マレイシアサラワク総合病院救急医療プロジェクト計画打合せ調査団報告書

マレイシアサラワク
総合病院救急医療プロジェクト
計画打合せ調査団報告書

平成５年８月

平成5年8月

国際協力事業団

マレイシアサラワク

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序　　文

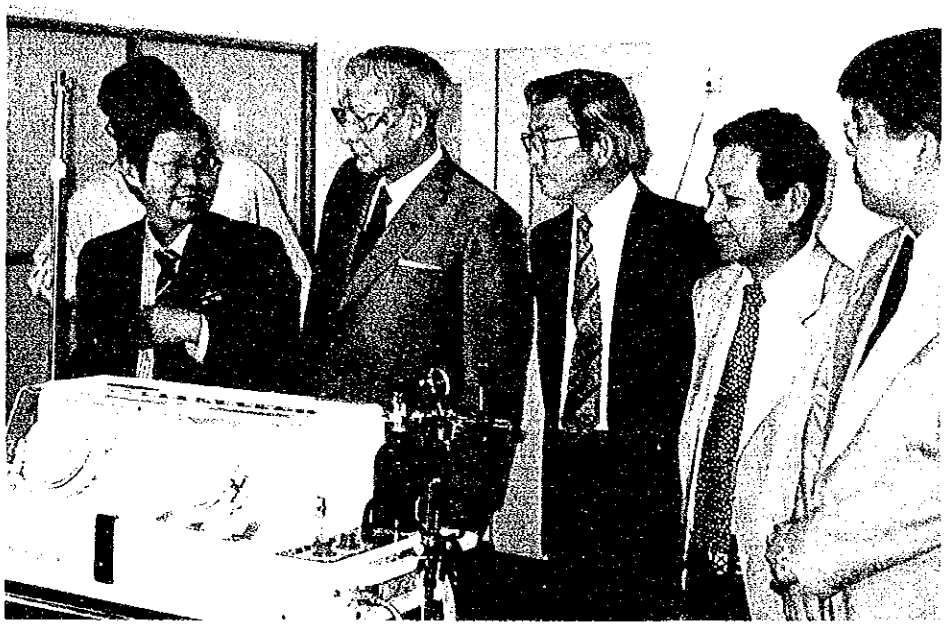
マレイシア国政府は，日本政府に対しサラワク州における救急医療体制の強化を目的として，平成元年サラワク総合病院・救急部を拠点としたプロジェクト方式技術協力を要請越した。日本政府はかかる要請を受けて平成4年1月にR／Dを署名交換し，同年8月より5年間の技術協力を開始することとなった。国際協力事業団は平成5年6月に計画打ち合わせ調査団を派遣し，現在までの協力内容をレビューすると共に今後の協力計画について協議を行ない，その結果を本報告書として取纏めた。

終わりに本調査の任に当たられた団員のご協力に敬意を表するとともに，調査に際し多大のご協力を頂いたマレイシア国政府関係機関，在マレイシア国日本大使館，および外務省初め国内関係機関各位に対し，深甚なる謝意を表する次第である。

平成5年8月

国際協力事業団

医療協力部長　小早川隆敏



サラワク州医務局 Dr. Yao から説明を聞く団員

供与機材の贈与式

目　　次

資　料

1. 計画打合わせ調査団派遣

1—1 経緯と目的

マレイシア国では，近年の疾病構造の変化にともない，救急医療体制の整備，拡充を重視している。一方わが国は1988年より脳神経外科医及び整形外科医の分野２名をサラワク総合病院に単発派遣を実施した。これらの背景を踏まえて，平成元年，マレイシア政府は日本政府に対し，サラワク総合病院救急部を拠点とした救急医療体制の強化を目的とするプロジェクト方式技術協力を要請してきた。

平成元年12月に事前調査，平成２年５月に長期調査を実施した。その後平成４年１月に実施協議調査を行い，R／Dを署名交換し，平成４年８月１日より５年間の協力を開始した。

今般，上記の経緯を踏まえ

1) プロジェクトの協力方針・協力目的・活動内容について詳細に打ち合わせ

2) 具体的な協力方法について実施機関と協議し今後の協力計画の詳細の協議を行う事とした。

1—2 調査団構成

団長	総　括	竹内一夫	杏林大学学長
団員	救急医学	島崎修次	杏林大学医学部救急医学教室教授
	救急医学	前川和彦	東京大学医学部救急部教授
	技術協力	吉田　弘	JICA 医療協力部医療協力第１課

1－3　日　　程

日順	月　日	曜日	時　間	ス　　ケ　　ジ　　ュ　　ー　　ル
1	6月28日	月	12:45 18:35	成田→（ＳＱ９９７便） シンガポール　　Orchard Hotel　(泊)
2	6月29日	火	10:00 13:15 14:35	シンガポールＧＨ視察 シンガポール→（ＭＨ６４２便） クチン着 日本人専門家との打合せ　　Hilton Hotel (泊)
3	6月30日	水	08:30 09:00 10:00 14:00	州医務局表敬 ＳＧＨ病院長表敬 供与機材引き渡し式 ＳＧＨスタッフと協議
4	7月1日	木	08:30 12:40 14:20	ＳＧＨスタッフと協議 クチン→（ＭＨ２５１５） クアラルンプル着　　Reagent Hotel　(泊)
5	7月2日	金	am pm	ＭＯＨにて合同会議 ＪＩＣＡ事務所へ報告
6	7月3日	土	09:30 17:00	クアラルンプール→（ＭＨ０９２便）DR. 竹内のみ 成田
7	7月4日	日	10:30 20:40	クアラルンプール→（ＭＨ０８０便）DR. 島崎、前川 成田
8	7月5日	月		ＩＭＲ関係者との打合せ（吉田のみ）
9	7月6日	火	11:00 19:00	クアラルンプール→（ＭＨ０７０便） 成田

1－4　主要面会者

1)　MOH

Y. Bhg. Dato Dr. Megat Burhainddin bin Megat Abdul Rahman	Director, Planning & Development Division
Datin Dr. R. Sarvananthan	Deputy Director, Planning & Development Division
Dr. Zaidah Hussan	Medical Services Division
Tn. Haji Hassan Ithnin	Medical Services Division

Dr. Mohd. Norzi Ghazali	Planning & Development Division
Dr. Peter Low	Planning & Development Division
Dr. Hassin Mo. Rahman	Kuala Lumpur General Hospital

2) EPU

En. Mohad. Sani Mistan	External Assistance Section

3) サラワク州医務局

Dr. Yao Sik Chi	Deputy Director

4) サラワク総合病院

Dr. Yao Sik King	Director
Dr. Lee Khoon Siew	Deputy Director
Dr. Norulhuda Bt.	Head, Radiology Dept.
Dr. Tan Poh Tin	Head, Paediatric Dept.
Dr. Wong May Sum	Head, Anaesthesiology Dept.
Dr. Goh Kiang Hua	Head, Surgical Dept.
Dr. Chew Peng Hong	Head, Medical Dept.
Dr. Naresh Nirmal Singh	Head, Orthopaedic Dept.
Hj. Seruji B. Achek, Ag. C. M. A	

2. 要　　約

マレイシア国サラワク総合病院（SGH）・救急医療（A&E）プロジェクト発足以来約1年が経過した。本調査団は現地に赴き，暫定実施計画（TSI）の進捗状況を視察し，Yao S-K 院長，Lee K-S 副院長以下同病院の主要スタッフ，サラワク州医務局の責任者（Yao S-C 副局長），および JICA 派遣チームらと十分話し合う機会をもつことができた。その間に JICA 供与資材の贈呈式が行なわれ，現地新聞等にも写真入りで大きく報道された。更に首都のクアラルンプール（KL）において，マレイシア国政府厚生省（MOH）Planning & Development Division の Megat 局長司会のもとに開かれた Joint Coordinating Committee に出席し，州レベルで解決困難な諸問題について討議する機会を持つことができた。またこれより先に，シンガポール総合病院救急部を見学し，同施設の組織，活動状況，教育・訓練計画などを知ることができた。この成果は種々の意味で本プロジェクト遂行上参考になるものと思われる。但しこの国のシンガポールに対する複雑な感情は，われわれの単純で合理的な考えを素直に受け入れるわけにはゆかないようにも推察された。さらに KL の国立医学研究所を訪問し，今年始めから着任されている IMR—JICA プロジェクトの田中寛博士からこの国の厚生行政に関する有益な情報を得たことは，大きな収穫であった。いずれにしても当該案件に関する Key person を見いだし，この人脈を介する“根回し”が必要であり，また効果的であるとのことであった。

SGH·A&E 施設は一応改築がすみ，器材も搬入され，ぼつぼつ患者も収容されつつあるが，より能率の良い診療活動が可能になるよう，更に手直しが必要である。今のところ救急患者の数はなお少ないが，今後この施設が地域住民に知られるようになり，患者の搬送システムが改善されれば，次第に増加するものと予想される。それにつけてもこの国における医療関係者，とくに医師の慢性的な不足状態は本プロジェクト遂行上最大の隘路となっている。ただ今回の討議によってマレイシア側もかなり配慮するであろうと期待された。

医師（MO）レベルで救急医学に専従する人材を確保し，主力は医療助手（MA）によって補うと云う方針は，先方に繰り返し申し入れているところである。この問題に関しては SGH および厚生省とともに一応協力的姿勢をみせているが，今後ひきつづき繰り返して申し入れる必要があると思われる。

専門家派遣，研修員受入など両国間の人的交流に関しては，概ね TSI の内容に沿ってこれまでも，またこれからも実施可能と思われるが，その細部では随時手直しが必要と思われた。ただ，ここでどうしても念頭においておかねばならない以下の調査報告がある。すなわちわが国の学位に対するアジア8カ国の評価に関する調査結果である。これによると国によって大きなばらつきがあるものの，マレイシアにおける評価が最低であることが判明した。もっ

ともこの国ではアメリカの学位に対する評価もアジア諸国の中で最低であり，おそらくイギリスの学位に対する高い評価の影響と思われる。この事実は今後研修員受入の際に十分考慮されねばならないであろう。もっともわが国での研修を終えた経験者が増えるにつれて，この状況は次第に改善されるものと期待される。

いずれにしても今回の調査によって，本プロジェクトの発足以来1年足らずしか経っていない割りには，所期の計画がかなり達成されていることがわかった。これには黒木リーダー以下JICA派遣チームの並々ならぬ努力が貢献しているものと思われる。また当初みられたマレイシア側の意見の相違などもかなり減少し，全般的に本プロジェクトに対する理解が深まりつつあるように思われた。とくに昨年秋に世界銀行出資によるSGH全体の大規模な改築計画が伝えられ，本プロジェクトに対して少なからぬ影響・侵襲を与えたことがあった。しかしこの計画は未だ詳細不明で，少なくとも本プロジェクト終了時（1997年）迄にA&E施設を含むSGH全体の増・改築が実現するとは思えない。かりに将来，当該計画が実現するとしても，本プロジェクトの成果はむしろその際に直接・間接的にSGHの発展に大いに貢献するものと思われる。

最後に特記すべきことは，今回の調査にシンガポール総合病院を含めたことである。近隣諸地域の比較的レベルの高い施設を見学することは，本プロジェクトの到達目標を模索するためにも大いに有用である。したがって近い将来，ブルネイやインドネシアにも是非足をのばすべきであると思われる。

3. 暫定実施計画の進捗状況

3－1　協力部門別活動

3－1－1　operational policies 等の策定

初年度の T／R であるが，調査団派遣時はまだドラフト段階である（資料 1 参照）。

また，入院ガイドライン，トリアージガイドラインを作成予定である。

3－1－2　評価基準の策定

マレイシア側から提出されたドラフトを示す（資料 2 参照）。日本側との協議はこれからの予定であり，評価基準の策定を目的とした，専門家の派遣も検討中である。

3－1－3　MO，MA，Ns へのトレーニング

プロジェクト開始当初（平成 4 年 8 月）はプロジェクトの基盤が未熟な理由もあり，ON THE JOB TRAINNING が大部分であったが，平成 4 年11月より MO，MA，Ns を対象とした呼吸管理講習会が開催（黒木リーダー，杉江専門家が企画）され，その後放射線診断セミナー（平成 5 年 2 月，峰屋，似鳥専門家，資料 3 参照）も開かれる等，徐々にトレーニングコースが整備されつつある。州内の病院（Sibu, Miri）における研修は SGH の研修コースが軌道に乗ってから予定されている。また，SGH 既存のトレーニングコースに対しアドバイス等も行っている（資料 4 参照）。なお現在までに専門家が主体となって企画された下記のコースが運営・実施されている。

