Attachment 1.

Date 19/3/86

ETHICAL REVIEW COMMITTEE, ICDDR,B.

DR. IVAN CIZNAR/

Principal Investigator DR. ANSARUDDIN AHMED Trainee Investigator (if any)

Application No. 86-013. Supporting Agency (if Non-ICDDR,B) UNDP

Title of Study: Local and systemic antibody response to Shigella OMP in patients with dysentery. Implication for vaccine development.

Project status:
(x) 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)
3. 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
   (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:
   - NA 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.

Ivan Ciznar — A. Ahmed.

Principal Investigator — Trainee

86-063
19/3/86

SECTION I - RESEARCH PROTOCOL

1. TITLE : Local and systemic antibody response to Shigella OMP in patients with dysentery. Implication for vaccine development.

2. PRINCIPAL INVESTIGATORS : Dr. Ivan Ciznar
Dr. Ansaruddin Ahmed

COINVESTIGATORS : Dr. P. J. Sansonetti (Institut Pasteur, Paris, France)
Dr. Asma Khanam (ICDDR,B)

3. STARTING DATE : April 1986

4. COMPLETION DATE : March 1987

5. TOTAL DIRECT COST : US$ 66,742

6. SCIENTIFIC PROGRAM HEAD : Dr. Ivan Ciznar

This protocol has been approved by the Host Defense Working Group.

Signature of the Scientific Program Head Ivan Ciznar

Date 26/2/1986

7. ABSTRACT SUMMARY :

The investigators intend to study local and systemic antibody responses against major outer membrane proteins (OMPs) of Shigella dysenteriae and Shigella flexneri in patients with dysentery. Serum samples will be collected at the onset of disease and in convalescence. Intestinal lavage will be applied to collect intestinal fluid during convalescence. The sera of patients recovering from other diarrhoeal diseases, as well as sera of healthy persons without a

history of Shigella attack from a country where the infection is not endemic will be used as a control. The antibody response will be analyzed by the western-blot technique and by cross immunoelectrophoresis using OMP preparations from Shigella dysenteriae and Shigella flexneri. Serum will be applied without pretreatment while instestinal fluid obtained by lavage will be treated by centrifugation, negative pressure dialysis and lyophilization. It is expected that such an analysis will clarify the immunogenicity of OMP for use as a potential antigen in a vaccine against Shigella dysenteriae type 1 and other serotypes.

8. REVIEWERS :

a) Ethical Review Committee _____

b) Research Review Committee _____

c) Director _____

SECTION II - RESEARCH PLAN

A. OBJECTIVE

1. To identify *Shigella* OMP which stimulate local and systemic antibody responses during natural infections of man.

2. To determine the immunogenicity for man of *Shigella* OMP associated with the expression of the virulence phenotype.

B. BACKGROUND

Outer membrane proteins (OMPs) of gram-negative bacteria are capable of eliciting a humoral antibody response in experimental animals (Gilleland et al. 1984; Kuusi et al. 1979; Mohri et al. 1982). It is not known what role anti-OMP antibodies play in resistance to infection. Recent genetic studies by Sansonetti et al. (1983), Watanabe and Timmis (1984) have helped to provide a better understanding of the pathogenic determinants of *Shigella* sp. These studies clearly showed that the pathogenic potential of *Shigellae* is associated with the presence of plasmids which determine the synthesis of lipopolysaccharide and outer membrane proteins. Hale et al. (1983) have shown that the 140 Mdal plasmid of *Shigella flexneri* encodes for the production of certain outer membrane proteins. It seems that these proteins are involved in the process by which *Shigella* organisms invade epithelial cells. Recently Maurelli et al. (1985) have shown that at least four virulence plasmid-specific peptides are produced by recombinant plasmids and that these are associated with the expression of the virulence phenotype.

The studies of Formal et al. (1965) showed that the immunity against Shigella operates effectively at the level of invasion, the most important mechanism in pathogenesis (Gemski et al. 1972). The involvement of the outer membrane proteins in invasiveness indicates that the antibodies against these components could play an important role in immunity against shigellosis.

