

25 | 3 | 2

Principal Investigator Dr. Guo Cunshan

Trainee Investigator (if any)

Application No. 87-007(P)

Supporting Agency (if Non-ICDDR,B)

Title of Study A study to determine the role of Plasmodium shigelloides as a cause of diarrhea among patients seen at ICDDR,B Dhaka Hospital

Project status:

() New Study

() Continuation with change

() No change (do not fill out rest of form)

Circle the appropriate answer to each of the following (if Not Applicable write NA).

1. Source of Population:

(a) Ill subjects Yes No

(b) Non-ill subjects Yes No

(c) Minors or persons under guardianship Yes No

2. Does the study involve:

(a) Physical risks to the subjects Yes No

(b) Social Risks Yes No

(c) Psychological risks to subjects Yes No

(d) Discomfort to subjects Yes No

(e) Invasion of privacy Yes No

(f) Disclosure of information damaging to subject or others Yes No

Does the study involve:

(a) Use of records, (hospital, medical, death, birth or other) Yes No

(b) Use of fetal tissue or abortus Yes No

(c) Use of organs or body fluids Yes No

4. Are subjects clearly informed about:

(a) Nature and purposes of study Yes No

(b) Procedures to be followed including alternatives used Yes No NA

(c) Physical risks Yes No

(d) Sensitive questions Yes No

(e) Benefits to be derived Yes No

(f) Right to refuse to participate or to withdraw from study Yes No

(g) Confidential handling of data Yes No

(h) Compensation &/or treatment where there are risks or privacy is involved in any particular procedure Yes No

5. Will signed consent form be required:

(a) From subjects Yes No

(b) From parent or guardian (if subjects are minors) Yes No

6. Will precautions be taken to protect anonymity of subjects Yes No

7. Check documents being submitted herewith to Committee:

Umbrella proposal - Initially submit an overview (all other requirements will be submitted with individual studies). Protocol (Required)

Abstract Summary (Required)

Statement given or read to subjects on nature of study, risks, types of questions to be asked, and right to refuse to participate or withdraw (Required)

Informed consent form for subjects

Informed consent form for parent or guardian

Procedure for maintaining confidentiality

Questionnaire or interview schedule

* If the final instrument is not completed prior to review, the following information should be included in the abstract summary:

1. A description of the areas to be covered in the questionnaire or interview which could be considered either sensitive or which would constitute an invasion of privacy.

2. Examples of the type of specific questions to be asked in the sensitive areas.

3. An indication as to when the questionnaire will be presented to the Cttee. for review.

(PTO)

I agree to obtain approval of the Ethical Review Committee for any changes involving the rights and welfare of subjects before making such change.

Guo Cunshan

Principal Investigator

Trainee

MAR 25 1987

SECTION I - RESEARCH PROTOCOL

87-007(P)
25/3

1. Title : A study to determine the role of Plesiomonas shigelloides as a cause of diarrhea among patients seen at ICDDR,B Dhaka Hospital.

2. Principal Investigator : Dr. Guo Cunsan

Co-Investigators : Mr. Zeaur Rahim
Dr. Nigar Shahid
Dr. Bradford A. Kay
Dr. David A. Sack
Dr. A.N. Alam

3. Starting Date : When fund is available

4. Completion Date : Six months after starting date

5. Total Direct Cost : US \$ 4980

6. Scientific Program Head :

This protocol has been approved by the Disease Transmission Working Group.

Signature of Scientific Program Head :



Date : 12 March 1987

7. Abstract Summary

Plesiomonas shigelloides has been the sole agent identified in several outbreaks of diarrhea and from a number of isolated cases. Its role as a human pathogen is not clear since isolates have not yielded positive results in the rabbit ileal loop test and do not produce enterotoxin. P. shigelloides is isolated from about 6% of human stool specimens submitted for culture at Dhaka Hospital. The purpose of this protocol is to determine whether P. shigelloides is a cause of diarrhea using a case-control study design.

8. Reviews

a. Ethical Review Committee : _____

b. Research Review Committee : _____

c. Director : _____

and who had been in Thailand at least 5 weeks (chi square = 3.65).

