achment 1.

Library (2)

Date 18/7/88

ETHICAL REVIEW COMMITTEE, ICDDR,B

ncipal Investigator Dr. F.C. Patra

Trainee Investigator (if any) _____

lication No. 88-019

Supporting Agency (if Non-ICDDR,B) _____

le of Study "Comparison of two L-alanine lucose based oral rehydration solutions th the standard WHO-ORS formula in ults and children with acute watery arrhoea"

Project status:
(√) New Study
( ) Continuation with change
( ) No change (do not fill out rest of form)

rcle the appropriate answer to each of the following (If Not Applicable write NA).

Source of Population:
(a) Ill subjects (Yes) No
(b) Non-ill subjects Yes (No)
(c) Minors or persons under guardianship (Yes) No

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

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:
___ ✓ 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)

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

Principal Investigator

JUL 20 1988

Trainee

88-019
19/7

SECTION I : RESEARCH PROTOCOL

1.	Title	:	Comparison of two L-alanine-glucose based oral rehydration solutions with the standard WHO-ORS formula in adults and children with acute watery diarrhoea.
2.	Principal Investigator	:	Dr. F.C. Patra
	Co-Investigator	:	A Medical Officer (to be named)
	Consultants	:	Dr. D. Mahalanabis Dr. A.N. Alam
3.	Starting Date	:	15 August 1988
4.	Completion date	:	14 August 1990
5.	Total Direct Cost	:	US $ 68942.00
	Source of Funding	:	WHO
6.	Scientific Programme	:	This protocol has been approved by the Clinical Sciences Division.

Dilalomahis

Signature of Associate Director, CSD

Date: 18/7/88

7. Abstract summary:

A just completed clinical trial conducted at ICDDR,B and supported by WHO, using a combination of 90 mmol of L-alanine and 90 mmol of glucose as substrates in oral rehydration solution to treat older children and adults suffering from acute diarrhoeal dehydration has shown that compared to controls treated by the WHO recommended glucose ORS there is a substantial and significant reduction in total stool output by (51%) in the study patients treated with L-alanine-glucose ORS. Since L-alanine is relatively expensive we would like to see if by decreasing the L-alanine concentration to 50 mmol/L and increasing the glucose concentration to 100 mmol/l we could achieve the same amount of reduction in the stool output as observed in the recently concluded study using 90 mmol/L of l-alanine and 90 mmol/L of glucose as substrates in the ORS. In a double blind randomised study a total of 240 male patients aged 6 years and above and suffering from acute diarrhoeal dehydration will be studied in three groups. One group of patients (study group 1) will receive an ORS containing 90 mmol/L of L-alanine and 90 mmol/L of glucose and the other group (study group 2) will receive an ORS containing 50 mmol/L of L-alanine and 100 mmol/L of glucose. The third group of patients (control group) will receive the standard WHO recommended ORS. The electrolyte composition of the study ORS will be similar to the WHO recommended ORS. All the patients will be initially rehydrated by intravenous acetate solution followed by the administration of ORS. All the patients will receive oral tetracycline therapy for 48 hours along with appropriate feeds starting from the beginning of the study. Careful records of intake and output will be kept. The patients will be kept under strict medical supervision by the investigators and will be discharged from the hospital after cessation of diarrhoea.

8. Reviews:

(a) Chairman, Ethical Review Committee

(b) Chairman, Research Review Committee

(c) Director, ICDDR,B

SECTION II - RESEARCH PLAN

A. Introduction

1. Objective:

The objective of the present study is to evaluate the efficacy of two ORS solutions based on glucose and an aminoacid l-alanine in reducing the magnitude and duration of diarrhoea, in addition to replacing diarrhoea losses, in adults and older children with acute diarrhoea compared to citrate based glucose ORS in a controlled clinical trial.