Only a few experiments related to the immunogenicity of Shigella OMP are documented in the literature. Adamus et al. (1980) subcutáneously immunized rabbits and guinea pigs with the OMP of Shigella flexneri 3a and Shigella sonnei phase I. Challenge experiments showed that immunized animal were protected from keratoconjunctivitis caused by Shigella flexneri 3a and Shigella sonnei. Thus, it appears that the outer membrane proteins of Shigella strains may indeed be important immunogens to be found in vaccines. Despite all the efforts in the preparation of a vaccine against shigellosis, none has been shown to be practical and effective. Promising results have been obtained with oral live mutant vaccines (for summary, see Levine et al. 1983). However, a still unanswered question remains in the Shigella vaccine development program: what components of the pathogen should be incorporated in a vaccine and what should be left out? Perhaps, the important observation that shigellosis is an immunizing disease deserves more attention especially in regard to identifying Shigella sp. antigens which stimulate an immune response during a natural infection. One candidate for a protective antigen appears to be OMP. However, the immunogenicity of OMP during natural infections has not yet been studied.

We intend to identify OMPs which stimulate a local and systemic antibody response in patients attacked by Shigella dysenteriae type 1 and Shigella flexneri. We expect that an analysis of intestinal fluid, as well as serum, by means of the western-blot technique, and cross immunoelectrophoresis with OMP from homologous strains and from recombinant clones specifically expressing major peptides will contribute to our understanding of the immunogenicity of OMP and to determine the role of OMPs as a protective antigen, as well as a candidate for a vaccine.

C. RATIONALE

Shigellosis is a major cause of debilitation and death in children of developing countries. It is also a disease which can have severe complications: hypoproteinemia, hypoglycemia, hemolytic-uremic syndrome and leukemoid reaction. Because proper sanitary measures and the supply of safe food hardly can be presently achieved, vaccination remains the new hope to reduce morbidity and mortality from shigellosis.

In a process of vaccine development, an important question has been raised, "what components of pathogen should be incorporated into a vaccine?" In Shigella spp. two components carrying several antigenic determinants appear to be important both for pathogenesis and for immunity in shigellosis. These are OMPs and lipopolysaccharide.

We intend to identify the OMPs of Shigella dysenteriae type 1 and Shigella flexneri which stimulate antibody response in patients with bacillary dysentery.

Understanding of immunogenicity of OMPs and elucidation of their protective capacity would substantially help to the development of efficient vaccine.

D. SPECIFIC AIM

Identification of Shigella outer membrane proteins stimulating local antibody production in intestine and systemic antibody production in man during the natural infection.

E. MATERIAL AND METHOD

Collection of blood

Blood from 12 patients with clinically and bacteriologically confirmed Shigella dysenteriae type 1 infection and 12 patients with Shigella flexneri type 1 or type 2 infection will be collected at the onset and on 12th day after the onset of the disease. The total volume of blood collected each time will be 5 ml.

Blood from 12 children, aged from 1 to 3 years, 6 with Shigella dysenteriae type 1 and 6 with Shigella flexneri infection, will be collected. A total volume of 1 ml at the onset of the disease and on the 12th day after onset of the disease will be collected.

Control blood

Blood from patients with other intestinal infections, particularly E. coli and V. cholerae, will be used as controls. Blood from healthy blood donors from non-endemic area will be used as a second control.

Intestinal fluid

Intestinal fluid will be collected from all adult study patients only by standard lavage technique established in the ICDDR,B Hospital. The levage fluid will be prepared as follows:

Two liters of the fluid will be filtered and centrifuged at 5,000g to separate solid particles and then concentrated to 1/10 volume by negative pressure dialysis. Any precipitate where appears will be removed by centrifugation, and the supernatant will be further concentrated by dialysis against polyethylenglycol. The fluid will be used for analysis and stored in 10 ml volume at -70°C.

Half of the volume of each sample will be sent to Dr. P. Sansonetti at the Institut Pasteur, Paris, for immunological analsysis using OMPs from recombinant strains. The second half will be analyzed at the ICDDR,B with OMPs from homologous strains.