1) 呼吸管理講習会

平成 4 年11月30日，12月 1，2，3，7 日

講師：黒木，杉江専門家

対象：MO，MA，Ns

2) 意識障害患者の初期取扱い

平成 4 年12月28日

講師：麻生専門家

対象：MO，MA，Ns

3) 放射線診断セミナー

平成 5 年 2 月20，22，24，26日

講師：峰屋，似鳥専門家

対象：MO，MA，Ns

4) 初期処置講習会（資料 5 参照）

Handling & Transport

平成 5 年 3 月 1，2 日

講師：杉江専門家

対象：MO，MA，Ns，driver，他　計36人

Dressings & Bandages

平成5年3月8，9日

講師：杉江専門家

対象：MO，MA，Ns，driver，他　計32人

5) 呼吸管理研修（常時）

平成5年3月から開始

MO　　3カ月

MA，Ns　　2週間

講師：マ側麻酔医

対象：MO，MA，Ns

6) 心肺蘇生（CPR）

平成5年4月26，27，28日

講師：杉江専門家

対象：MA，Ns，Driver，Attendat　計36人

7) トリアージ講習

平成5年4月30日

講師：黒木専門家

対象：MO，MA，Ns

8) EMT講習会（救命救急士講習会）

Emergency Medical Technician

平成5年5月10，12日

講師：黒木専門家，Dr. Peter Ting（救急部主任）

対象：MA，Ns　計18人

Human Body

平成5年5月24，25日

講師：Dr. Lee Khoon Siew（副院長）

対象：MA，Ns　計22人

Patient Assessment

平成5年6月9日

講師：Dr. Clement Lee（救急部主任）

対象：MA，Ns　計9人

Breathing Aids & Oxygen Therapy

平成5年6月28，29日

講師：Dr. Wong May Sum（麻酔科スペシャリスト）

対象：MA，Ns　計19人

9) 超音波診断講習会

平成5年6月～7月毎週火曜日午後

講師：Dr. Nuruluda（放射線科スペシャリスト）

対象：MO，MA，Ns

10) 初期処置講習会（First Aid Course）

Action & Emergency

Procedure at Major Incident

平成5年6月24，25日

講師：杉江専門家

対象：Drvers，Attendents　計15人

資料1　draft 9. June, 93

OPERATIONAL POLICIES OF A&E DEPARTMENT
HOSPITAL UMUM SARAWAK

1. Location

The A&E Department is located at the single-storey, ground-floor level building adjacent to the new specialist clinic block. It is the second building on the right upon entry through the Main Hospital Gate at Tan Sri Ong Kee Hui Road.

2. Organisation Of A&E Dept.

2.1 Manpower (Refer Appendix I)

The Accident & Emergency Dept. will be managed by a Head of Department who initially is a Senior Medical Officer. Eventually, the Head of A&E Dept. will be a Consultant/Specialist specialising in Emergency Medicine. He/she will be supported by other Consultants, Senior Medical Officers and Medical Officers.

The MO i/c of A & E will be responsible for:

(i) Implementing the operational policies as set out for the Department by the Hospital's Administration and for the day to day administration of the Department.

(ii) Drawing up the Standing Orders for the Dept. and for ensuring that all members of the staff are familiar with them.

(iii) Drawing up the Guidelines for emergency care of patients.

The Head of Department will do the following:

(i) Conduct regular meetings of the Department's staff to ensure that all guidelines and Standing Orders are understood and complied with.

(ii) Ensure that procedures for dealing with emergencies as set out in the Standing Orders are rehearsed from time to time.

2.2 Functional (Refer Appendix II)

The Accident & Emergency Department is to serve all emergencies. Provision of emergency and immediate treatment is top priority for all emergency cases. For definition of Emergency, please refer Appendix IV.

2.2.1 Functions

: To provide 24-hours A&E services, inclusive of 24-hours ambulance services.

: To provide 3 levels of A&E care namely:
- Pre-hospital care
- Hospital care
- Training of medical and para-medical staff in A&E services.

: Though not the desired function, to provide general outpatient clinic services to non-A&E patients after 4.15 p.m. and late at night after closure of private G.P. clinics.

3. Philosophy Of A&E Department (Refer Appendix III)

4. Specific Exclusions

General and/or specialist non-emergency follow-up patients will be excluded.

5. Administration

5.1 Staffing

The present Accident & Emergency Department will be upgraded to a full-fledged department. Headed initially by a senior Medical Officer but eventually by a Specialist.

The Head of the A&E Dept. will initially be supported by 6 Medical Officers, 1 Senior Medical Assistant, 13 Medical Assistants, Nurses, Radiographers, Pharmacy Assistants, Laboratory Technologists, Receptionists, Attendants and Ambulance Drivers.

The nursing team will be headed by a Nursing Sister$. Midwifery-trained Staff Nurses and J.Ds. will be required to accompany the ambulance, for emergency resuscitation and treatment, at the Observation/ Recovery Wards, to assist the doctor at the Consultant/Examination and Treatment Rooms, Operating Theatres and to manage the Triage System.

A team of Medical Assistants headed by a Senior Medical Assistant will manage the Triage System as

well as to be incharge of Ambulance Services, for standby and to accompany the ambulance, and to assist in the Emergency Resuscitation Room, Treatment Room, Plaster Room and Operating Theatres.

Radiographers will be required to operate the X-ray Unit and the mobile x-ray apparatus on a 24 hours basis.

Lab. Technologist(s) will be required to operate emergency and simple/basic lab. services inclusive of Blood Bank services for emergency transfusion on a 24 hours basis.

The after-office hours/A&E Pharmacy will only supply medications/drugs sufficient for one day for general outpatients and A&E patients deemed fit to be discharged home after examination and/or treatment for minor illnesses/injuries. This pharmacy can be manned either by a Pharmacy Assistant or a Medical Assistant.

The reception/registration/admission of patients will be done by the staff manning the reception counter

A team of attendants/porters will be required to perform duties ranging from porterage, obtaining patient records to general maintenance of the department.

A team of ambulance drivers will be required to provide 24 hours ambulance services.

5.2 Patient Flow (See Diagram 1 for Patient Flow)
All patients attending the A&E Dept., irrespective of their condition and whatever they have been referred by a doctor or attended on their own shall be registered and seen by the A&E Doctor. They will initially be assessed by a triage medical assistant unless the patient's condition warrants immediate attention by a medical officer. Their condition shall be assessed and either admitted into hospital or given symptomatic treatment for the duration of the night. Patients given symptomatic treatment should then be:

(i) Advised to attend their own GP or nearest

Government Polyclinic/OPD for further treatment the following day, or

(ii) Referred to the Specialist Outpatient Clinic on the appointed date if they are thought to require specialist attention.

Patients requiring observation will be lodged in the Observation Ward. Such patients will generally be kept for not more than 12 hours, after which they will be reviewed and either discharged or admitted into the hospital wards.

Patients requiring the opinion or immediate attention of a Specialist will be lodged in the Observation Ward and the respective Consultant or Registrar on-call will be requested to attend to the patient within the A&E Dept.

5.3 Reception
All patients presenting at the A&E Dept. must be received and attended to at the Reception Counter.

5.4 Registration
Registration of all patients attending the A&E Dept. will be the responsibility of Counter Clerks. A register of all cases attending the Dept. will be maintained providing among other information the identification details of the patient, date and time of attention, name of Medical Officer attending and the disposal of the patient.

5.5 Triage System (Refer Appendix V)

5.5.1 This is purely for internal use in the A&E Dept. Definition of Triage Priorities according to severity or urgency of the presenting complaint/clinical state of the patient is done in a separate place away from the A&E Reception Counter i.e. the triage room.

5.5.2 The Triage Team will initially consists of Medical Assistants and Staff Nurses, who in turn will be supervised by Chief/Senior

Medical Assistant and/or Nursing Sisters. Ultimate responsibility for screening of patients presenting themselves at the Dept. lies with the Medical Officer on duty. However, the Triage Team staff must refer urgent cases for early attention and problem cases to the Medical Officer for a decision.

5.5.3 A colour coding system is adopted for designation of Area for Patient Care for each Triage Priority.

Blue - Triage Priority: Critical Patients
Area for Patient Care: Resuscitation Room

Yellow - Triage Priority: Intermediate Patients
Area for Patient Care: Examination and Treatment rooms.

Green - Triage Priority: Walk-in Patients
Area for Patient Care: Non A&E General OPD Section.

5.5.4 All patients attending the A&E Dept. will be classified into Critically Ill, Intermediate and Walk-in Cases and will be treated in separate areas within the department.

5.5.5 Acutely/critically ill cases will be directed by the Triage Staff to be wheeled straight into the Resuscitation Room for immediate attention.

The O.T., ICU/CCU or the relevant wards will be informed of impending transfer of patients to these areas.

5.5.6 If it is known that a critical case is arriving, the medical team will standby in the Resuscitation Room.

5.5.7 All critically ill patients will be attended to by the doctor first and then admitted into hospital or given the necessary treatment before the registration formalities are attended to.

5.5.8 All emergency or critically ill patients will be admitted into hospital wards or direct into the ICU/CCU according to the admission policy of these units.

5.5.9 All patients, other than the critically ill or the stretcher patients, will be required to register first before being attended to by the doctor.

5.5.10 At the Triage Cubicle, all patients will have their vital signs taken, simple screening investigations done, and short case history taken. All these are to be done by the Triage Medical Assistant or Staff Nurse.

5.5.11 After triage, non-acute cases presenting at the A&E Dept. will be directed to receive treatment either at the A&E Dept. or at the general outpatient/non A&E clinic adjoining A&E treatment/examination cubicles.

5.6 Admission

5.6.1 All admissions into inpatient dept wards/ICU/CCU of A&E patients must take place at the Admission/~~Reception~~ Counter of the ~~A&E Dept.~~ hospital, except after 9 pm where admission will be done at the Reception Counter of A&E Dept.

5.6.2 Patients referred by GPs, OPD/Polyclinics, outstation hospitals or Klinik Desas will be registered and assessed. They will either be admitted or referred to the Specialist Outpatient Clinic for further investigation or management or referred back to the OPD or GP for management if they do not meet the criteria for hospital admission.

5.6.3 Non-emergency, elective patients referred by GPs, OPD/Polyclinics, outstation hospitals or Klinik Desas for investigation will be re-directed to the Specialist Outpatient Clinics for attention, should they require specialist care. Or otherwise, they are referred back to Mosque/Polyclinic for the relevant Tx to be done on an outpt. basis

5.6.4 A&E patients after being attended to by the A&E Doctor and/or Specialist of relevant Inpatient Departments may be admitted to the Observation Ward for a period of observation or recovery after being operated upon in the

Operating Theatre of the A&E Dept.

6. A&E Records System

Documentation of A&E patient records will eventually be computerized. However, at present this will be done manually. Except for Medico-Legal cases, Dibaetes Mellitus, Hypertension and Ischaemic Heart Disease, all A&E patient cards will be given back to the patients for safe-keeping, using the Home-Based Card System.

All future computerized A&E patient registration records will be linked to the wards, x-ray, Pharmacy, Lab. and Bill-payment counters.

A patient presenting at the A&E Dept. will be registered and an OPD record card be opened. An accurate medical record will be maintained for every patient attending the Dept.

If a patient warrants admission, he/she will be admitted at the admission counter.

7. Ambulance Services

The Ambulance Services will operate on 24 hours basis. It should be upgraded to a level where active resuscitation can start at the scene of the accident/emergency.

Initially, the composition of the Ambulance Crew shall consist of a Medical Assistant, a midwifery-trained Staff Nurse and an Ambulance Driver. The paramedics should be trained in Basic Cardiac-Life Support and/or Advanced Cardiac-Life Support. Eventually, selected Ambulance Drivers trained in Basic Life Support including handling of patients at the site of emergency/accident and a Doctor will make up the Ambluance Crew in addition to a Medical Assistant and/or Nurse.

A radio system should be installed to facilitate better communication between the Ambulance and the A&E Dept.

8. Examination Of Patients

Examination/Treatment Rooms/Cubicles should be provided for consultation of cases. A room should also be provided for specific services such as gynaecology/rape cases or noisy patients/children.

In the event of a major disaster the Examination/Treatment Rooms/Cubicles can be opened up to provide a big area to cope with the big number of A&E patients arriving at the same time.

9. Observation Of Patients

9.1 If the condition of the patient does not necessitate admission but there is potential risk of deterioration of his/her condition, the patient is held in the A&E Observation Ward.

9.2 The period of observation should not exceed 12 hours. Cases exceeding 12 hours observation must be admitted to the hospital wards.

9.3 Foods will not be provided by the hospital kitchen.

10. Investigations

10.1 Patients requiring emergency radiological investigations will have their initial investigations carried out in the Resuscitation Room ~~and Radiology Suite~~ within the A&E Dept.

10.2 Haematological and clinical/biochemistry investigations will be limited to the absolute minimum.

11. Follow-up

No follow-up clinics will be carried out in the A&E Dept. However patients who are advised to return, like head injury cases, should symptoms recur will be attended to within A&E Dept.

12. Care Of The Deceased

A space should be provided for holding the dead prior to transfer to the mortuary.

13. Equipment

The A&E Dept. should be well equipped and have a standard list of equipments. Before any sophisticated instruments/

equipments are used, the staff must be adequately trained to use and maintain them.

14. Training

14.1 The skill of medical, paramedical and other staff category should commensurate with the expected level of care provided.

14.2 All medical and paramedical staff should have specialised training in A&E services. Training could be conducted both at local and/or overseas levels.