2. Background:

Glucose-linked enhanced absorption of sodium and water from the small intestine is largely intact during acute diarrhoea of diverse aetiology and forms the basis of glucose-based oral rehydration fluids for acute diarrhoea (1). The present WHO recommended oral rehydration formula containing 2 g of glucose per 100 ml of ORS is a powerful therapeutic tool and is capable of replacing the need for intravenous therapy in 80-90% of clinically dehydrated patients, who would have been treated intravenously by conventional criteria. In other wards such an ORS can adequately correct the deficiency of moderate to severe dehydration due to acute diarrhoea and can replace the on-going losses provided the rate of diarrhoeal stool output does not exceed certain limit. However compared to intravenously treated controls oral rehydration therapy neither reduces nor increases the magnitude of diarrhoeal stool output in infants and children aged under 5 with rotavirus diarrhoea (2) and cholera (3). In adults with secretory diarrhoea caused by cholera the diarrhoeal stool output may even increase by 15 to 20% when the patients are treated with ORS (4,5). Presently used ORS containing 2 g % glucose stimulate optimum sodium absorption except in 2 to 4% of clinically dehydrated hospitalised infants with acute diarrhoea, who may develop temporary malabsorption of glucose and for whom ORS may worsen diarrhoea (1). Our present state of knowledge suggests that almost all water soluble organic molecules which are absorbed from small intestine enhance the absorption of sodium and water. Examples are D-hexoses, amino acids, dipeptides and some water soluble vitamins (6). *In vivo* perfusion studies in human volunteers (7) and in animals (8) suggest that the faster the absorption of organic molecule the greater is the linked absorption of sodium and water. If the sodium concentration in the oral rehydration solution is kept constant at a desired level as dictated by the need of therapy (9), the concentration of water-soluble organic compounds can not be increased beyond contain limits as it would raise the osmolality far above that of plasma and would impose an osmotic penalty (8) (i.e. osmotic back-flow of water from the plasma to gut

lumen due to unabsorbed organic molecules), and would negate the beneficial effects of increased absorption. From human perfusion studies it has been shown that l- alanine is readily absorbed from the small intestine and its absorption rate increases with its increasing concentration (10). In the presence of l-alanine there is significant enhancement of both sodium and water absorption and this stimulated absorption of sodium increases with increasing concentration of l-alanine (10). Alanine is a white odorless crystalline powder with a sweetish taste and soluble in water (11). It is present in many food stuffs and has been used as a dietary supplement (11). L-alanine 50 g daily by mouth in divided doses reversed hypoglycaemia and ketosis and reduced muscle catabolism in obese subjects starved for 2 weeks (12). L-alanine is also a potent stimulant of glucagon secretion (13). Alanine is the primary endogenos glucogenic substrate released by muscle and extracted by the liver during starvation (14). The glucose-alanine cycle in muscle has been fully documented (15), Alanine is formed by transamination from pyruvate and becomes a carrier of nitrogen to the liver where its carbon skeleton enters the glucogenic pathway and the amino group is transformed to urea (15). Nalin et al have shown a marked improvement in sodium and water absorption in patients with cholera by using a mixture of glycine (110 mmol/l) and glucose (110 mmol/l) (16). Controlled clinical trials conducted recently in Calcutta using either 5% puffed rice powder substituted for glucose or adding 111 mmol of glycine to a litre of ORS in the treatment of dehydrated infants with acute diarrhoea have shown a significant reduction in stool output (50%), duration of diarrhoea (25%) and volume of fluid required for rehydration and fluid balance (40%) (17,18).

A just completed clinical trial conducted at ICDDR,B and supported by WHO, using a combination of 90 mmol of l-alanine and 90 mmol of glucose as substrates in oral rehydration solution to treat older children and adults suffering from acute diarrhoeal dehydration mostly due to cholera has shown that compared to controls treated by the WHO recommended glucose ORS there is a substantial and significant reduction in total stool output (by 51%) in the study patients treated with l-alanine-glucose ORS (19). Since l-alanine is relatively expensive we would like to see if by decreasing the l-alanine concentration to 50 mmol/l and increasing the glucose concentration to 100 mmol/l we could achieve the same amount of reduction in the stool output as observed in the recently concluded study using 90 mmol/l of alanine and 90 mmol/l of glucose as substrates in the oral rehydration solution. The L-alanine concentration of 50 mm has been chosen for the study solution because it has been shown by marker perfusion study in human volunteers that when L-alanine concentration in the perfusion solution reaches 50 mm/L the rate of increase in sodium absorption linked to L-alanine absorption becomes relatively less

efficient compared to a lower concentration of L-alanine (10 mm and 20 mm) (10).