Bacterial strains

Freshly isolated Shigellae from each studied patient will be serotyped and used for preparation of whole cell extracts and OMP.

Outer membrane proteins

Shigella strains will be grown on brain-heart infusion broth for 18 hours on a shaker. The OMP will be extracted according to the method of Hale et al. (1983). Whole cell bacterial extracts will also be prepared.

Western-blot analysis

OMP and whole-cell extracts will be run on SDS-PAGE gels and blotted on nitrocellulose filters (Burnette 1981, Laemlli 1970, and Towbin et al. 1979). This analysis will also be performed using membrane peptides produced by virulent and avirulent mutants.

Crossed immunoelectrophoresis

A modification using an intermediate gel will be carried out (Kroll 1973).

F. SIGNIFICANCE

Despite intensive research the immunological mechanisms responsible for resistance to Shigella spp are still not clear. Thus, from the immunological point of view, in a process of vaccine development, an empirical approach has been used. It seems now when genetic studies have substantially contributed to understanding of pathogenic mechanisms in Shigella infection, as well as to vaccine construction that complementary studies of immunological mechanisms are equally desired. The present study will contribute to our understanding of the immunogenicity of Shigella OMP, a potential antigen for use in a vaccine.

G. FACILITIES REQUIRED

No extra facility will be required.

H. COLLABORATION

This research will involve collaboration between groups of scientists at Institut Pasteur in Paris, namely Dr. P. J. Sansonetti

and coworkers and scientists of the ICDDR,B. Dr. P. J. Sansonetti will analyse human sera and the intestinal contents of patients using OMP from mutant and recombinant strains with defined virulence pattern. The analysis of the material using homologous strains will be performed in Dhaka. Dr. Sansonetti will visit the ICDDR,B to introduce techniques to be utilized in further studies on the immunogenicity of virulence markers of Shigella. The possibility of training a staff member of the ICDDR,B at the Institut Pasteur will be sought with the help of external funding.

REFERENCES

Adamus, G.M., et al. Protection against keratoconjunctivitis shigellosa induced by immunization with outer membrane proteins of Shigella spp. Inf Immun, 30, 321-4, 1980

Burnette, W.N. Western blotting; electrophoretic transfer of proteins from SDS-PAGE to unmodified nitrocellulose and radiographic detection with antibody and radioiodinated protein A. Anal Biochem, 112, 195-203, 1982

Formal, S.B., et al. Protection of monkeys against experimental shigellosis with attenuated vaccines. J Bacteriol, 90, 63-8, 1965

Gemski, P., et al. Shigellosis due to Shigella dysenteriae type 1: relative importance of mucosal invasion versus toxin production in pathogenesis. J Infect Dis, 126, 523-30, 1972

Gilleland, H.E., Jr., et al. Use of a purified outer membrane protein F preparation of Pseudomonas aeruginosa as a protective vaccine in mice. Inf Immun, 44, 49-54, 1984

Hale, T.L., et al. Characterization of virulence plasmids and plasmid associated outer membrane proteins in Shigella flexneri, Shigella sonnei and E. coli. Inf Immun, 40, 340-50, 1983

Kroll, J. Crossed immunoelectrophoresis. p81. In Exelsen H.H. A manual of quantitative immunoelectrophoresis. Blackwell Scientific Publications, Oxford, 1973

Kuusi, N., et al. Immunization with outer membrane proteins in experimental salmonellosis of mice. Infect Immun, 25, 857-62, 1979

Levine, M., et al. New knowledge on pathogenesis of bacterial enteric infections as applied to vaccine development. Microb Rev, 47, 510-50, 1983

Laemli, U.K. Cleavage of structural proteins during the assembly of the head of bacteriophage T4. Nature (London), 227, 680-5, 1970

Maurelli, A.T., et al. Cloning of plasmid DNA sequences involved in invasion of HeLa cells by Shigella flexneri. Inf Immun, 49, 164-71, 1985