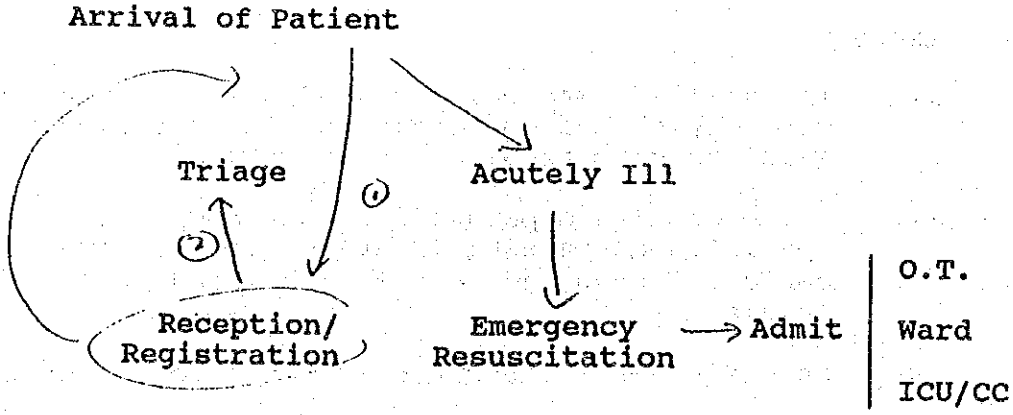
14.3 Specific job assignments at local level should be

developed for all categories of staff to ensure effective and efficient delivery of service.

14.4 The A&E Dept. is also to be considered/included in the training programme for doctors.

Diagram I

Patient Flow In Accident & Emergency Department



資料 2

Evaluation Indicators

1.Reception and triage

1. Mortality rate of preventable deaths in emergency cases
   Expired Cases admitted within 12 hours after going back to home from first visit to A&E.
2. Disability cases in Emergency cases.
   Admitted within 12 hours after going back to home from first visit to A&E.
3. Maximum and avarage time from reception to examination by doctor.

2. Examination

1. Number of emergency examination cases of ultrasound at A&E.
2. Number of emergency labolatory test cases of blood gas machine.

3.Cooperation of other section of Hospital

1.Consulted cases by on call HM,MO,Specialist at A&E.
3. Number of CT scan and reaction time

4. Treatment

1.operation cases at A&E
2.Observation cases at A&E
3.Resuscitation cases at A&E

5.Ambulance Team

1 Number of ambulant cases
2. Percentage and number of emergency cases(moderate and severe cases exclude normal delivery
3. Number and rate of cases they couldn't find the object.
4. Reaction time from information to departure.
5. Number of resuscitation or treatment in the ambulance

6 Interhospital communication

Suggested Project Indicators For Evaluation

The various suggestions were submitted by the respective departments.

1. Radiology

(i) Respond time by the Radiology Dept. to urgent requests from the A&E Dept.

(ii) Respond time by the A&E Doctors to review Radiographers done by the Radiology Dept.

(iii) Evaluation of the correctness of xray requests and their interpretations by the A&E Doctors.

2. Medical

(i) Number of surgical coma patients admitted into Medical Wards from A&E.

(ii) Number of asthmatic patients post nebulisation in A&E, and discharged home, but readmitted within the next 24 hours.

(iii) Number of acute infarct patients admitted to the CCU more than 45 minutes after presentation to A&E (without interventional procedure performed in A&E).

(iv) Number of diabetic ketoacidotic patients admitted to the ward with no blood sugar/urine ketone performed in the A&E.

(v) Response time of consultants when referred to by A&E staff.

(vi) Adequacy of stomach washout (where appropriate) in A&E in cases of poisoning.

(vii) Number of patients in shock admitted from A&E arriving in a state of hypotension in the ward.

(viii) Number of patients arriving dead in the ward from A&E.

3. Paediatric

(i) Number of times a case is seen in A&E before admission to Paeds. Dept.

(ii) A&E diagnosis vs final diagnosis.

(iii) Acute Management of:
(a) Status Asthmatics
(b) Status Epileptics
(c) Poisoning
(d) Coma

(iv) Paediatric deaths in A&E.

(v) Admission to wrong Paeds. Ward.
E.g.: AGE to Paeds. West.
Meningitis with systemic diarrhoea to Isolation, etc.

4. Surgical

(i) Numbering of perforated appendicits who has been seen once at A&E (looking at morbidity).

(ii) Number of deaths within 24 hours of being seen at A&E.
This requires a panel to be set up to review all deaths in all units including A&E, to find out which deaths are potentially avoidable.
- Hospital could issue a standing order for all such deaths to have a post-mortem.
- Aim is to identify deficiencies in diagnosis and treatment at A&E level which might have contributed to patients' deaths (looking at morbidity).

****

資料3

REPORT OF RADIOLOGICAL SEMINAR

1. CONTENTS OF LECTURE

The contents of special lecture "Current diagnostic radiology in Japan" was suitable and up to date for the participants(Drs).

As for basic seminar course, it was a polite and clear lecture for MO MA Ns. The reaction of participants was generally excellent, but most of MA and Ns at Miri and Sibu said they couldn't understand CT because they didn't have CT machine yet. One request was given at Sibu that they hope to learn X-P of extremity.

Discussion with local radiologists was enthusiastic and satisfactory. X-ray conferences didn't made good result. To choose suitable films for discussion was found out difficult.

2. PARTICIPANTS

This seminar course was mainly for MO and MA. At Miri and Sibu many staff nurses were participated and satisfied. At Kuching only small number of MA and Ns were participated.

As for special lecture, we may have a more open lecture for governmental and non-governmental doctors at evening time.

3. ROOM AND TEACHING MATERIALS

For X-ray slides, all conference rooms are too bright except the new audio-visual room at Kuching. At this time we brought a slide projector and a screen to Miri and Sibu, because there was a necessity to use two slide projector at the same time.

If we could prepare an abstract of lecture the seminar might be more effective.

4. SCHEDULE

At this time the Professors were too busy and could stay only 7 days at Sarawak. The schedule was too tight for them to take the long flights and the change of weather into consideration.

5. FUTURE PLAN

Professor Hachiya and Ass.Professor Nitatori were so tired, but very satisfied with the reaction of the participants. I hope Professors to come and teach again.

Professors said it will be very useful to train a local radiologist at Japan, and they will be glad to train him at Japan or at Sarawak if we can make a chance.

6. CONCLUSION

The seminar course was finished in success. Thank you for all concerned.

28.Feb 1993

JICA SGH team leader
Dr. Kurogi Hirofumi

Schedule of Radiological Seminar
by Pro.Hachiya Pro.Nitatori

Feb 19 (Fry) 16:50 Ar. Kuching(direct flight)
17:30 Kuching Hilton Hotel check in

Feb 20 (Sat) 8:00-9:30 Special Lecture for all MOs and housemen
<Current Diagnostic Radiology in Japan>
9:30-10:20 Question & answer with tea
(main conference room)
10:20-10-40 visit to radiological department
10:40-11:30 mini conference on X-ray films with radiologist and interested (CT room)

Feb 21 (Sun) 15:30-16:30 flight to Miri by MH2358
(Hachiya,Nitatori,Kurogi,Ng)
stay at Dynasty Hotel

Feb 22 (Mon) 9:00-15:00 Basic seminar(Miri hospital)
9:00-9:50 lecture 1
10:00-10:40 lecture 2
10:40-11:00 tea break
11:00-11:40 lecture 3
11:50-12:30 lecture 4
12:30-12:50 mini X-ray conference
12:50-13:50 lunch
13:50-14:30 lecture 5
14:30-14:50 Q & A
14:50-15:30 visit to X-ray room,ward..

Feb 23 (Tue) 10:50-11:45 flight to Sibu by MH2345
PM Tanahmas Hotel check in

visit to Lau King Howe Hospital

Feb 24 (Wed) 9:00-15:00 Basic seminar(Lau King Howe Hospital)
9:00-9:50 lecture 1
10:00-10:40 lecture 2
10:40-11:00 tea break
11:00-11:40 lecture 3
11:50-12:30 lecture 4
12:30-12:50 mini X-ray conference
12:50-13:50 lunch
13:50-14:40 lecture 5
14:40-15:00 Q & A
18:00-18:35 flight to Kuching by MH2359
Hilton hotel check in

Feb 25 (Thu) 8:00-9:30 courtesy call on Datuk Dr.S Hardin, Director of Medical Service Sarawak
press interview (TV3 and presses)

Feb 26 (Fri)	9:00-15:00	Basic seminar(Sarawak General Hospital)
	9:00-9:10	Opening remark by Deputy Director of Medical Service Dr.Yao Sik Cie
	9:10-9:55	lecture 1
	9:55-10:35	lecture 2
	10:35-10:50	tea break
	10:50-11:40	lecture 3
	11:40-13:50	lunch and pray time
	13:15-13:45	personal lecture on radiological technique of intravascular foreign body and discussion with radiologist of SGH
	13:50-14:30	lecture 4
	14:30-15:10	lecture 5
	15:10-15:20	Q&A
	15:20-15:40	conferment of certificate

Feb 27 (Sat) 10:25 Lv. Kuching to KL

SUMMARY OF COURSES ORGANISED BY EDUCATION & TRAINING DEPT, SGH

TITLE	DURATION	FREQUENCY
QUALITY SERVICE FOUNDATION	12 hours over 3 sessions	Throughout the year
PERFORMANCE PLANNING & APPRAISAL	1 day	Throughout the year
PRECEPTORSHIP SKILLS	9.5 hours	Throughout the year
NURSING PROCESS	12 hours	Throughout the year
CARDIO-PULMONARY RESUSCITATION	6 hours	Throughout the year
CLINIC ASSISTANT TRAINING	120 hours	1 to 3 courses per year

COURSES BY EDUCATION & TRAINING DEPT

1. QUALITY SERVICE FOUNDATION PROGRAMME

Duration

12 hours over 3 sessions (4 hours per session)

Objective

To provide staff with the essential service knowledge and skills in order to upgrade the quality of service delivered.

Target Group

All hospital personnel (excluding Medical staff, department heads & health attendants).

Course Methodology

Lecture sessions, discussions and role play.

Cost

In-house education programme

Course Dates

Courses conducted throughout the year.

2. PERFORMANCE PLANNING & APPRAISAL TRAINING PROGRAMME

Duration

1 day course lasting 8 hours.

Objectives

To provide management and supervisory staff with an understanding of the hospital's open performance appraisal system and to equip them with skills to conduct performance planning, to appraise, coach and reinforce improvements in their staff's performance.

For Whom

All managerial and supervisory staff who need to conduct performance appraisals with their junior staff.

Course Methodology

4 modules are taught.

Lectures, discussions and role play.

Cost

In-house enducation programme.

Course Dates

Pending confirmation from Education & Training Department.

3. PRECEPTORSHIP SKILLS FOR NURSING STAFF

Duration

9.5 Hours.
(2 sessions per week, 6.5 hours for one session and 3 hours for another)

Objectives

To provide trained nurses with the knowledge and skills to precept new employees and learner nurses to the clinical setting.

For Whom

Senior Staff Nurses
Staff Nurses

Course Methodology

The following skills are taught:

1. Concept of Preceptorship
2. Roles and responsibilities of a preceptor
3. Values clarification
4. Adult learning principles
5. Principles of teaching skills
6. Assessing needs
7. Giving and receiving feedback
8. Assessing and evaluating performance

Cost

In-house education programme.

Course Dates

Conducted throughtout the year.

4. NURSING PROCESS TRAINING WORKSHOP

Duration

12 hours

Objectives

To provide nurses with knowledge and skills to implement the Nursing Process in the clinical setting. Participants will be able to :

1. Identify the components of the Nursing Process
2. Utilise interviewing, observation and communication skills in the application of the Nursing Process
3. Formulate nursing care plans.
4. Identify optimal means to implement the nursing process effectively

For Whom

All levels of trained nurses.

Course Methodology

Lectures are given on the following topics followed by group discussions and practice.

1. Nursing Process - overview
2. Stages of the Nursing Process
3. Nursing Process Documentation System

Cost

In-house education programme.

5. CARDIO-PULMONARY RESUSCITATION TRAINING

Duration

6 hours

Objectives

To provide nurses with skills and knowledge in Basic Life Support.

For Whom

All levels of trained nurses

Course Methodology

The programme consist of the following outline:

1. Introduction to modified Basic Life Support (BLS) course
2. Demonstration
3. Pratical Training
4. Video Programme
5. Lecture of defibrillation
6. Assessment testing and written test

Cost

In-house education programme

Course Dates

Conducted throughout the year

6. CLINIC ASSISTANT TRAINING PROGRAMME

Duration

120 hours (15 days)

Objectives

To provide Clinic Assistants with skills and knowledge required to carry out basic nursing care.

For Whom

Newly hired clinic assistants.

Course Methodology

Lectures and pratical demonstrations are given by nurse educators on basic nursing skills. Trainees are given hands on experience after lectures. Participants have to under-go a written test followed by assessment of pratical nursing skills by the department's Nursing Officers.