The present study has been designed to test this hypothesis in a controlled double blind clinical trial. The glucose content (100 mmol/l and 90 mmol/l) of these alternative formulations is still within the range of glucose concentration (56 to 140 mmol/l) which was found to exert maximum effect on water and sodium absorption (20). The total osmolality of the experimental solutions are 370 and 400 mosm/l respectively which are slightly higher than the currently recommended WHO ORS (331 mosm/l).

It has been decided to use a more stable base precursor sodium citrate in place of sodium bicarbonate taking into account the result of the recent study (21) which has shown that citrate works as well as bicarbonate in correcting acidosis.

B. Rationale:

Although the proper replacement of water and salt losses is the main therapeutic goal in the treatment of acute diarrhoea, the possibility of reducing at the same time the magnitude and duration of diarrhoea has a great psychological and practical importance both to patients (or parents) and physicians.

METHODS AND PROCEDURE:

Trial design:

This will be a 3-cell double blind randomised trial. The control group will receive citrate based glucose ORS recommended by WHO. The two study groups will receive l-alanine-glucose based ORS of varying glucose and l-alanine concentration (see below).

Study population:

The study will be carried out in dehydrated older children and adults with acute watery diarrhoea in the study ward of International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka.

Inclusion criteria

Age: From 6 years to 59 years
Sex: Males only for convenience of separately collecting stool and urine.

- Three or more loose or watery stools per day for no more than 24 hours.

- Clinical signs of severe dehydration.

- On admission the patients will be rehydrated and maintained with intravenous acetate solution (Dacca solution) for an initial period of 6 hours; during this initial I.V. period the purging rate will be measured and only patients with a purging rate equal or superior to 5 ml/kg/hour would be included in the study. Randomisation will take place after this initial I.V. period.

Exclusion criteria:

- Clinical evidence of concomitant systemic illness (i.e. pneumonia, sepsis, etc.).
- Clinical signs of complete ileus
- Clinical evidence of severe malnutrition as defined clinically (22, 23).
- Oral antibiotic treatment within 48 hours prior to admission.

- Previous attack of diarrhoea within the two weeks before the present illness.
- Gross blood and mucus in stool on admission.

Sample size calculation:

Based on the analysis of just completed analine-glucose ORS study data WHO has calculated the sample size in order to show a 25% decrease in total stool output (=0.05 and =0.20) to be 80 patients per group. This is a conservative estimate, considering the fact that the recent study showed a 51% decrease in total stool output in the group treated with l-alanine-glucose ORS.

Hence the total number of patients to be studied is (80X3)= 240.

Enrolment of subjects:

a. Informed consent

Each child's mother or the father and the older patients or the attendant will be given an explanation as to the nature of the study and only those who give voluntary written consent (informed consent form is enclosed) will be included in the study. Parents and the patients reserve the right to withdraw from the study at any stage without affecting further care of the patient.

b. Assessment of eligibility:

Patients will be assessed and included into the study according to inclusion and exclusion criteria and informed consent.

c. Baseline examination:

A standard history and complete physical examination will be carried out according to a proforma.

The following laboratory tests will be performed on admission.

- Microhematocrit and plasma specific gravity
- Serum electrolytes and total CO2
- Fresh stool/rectal swab for enterotoxigenic E. coli and V. cholerae
- Fresh stool for microscopy.

The above blood tests will require 2 ml of blood. These blood tests will be repeated at 6 hours, 30 hours and at discharge.

d. Subject allocation

The trial will be conducted in a double blind design and the patients will be randomly assigned to receive either the improved ORS formulations (i.e. glucose alanine based ORS formulations) or WHO recommended ORS.

It is proposed that the improved ORS packets and standard ORS packets will be supplied by WHO incorporating appropriate randomisation in the serial number of packets.

Intervention:

a. Composition and preparation of the oral rehydration formulations.