Mohri, S.T., et al. Studies on immunological activities of the outer membrane protein from E. coli. Immunol, 46, 271-80, 1982

Sansonetti, P.J., et al. Alterations in pathogenicity of E. coli K12 after transfer of plasmid and chromosomal genes from Shigella flexneri. Inf Immun, 39, 1392-402, 1983

Towbin, H., et al. Electrophoretic transfer of proteins from polyacrylamide gels to nitrocellulose sheets. Procedure and some applications. Proc Natl Acad Sci, USA, 76, 4350-4, 1979

Watanabe, H., Timmis, K.N. A small plasmid in Shigella dysenteriae 1 specifies one or more functions essential for O-antigen production and bacterial virulence. Inf Immun, 43, 391-6, 1984

ICDDR,B
BUDGET PROPOSAL 1986-87
(In US $)

REA DESCRIPTION

rogram Name: HOST DEFENSE WORKING GROUP

roject/Protocol/Branch Name: Local and systemic antibody response to Shigella OMP in patients with dysentery. Implication for vaccine development.

rincipal Investigator/[redacted] Dr. Ivan Ciznar
Dr. Ansaruddin Ahmed

udget Code: .....

Estimated Beginning Date: April 1986

rotocol No: .....

Estimated Ending Date: March 1987

EXPENSE CATEGORY		*Column A Total Project Cost	Column B	Column C	Column D
A/C No.	Description	Refer Page			
3100	Local Salaries	2	8,176			
3200	Intl. Salaries	8	36,600			
3300	Consultants	14	2,280			
3500	Travel Local	15	0			
3600	Travel Intl.	16	2,550			
3700	Supplies & Mat.	18	9,815			
3800	Other Costs	19	300			
4800	Inter Deptl. Ser.	20	7,021			
	Total Direct Operating Cost		66,742			
0300	Capital Expenditure Refer Page 21		0			
	TOTAL DIRECT COST		66,742			

Refers to entire life of project.

PERSONNEL REQUIREMENT-(LOCAL STAFF)

	No. of Positions	No. of Man Months	$ Amount
Direct Project/Protocol/Branch Staff Sourced from Page 3			
New Recruitments Sourced from Page 4			
Staff allocated from other area Sourced from Page 5	2.8	33.6	8,176
(i) Sub-Total	2.8	33.6	8,176
s:			
Separations Sourced from Page 6			
Staff allocated to other area Sourced from Page 7	-	-	-
(ii) Sub-Total			
(i)-(ii) TOTAL	2.8	33.6	* 8,176

*Agrees with Page 1 A/C No.3100: Column D

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MANPOWER-ALLOCATED FROM OTHER AREA (LOCAL STAFF)

Designation	Level	Budget Code of Other area	No. of Positions	No. of Man Months	**Rate Per Month	$ Amount
ate Scientist	NO-C	03 01 00	0.5	6	480	2,880
ant Scientist	NO-B	02 01 00	0.1	1.2	380	456
ch Officer	GS-5	03 01 00	2	24	190	4,560
tory Technician	GS-3	04 01 00	0.2	2.4	120	280
		TOTAL	2.8	* 33.6		* 8,176

Computer printout for average rate per

* AGREES WITH PAGE 2 ROW C

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PERSONNEL REQUIREMENT-INTERNATIONAL STAFF

	No.of Positions	No. of Man Months	$ Amount
irect Project/Protocol/Branch taff Sourced from Page No. 9			
ew Recruitments Sourced from Page No. 10			
taff allocated from other area -Sourced from Page No. 11	0.5	6	36,600
(i) Sub-Total	0.5	6	36,600
eparations Sourced from Page No. 12			
taff allocated to other area Sourced from Page No. 13			
(ii) Sub-Total			
(i)-(ii) TOTAL	0.5	6	36,600 *

36.8

*Agrees with Page 1 A/C No.3200 Column D

MANPOWER ALLOCATED FROM OTHER AREA (INTERNATIONAL STAFF)

Designation	Level	Other area Budget Code	No. of Positn.	No. of Man Months	**Rate Per Month	$ Amount
or Scientist	P/5	03 01 00	0.5	6	6,100	36,600
		TOTAL	0.5	* 6		* 36,600