Cost

In-house education programme.

Course Dates

One to three courses conducted a year.

資料 5

SARAWAK GENERAL HOSPITAL

PREHOSPITAL CARE REPORT

DATE:	AMB. NO.	RUN NO.

TYPE OF RUN:
[ ] Emergency
[ ] Non- Emergency
[ ] Referral
[ ] Dry Run : _____

INCIDENT LOCATION: | LOCATION CODE

TIME

CALL REC'D	
DISPATCHED	
AT SCENE	
FROM SCENE	
AT A/E	

MILEAGE

END	
BEGIN	
TOTAL	

PATIENT NAME:

AGE: | **SEX:** M F

CHIEF COMPLAINT & HISTORY / MECHANISM OF INJURY

TYPE OF ILLNESS / INJURY:

[ ] Respiratory
[ ] Cardiac
[ ] Stroke/CVA
[ ] Abdominal Pain
[ ] Diabetic
[ ] Allergy
[ ] Other _____

[ ] Malaise
[ ] Seizure
[ ] Syncope
[ ] Unconscious
[ ] Behavioral
[ ] Poisoning

[ ] Shock
[ ] Head Injury
[ ] Spinal Injury
[ ] Fracture/Dislo./Sprain
[ ] Trauma
[ ] Burn

[ ] Obstetrical/Gynae
[ ] Neonate
[ ] Environmental
[ ] Respiratory Arrest
[ ] Cardiac Arrest
[ ] Obvious Death

VITALS

TIME	RESP	PULSE	B.P	LEVEL OF CONSCIOUSNESS	R PUPILS L	SKIN
	Rate: [ ] Regular [ ] Irregular [ ] Labored	Rate: [ ] Regular [ ] Irregular [ ] Weak [ ] Strong		[ ] Alert [ ] Voice [ ] Pain [ ] Unresp	[ ] Normal [ ] [ ] Dilated [ ] [ ] Constricted [ ] [ ] Responsive [ ] [ ] Sluggish [ ] [ ] Unresponsive [ ]	[ ] Unremarkable [ ] Cool [ ] Warm [ ] Moist [ ] Dry [ ] Pale [ ] Cyanotic [ ] Flushed [ ] Jaundiced
	Rate: [ ] Regular [ ] Irregular [ ] Labored	Rate: [ ] Regular [ ] Irregular [ ] Weak [ ] Strong		GCS		

TREATMENT GIVEN: [ ] Transported to SGH. [ ] Transported to other: _____

[ ] Airway Cleared
[ ] Oral/Nasal Airway
[ ] Endotracheal Tube
[ ] Oxygen Administered:_____ ℓ/min.
[ ] Suction Used
[ ] Artificial Ventilation:_____

[ ] CPR Started: Time _____
[ ] ECG Monitored
[ ] IV Fluid: _____
[ ] Bleeding Controlled
[ ] Spinal Immobilization
[ ] Limb Immobilization

[ ] (Heat) or (Cold) Applied
[ ] Baby Delivered: Time _____
[ ] Other:

COMMENTS:

CREW	IN CHARGE:	OTHERS:
	DRIVER:	

PREHOSPITAL CARE REPORT

In the Ambulance Service, written reports are very important. The form "Prehospital Care Report" will cover the minimum of the needed information.
The purposes of using the form are as follows:

1. To provide patient information.
2. To be part of the patient's medical record.
3. To supply information on personnel and equipment usage and needs.
4. To evaluate the output of the project.

HOW TO FILL IN THE FORM

DATE
Write the date when you receive the emergency call.
Example: 19/3/93 --- day/month/year

AMB. NO.
Write the number of the ambulance dispatched.

RUN NO.
This is a reference number. Write a continuous number and the year.
Example: 278/93 --- continuous number/year

TIME
Write the time when the call was received, the ambulance was dispatched, when you arrived at the scene, left the scene, and arrived at the A/E. *Use 24-hour times.* 00:00 is midnight and 12:00 is noon. The times indicates how fast you respond to the call for help, how long you spend in giving treatment to the patient at the scene, and how long you spend in attending the case.
Example:

CALL REC'D	1	6	1	5
DISPATCED	1	6	1	7
AT SCENE	1	6	3	6
FROM SCENE	1	6	4	7
AT A/E	1	7	0	8

MILEAGE
Write the mileage indicated on the gauge at the beginning and the end of your ambulance run. The total mileage equals "END" minus "BEGIN."
Example:

END	5	8	4	3	9
BEGIN	5	8	4	2	7
TOTAL				1	2

TYPE OF RUN
When you terminate the run, check off the type of run. The caller may tell you it is an emergency, but you sometimes find that it is not an emergency when you get there. That type of run is "Non-Emergency."
Check off "Referral" when you transport a patient from other medical facilities (polyclinics, MCH clinics, etc.). If a referral case is an emergency one, check off the both brackets of "Emergency" and "Referral."
"Dry Run" means an ambulance run without transporting a patient. Cancelled enroute, patient gone, unable to locate, fire, standby, and so on are Dry Runs. Write the detail of the Dry Run.

LOCATION CODE
Leave it blank.

TYPE OF ILLNESS/INJURY
Check off the type of illness/injury. You may check off several brackets as necessary.

VITALS
Write the time when vitals were taken. There may be times when you should take vitals several times at the scene or while in the moving ambulance. Write the second vitals in the second column and additional vitals in the column of comments.

TREATMENT GIVEN
Check off the treatment given. You may check off several brackets as necessary.

COMMENTS
Write your comments, additional vitals, details of the treatment, and additional information.

CREW
Write your name, driver's name, and other crew's names.

Make your written reports accurate and complete, and finish them as soon as possible. Use correct terminology in your reports.

3－1－4　脳神経外科

SGHにおいては1988年当時，藤井寅夫専門家が脳神経外科の診療を指導したが，その後は同病院にも，またサラワク州にも脳神経外科の専門医は全く不在の状態であった。したがって麻生有二専門家の着任以来，同病院のみならず，この地域におけるただ一人の専門医師として，彼のもとには救急・非救急を問わずよろず診療協力の依頼が持ち込まれた。この状況に対しては，一部に異論もあったようであるが，可能な限り彼の保有する専門的技術・知識を生かして協力すべきであると考える。ちなみに脳神経外科領域では，元来救急・非救急の区別が付けがたい事が多く，経過観察中に突然脳ヘルニアなどの生命をおびやかす程の重篤な病態をひきおこす事も珍しくない。

現状では，SGHのA&E施設に収容される脳神経外科患者はあまり多くない。開頭手術は2週間に1回程度であり，それも全身打僕などの重症多重外傷の症例が多く，総合的な救命率は余り良くない。現在最も頻繁に行なわれている手術は急性水頭症に対する髄液短絡術であり，この原因は結核性髄膜炎によるものが大部分である。しかしこれはたとえ開頭手術(major operation) ではなくても，急性頭蓋内圧亢進症に対する髄液短絡術は立派な救急手術である。なおこの手術に使用する短絡管は日本のある医療器械業者からSGHへ寄付されたものであるが，このような高価な消耗器材の今後の補給方法についても，対策が必要である。

A&E施設における脳神経外科的な急患は，本来は頭部外傷および脳血管障害のはずである。これらが病院周辺で発生した場合には，恐らく今後はA&E施設に搬送され，すみやかに専門的診断・治療をうけることができるようになるであろう。しかし交通不便な無医村地帯で発生した患者に対しては，正しい診断をする医師も不在であり，またたとえ搬送の希望があっても到底SGHまでの移送は今のところ不可能である。したがって現状では先ず病院周辺の患者を収容し，適性で高度な医療により，次第に治療成績を向上させ，地域住民の信頼を得てゆくしかないであろう。なお今後症例数は徐除に増加するものと期待されるので，やがて遠隔地域病院の面倒までみることは困難になるのではなかろうか。

3－2　建物施設等

3－2－1　現有の施設改装

A／Eの改築は1993年4月に終了し，5月より運営が開始されている。本施設は旧スペシャリストクリニック，旧A／Eを改装したものである（資料1参照)。これらの改装にマレイシア側は約180万円を投入した。しかし，その後保健省からの再改築の要請があった。改築案は1から3まであり現在マレイシア側で検討中である（1993年予算，マレイシア予算年度)。

3－2－2　マレイシア第6次計画との関連

マレイシア国ではサラワク総合病院を第6次計画の中で2020年までに本病院を全面的に改築する計画を持っており，今後のA／E改築は暫定的なものとして位置付けられている。現有施設がトリアージを中心とした，プライマリー救急を目指したものであり，新計画でも基本的なコンセプトは変わらない。

平成4年11月に基本計画のための調査団がクチンを訪れ，コンサルタントがマスタープランを策定中である（93年7月現在)。なお新築に要する資金はアジア開発銀行からの融資で賄われることになっている。

3－3　供与機材の活用状況

92年度，93年度の2年間の予算で合計約92,000千円分の機材の供与を行った（資料2参照)。供与機材の大部分は現地調達のスキームで購入した。なおサラワク総合病院内にはメインテナンス部門があり，本部門にて供与機材のメインテが行なわれることとなっている。しかし，メインテナンス経験のない機材に関してはマレイシア側から本邦研修の要望があった。これに対し，わが方は①MEの専門家を5年度中に派遣し，preventive maintenance等の技術指導をする用意のあること，②研修事業部で機材修理の集団コースを開設しており本コースで予算の範囲内で受け入れ可能なこと（平成6年度)，を提案し先方の同意を得た。

供与された機材は現地代理店によりインスツールの指導が行なわれており，エンジニア或いは医師の指導のもとセミナー形式で行なわれている。

なお調査団派遣中に機材の引き渡し式が行われ，当地の新聞に報道された（資料3参照)。

3－4　専門家派遣実績

平成4年8月1日にプロジェクトが開始して以来の派遣実績は次のとおり（平成5年7月現在)。

1)　平成4年度

・長期専門家

黒木啓文	（救急医学／チーフアドバイザー）	92/10/14～94/05/13
有馬光正	（業務調整）	92/09/02～93/09/01（1年延長予定）
麻生有二	（脳神経外科）	92/08/18～93/08/17（1年延長予定）
杉江美子	（救急看護）	92/09/02～94/09/01

・短期専門家

池上敬一	(救急医学／チーフアドバイザー)	92/08/04～92/10/24
蜂屋順一	(放射線学)	93/02/19～93/02/28
似鳥俊明	(放射線学)	93/02/19～93/02/28

2） 平成5年度

安田直史	(外傷医学)	93/04/16～93/04/25

3－5 研修員受入実績

平成4年8月1日にプロジェクトが開始して以来の派遣実績は次のとおり（93年7月現在)。

1） 平成3年度

DR. YAO SIK KING	(救急医学)	92/03/31～93/04/21
DR. RAHMAN GUL	(救急医学)	92/03/31～93/06/23

2） 平成4年度

DR. ANNUAR RAPAEE	(救急医学)	92/03/30～93/10/01
DR. VERONICA WONG NGEE HWA	(救急看護)	92/02/26～93/08/15
DR. MOHD HOSNI BIN ABDULAH	(救急処置)	92/02/26～93/12/10

なお平成3年度受入れたDR. RAHMAN GULは現在は退職している。かかる事情があったため，今後のプロジェクトでは本邦研修後，一定期間A／Eで働くこと等を条件として，公募にて人選を行うこととなった（資料4参照，3月6日付けミニッツ)。

3－6 ローカルコトス負担事業実績

1） 平成4年度

一般現地業務費	3,220千円
現地研究費	2,100千円
合計	5,329千円

2） 平成5年度

一般現地業務費	6,483千円
現地研究費	906千円
現地セミナー開催費	1,484千円
合計	9,873千円

資料 1

HUS/284A/VOL.2/( )

27hb. Mei, 1993

Pengarah Perancang dan Pembangunan,
Bahagian Perancang dan Pembangunan,
Kementerian Kesihatan Malaysia,
Tkt. 4, Blok D, Kompleks Pejabat-Pejabat,
Bukit Damansara, Jalan Dungun
50490 Kuala Lumpur.

(u/p : Dr. H. Yadav)

Tuan,

CADANGAN UBAHSUAI BLOK JABATAN KEMALANGAN DAN KECEMASAN, HOSPITAL UMUM SARAWAK (H.U.S.)

Adalah saya dengan hormatnya merujuk kepada perkara tersebut di atas serta perbincangan di antara Dr. Yadav dengan beberapa pegawai dari Hospital Umum Sarawak pada 24/5/93 dahulu.

2. Bersama-sama ini disertakan lukisan lakar yang menunjukkan cadangan ubahsuai yang tersebut di atas berserta dengan anggaran kosnya seperti yang pihak tuan kehendaki. Pihak kami berhasrat untuk mengubahsuai bangunan berkenaan mengikut pelan 'Option 1' yang dianggarkan menelan belanja sebanyak $180,000.00. Walau bagaimana pun, ulasan dan cadangan dari pihak tuan amat dialu-alukan.