Sufficient number of packets per patient (atleast 40, one litre solution packets per patient) will be prepared by WHO and then coded according to randomisation list. The external appearance of the packets will be same except for the serial number of patients.

Composition of one improved ORS formulation. (A)

Sodium chloride	-	3.5 g
Potassium chloride	-	1.5 g
Trisodium citrate dihydrate		2.9 g
L-alanine	-	8.2 g
Glucose	-	16.2 g

When diluted in 1 litre of water this ORS will have Na 90, Cl 80, K 20, HCO3 equivalent 30, L alanine 90, and glucose 90, all in mmol per litre.

Composition of the other improved ORS formulation. (B)

Sodium chloride	-	3.5 g
Potassium chloride	-	1.5 g
Trisodium citrate dihydrate		2.9 g
L-alanine	-	4.5 g
Glucose	-	18.0 g

When diluted in 1 litre of water this ORS will have Na 90, Cl 80, K 20, HCO3 equivalant 30, L-alanine 50 and glucose 100, all in mmol per litre.

Composition of ORS in control will be the same as in the WHO recommended tri-sodium citrate dihydrate based ORS formula. Its composition is:

Sodium chloride	-	3.5 g
Potassium chloride	-	1.5 g
Trisodium citrate dihydrate		2.9 g
Glucose	-	20.0 g

b. Description of the schedule.

All patients admitted to the trial will be cared for by doctors and nursing staff assigned to the study. Nurses already experienced in metabolic collection in earlier studies will be assigned to the study. Immediately after recording weight and assigning the appropriate serial number the patient will be put on a cholera bed designed to make accurate measurement of stool and urine separately. The container with the assigned ORS and the cups will be kept by the bedside of the patient to facilitate measured intake. The vomitus will be mopped with the pre-weighed gauze and measured by the difference in weight. Intake and output will be recorded in a specially disigned record sheet every 6 hours until discharge from the study.

All fluid therapy will be divided into two parts.

i. Initial rehydration phase
ii. Maintenance phase.

Initial rehydration phase:

Once admitted into the study and before randomisation, patients will be rehydrated and maintained with intravenous acetate solution (Dacca solution). Patient with severe degree of dehydration will receive 100 ml/kg over a period of 2 to 4 hours. Intake, output and amount of I.V. needed to fully correct signs of dehydration will be recorded. During this phase the patient will be observed for a period of 6 hours. Only patients with a purging rate equal or superior to 3 ml/kg/hr will be included in the study. Randomisation will take place after this initial I.V. period.

Maintenance period:

This phase starts after the patients are randomised. The diarrhoeal stool loss will be replaced by ORS as per the randomization, volume for volume based on every 6 hourly stool volume until diarrhoea ceases. Careful measurement of fluid intake including feeds and stool output and urine during this period will be recorded. Body weight and clinical examination will be repeated at 6 hours after admission and every 24 hours thereafter. In all patients laboratory tests will be repeated at 6 hours after starting the study (i.e. microhematocrit, plasma specific gravity, plasma electrolytes and TCO2). These tests will also be repeated at 30 hours and at discharge. Patients will be discharged from the study after cessation of diarrhoea.

Feeding:

All the patients will be offered standard hospital diet consisting of rice, dal, fish and vegetables etc, following

the 6 hours rehdyration period.

Antibiotics:

All the patient will be given oral tetracycline therapy 50 mg/kg/24 hrs to older children divided into 4 equal doses and 500 mgs 6 hourly to adults for the initial 48 hours. Antibiotic therapy will commence after initial 6 hours rehdyration period.

Free water:

Water will be offered during maintenance phase and accurate record of its intake will be kept.

Unscheduled I.V. therapy:

If signs of dehydration re-appear during the maintenance phase supported by rise in hematocrit and plasma specific gravity, which necessitates intravenous therapy the patient will receive rapid intravenous acetate solution (Dacca solution) till signs of dehdyration are fully corrected and then they will resume oral treatment with their randomly allocated formulations. Observation of the outcome variables will continue as scheduled.