Among the indigenous groups in Thailand, P. shigelloides was identified in 2.4% of hospitalized children <2 years of age whether they had diarrhea or not, and it was not detected in newborn stools. A trend was observed toward isolation of P. shigelloides in a greater number of cases than controls among urban children 0-2 years of age (13% vs. 3%) and 2-10 years of age (43% vs. 10%) but the numbers of cases and controls were small.

The association between P. shigelloides and diarrhea in hosts with impaired immunity is better established (9,10). Penn et al. described an 83 year old with achlorhydria and small bowel diverticula who had chronic diarrhea and malnutrition (9). P. shigelloides was isolated from stool and a small bowel aspirate, the latter had 3×10^8 colonies per ml. The patient responded to treatment with tetracycline to which the organism was sensitive.

The mechanism by which P. shigelloides causes diarrhea is unknown. The isolate reported by Penn et al. did not produce toxin measured by the infant mouse or chinese hamster ovary assays (9). Pitarangsi and co-workers found that none of 11 P. shigelloides strains produced mannose resistant agglutination of human or bovine red blood cells (RBC), and supernatants from 0 of 27 strains were cytotoxic for Y1 adrenal cells, hemolyzed rabbit or bovine RBC, distended suckling mouse intestine at 4 hours or caused fluid accumulation in ligated rabbit ileal loops at 18 hours (8). One strain from a patient with severe diarrhea was given to five rhesus monkeys and no symptoms were observed. Sanyal et al. (11) also tested P. shigelloides isolates

SECTION II - RESEARCH PLAN

A. INTRODUCTION

1. Objectives :

The objective of this study is to determine whether P. shigelloides is a cause of diarrhea and risk factors for acquiring the infection.

2. Background :

Plesiomonas shigelloides is a gram-negative, fermentative, oxidase and catalase-positive motile bacilli in the family Vibrionaceae (1). It has been isolated from a number animal species including humans, water and sludge (2).

Since its first description in 1947 (3), controversy has existed over the role of P. shigelloides as a cause of diarrhea in humans. Several outbreaks of foodborne disease were attributed to P. shigelloides in Japan during the 1950s (4). In addition, a number of reports have documented its presence in a low percentage of patients with diarrhea, frequently with other enteropathogens (5,6,7). These studies have usually not included controls, particularly controls without diarrhea.

Pitarangsi et al. (8) looked at five groups of people in Thailand. Two of the groups consisted of American Peace Corps Workers and the other three groups included newborns, hospitalized children less than two years of age and residents of an urban community. P. shigelloides was isolated from 13 (33%) of 39 American Peace Corps workers with diarrhea compared with 5 (14%) of 35 control subjects who did not have diarrhea

from children with diarrhea using a rabbit ileal loop. Four isolates were repeatedly examined and found to cause a small accumulation of fluid on occasion, unlike Aeromonas strains which consistently caused marked bowel distension. One can conclude from this information that P. shigelloides probably causes diarrhea in humans; however, it is not by an as of yet defined mechanism.

Since October 19, 1986, P. shigelloides has been identified routinely from stool specimens submitted for culture at ICDDR,B Dhaka Hospital. This identification was the result of one of the co-investigator's (ZR) ability to distinguish P. shigelloides from Shigella by colony morphology from the Shigella-Salmonella agar plates used routinely in the laboratory for the isolation of Shigella sp and Salmonella sp. Colonies of P. shigelloides are lactose-negative like Shigella sp. but are slightly larger in size. The colonies are confirmed as P. shigelloides using inositol, lysine arginine, ornithine, mannitol, oxidase and 0129 biochemical tests.

The stool culture results for the period October 19 to December 5, 1986 have been reviewed by the P.I. of this protocol. During this period, 1283 stool specimens were submitted for culture and 561 (43.7%) yielded a bacterial pathogen. Shigella sp. were isolated from 235 (18.3%), Vibrio sp. from 175 (13.6%), P. shigelloides from 77 (6%), Aeromonas sp. from 39 (3%), Salmonella from 12 (0.9%) and others from 24(2%). P. shigelloides was identified as the sole pathogen from 51(66% of 77 stool specimens yielding this bacterium. The mean/median ages for patients with P. shigelloides as the sole pathogen were older (18.5/17.5) than patients with Shigella sp. (12.4/3.5) and Vibrio sp. (12.6/5.7).