** Contact your Associate Director or Finance (Ext.280) for rate.

* AGREES WITH PAGE 8 ROW C

CONSULTANTS

Job Designation	Travel From-To-From	No. of days	** Perdiem Rate	** Perdiem Total	***Honorarium Rate	***Honorarium Total	**** Travel cost	Total $ Amount
Senior Scientist	Paris-Dhaka-Paris	10	28	280	-	-	2,000	2,280
							TOTAL	*2,280

** Check with Finance Ext. 281 for perdiem rate.
*** Check with Personnel Tel. 601100 for honorarium rate.
**** Check with Travel Ext. 234 for ticket cost. Travel cost includes transit perdiem, ticket cost and ground transportation.

*AGREES WITH PAGE 1 A/C 3300 COLUMN D

Budget86.14

TRAVEL PLAN (INTERNATIONAL)

Job Designation	Purpose of Travel	Travel From-To-From	Estim. days of travel (A)	** Perdiem Rate (B)	** Perdiem Amount (C=AxB)	*** Transportation Air (D)	*** Transportation Ground (E)	**** Other Cost (F)	Total $ Amount (C+D+E+F)
Senior Scientist	Conference	Dhaka-Europe-Dhaka	10	95	950	1,400	100	100	2,550
						TOTAL			* 2,550

** Check with Finance Ext. 281 for perdiem rate.
*** Check with Travel Ext.234 for transportation cost.
**** Includes excess baggage, embarkation fee, travel tax etc.

*AGREES WITH PAGE 1 A/C 3600 COLUMN D

Budget86.16

SUPPLIES AND MATERIALS

Code	Description	Amount
3701	Drugs (used for students in the hospitals and field stations)	-
3702	Glassware (Bottle, beaker, cylinder, petridish, aluminium seal, cloth, stopper, tube etc.)	3,000
3703	Hospital Supplies (bandage, gauze, blade, bowl, catheter, cotton, needle, syringe, solution, leukoplast, towel etc.)	-
3704	Stationery and Office Supplies (Battery, book register, binders, files, pencil, fastener, paper, ribbon, stapler etc.)	300
3705	Chemicals and Media (Acid, reagent, dextrose, sodium, bactongar etc.)	3,000
3706	Materials for Uniform (Cloth, button etc. required for making uniforms)	100
3707	Fuel, Oil and Lubricants (Diesel, mobil, petrol, Kerosene etc.)	-
3708	Laboratory Suplies (Aluminium foil, bag, blade, brush, cap, container, film X-Ray etc.)	100
3709	Housekeeping Supplies (Aerosol, battery, wiping cloth, duster, lock and key etc.)	-
3710	Janitorial Supplies (Bleaching powder, brush, detol, detergent, insecticide, soap etc.)	50
	(Contd. to Page No. 18)	

SUPPLIES AND MATERIALS

(Cont'd. from page No. 17)

A/C No.	Item Description	$ Amount
3711	Tools and spares Automobile spares, tyres, tubes, battery, stores required for maintenance services	-
3712	Non-stock Supplies (Materials not normally kept in stock and purchased only against specific requisitions	1,000
	Sub Total	7,550
3713	Freight and other charges Add 30% to above sub total	2,265
	TOTAL	9,815

AGREES WITH PAGE 1 A/C 3700 COLUMN D

Note: For rates please contact Supply Ext.260 Add 10% to

Budget88.le

OTHER COST

A/C Code	Accounts Description	$ Amount
3800	Repairs and Maintenance (Maintenance and repairs of vehicles, equipments, furniture and building)	200
3900	Rent, communication and utilities (Postage, telephone, telegram, electricity etc.)	100
4100	Bank charges	-
4200	Legal and professional expenses (Professional membership fee, legal fee, audit fee etc.)	-
4300	Printing and Publication (Printing of forms, books, journals, reprints etc.)	-
4400	Entertainment, Hospitality & Donation (Guest house accommodation, donations, hospital food, lunch, refreshment etc.)	-
4500	Service Charges (Porter, labour, washing, laundry and other misc. exp.)	-
4600	Staff Development and Training (Training course fee, training materials, stipend, scholarship, subsistance paid to the staff)	-
	TOTAL	300