Ascertainment of response variables:

a. Response variables

Primary outcome measures:

- Duration of diarrhoea in hospital
- Diarrhoea stool volume 0-6 hr, 0-24 hrs, 24-48 hrs, 0-till cessation of diarrhoea.

Additional outcome measures

- Weight gain
- Amount of ORS consumed till cessation of diarrhoea
- Hematocrit, plasma specific gravity
- Urine volume.

b. Working definitions

Cessation of diarrhoea: The end point of diarrhoea is considered as the time at which the last liquid stool is passed provided the next stool is semisolid or solid.

volume of diarrhoea: The stool volume from admission till cessation of diarrhoea measured to the nearest one ml.

c. Data analysis:

Appropriate statistical methods will be applied to examine the following variables.

i. Pre-treatment clinical data to assess comparability

ii. Post-treatment clinical and laboratory data such as weight gain at 6, 24 hours and at discharge, duration of diarrhoea, stool output, intake of ORS, hematocrit, plasma specific gravity, serum electrolytes, rate of treatment failure and amount of unscheduled intravenous fluid used. For these quantitative out come measures standard parametric statistical tests will be used with appropriate transformation if needed. Appropriate non-parametric tests will also be carried out. The best estimates of the magnitude of difference in the major outcome measures and their 95% confidence intervals will be calculated and evaluated. Primary comparison will be between either study group and the control group.

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Abstract Summary for Ethical Review Committee

1. A total of 240 male patients suffering from acute watery diarrhoea of less than 24 hours duration and with signs of dehydration will be studied in 3 groups. Patients with history of taking antibiotics 48 hours prior to admission and with clinical evidence of concomitant systemic illness (i.e. Pneumonia and sepsis etc.) will not be included in the study. Also patients suffering from severe malnutrition will be excluded from the study.

2. The study groups will receive L-alanine-glucose based oral rehydration solutions with similar electrolyte composition as that of the WHO recommended ORS, and the control group will receive the standard WHO recommended ORS.

3. Two ml of venous blood will be drawn at admission, at 6 hours, at 30 hours and again at discharge. This will be necessary to assess the state of hydration of the patient and to serve as a guideline for the subsequent fluid therapy and clinical cure.

4. All the patients will be initially treated with intravenous acetate solution followed by the oral therapy.

5. Appropriate feeds will be offered to the patients starting from the beginning of the study.

6. Patients stool will be examined microscopically and also will be cultured to ascertain the cause of diarrhoea.

7. All the patients will receive oral tetracycline for 48 hours starting from the beginning of the study.

8. Any untoward reaction associated with therapy will be noted.

9. There is no potential risk involved in the study and every precaution will be taken to safeguard the interest of the patient.

10. All records will be kept confidential and will remain with the investigators.

11. Informed consent (signed or thumb impression) will be obtained from either of the parents or the relative or from the patients before enrollment into the study.

12. Interview of the patients or relatives will be taken only related to the history of present illness which will be of help for the clinical management of the disease.

13. The patients will be benefited from the treatment of diarrhoeal illness. General benefit to the society will include possible wide scale use of the L-alanine-glucose based ORS for the treatment of acute diarrhoeal dehydration.

14. No retrospective hospital record will be used.

CONSENT FORM

International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B) would like to carry out research on Alanine-Glucose oral rehydration solution (ORS) for the treatment of diarrhoea . This new alanine-glucose ORS is palatable and is thought to have the capability of reducing the diarrhoeal stool volume and duration of diarrhoea in addition to replacing the diarrhoeal losses. Alanine-glucose ORS will be compared with the currently WHO recommended ORS for the treatment of acute diarrhoea. The study will last till the cessation of diarrhoea and during this period the patient will be treated with either Alanine-glucose ORS or WHO recommended ORS. The patient will receive intravenous acetate solution (Dacca solution) for initial rehdyration after which the administration of either of the ORS will commence.

Stool, urine and vomitus of the patients will be measured every 6 hourly until discharge from the study. Two milliliter of blood will be drawn from the patients on admission, at 6 hours, at 30 hours and at discharge to assess the degree of dehydration and assessment of therapeutic response. Stool for microscopic examination and culture will be performed to determine the cause of diarrhoea. The result of the investigations will be used to evaluate the effect of treatment. The patient will be discharged from the hospital after cessation of diarrhoea and completion of the necessary treatment.

