	٠	-		-	-	-	_	-	1	2	10
Proteus rettgeri	4	_	_	_	-	-	_	-	-	-	-	4
Proteus morganii	9	-	_	4	-	-	_	-	-	-	4	1
Vibrio El Tor	5	_	_	-	-	-	-	2	•	2	1	-

TABLE 16

Sensitivity of organisms to Furazolidone (1 July 1972 to 28 February 1973)

No of Inhibited at mcg/ml Organisms Strain Tested 0.390.78 1.563.12 6.2512.5 25 50 100 200 "almonella paratyphi A Salmonella paratyphi B Salmonella paratyphi C Salmonella typhi Salmonella gr.E Shigella flexneri 1-5 Shigella flexneri 6 3 : Shigella dysenteriae Shigella sonnei Shigella boydii Escherichia coli 0 25 : B 19 : B 23 0 26 : B 6 0 55 : B 5 0 86 : B 7 0 112 : B 11 0 128 : B 12 0 119 : B 14 0 125 : B 15 Proteus mirabilis Protous vulgaris Proteus rettgeri Proteus morganii Vibrio El Tor

TABLE 17

Sensitivity of organisms to Kanamycin Sulfate
(1 July 1972 to 28 February 1973)

Organisms	No of Strain					Inhib:						
	Tested	0.39	0.78	1.56	3.1	26.25	12.5	25	50	100	200	0ve
Salmonella paratyphi A	7	_	4	_	_			4				
Salmonella paratyphi B	11	_	_	_		1			2	1	-	-
Salmonella paratyphi C	6		_					1	3	2	4	-
almonella typhi	13	_	_	_	2	1	2	1	3	2	-	-
almonella gr.E	4	-	-	_	-	-	2	3 2	3	2	-	-
higella flexneri 1-5	9	_	_	_	_	_	2	2	_			
higella flexneri 6	3	_	-	_	_		2	1	2	3		-
higella dysenteriae	2		-	_					1	-	1	
higella sonnei	6		_	_		1	2	1	58	1	-	-
nigella boydii	3	-	-	-	_	-	1	1	1	1	-	-
scherichia coli												
0 25 : B 19 : B 23	24	_	_	3								
0 26 : B 6	4	-	_	_		,	•	2	-	7	3	9
0 55 : B 5	1	_				1	-	•	2	1	-	-
0 86 : B 7 *	6	_	_			State 1	-	-	1	-	-	-
0 112 : B 11	3	_	_				-	-	-	-	2	4
0 128 : B 12	5	_	_	2	1		-	, -	-	-	1	2
0 119 : B 14	3	_	_	_	_		-	-	-	1	-	1
0 125 : B 15	12	-	-	-	-	3	-		- -	1	3	2 6
oteus mirabilis	58	-		_	4	8	4		7	1.		
oteus vulgaris	13				2				3	4	4 3	51
teus rettgeri	4			L	_	2	-	2 .	•	-	-	9
teus morganii	9 -	• .	•	•	-	2	2		+	2	-	1
rio El Tor	5 -		- -		_		_			2	3	

TABLE 18

Sensitivity of organisms to Nalidixic Acid
(1 July 1972 to 28 February 1973)

Organisms	No of				Inh	ibite	d at	mcg	/ml			
	Strain Tested	0.39	0.78	1.56	3.12	6.25	12.5	25	50	100	20	ov e:
Salmonella paratyphi A	7	1	-	-	-	-	2	5	-	_	_	_
Salmonella paratyphi B	11	-	-	-	_	7	4	-	_	_	_	_
Salmonella paratyphi C	6	_	_	_	_	5	1	_	_	_	_	_
Salmonella typhi	13	_	_	_	1	4	8	_	_	_	_	_
Salmonella gr.E	4	-	-	-	-	2	2	-	-	-	-	-
Shigella flexneri 1-5	9	-	_	6	3	-	-	-	-	-	-	_
Shigella flexneri 6	3	-	_	2	-	1	-	-	_	_	-	_
Shigella dysenteriae	2	1	-	1	-	_	_	-	_	_	-	_
Shigella sonnei	6	_	-	4	2	_	-	-	_	_	_	_
Shigella boydii	3	1	-	2	-	-	-	-	-	-	-	-
Escherichia coli												
0 25 : B 19 : B 23	24	-	-	_	12	4	6	_	-	_	-	2
0 26 : В 6	4	_	2		1	1	_	-	_		_	_
0 55 : B 5	1	_	1	_	-	_	_	_	_	_	_	_
0 86 : В 7	6	_	1	_	3	_	2	_	_	_		
0 112 : B 11	3	-	2	-	1	-	_	_	_	_	_	_
0 128 : B 12	5	-	2	_	3	_	_	_	_	_	_	_
0 119 : B 14	3	_	3	_	_	-	_	_	_	_	_	_
0 125 : B 15	12	-	4	-	3	-	4	1	-	-	-	-
Proteus mirabilis	58	_	_	_	_	_	-	_	_	_	12	46
Proteus vulgaris	13	_	_	-		_	_	_			_	13
Proteus rettgeri	4	_	_	_	_	_	_	_		_	2	2
Proteus morganii	9	-	-	-	-	-	-	-	-	-	3	6
Tibrio El Tor	5	-	-		-	-	3	2	-	-	-	-