3. Diharap permohonan peruntukan yang tecatit di atas akan mendapat pertimbangan yang sewajarnya dari pihak tuan.

Sekian, terima kasih.

"BERKHIDMAT UNTUK NEGARA"

Saya yang menurut perintah,

(Dr. Yao Sik King)
Penguasa Perubatan,
Hospital Umum Sarawak,
Kuching.

ESTIMATION COST FOR OT/CASUALTY
PORCHES/TRAFFIC ENTRANCES

OPTION 1

I	CASUALTY			
	a TOILETS	10000		
	b COUNTERS	5000		
	c CHAIRS	4000		
	d DEMOLISHING	6000		
	e WALLS	2000		
	f VINYLE TILES	7000		
	g DOORS	3000		
	h ELECTRICAL WORKS	5000		
	i MISCELLANEOUS	8000	50000	
II	TRAFFIC FLOWS			
	a SIGN BOARD	5000		
	b RENOVATION	10000		
	c PAINT	2000		
	d PUBLIC PORCH	20000		
	e AMBULANCE PORCH	7000		
	f MISCELLANEOUS	6000	50000	
III	OT AREA			
	a TOILETS	10000		
	b VINYLE TILE	9000		
	c DEMOLISHING	5000		
	d NEW WALLS	3000		
	e CEILING	3000		
	f DOORS	4000		
	g GRILLES	1000		
	h ELECTRICAL WORKS	3000		
	i VINYLE SHEETS	9000		
	j MISCELLANEOUS	3000	50000	— same for the other 2 option
IV	REPLACEMENT OF A.H.U (AIR HANDLING UNIT) AT A & E	30000	30000	— same for the other 2 option
	JUMLAH BESAR(RM)		180,000	

ESTIMATION COST FOR OT/CASUALTY
PORCHES/TRAFFIC ENTRANCES

OPTION 2

CASUALTY		
a. DEMOLISHING WORKS	4000	
b. DOOR	500	
c. CHAIRS	2000	
d. NEW WALL + DOOR	1000	
e. TRAFFIC	17000	
f. AMBULANCE PORCH	7000	
g. VINYLE TILES	16000	
h. COUNTER	4000	
i. ELECTRICAL	2000	
j. MISCELLANEAOUS	5350	58850
JUMLAH BESAR(RM)		58850

OPTION 3

CASUALTY		
a. DEMOLISHING WORKS	3000	
b. COUNTER	2000	
c. NEW WALL + DOOR	2000	
d. CHAIRS	2000	
e. ELECTRICAL	2000	
f. TRAFFIC	17000	
g. AMBULANCE PORCH	7000	
h. VINYLE TILES	16000	
i. MISCELLANEOUS	5100	56100
JUMLAH BESAR(RM)		56100

MINISTRY OF HEALTH
MALAYSIA

GENERAL HOSPITAL
SARAWAK

DRAFT
DEPARTMENTAL
DESIGN BRIEF

FEBRUARY 1993

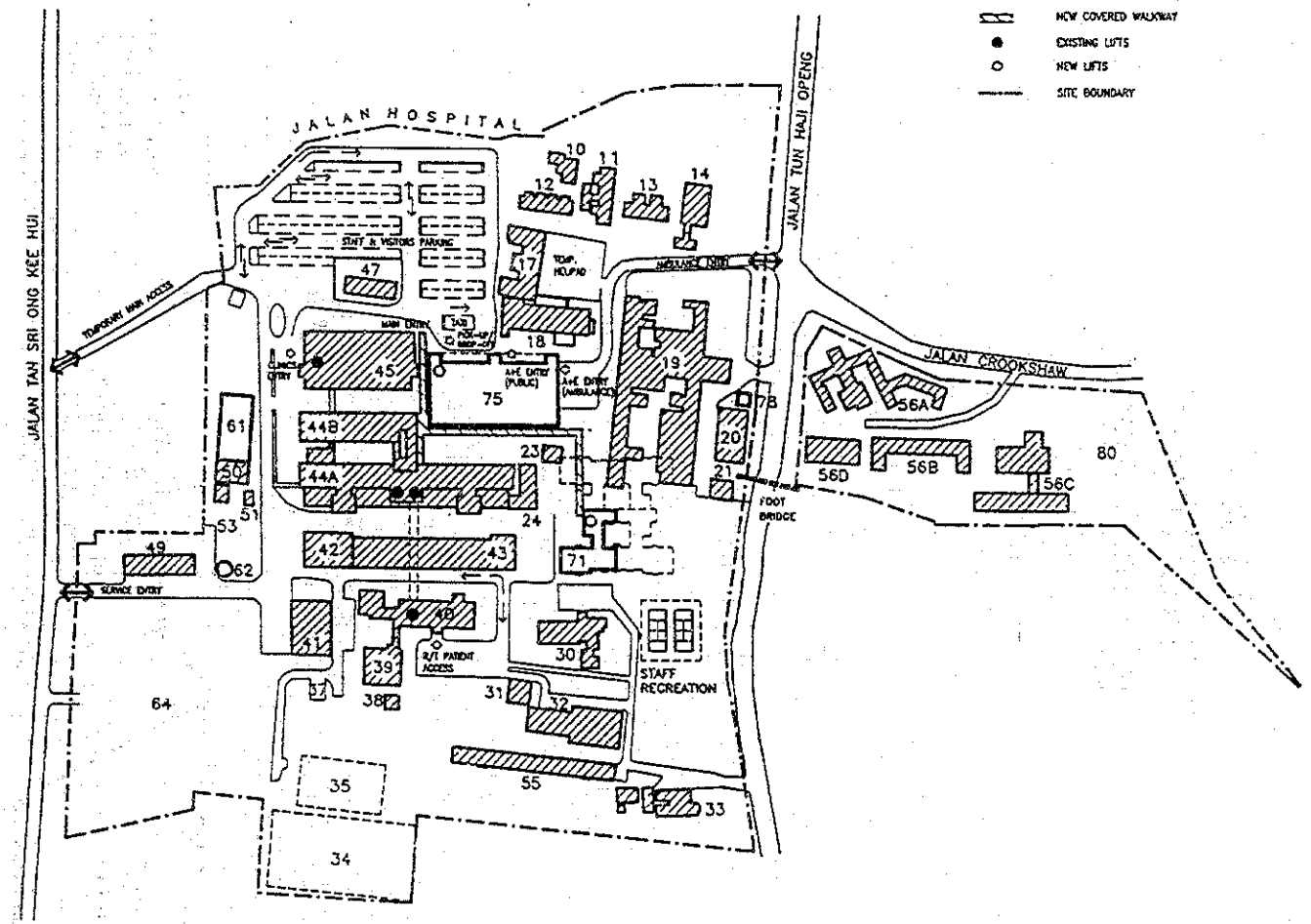
PREPARED BY

VAMED STA

VE:
DAUMEGASSE 5
1104, VIENNA
AUSTRIA

VAMED ENGINEERING
AUSTRIA
VAMED ENGINEERING
MALAYSIA SDN BHD
STEPHENSON & TURNER ASIA

STA:
II QUEENS ROAD
MELBOURNE
VICTORIA 3004
AUSTRALIA



LEGEND

- EXISTING BUILDINGS
- NEW BUILDINGS
- NEW COVERED WALKWAY
- EXISTING LIFTS
- NEW LIFTS
- SITE BOUNDARY

EXISTING BUILDINGS

10–12	STAFF QUARTERS	39	RADIOTHPY TREATM'T & WORKSHOP
13	MENTAL PATIENTS DAY UNIT	40	RADIOTHERAPY WARD BLOCK
14	MALARIA OFFICE	41	MORTUARY
17	HEALTH EDUACATION UNIT	42	CAR PORT
18	LABORATORY	43	SERVICES BLOCK
19	STATE HEALTH OFF.HQ/ MEDICAL TRAIN. CENTRE	44A	MAIN WARD BLOCK
20	STATE HEALTH OFFICE -	44B	PHARMACY/STORES
21	CAR PORT	45	SPECIALIST CLINICS BLOCK
23	U'GRND FUEL TANK	47	CANTEEN
24	BOILER HOUSE/ INCINERATOR	49	ENGINEERING BLOCK
30	HOUSEMEN QUARTERS	50	PLANT ROOM NO. 1/ SUBSTATION NO. 5
31	LAUNDRY (NURSES)	51	COOLING TOWERS
32	KITCHEN/DINING (NURSES)	53	WATER TANK
33	PUBLIC HEALTH/ FOOD LAB/INSECTARY	55	NURSES HOSTEL
34–35	SEWER. OXID. PONDS	56A	NURSES QUARTERS (OLD)
37	WASTE COLLECTION	56B	NURSES QUARTERS
38	SUBSTATION NO. 2	56C	NURSES QUARTERS
39	RADIOTHPY TREATM'T & WORKSHOP	56D	BASIC SCHOOL

NEW BUILDINGS

61	PLANT ROOM NO. 2
62	BULK/OXYGEN TANK
64	MEDICAL ASSISTANTS' HOSTEL (& FUTURE TRAINING FACILITIES)
71	WARD BLOCK NO. 1
75	CLINICAL SERVICES BLOCK
78	SUBSTATION NO. 4
80	AREA FOR NEW HOUSEMEN QUARTERS

MINISTRY OF HEALTH MALAYSIA

MASTERPLAN –7 HOSPITALS

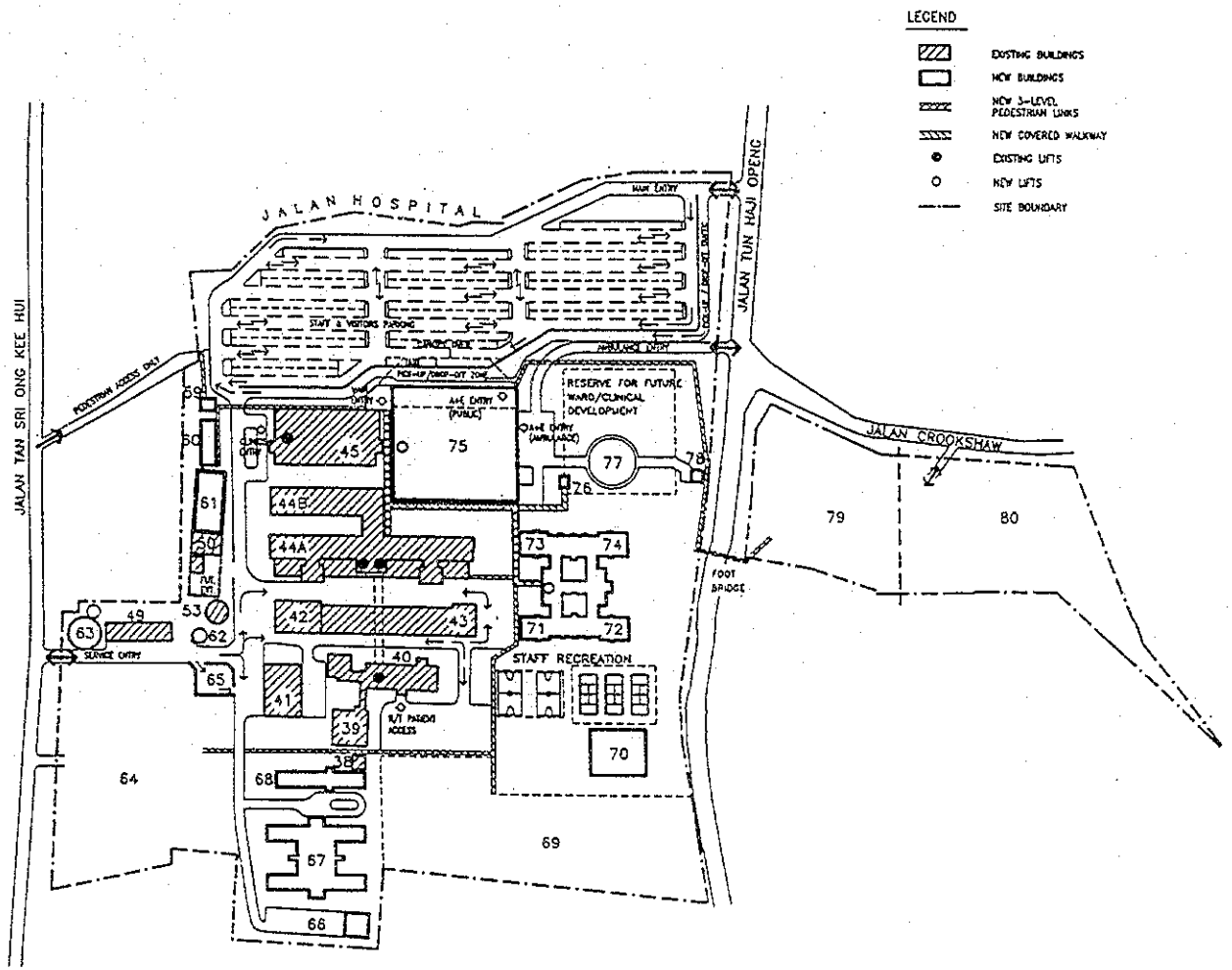
GENERAL HOSPITAL SARAWAK

1995–PHASE 1 MASTERPLAN SITE PLAN

CHART 2.1

0 25 50 75 100 M

VAMED ENGINEERING ○ VAMED ENGINEERING (M) ○ STEPHENSON & TUPPER ASIA



LEGEND

- EXISTING BUILDINGS
- NEW BUILDINGS
- NEW 3-LEVEL PEDESTRIAN LINKS
- NEW COVERED WALKWAY
- EXISTING LIFTS
- NEW LIFTS
- SITE BOUNDARY