The proportion of patients less than 10 years of age was significantly less among those with diarrhea associated with P. shigelloides (44%) compared with Vibrio sp. (65%) or Shigella sp. (68%) (p <0.05 by chi square).

3. Rationale :

At ICDDR,B a pathogen can be identified only about 60% of cases. Newer agents for diarrhea need to be identified. This protocol will help determine it if plesiomonas is a causative agent of diarrhea and if so, identify risk factors for acquiring the infection.

. SPECIFIC AIMS

1. To determine whether P. shigelloides associated with causes diarrhea in patients seen at ICDDR,B Dhaka hospital using a case-control study design.
2. If P. shigelloides causes disease, to determine risk factors for acquiring infection by this organism.
3. To delineate the clinical features of diarrhea associated with this bacterium.

. METHODS OF PROCEDURE

Patients enrolled into the Dhaka hospital surveillance programme and living within 6 miles of the ICDDR,B hospital with a stool culture yeilding P. shigelloides but no Salmonella or Shigella or Vibrios will be eligible for included into the study. Informed consent will be requested from the patient or their guardians.

If consent is obtained, the patient or guardian will be asked about food and environmental exposures in the previous three days, and questions about their home, types of water used and diarrheal symptoms in family members. Rectal swabs will be obtained for identification of other pathogens Vz C. jejuni, ETEC and Rotavirus (12,13,14). We will also obtain acute and convalescent (14 day) sera on the index case to measure agglutinating and hemagglutination antibodies against the strain isolated from their stool. Diarrhea will be defined as 3 or more loose or watery stools per day. A rectal swab will be required for P. shigelloides isolation on 14th day.

The next three surveillance patients admitted who do not have a bacterial pathogen isolated from their stool will be used to identify controls. A family member from these patient's family of the same sex and of similar age will be selected if they have not had diarrhea in the previous month. If a suitable control can not be identified among the family members of the first patient, the next patient will be chosen and the process repeated until suitable controls are found. Permission will be requested from these controls for a rectal swab for identification of P. shigelloides, a serum sample, and the completion of a questionnaire similar to that use of with the case-patient.

The age criteria used to select the controls will be : for children <2 years of age - another child <2 years; for a child 2-6 years - \pm 1 year but at least 2 years of age; for a child 7-14 years - \pm 2 years but at least 7 years of age; for a person \geq 15 years - \pm 10 years but at least 15 years of age.

Both cases and controls families will be followed up after 2 weeks

		Collection of samples			
Patient	Control	Sera	Stool	Sera	Stool
		1	1		
Family visit 1		+	+		
		2	2		
Family visit 2		+	+	+	+

1 Acute sample

2 Convalescent sample (14 days after onset)

All rectal swabs will be placed in Cary Blair transport media and taken to the Dhaka Hospital Microbiology Laboratory where they will be cultured using routine methods. P. shigelloides can be identified from the Salmonella-shigella (SS) agar plate as a lactose-negative colony slightly larger in size than Shigella sp. Suspect colonies will be tested for oxidase, catalase inositol, lysine, arginine, ornithine, mannitol and motility.

Information is not available regarding the presence of P. shigelloides in stool of patients without diarrhea. If one assumes that it will be isolated from 2% of rectal swabs from control - patients (representing the 2% of patients currently seen at Dhaka Hospital who have P. shigelloides plus another pathogen) and from 6% of patients with diarrhea, 1237 patients with diarrhea and 147 control subjects will be necessary using $\alpha=0.05$ and $\beta = 0.1$. This number of controls could be obtained using a 3:1 control to case match (4% of patients will have P. shigelloide as the only enteric pathogen = 49 patients).

D. SIGNIFICANCE

The results will improve our understanding of epidemiology, and to determine whether P. shigelloides causes diarrhea allow us to assess the public health significance of the disease in our population. Risk factors for infection will be identified. This information will be helpful in the identification of high risk groups in the population, and in the development of effective interventions for prevention and control of the infection.