TABLE 19

Sensitivity of organisms to Neomycin Sulfate

(1 July 1972 to 28 February 1973)

Organisms	No of Strain												
	Tested	0.39	0.7	81.5	63.1	26.25	5 12.5	25	50	100	200	ove1	
Salmonella paratyphi A	7	-	-	3	2	2	-	-	-	-		-	
Salmonella paratyphi B	11	_	-	-	5	1	1	2	2				
Salmonella paratyphi C	6	- 9 -	_	4	_	2		_	_		-	-	
Salmonella typhi	13	-	_	3	5	4	1	_			-	-	
Salmonella gr.E	4	-	-	-	-	-	-	-	_	-	-	4	
Shigella flexneri 1-5	9	-	-	1	4	2	-	1	1	_	_		
Shigella flexneri 6	3	-	_	_	1	2	_	_	_				
Shigella dysentriae	2	-	-	1	-	_	-	1		_			
Shigella sonnei	6	-	-,	1	-	4	_					1	
higella boydii	3	-	-	-	2	1	-	_	-	-	-		
scherichia coli													
0 25 : B 19 : B 23	24	_	3	_	6	8		1					
0 26 : в 6	4	_		_	3	1		. .		-	1	5	
0 55 : B 5	1	4	_	_	1	_				-	-	-	
0 86 : В 7	6	-	-	3		1	ı	1		-	-	-	
0 112 : B 11	3	_	2	1	_	_		_		11.	-	-	
0 128 : B 12	5	-	3	_	1	1			-			-	
0 119 : B 14	3	_	1	_	-	1	_	1			-	-	
0 125 : B 15	12	-	6	-	4	-	2	_	20	_	-	-	
coteus mirabilis	58	_	_	11	16	_	5	_		- 2		2/	
oteus vulgaris	13	-	-	7	_	_	_	_		_		24	
coteus rettgeri	4		_	1	_	1	1		,	_	-	6	
oteus morganii	9	-	-	-	-	2	-	2	5	-	-	1	
brio El Tor	5	-	-	_	-	-	-	-	-	-	1	4	

TABLE 20

Sensitivity of organisms to Oxytetracycline (1 July 1972 to 28February 1973)

Organisms	No of Strain	3, -,											
	Tested	0.39	0.78	1.56	63.12	6.25	12.5	25	50	100	200	200	
Salmonella paratyphi A	7	_	_	-	-	1	1	2	_	1	1	1	
Salmonella paratyphi B	11	_	-	-	_	4	2	_	1	-	1	3	
Salmonella paratyphi C	6	-	-	_	-	3	-	1	1	_	-	1	
Salmonella typhi	13	-	_	-	_	2	2	5	1	-	1	2	
Salmonella gr.E	4	-	-	-	- 1	-	-	3	-	-	1	-	
Shigella flexneri 1-5	9	-	-	·ı	3	1	-	2	1	-	-	1	
Shigella flexneri 6	3	-	-	-	1	-	1	-	-	-	1	-	
Shigella dysenteriae	2	-	-	-	2	-	-	-	-	-	-	-	
Shigella sonnei	6	-	-	-	1	-	-	3	1	-	1	-	
Shigella boydii	3	-	-	1	-	-	-	-	-	-	1	1	
Escherichia coli													
0 25 : B 19 : B 23	24	-	_	-	-	2	-	3	1	-	3	15	
0 26 : В 6	4	-	-	-		-	-	1	-	1	2	-	
0 55 : B 5	1	-	-	-	-		-	1	-	-	-	-	
0 86 : В 7	6	-	-	7	-	-	-	-	-	1	1	4	
0 112 : B 11	3	~	-	-	-	-	-	-	-	1	-	2	
0 128 : B 12	5	-	-	-	-	-	-	1	-	1	-	3	
0 119 : B 14	3	-	-	-	-	-	-	-	-	-	-	3	
0 125 : B 15	12	-	•	-	-	-	-	-	-	1	3	8	
Proteus mirabilis	58	-	-	-	2	-	-	-	-	2	43	11	
Proteus vulgaris	13	-	-	-	-	-	-		-	-	-	13	
Proteus rettgeri	4	-	-	-	-		· .	-	-	-	4	-	
Proteus morganii	9	-	-	-	6	-	-	-	-	-	3	-	
Vibrio El Tor	5	-	-	-	-	-	-	-	3	2	-	-	