EXISTING BUILDINGS

38 SUBSTATION NO. 2
39 RADIOTHY TREATMT & WORKSHOP
40 RADIOTHERAPY WARD BLOCK
41 MORTUARY
42 CAR PORT
43 SERVICES BLOCK
44A MAIN WARD BLOCK
44B PHARMACY/STORES
45 SPECIALIST CLINICS BLOCK
49 ENGINEERING BLOCK
50 PLANT ROOM NO. 1/ SUBSTATION NO. 5
53 WATER TANK NO. 1

NEW BUILDINGS

59 BALAI PELAWAT
60 PUBLIC CANTEEN
61 PLANT ROOM NO. 2
62 BULK OXYGEN TANK
63 WATER TANK NO. 2 & SUMP
64 MEDICAL ASSISTANTS' HOSTEL & TRAINING FACILITIES
65 WASTE COLLECTION
66 SEWAGE TREATMENT PLANT
67 PSYCHIATRIC WARDS
68 PSYCHIATRIC TREATMENT
69 TRAINING NURSES' HOSTEL & TRAINING FACILITIES
70 STAFF RECREATION/ CHANGE FACILITIES
71 WARD BLOCK NO. 1
72 WARD BLOCK NO. 2
73 WARD BLOCK NO. 3
74 WARD BLOCK NO. 4
75 CLINICAL SERVICES BLOCK
76 SURAU
77 HELIPAD
78 SUBSTATION NO. 4
79 STAFF NURSES' HOSTELS
80 HOUSEMEN QUARTERS

MINISTRY OF HEALTH MALAYSIA

MASTERPLAN –7 HOSPITALS

GENERAL HOSPITAL SARAWAK

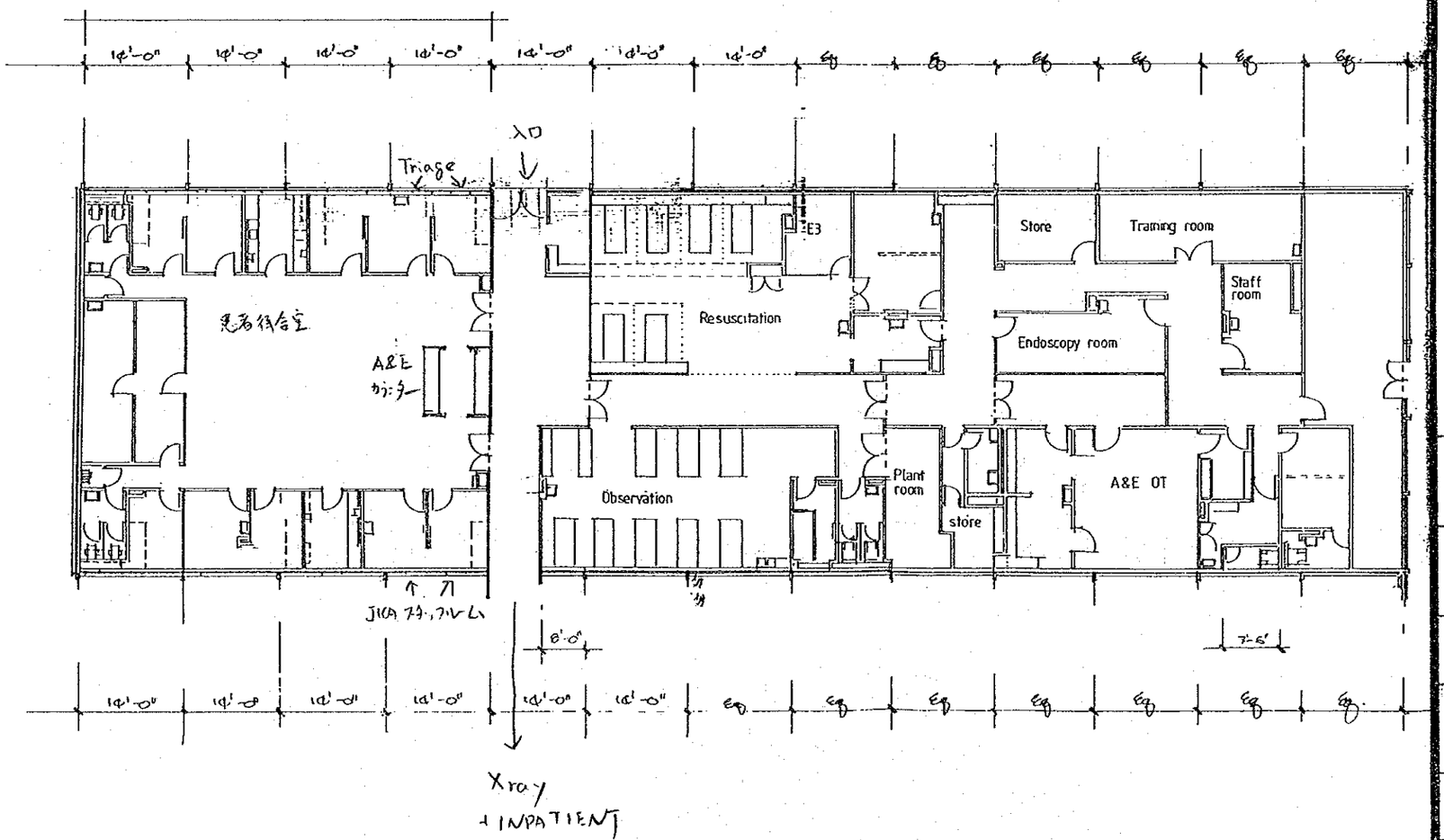
2010–PHASE II MASTERPLAN SITE PLAN

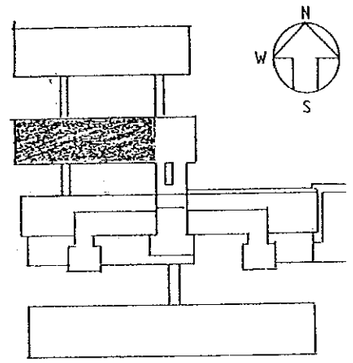
CHART 2.2

0 25 50 75 100 M

VAMED ENGINEERING ○ VAMED ENGINEERING (M) ○ STEPHENSON & TURNER ASIA

EXISTING LAYOUT

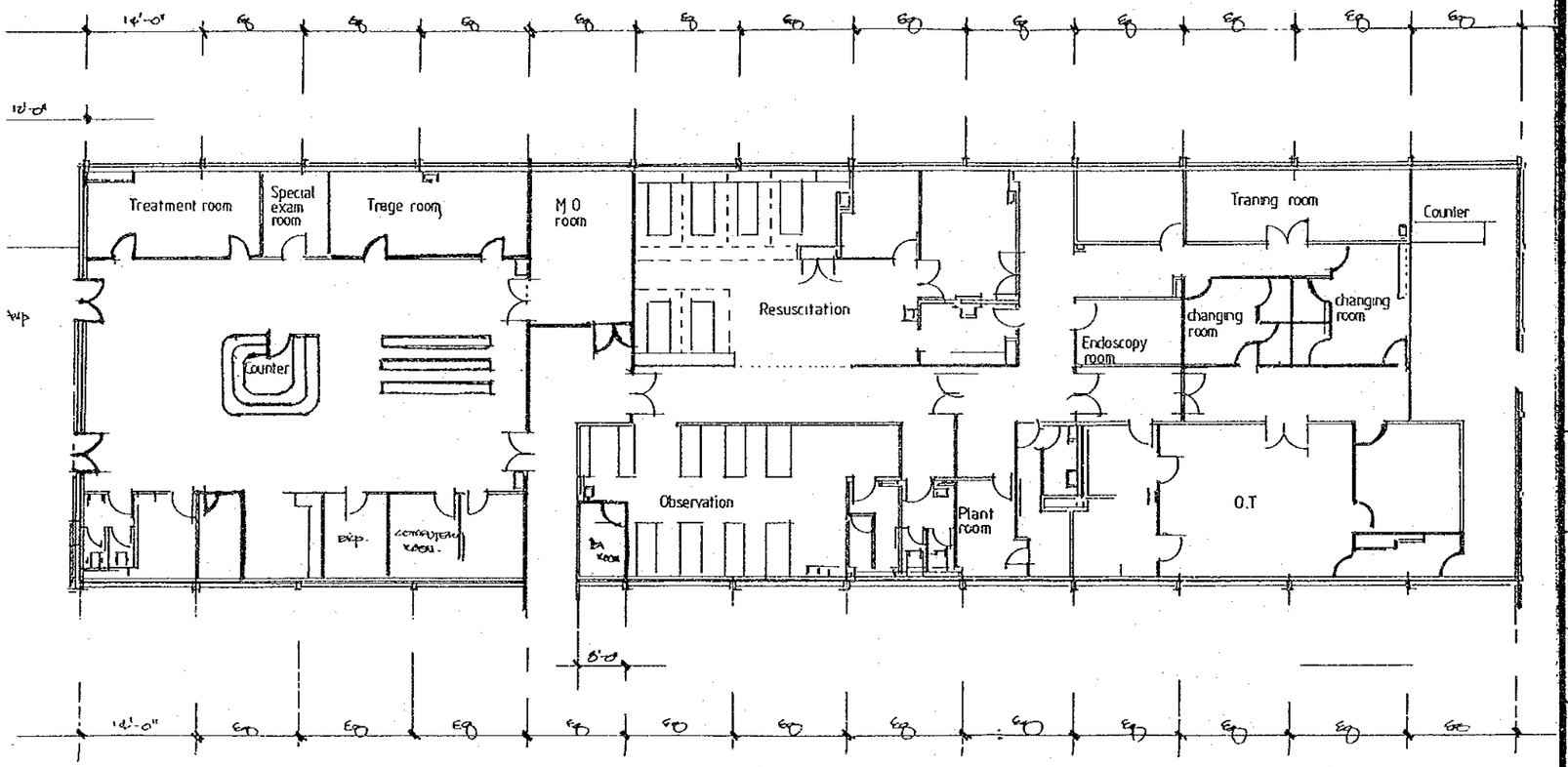


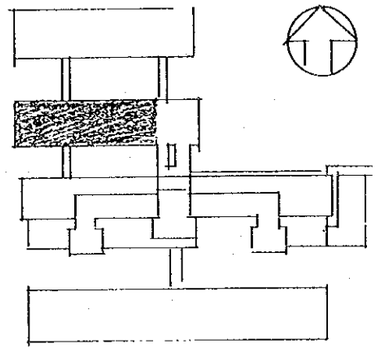


KEY PLAN

ENGINEER IN CHARGE	27.5.93 DATE SIGN
DRAWN BY	26.5.1993 DATE SIGN.
HOSPITAL UMUM SARAWAK	
CHECKED BY	DATE
DRG. NO PROJECT	SCALE

PROPOSED NEW LAYOUT
(OPTION 1)