REFERENCES

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6. Sanyal SC, Gaur SD, Shrivastava DC, Sen PC, Marwah SM, Singh H. Enteric infections in Sunderpur slum area. Ind J Med Res. 60:979-986, 1972.
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11. Sanyal SC, Singh SJ, Sen PC. Enteropathogenicity of Aeromonas hydrophila and Plesiomonas shigelloides. J Med Microbiol. 8:195-198, 1975.
12. Blaser MJ, Glass RI, Huq MI, Stoll B, Kibriya GM, Alim ARMA. Isolation of Campylobacter fetus subsp jejuni from Bangladesh children. J. Clin. Microbiol. 12:744-7, 1980.
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ICDDR,B
BUDGET PROPOSAL
(In US \$)

PARTICULARS

Program name: LABORATORY SCIENCES & EPID. DIV. Protocol title: A study to determine the role of Plesiomonas shigelloides as a cause of diarrhea among patients seen at ICDDR,B Dhaka Hospital.

P. I.'s name: Dr. Guo Cunsan

Protocol no: Starting date: When fund is available

Budget code: Completion date: Six months after starting date

EXPENSE CATEGORY			Column A	Column B	Column C	Column D
			1st year Jan.-Dec.	2nd year Jan.-Dec.	3rd year Jan.-Dec.	Total Project Cost
A/C No.	Description	Refer Page				
3100	Local Salaries	2				1200
3200	Intl. Salaries	8				0
3300	Consultants	14				0
3500	Travel Local	15				0
3600	Travel Intl.	16				0
3700	Supplies & Mat.	18				280
3800	Other Costs	19				200
4800	Inter Deptl. Ser.	20				3300
Total Direct cost						4980
0000	Indirect cost = 31% of total direct cost					0
TOTAL OPERATING COST						0
0300	Capital expenditure	Refer page no. 21				0
TOTAL PROJECT COST						4980

P.I.'s signature

Reviewed by Budget & Finance

PERSONNEL REQUIREMENT-(LOCAL STAFF) 1st/2nd/3rd year

	No. of positions	No. of man months	\$ Amount
Direct Project/Protocol/Branch Staff at starting date Sourced from Page 3	0	0	0
E. New recruitments Sourced from Page 4	2	12	1200
F. Staff allocated from other area Sourced from Page 5	0	0	0
(i) Sub-Total	2	12	1200
G. Separations Sourced from Page 6	0	0	0
H. Staff allocated to other area Sourced from Page 7	0	0	0
(ii) Sub-Total	0	0	0
(i)-(ii) TOTAL	2	12	* 1200

*Agrees with
Page 1
A/C No. 3100

SUPPLIES AND MATERIALS-1ST/2ND/3RD YEAR

A/C Code	Item Description	\$ Amount
3701	<u>Drugs</u> (used for medication in the hospitals and field stations)	
3702	<u>Glassware</u> (bottle, beaker, cylinder, petridish, aluminium seal, slides, stopper, tube etc.)	50
3703	<u>Hospital supplies</u> (bandage, gauze, blade, bowl, catheter, cotton, needle, syringe, solution, leukoplast, towel etc.)	50
3704	<u>Stationery and office supplies</u> (battery, book register, binders, files, pencil, fastener, paper, ribbon, stapler etc.)	50
3705	<u>Chemicals and media</u> (acid, reagent, dextrose, sodium, bactoagar etc.)	100
3706	<u>Materials for uniform</u> (cloth, button etc. required for making uniforms)	
3707	<u>Fuel, oil and lubricants</u> (diesel, mobil, petrol, kerosene etc.)	
3708	<u>Laboratory supplies</u> (aluminium foil, bag, blade, brush, cap, container, film X-Ray etc.)	30
3709	<u>Housekeeping supplies</u> (aerosol, battery, wiping cloth, duster, lock and key etc.)	
3710	<u>Janitorial supplies</u> (bleaching powder, brush, detol, detergent, insecticide, soap etc.)	
Page total (balance b/d)		280

Contd. to page 18

SUPPLIES AND MATERIALS-1ST/2ND/3RD YEAR

(Contd. from Page No. 17)