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

**INTERDEPARTMENTAL SERVICES

A/C Code	Service Area	$ Amount
4801	Computer	-
4802	Transport Dhaka	-
4803	Transport Matlab	-
4804	Water Transport-Matlab	-
4805	Transport Teknaf	-
4806	Xerox and Mimeograph	500
4807	Pathology	-
4808	Microbiology Tests	366
4809	Biochemistry	-
4810	X-Ray	-
4811	I.V. Fluid	-
4812	Media	-
4813	Patient hospitalisation study	5,355
4814	Animal Research	500
4815	Medical Illustration	200
4817	Telex	100
4818	Out Patient care	-
4830	Transport Subsidy	-
	TOTAL	* 7,021

** See annexure B for rates.

*AGREES WITH PAGE 1 A/C 4800 COLUMN D

CONSENT FORM

The International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B) is carrying out research to better understand how to prevent people from the attack of blood dysentery. We earnestly request you to participate in a research to find out what are the important components of a blood dysentery bacteria against which an individual can form immune (protective) response to protect himself from an attack of the same disease. We hope that the knowledge gained by this study will enable us to develop an effective vaccine against the disease.

If you kindly agree to participate in this study, you may expect the following:

1. You/your child may need to stay in the hospital up to 12 days after the onset of diarrhoea. If the disease improves rapidly, you/your child may be allowed to leave the hospital earlier, but on day-12 after the admission, you/your child will be required to come to the hospital for final medical check up.

2. On admission, as well as on day-12 of admission, we will take a sample of 5 ml blood from your vein for investigation. Also we will take some intestinal washing from you by the procedure of 'intestinal lavage.' You will be allowed to drink a large volume (up to 5 liters) of salty water in empty stomach. This will cause a temporary diarrhoea which will stop shortly after you stop drinking the salty water. During the lavage, you will feel a fulness in the abdomen; you may gain 1-3 kg in weight, but you will feel no pain and there will be no serious side-effects.

In case of 1 to 3 years old children, 3.5 ml blood will be taken from the vein for diagnosis and detection of antibodies against dysentery on admission and on day-12 after admission. No intestinal lavage will be done on the children.

Collection of samples (blood and intestinal washings from adults only, blood samples from children) for scientific tests will not have any bad effect on your/your child's health, except creating some discomfort.

3. Your medical records will be kept confidential.

4. You do not have to participate in the study. Your decision to join or not to join the study will not in any way affect your medical treatment while you are in the hospital. Once you enter the study, you are free to leave the study at any time without jeopardizing your medical care. We will be ready to answer any of your questions concerning the study.

If you agree to participate in this study, please sign your name here.

_____

Signature/left thumb impression of patient

Date _____

_____

Investigator's signature

সম্মতি পত্র

আন্তর্জাতিক উদরাময় গবেষণা কেন্দ্র, বাংলাদেশ (আই সি ডি ডি আর, বি) কলেরা, রক্ত-আমাশয় ও অন্যান্য উদরাময় রোগের আক্রমণ থেকে জনসাধারণ কেমন করে রক্ষা পেতে পারে, এ বিষয়ে গবেষণা চালাচ্ছে। রক্ত-আমাশয়-সৃষ্টিকারী জীবাণুর কোন বিশেষ অংশগুলোর বিরুদ্ধে প্রতিরোধ ক্ষমতা গড়ে তুলতে পারলে একজন মানুষ এই রোগের আক্রমণ থেকে বাঁচতে পারে, এই বিষয়ে একটি গবেষণায় অংশ গ্রহণ করতে আমরা আপনাকে সনির্বন্ধ অনুরোধ করছি। আমরা আশা করি এই গবেষণা থেকে পাওয়া জ্ঞান আমাদেরকে এই রোগ প্রতিরোধ করবার জন্যে একটি কার্যকরী ভ্যাকসিন (টিকা) তৈরী করতে সফল করবে।