KEY PLAN

ENGINEER IN CHARGE	DATE SIGN 27.5.93.
DRAWN BY	DATE SIGN. 26.5.1993

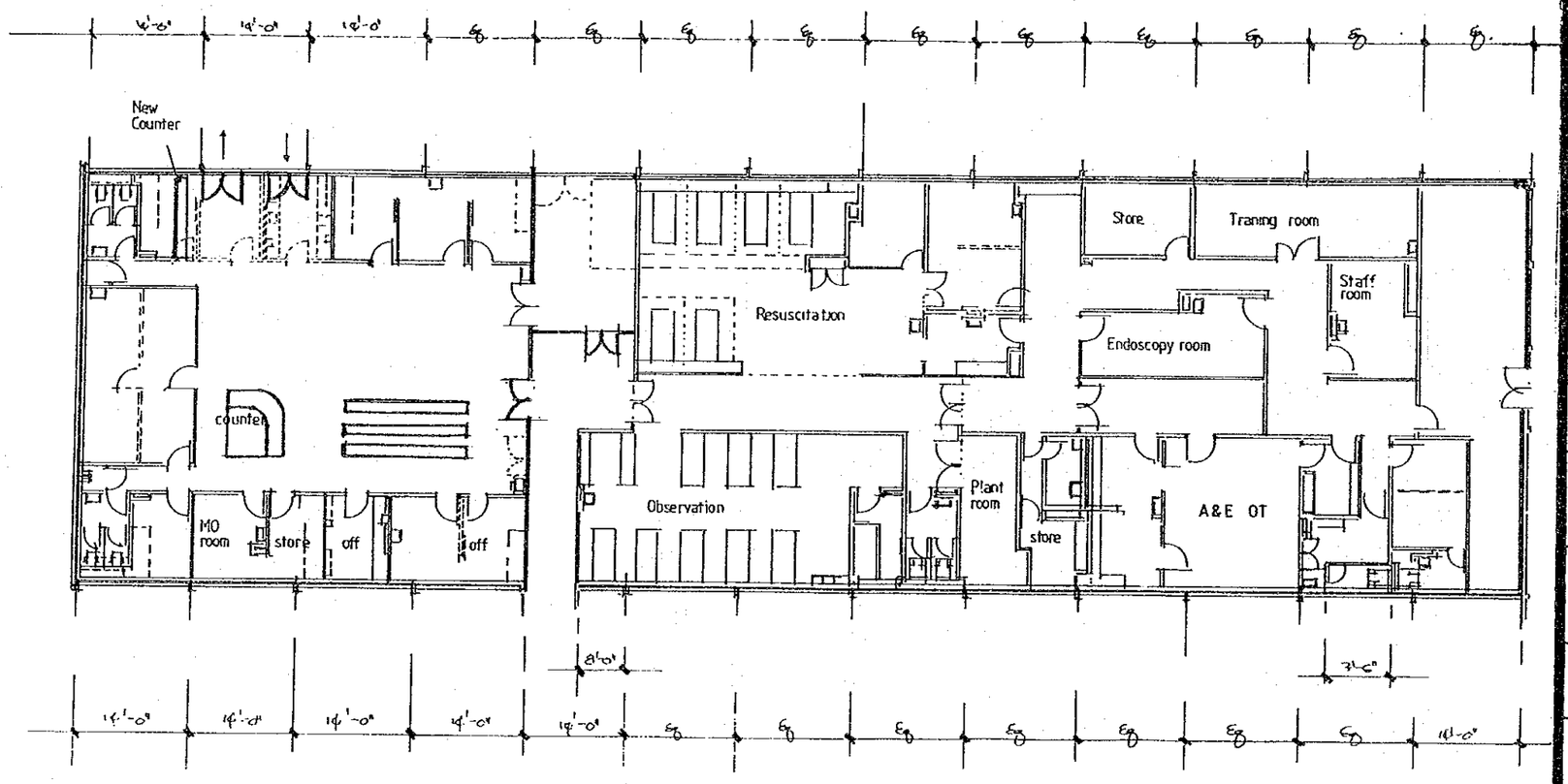
HOSPITAL UMUM SARAWAK

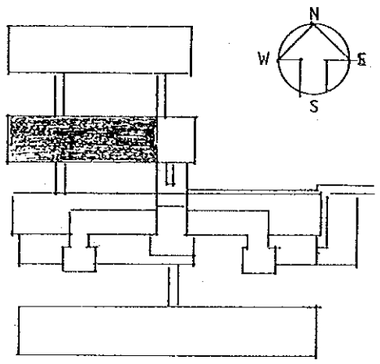
CHECKED BY	DATE SIGN
DWG NO	SCALE

DRAWING.

PROPOSED RENOVATION AT CASUALTY WARD BLOCK

OPTION 2





KEY PLAN

ENGINEER IN-CHARGE	GIVEN DATE: 27.6.93
DRAWN BY	DATE DRGN.: 26.5.1993.

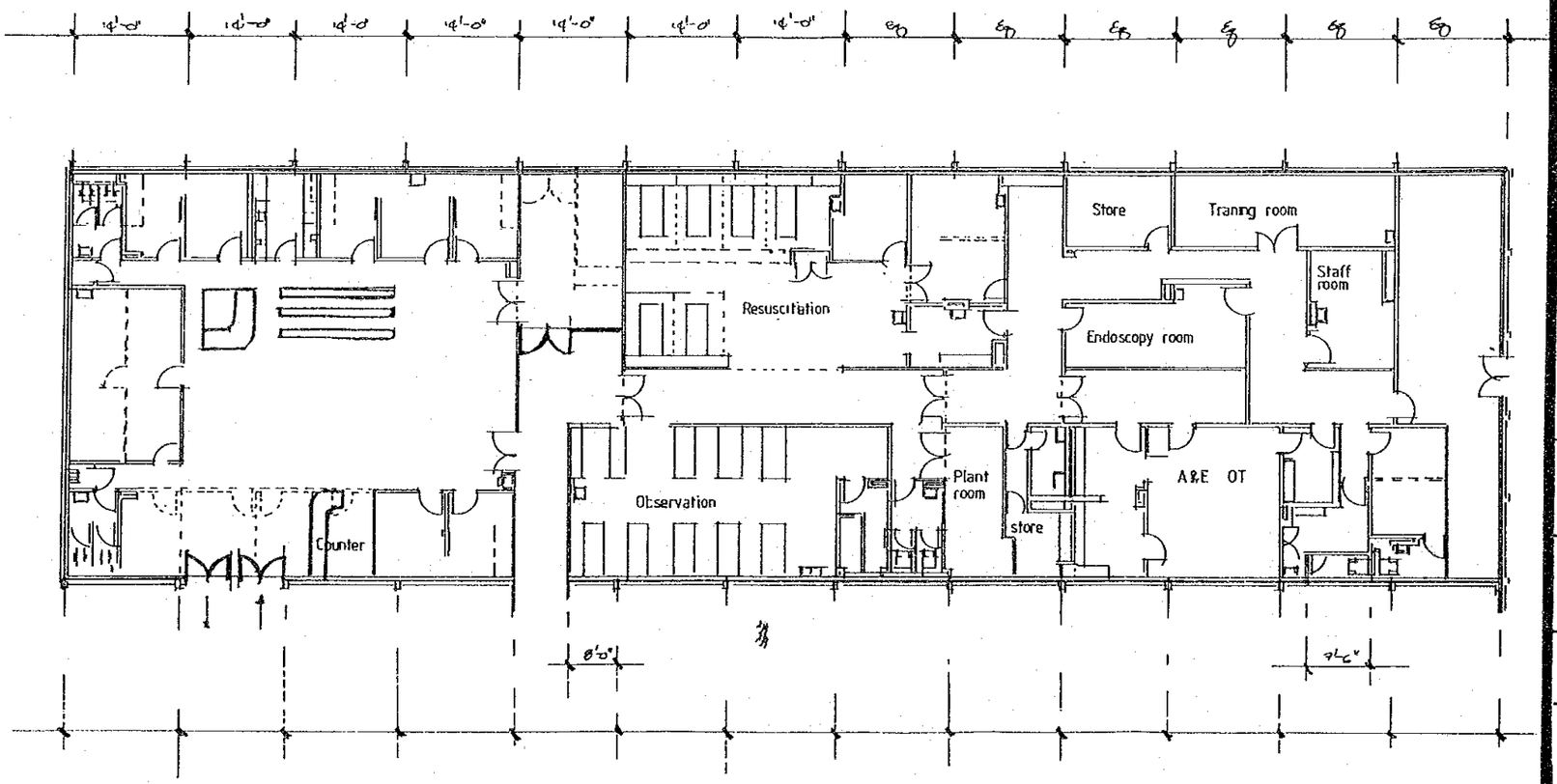
HOSPITAL UMUM SARAWAK

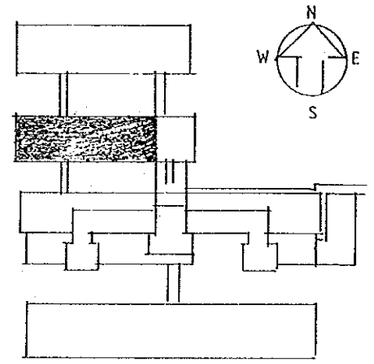
CHECKED BY	DATE
DRG NO	SCALE

PROJECT

PROPOSED RENOVATION AT CASUALTY WARD BLOCK

OPTION 3





KEY PLAN

ENGINEER IN-CHARGE	DATE SIGN. 27.5.93
DRAWN BY	DATE SIGN 26.5.1993.

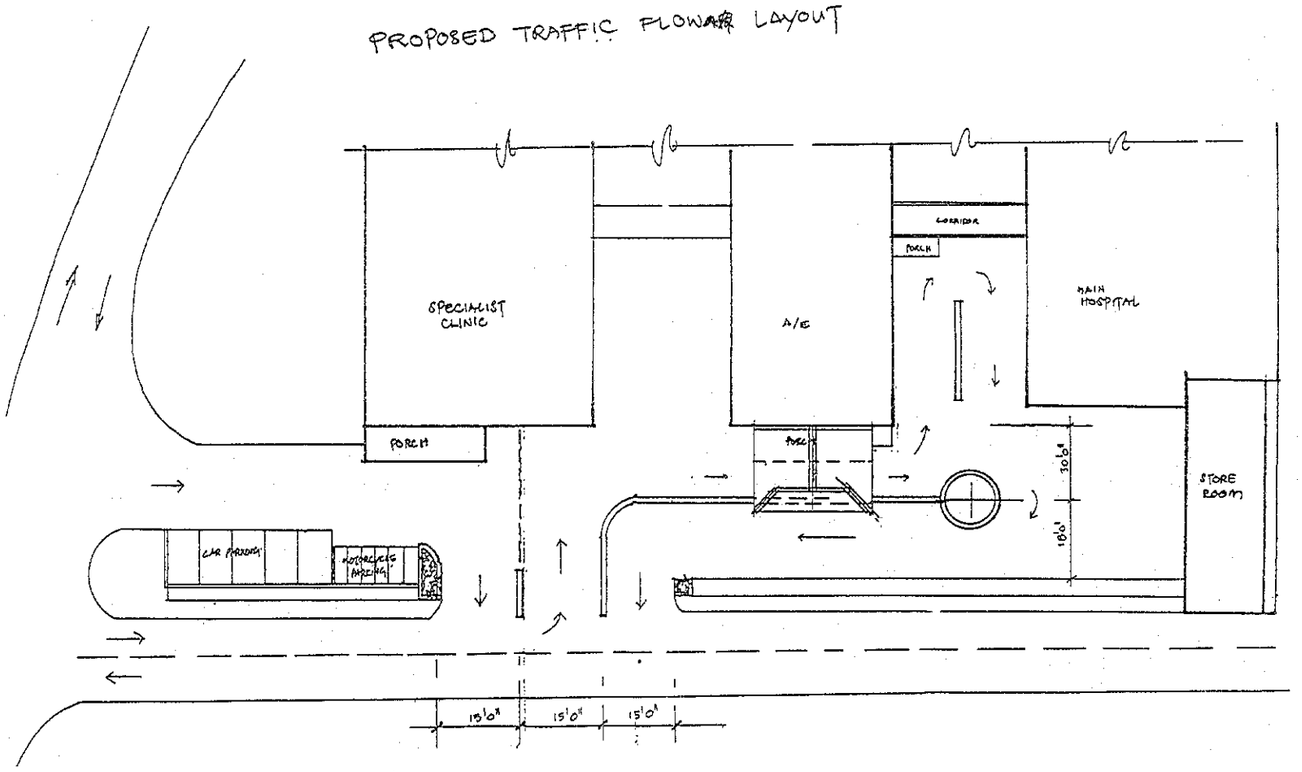
HOSPITAL UMUM SARAWAK

CHECKED BY	DATE SIGN.
DRG NO	SCALE

PROJECT.