A/C code:	Item description	\$ Amount
	Page total from page 17 (balance c/d)	280
3711:	<u>Tools and spares</u> (automobile spares, tyres, tubes, battery, stores required for maintenance services etc.)	
3712:	<u>Non-stock supplies</u> (materials not normally kept in stock and purchased only against specific requisitions)	
	Sub-Total	
3713	<u>Freight and other charges</u> add 30% for import	
	TOTAL	280
		AGREES WITH PAGE 1 A/C 3700 COLUMN D

Note For rates please contact Supply Ext.260 (add 10% to rates for inflation)

Budg:t86.18
Aziz 13.

OTHER COST-1ST/2ND/3RD YEAR

A/C code:	Accounts Description	\$ Amount
3800:	<u>Repairs and maintenance</u> (maintenance and repairs of vehicles, equipments, furniture and building)	
3900:	<u>Rent, communication and utilities</u> (postage, telephone, telegram, electricity etc.)	
4100:	<u>Bank charges</u>	
4200:	<u>Legal and professional expenses</u> (professional membership fee, legal fee, audit fee etc.)	
4300:	<u>Printing and publication</u> (printing of forms, books, journals, reprints etc.)	200
4400:	<u>Hospitality & donation</u> (guest house accommodation, donations, hospital food, lunch, refreshment etc.)	
4500:	<u>Service charges</u> (porter, labour, washing, laundry and other misc. exp.)	
4600:	<u>Staff development and training</u> (training course fee, training materials, stipend, scholarship, subsistence paid to the staff)	
	TOTAL	200

AGREES WITH
PAGE 1
A/C No. 3800
COLUMN D

Budget 86.19
Aziz-13.

**INTERDEPARTMENTAL SERVICES-1ST/2ND/3RD YEAR

A/C code	Service Area	\$ Amount
4801	Computer	
4802	Transport Dhaka	1249
4803	Transport Matlab	
4804	Water transport-Matlab	
4805	Transport Teknaf	
4806	Xerox	100
4807	Pathology	
4808	Microbiology tests	1556
4809	Biochemistry	
4810	X-Ray	
4811	I.V. Fluid	
4812	Media	
4813	Patient hospitalisation study	
4814	Animal research	345
4815	Medical illustration	50
4817	Telex	
4818	Out patient care	
4819	Maintenance charges	
4820	Vehicle maintenance charges	
4821	Library service charges	
4830	Transport subsidy	
TOTAL		* 3300

** Please contact Cost Office on Ext. 281.
for rates.

*AGREES WITH
PAGE 1
A/C 4800

Budget 88.20
Asiz-13.

Abstract Summary

All surveillance patients seen at ICDDR,B Dhaka Hospital with a stool culture yielding P. shigelloides and no other pathogen will be eligible for inclusion into the study. Following identification of the index case, the patient or guardian will be asked some question, including questions about their home. With permission, stool specimens or a rectal swab will be obtained. We will also obtain acute and convalescent sera on the case to measure agglutinating and hemagglutination antibodies against the strain isolated from their stool. The next three surveillance patients who do not have a bacterial pathogen isolated from their stool will be used to identify controls. A family member from these patient's family of the same sex and of similar age group as the index case (P. shigelloides +ve) will be selected if they have not had diarrhoea in the previous month. Permission will be requested from these controls for a rectal swab and the completion of a questionnaire similar to that use of with the case-patient.

1. Controversy has existed over the role of P. shigelloides as a cause of diarrhoea in humans. By conducting this study we hope to determine whether P. Shigelloides causes diarrhoea in patients using a case control study design, and will try to identify the risk factors for acquiring this bacterium.
2. There are no potential risk to the subjects of this study. Only stool and 0.3ml blood will be collected for examination for acute and convalescence serology.