All records of the patient's treatment in the hospital will be kept confidential. Taking part in the study totally depends upon your decision. The patient will be provided with all the available treatment facilities in this hospital even if you do not allow the patient to participate in this study. If you agree to the proposal that your patient should participate in this study then please sign here.

Signature of the investigator

Finger print/signature of the guardian of the patient

Date: ----------

Relation to the patient:-----

সম্মতি পত্র

আন্তর্জাতিক উদরাময় গবেষণা কেন্দ্র শিশুদের ডায়রিয়া চিকিৎসার জন্য এলাবিন গ্লুকোজ মুখে খাওয়ার স্যালাইনের উপর গবেষণা করতে ইচ্ছুক। এই নতুন এলাবিন গ্লুকোজ মুখে খাওয়ার স্যালাইনের স্বাদে সুস্বাদু। ইহা পাতলা পায়খানার পরিমান ও সময় কমাতে সাহায্য করে। উপরন্তু শরীরের ডায়রিয়াজনিত ঘাটতি পূরণে সহায়তা করে। ডায়রিয়ার এই নতুন স্যালাইনের সংগে প্রচলিত স্যালাইনের কার্যকারিতার তুলনামূলক পরীক্ষা করা হবে। এই স্যালাইন খাওয়ানো ডায়রিয়া বন্ধ না হওয়া পর্যন্ত চলবে এবং এই সময়ে রোগীর হয় এলাবিন গ্লুকোজ অথবা শুধু গ্লুকোজ স্যালাইন খাবে। প্রাথমিক ভাবে রোগীকে আই, ভি স্যালাইন দিয়ে পানিশূন্যতা দূর করতে হবে তারপর উপরোক্ত দু'টি মুখে খাওয়ার স্যালাইনের যে কোন একটি দেওয়া হবে।

এই গবেষণা শেষ হওয়ার আগে পর্যন্ত রোগীর মল, মূত্র ও বমি ৬ ঘন্টা অন্তর অন্তর মাপা হবে। ভর্তির সময় ৬ ঘন্টা পর, ৩০ ঘন্টা পর ও ছুটির সময় ২ মিঃ লিঃ করে রক্ত নেওয়া হবে যার মাধ্যমে দেহের ডায়রিয়াজনিত পানি শূন্যতা করা হবে ও এই স্যালাইনের কার্যকারিতা নির্ণয় করা হবে। এ সকল পরীক্ষার ফলাফল রোগীর শুচিকিৎসায় ব্যবহৃত হবে। ডায়রিয়া সম্পূর্ণ ভাল হওয়ার পর প্রয়োজনীয় চিকিৎসা দিয়ে তাকে বাড়ী পাঠানো হবে।

রোগীর চিকিৎসার যাবতীয় তথ্যাদি গোপন রাখা হবে। এই গবেষণায় অংশগ্রহণ করা কিংবা না করা সম্পূর্ণ আপনার ইচ্ছাধীন। অংশগ্রহণ না করলেও আপনার সন্তান এ হাসপাতালে প্রচলিত নিয়মানুসারে শুচিকিৎসা পাবে।

যদি আপনি এ প্রস্তাবে রাজী থাকেন তবে নিম্নে স্বাক্ষর করুন।

গবেষকের স্বাক্ষর

রোগীর স্বাক্ষর / টিপ সহি

তারিখ ----------

ICDDR,B
1988 BUDGET PROPOSAL (IN US $)

DIVISION NAME: Clinical Sciences Division
PROTOCOL/BRANCH NAME: Comparison two L-alanine-glucose ...
NAME OF P.I.: Dr. F.C. Patra
BUDGET NO.
PROTOCOL NO:
DONOR NAME: WHO