আপনি যদি দয়া করে এই গবেষণায় অংশ নিতে রাজী হন তবে আপনাকে নীচে লেখা ব্যবস্থাগুলোর মধ্যে যেতে হবে:

১। আপনাকে বা আপনার সন্তানকে ভর্তির সময় থেকে ২২দিন পর্যন্ত হাসপাতালে থাকতে হবে। যদি রোগ খুব তাড়াতাড়ি সেরে যায়, তবে এর আগেই বাড়ী যাওয়া চলবে; কিন্তু শেষ ডাক্তারি পরীক্ষার জন্যে আপনাকে বা আপনার সন্তানকে ২২দিনের মাথায় আবার হাসপাতালে আসতে অনুরোধ করা হবে।

২। ভর্তির সময় এবং ২২ দিনের মাথায় আপনার হাতের শিরা থেকে ৫ মিলি-লিটার রক্ত বিভিন্ন পরীক্ষার জন্যে নেওয়া হবে। এ ছাড়া 'ইনটেস্টিনাল লেভেজ' পদ্ধতিতে খানিকটা পাতলা মল নেওয়া হবে। এই পদ্ধতিতে আপনাকে খানিকক্ষণে অনেকখানি (পাঁচ লিটার পর্যন্ত) হালকা

ঔষধ-পানি পান করতে দেওয়া হবে যাতে আপনার সাময়িক পাতলা পায়খানা বা ডায়রিয়া হয়, ঔষধ-পানি পান বন্ধ করার সাথে সাথেই অবশ্য সেই ডায়রিয়া বন্ধ হয়ে যাবে, সেই ব্যবস্থা নেয়ার সময় আপনি পেটের মধ্যে একটু ভোঁ-ভোঁ ভাব অনুভব করবেন, আপনার ওজন এক থেকে তিন দিনের মধ্যেই বেড়ে যেতে পারে; কিন্তু আপনি কোন ব্যথা অনুভব করবেন না, অথবা আপনার শরীরে কোনও প্রকার বিষাদজনক পার্শ্বপ্রতিক্রিয়া দেখা দেবে না।

তিন বছর পর্যন্ত শিশুদের শিরা থেকে মাত্র ৩.৫ মিলিলিটার (শিশুর কাছ থেকে নেয়া রক্তের চাইতে কম) রক্ত নেওয়া হবে ডাবারে বলা দিন দুটিতে, সেই শিশুদের থেকে নাড়ী-ছেঁড়া ঘাস বা মাল নেওয়া হবে না।

পরীক্ষার জন্যে রক্ত বা নাড়ী-ছেঁড়া মাল নেওয়াতে আপনার বা আপনার সন্তানের স্বাস্থ্যের কোন ক্ষতি হবে না, অল্পকিছু তাড়াতাড়ি অনুভব করবে মাত্র।

৩। আপনার/আপনার সন্তানের চিকিৎসার/পরীক্ষা সংক্রান্ত নীতিমালা গোপন রাখা হবে।

৪। এই গবেষণায় যোগ দেওয়াতে আপনার কোন বাধ্যবাধকতা নেই, আপনি গবেষণায় যোগ দেন অথবা না দেন, হাসপাতালে আপনার চিকিৎসা স্বাভাবিক ভাবেই চলতে থাকবে, একবার গবেষণায় অংশগ্রহন

করলেও, ইচ্ছে হলে আপনি যে কোনও সময় সরে যেতে পারেন, তবে হাসপাতালে আপনার চিকিৎসার কোনও কমতি হবে না। এই গবেষণা সম্বন্ধে আপনার যে কোনও প্রশ্নের সঠিক উত্তর দিতে আমরা সবসময়ে তৈরী থাকব।

এই গবেষণায় অংশ নিতে রাজী থাকলে অনুগ্রহ করে এখানে আপনার টিপসই অথবা সই দিন।

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স্বাক্ষর/টিপসই

তারিখ

গবেষকের স্বাক্ষর