3. There are no significant risk to the subjects of this study.
4. The data will be coded and all files will be keep under lock and key. Hence anonymity will be maintained.
5. A signed consent will be obtained from the patient or guardian on the consent form attached.
 - a. The nature and purpose of each diagnostic procedure will not be withheld for the subject/guardians.,
 - b. No potential risks to the subjects..
6. The case and controls will be interviewed either at the hospital or at their homes. Information will be collected about their illness and exposure to suspected risk factors for P. shigelloides approx. 25 min will be required.
7. Individual patients will benefit from the treatment provided, the information will be helpful in the development of effective intervention for prevention and control of the infection. Control subjects will be provided treatment in case a pathogen is identified.
8. In this study Hospital records of patient will be used, sera and stool will be used for the diagnosis of P. shigelloides and to determine the risk factors.

CONSENT FORM

(Plesiomonas shigelloides Study - for Casee)

(Statement to be read to the patients' family when consent is obtained)

At ICDDR,B a pathogen can be identified in only 60% of diarrhoea cases. In an attempt to identify new agents of diarrhoea in our population we would like to see whether P. shigelloides is a cause of diarrhoea in Bangladesh. This organisms has been incriminated as a diarrhoeal pathogen in many countries. We have also isolated the organism in our laboratory but are not sure whether it causes diarrhoea. The ICDDR,B wishes to determine whether the organism causes diarrhoea, to identify risk factors for acquiring the infection and to describe its clinical features. To answer these questions you will be asked a series of questions about your home, type of water used and diarrhoeal symptoms in family members. Since we have isolated the new organism i.e. P. shigelloides from your stool we require 2 additional rectal swabs specimens from you today to rule out the possibility of your having rota virus or campylobacter. We will also request for another rectal swab on day 14. To measure the antibodies against the strain isolated from your stool specimen we require 0.2 ml of finger-pride blood today and on day 14. You will receive all appropriate medical care and facilities. You are at liberty to with draw from the study at anytime.

If you agree to participate in the study please sign or put your left thumbs impression.

Signature of Investigator

Signature/Left thumb impression of
responsible family member
Date: _____

CONSENT FORM

(Plesiomonas shigelloides Study - Control)

(Statement to be read to the patients family when consent is obtained)

At ICDDR,B a pathogen can be identified in only 60% of diarrhoea cases. In an attempt to identify new agents of diarrhoea in our population we would like to see whether P. shigelloides is a cause of diarrhoea in Bangladesh. This organisms has been incriminated as a diarrhoeal pathogen in many countries. We have also isolated the organism in our laboratory but are not sure whether it causes diarrhoea. The ICDDR,B wishes to determine whether the organism causes diarrhoea, to identify risk factors for acquiring the infection and to describe its clinical features. To answer these questions you will be asked a series of questions about your home, type of water used and diarrhoeal symptoms in family members.

You/your child has been chosen as a control subject in our protocol. Although you/your child may not be having diarrhoea now he/she may be carrying an organism which you do not know about. We request you provide a rectal swabs for identification of P. shigelloides, to provide 0.2 ml of finger prick blood which shall use to measure antibodies against the strain isolated from the rectal swab and answer some questions about your home and water use.

You/your child will be treated for any condition with appropriate medication if an organism is detected. You are at liberty to withdraw from the study at any time.

If you agree to participate in the study please sign or put your left thumb impression below.

Signature of Investigator

Signature/Left thumb impression of responsible family member.

Date: _____

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14. Contacted with outside water (River, Pond, Ditch) within before illness 3 days of onset

(0 = No, 1 = Yes, 9 = Unknown)

if yes how many hours contacted

- a. Catch fish / / / / / (36-38)
- b. Swimming / / / / / (39-41)
- c. Drink cold water / / / / / (42-44)
- d. Playing water / / / / / (45-47)
- e. Washing / / / / / (48-50)
- f. Other / / / / / (51-53)

15. Food within 3 days of onset

(0 = No, 1 = Yes, 9 = Unknown)

(1 = Raw, 2 = Rare, 3 = Medium
4 = Well done, 9 = Unknown)

- a. Fish / / / / (54-55)
- b. Shellfish / / / / (56-57)
- c. Shrimp / / / / (58-59)
- d. Crab / / / / (60-61)
- e. Oyster / / / / (62-63)
- f. Other / / / / (64-65)

17. Did you eat food prepared outside within 3 days before the onset of illness?

	Days before onset									
	1			2			3			
	Y.	N.	U.	Y.	N.	U.	Y.	N.	U.	
Breakfast										(66-74)
Lunch										(75-83)
Dinner										(84-92)
Other time										(93-101)