STARTING DATE: 15.8.88
COMPLETION DATE: ~~31.12.88~~
GRANT AMOUNT: 31-890

A/C Code	EXPENSE CATEGORY	Refer to Page No.	Column A: Actual Jan.- June '87	Column B: Estim. Whole Yr 1987	Column C: Proposed 1988	Proposed 1989	Proposed 1990
3100	Local Salaries	02			1498	4494	3595
3200	Intl. Salaries	08			3000	9000	8000
3300	Consultants	14			0		
3500	Travel Local	15			0		
3600	Travel Intl.	16			0		
3700	Supplies & Mat.	18			325	520	455
4000	Other Costs	19			0		
4800	Inter Deptl. Ser.	21			9650	12540	15865
	Total Direct Operating Cost		0	0	14473	+ 26554	+ 27915
0300	Capital Expenditure (P.22)				0		
	TOTAL DIRECT COST		0	0	14473	+ 26554	+ 27915

GRAND TOTAL US $ = 68942.00

Reviewed by Budget Office
19/7/88

PERSONNEL REQUIREMENT (LOCAL STAFF) 1988

Description	No. of Positions	No. of Man Months	$ Amount	1989	1990
A. Direct Project/Protocol/ Branch Staff at 01.01.1988 (Source: Page 3)	0	0	0		
Add:					
B. New Recruitments (Source: Page 4)	0	0	0		
C. Staff allocated from other area (Source: Page 5)	2	2.8	1498	4494	3595
(i) Sub Total	2	2.8	1498		
Less:					
D. Separations (Source: Page 6)	0	0	0		
E. Staff allocated to other area (Source: Page 7)	0	0	0		
(ii) Sub Total	0	0	0		
(i) - (ii) TOTAL	2	2.8	1498	4494	3595

MANPOWER-ALLOCATED FROM OTHER AREA (LOCAL STAFF) - 1988

	A	B	C	D	E	F=(D x E)	1989	1990
Job Title	Level	Budget Code Of Other Area	No.of Positn	No.of Man Months	Rate Per Month	$ Amount		
1. Clerk	GS-3	13 01 10	1	0.8	335	268	804	643
2. Medical Officer	NO-A	11 01 10	1	2	615	1230	3690	2952
3.						0		
4.						0		
5.						0		
6.						0		
7.						0		
8.						0		
9.						0		
10.						0		
11.						0		
12.						0		
13.						0		
14.						0		
15.						0		
16.						0		
17.						0		
18.						0		
19.						0		
20.						0		
21.						0		
22.						0		
23.						0		
24.						0		
25.						0		
26.						0		
27.						0		
28.						0		
29.						0		
TOTAL			2	2.8		1498	4494	3595

PERSONNEL REQUIREMENT (INTERNATIONAL STAFF) - 1988 PAGE 8 OF 22

Description	No. of Positions	No. of Man Months	$ Amount	1989	1990
A. Direct Project/Protocol/ Branch Staff at 01.01.1988 (Source: Page 9)	1	2	3000	9000	8000
Add:					
B. New Recruitments (Source: Page 10)	0	0	0		
C. Staff allocated from other area (Source: Page 11)	0	0	0		
(i) Sub Total	1	2	3000	9000	8000
Less:					
D. Separations (Source: Page 12)	0	0	0		
E. Staff allocated to other area (Source: Page 13)	0	0	0		
(ii) Sub Total	0	0	0		
(i) - (ii) TOTAL	1	2	3000	9000	8000

	Name & Job Title	Level	A No. of Positions	B No. of New Recruits July-Dec.87 (+)	C No. of Separations July-Dec.87 (-)	D No. of Positions 01.01.88 (A+B-C)	E Man Months 01.01.88 (D X 12)	F Rate Per Month	G $ Amount (E X F)	1989	1990
1.	Dr. F.C. Patra		1			1	2	1500	3000	9000	8000
2.						0	0		0		
3.						0	0		0		
4.						0	0		0		
5.						0	0		0		
6.						0	0		0		
7.						0	0		0		
8.						0	0		0		
9.						0	0		0		
10.						0	0		0		
11.						0	0		0		
12.						0	0		0		
13.						0	0		0		
14.						0	0		0		
15.						0	0		0		
16.						0	0		0		
17.						0	0		0		
18.						0	0		0		
19.						0	0		0		
20.						0	0		0		
21.						0	0		0		
22.						0	0		0		
23.						0	0		0		
24.						0	0		0		
25.						0	0		0		
26.						0	0		0		
27.						0	0		0		
28.						0	0		0		
29.						0	0		0		
30.						0	0		0		
31.						0	0		0		
32.						0	0		0		
33.						0	0		0		
34.						0	0		0		
35.						0	0		0		
36.						0	0		0		
37.						0	0		0		
38.						0	0		0		
39.						0	0		0		
40.						0	0		0		
	TOTAL					1	2		3000	9000	8000

A/C Code	Item Description	$ Amount	1989	1990
3701	Drugs (used for medicationin the hospitals and field stations)			
3702	Glassware (bottle, beaker, cylinder, petridish, aluminium seal, slides stopper, tube etc.)			
3703	Hospital Supplies (bandage, gauge blade, bowl, catheter, cotton, needle syringe, solution, leukoplast, towel etc.)	100	200	200
3704	Stationery and Office Supplies (Battery, book register, binders, files, pencil, fastener, paper, ribbon, stapler etc.)	100	100	100
3705	Chemicals and Media (Acid, reagent dextrose, sodium, bactoagar etc.)			
3706	Materials for Uniform (Cloth, button etc required for making uniforms)			
3707	Fuel, Oil and Lubricants (Diesel, mobil, petrol, kerosene etc.)			
3708	LaboratoSry Supplies (Aluminium foil, bag blade, brush, cap, container, X-ray etc.)			
3709	Housekeeping SUpplies (Aerosol, battery, wiping.cloth, duster, lock and key etc.)			
3710	Janitorial Supplies (Bleaching powder, brush, detol, detergent, insecticide, soap etc.)			
3811	Tools and Spares (Automobile spares, tyres, tubes, battery, stores required for maintenance services etc.)			
3712	Non-stock Supplies (Materials not normally kept in stock and purchased only against specific requisitions)	50	100	50
	Sub Total	250	400	350
3713	Freight and other charges (Add 30% to above sub total)	75	120	105
	TOTAL	325	520	455

INTER-DEPARTMENTAL SERVICES - 1988 PAGE 20 & 21 OF 22

A/C Code	Service Area	$ Amount	1989	1990
4801	Computer			
4802	Transport Dhaka	160	250	500
4803	Transport Matlab			
4804	Water Transport Matlab			
4805	Transport Teknaf			
4806	Xerox and Mimeograph	50	100	250
4807	Pathology	150	250	50
4808	Microbiology Tests	912	912	125
4809	Biochemistry	3278	3278	3278
4810	X-Ray			
4811	I.V. Fluid			
4812	Media			
4813	Patient Hospitalization study	5000	7500	10600
4814	Animal Research			
4815	Medical Illustration	50	150	100
4817	Telex	50	100	50
4818	Out Patient Care			
4819	Maintenance Charges			
4820	Vehicle Maintenance Charges			
4821	Library Service Charges			
4822	Staff Clinic Charges - Dhaka			
4823	Staff Clinic Charges - Matlab			
4824	Bacteriology Test			
4830	Transport Subsidy			
	TOTAL	9650	12540	15865

chment 1.

ETHICAL REVIEW COMMITTEE, ICDDR,B.

Date 24 July 1988
27/7/88

cipal Investigator Mr. Mujibur Rahman ~~Dr. S.K. Roy~~ Trainee Investigator (if any) _____

ication No. 88-020 Supporting Agency (if Non-ICDDR,B) _____

e of Study Comparison of the effects ~~ule in under-nourished children with~~ reen leafy vegetables and vitamin A ~~without non-corneal xerophthalmia.~~

Project status:
( ) New Study
( ) Continuation with change
( ) No change (do not fill out rest of form)

le the appropriate answer to each of the following (If Not Applicable write NA).

Source of Population:
(a) Ill subjects Yes No
(b) Non-ill subjects (Yes) No
(c) Minors or persons under guardianship Yes No

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

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 NA

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)

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

M Rahman

Principal Investigator

JUL 31 1988

Trainee