*
Y = Yes, N = No, U = unknown

17. How many animals are there in your home

Kind.	Chicken	Duck	Goose	Cat	Dog	Goat	Cow	Other
Number								

(102-117)

18. Household members (Close Contacts)

No.	Relation with patient	Name	Sex 1=Male 2=Female	Age		Occupation	Diarr. date of onset		Appendix
				Year	Month		month	day	
1.									(118-127)
2.									(128-127)
3.									(138-147)
4.									(148-158)
5.									(159-167)
6.									(168-177)
7.									(178-187)
8.									(188-197)
9.									(198-207)
10.									(208-217)
11.									(218-227)
12.									(228-237)
13.									(238-247)
14.									(248-257)

Occupation : 1 = Servant, 2 = Business, 3 = Farmer, 4 = Labour
5 = Student, 6 = Housewife, 7 = Fishman, 8 = Other.

19. Discharge status (1 = Complete cure, 2 = partial cure,
3 = No change, 4 = Dead, 9 = Unknown) / / (258)

20. Discharge diagnosis (0 = No, 1 = yes, 9 = unknown)

- 1. Acute diarrhea / / (259)
- 2. Persistent diarrhea / / (260)
- 3. Malnutrition / / (261)
- 4. Dehydration / / (262)
- 5. Pneumonia / / (263)
- 6. Other / / (264)

21. Character of stool at onset (1 = Watery, 2 = Loose, 3 = formed).. /_/ (265)
22. Content of stool at onset (1 = Normal, 2 = Mucus, 3 = Blood,
4 = 2 + 3, 9 = unknown) /_/ (266)
23. No of stool per 24 hrs at onset /_/ (267-268)
24. Abdominal pain at onset (0=No,1=Mild pain,2=Moderate pain /_/ (269)
3=Severe pain)
25. Vomiting in first 24 hrs. /_/ (300-301)
26. Plesiomonas Antibiotic sensitivity pattern and
resistant pattern(1=Sensitivity, 2=Resistance, 9=Not done)

Telra	Amp.	Strept	Chlo.	Sept.	Furox	Genta	Kena	Nalid

(302-311)

27. Clinical flow sheet:

Day 1 2 3 4 5 6 7 8 9 10 11 12 13 >14

a. Temperature F (Max)														
b. Antibiotic (kind)*														

* Antibiotic category as above "26"

c. Abd. pain (0.1)*														
d. Abd. distention														
e. Nausea														
f. Chill														
g. Headache														
h. Watery stool														
i. Blood in stool														
j. Mucus in stool														

*
0 = None, 1 = present, 9 = unknown

Day 1 2 3 4 5 6 7 8 9 10 11 12 13 >14

k. Vomiting(time)														
l. Diarrhea(time)														
m. Dyhydration (degree)														

n. I I.V.(ml)														
N														
o. T O.R.S.														
A														
p. K Others														
E														

q. O stool (ml)														
U														
r. T Urine														
P														
s. U Vomit														
T														
t. Other														

u. X-Ray (chest)														
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28. Laboratory data (blood)

Day 1 2 3 4 5 6 7 8 9 10 11 12 13 >14

a. Hgb ---														
b. Hct (pcv) --														
c. WBC -----														
d. Poly --														
e. Bands --														
f. Lymphs --														
g. Mono ---														
h. Eosino ---														
i. Basos ---														

* 0 = None, 9 = unknown

Day 1 2 3 4 5 6 7 8 9 10 11 12 13 >14

j. Creatinine														
k. Na														
l. K														
m. Cl														
n. CO ₂														
o. Bili														
p. SGOT														
q. SGPT														
r. P.Antibody														

*

r. P. Antibody: File of agglutinating antibody agent plesiomonas

s. Glucose														
t. Albumin														
u. RBC/Hpt														
v. Casts														

*

s Glucose, t Albumin (0 = None, 1 = present, 9 = unknown)

v Casts (0 = None, 1 = Granular, 2 = hyalin, 3 = WBC casts, 4 = RBC casts).