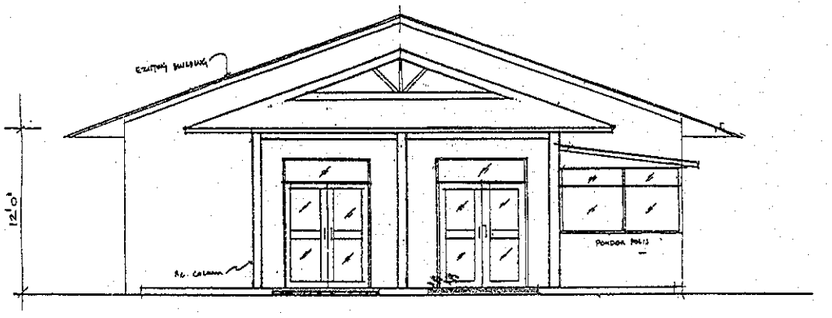
PROPOSED RENOVATION AT CASUALTY WARD BLOCK

PROPOSED TRAFFIC FLOW~~AR~~ LAYOUT

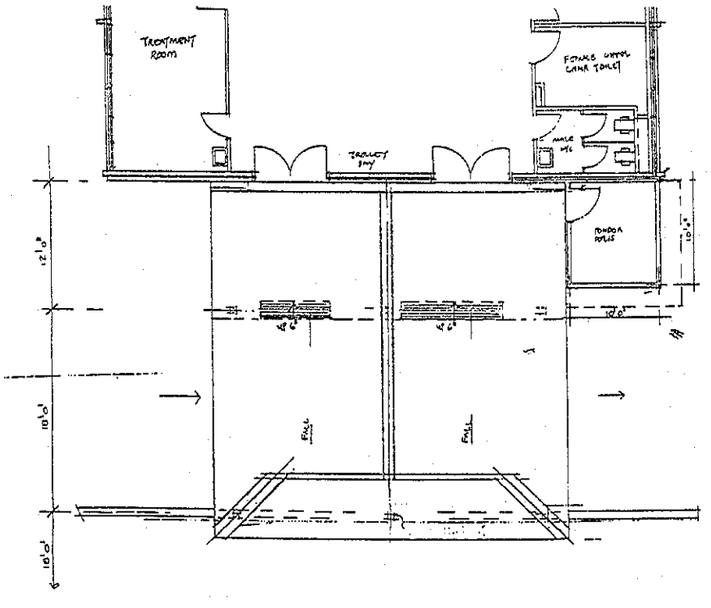


SITE PLAN

PROPOSED COVERED WAY FOR PATIENT, LOADING &R



FRONT ELEVATION
Scale: 1/4" To 1'0"



FLOOR PLAN

資料 2

Reg. No Item No	Description of Equipment	F.Y.	Qty	Unit Price (RM)	Amount (RM)	Dealer's Name	Country of Origin	In Charge
1.	Emergency Patient Trolley Stryker Model 1020	1991	1	21,287.20	21,287.20	Abex Medical	U.S.A.	MOIC
2.	(a)Infant Warmer Atom Model V-3600 CM6835	1991	1	21,740.00	21,740.00	S P M	Japan	MOIC
	(b)Oxygen Cylinder 500 litres (OX-103)	1991	1	640.00	640.00	S P M	Japan	MOIC
3.	Infusion Pump	1991	2	4,200.00	8,400.00	Borneo Pharmacy	Japan	MOIC
4.	Syringe Infusion Pump Atom Model 235	1991	1	3,200.00	3,200.00	Borneo Pharmacy	Japan	MOIC
5.	Personal Computer Nicom AT80386 DX-33	1991	1	4,300.00	4,300.00	Nico Micro System	Taiwan	JICA
6.	Laser Beam Printer Canon LEP-4Plus	1991	1	3,950.00	3,950.00	Nico Micro System		JICA
7.	4 Wheel Drive Vehicle Toyota Land Cruiser	1991	1	120,191.42	120,191.42	UMW Toyota	Japan	JICA
8.	Bipolar/Monopolar Electric Coagulater, MIZUI-10-3D	1991	1	7,730.00	7,730.00	S P M	Japan	MOIC
9.	Multi-purpose operating Table with accessaries Muranaka	1991	1	71,852.00	71,852.00	S P M	Japan	MOIC
10.	Fibreoptic Flexible							
	a) Bronchoscope Olympus Model BF-20	1991	1	29.045.00	29,045.00	S P M	Japan	MOIC
	b) Gastroscope Olympus Model GIF-Q20	1991	1	33,800.00	33,800.00	S P M	Japan	MOIC
11.	Ambu or Laedal Resustative Bags with face mask and airway Laerdal for 3 age groupe	1991	2	1,345.00	2,690.00	S P M	Norway	MOIC
12.	Ultrasound Machine Tosbee SSa-240A	1991	1	95,000.00	95,000.00	Abex Medical	Japan	MOIC

Reg. No / Item No	Description of Equipment	F.Y.	Qty	Unit Price (RM)	Amount (RM)	Dealer's Name	Country of Origin	In Charge
13.	Training Materials:							
	a) Ambuman	1991	1 set	17,690.00	17,690.00	S P M	Norway	MOIC
	Laerdal CPR Training Equipment							
	Intubation Trainer						Norway	
	Brain Model						Norway	
	b) Overhead Projector	1991	1 set	17,522.00	17,522.00	Riso Trading	Germany	MOIC
	TV Set						Japan	
	Video						Japan	
	Laser Pointer						Germany	
	Slide Projector						Germany	
	Books for Emergency Medicine						U.S.A.	
14.	Infusion Pumps							
	a) Droplets	1991	1	3,800.00	3,800.00	Borneo Pharmacy	Japan	MOIC
	Terumo Infus							
	b) Volumetric	1991	1	3,200.00	3,200.00	Borneo Pharmacy	Japan	MOIC
	Terumo Syringes							
15.	Electric BP Monitor	1991	2	7,325.00	14,650.00	Juru Antadaya	U.S.A.	MOIC
	Pave Tech USA							
16.	E.C.G. Monitor with Defibrillator	1991	3	11,440.00	34,320.00	S P M	Japan	MOIC
17.	Portable Ventilator	1991	2	11,400.00	22,800.00	Specialised Equipment	Germany	MOIC
	Drager-Oxylog							
18.	A/E Patient Trolley/ '' Trauma Stretcher	1991	5	19,787.20	98,936.00	Abex Medical	U.S.A.	MOIC
	Stryker							
19.	Portable/Mobile X-ray Machine	1991	1	62,250.00	62,250.00	Noratem	Japan	MOIC ~~Radiologist~~
	Shimadzu Model MC-125L-30							
20.	Emergency Resuscitation Trolley	1991	2	3,777.00	7,554.00	Robert Scientific	U.S.A.	MOIC
	Narloff USA							
21.	Multi-gas analyzer Trolley	1991	1	50,116.00	50,116.00	Antah Sri Radin	Finland	MOIC, MAIC
	Datex Ultimas monitor, Model MT-SV Finland							

Reg. No / Item No	Description of Equipment	F.Y.	Qty	Unit Price (RM)	Amount (RM)	Dealer's Name	Country of Origin	In Charge
22.	Blood Gas Machine AVL 995 + 983S	1992	1	70,680.00	70,680.00	Specialised Equipment	Austria	MOIC
23.	Mobile C-Arm with memory image Toshiba SXT-600A	1992	1	199,796.00	199,796.00	Abex Pharmacy	Japan	MOIC
24.	Cardiac Monitor with invasive BP/CVP/ temperature monitoring Datex Model CM-2, Finland	1992	1	52,690.00	52,690.00	Antah Sri Radin	Finland	MOIC
25.	Transport Incubator Atom Model V-80TRR (CM-6600)	1992	1	22,580.00	22,580.00	S P M	Austria	MOIC
26.	Nebulizer Pari Inhalerboy	1992	6	610.00	3,660.00	Borneo Pharmacy	Germany	MOIC
27.	Anaesthatic Machine with ventilator Blease Frontline	1992	1	71,135.00	71,135.00	Antah Sri Radin	England	MOIC
28.	A/E Patient Trolley/ Trrauma Stretcher Stryker, U.S.A.	1992	2	19,787.20	39,574.40	Abex Medical	U.S.A.	MOIC
29.	Non-invasive BP Monitoring Set Paoe Tech, U.S.A.	1992	2	7,325.00	14,650.00	Juru Antadaya	U.S.A.	MOIC

資料 3

SARAWAK TRIBUNE

Home Fo

More improvements at A & I of Sarawak General Hospita

KUCHING-Further renovations and improvement of the physical layout of the Accident and Emergency Department (A & E) of the Sarawak General Hospital (SGH) are expected to take place and be completed before the end of 1993, revealed the Deputy Director of the State Medical and Health Services Department Dr Yao Sik Chee yesterday.

For the development of human resources for the accident and emergency care services in Sarawak, various local training programmes have been drawn up to upgrade the staff of the State Medical Department Dr Yao said.

Since 1992, the government has sent doctors, medical assistants, nurses, ambulance drivers and hospital attendants from the A & E Department of SGH to undergo training in Basic Life Support and Cardio-pulmonary Resuscitation.

Dr Yao who spoke during the handing over ceremony of medical equipment donated by Japan International Corporation Agency (JICA) to SGH here yesterday, said the project to upgrade the A & E in Sarawak is undertaken with the cooperation of the Japanese and Malaysian governments.

According to him, the goal of the project is not only to improve pre-hospital emergency care throughout the state but also to upgrade the accident and emergency services at the SGH's A & E Department.

Dr Yao said a Joint Coordinating Committee under the chairmanship of the Director of Planning and Development Division of the Ministry of Health, Malaysia was set up to look into the effective and sucessful implementation of the project.

A Technical Committee headed by SGH Medical Superintendent, Dr Yao Sing Chi was also formed in the same respect.

Five-members of the JICA Advisory Mission team led by Prof Kazuo Takeuchi, president of the Kyorin University Japan are currently in the city on a 5-day visit to the state.

On the equipment donated by JICA to SGH, Dr Yao said each year the agency provides RM800,000 worth of medical equipment and to-date it has donated RM1.24 million worth of equipment to the hospital's A&E Department.

Among the medical equipment handed over to the SGH during yesterday's ceremony were an Ultrasound machine, a mobile X-ray machine, an Atom transcapsule transport infant incubator, a multi-purpose operation table and eight

Dr Yao and Professor Takeuchi seal the handing over of instrument with a Stryker trauma trolleys.

Also present during the function were Prof Dr Syuji Shimazaki from the Department of Emergency Medicine, Kyorin University, Prof Dr Kazuhiko Mackawa from the Department of Traumatology and Critical Care, University of Tokyo, Hiromu Yoshida from JICA Department of Medical Corporation and SGH Medical Superintendent Dr Yao Sing Chi.

日本国际合作机构
移交医药器材
予砂中央医院

（本报古晋卅日讯）日本国际合作机构今早移交一批医药器材给中央医院的意外与紧急部门以提升该部门在意外与紧急护理的服务。

这是日本所提供四百万设施协助砂医务部的一部份。

砂胜越副医务可姚锡祺医生，今日在一项记者招待会上披露此消息。

他说，每年日本国际合作机构提供价值八十万元的设施给砂医务部到今天古晋中央医院意外与紧急部门共收到价值一百廿四万元共廿九项的医药器材，这包括一个超音波仪器，一个流动x光仪器，一个婴儿护理箱，一个多种用途手术桌及九个手推车。

姚锡祺医生也提到为了成功推行此计划一个联合协调组织已成立，而砂胜越医药与康复服务，局长则全权负责此计划的推行。

日本政府将与马来西亚政府合作推行这计划，这包括派遣日本专家，提供医药器材，及让马来西亚人员到日本接受技术上的训练，而马来西亚政府则提供相应的合格人员以维持医务水准及进行管理，并提供在这项计划的土地，建筑物及意外的设施。

姚锡祺医生重申自一九九二年开始推行此计划後，到目前为止还顺利按照计划进行着。出席这次移交器材仪式的除了日本国际合作机构洛询行动组的领导人竹内一夫医生外，还包括岛崎修二医生，前川和产医生，吉田弘及砂中央医院的一些人员等。

日本国际合作机构昨移交一批医药器材予砂中央医院。

图示：日本竹内一夫医生（右）将医药器材移交给砂州副医务司姚锡祺医生时摄。

古晋中央医院增添先进器材

日国际协力会提供124万元器材

（本报古晋卅日讯）自去年八月至今，古晋中央医院意外及紧急治疗部总共获得日本国际协力会（JICA）提供高达一百廿四万元的先进医药器材援助，以提高该部门的水准及服务素质。

除了上述数目之医药器材外，其他的先进医药器材也将陆续运抵古晋中央医院，此项由日本国际协力会所提供的援助计划为期五年。

本州副医务司姚锡祺医生於今早在古晋中央医院意外及紧急治疗部迎接到访的日本国际协力会顾问团时，如此指出。

他指出，此项计划是通过我国政府及日本政府方面间达致的合作，主要是提高砂中央医院意外及紧急部的设备。

在此合作援助计划下，日本政府将派出医院专家前来，增加医药器材及保送医务人员前往日本接受训练。

姚医生称，自去年八月，日本通过该国际协力会，已派出一名紧急治疗专家前来进行为期三个月的短期援助。

此外，目前，古晋中央医院共有四名日本医药专才派驻服务，为期一至两年，他们为救急医疗里木启文医生，脑，神经外科医生麻生有二，协调员有马正光及救急看护杉江美子。

他说，日本国际协力会将会在医药器材给予约八万元的协助，至目前为止，古晋中央医院总共接获廿九项的先进医药器材包括流动X光机，多种用途手术桌，多性能病床等等。

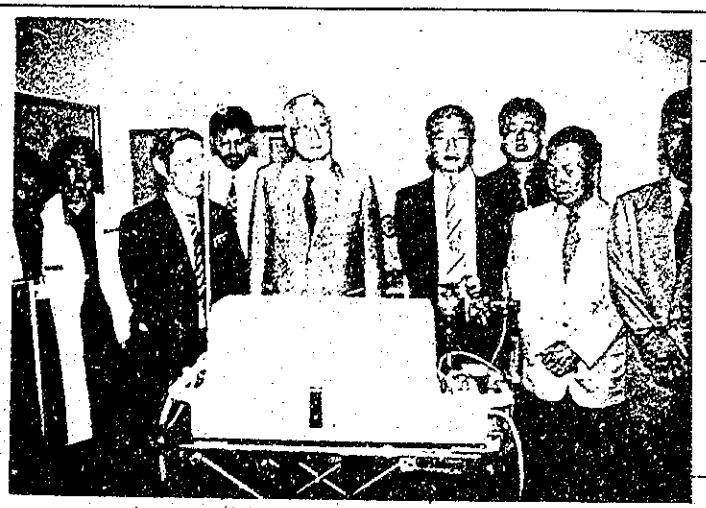
本州副医务司也表示，在去年，两名本地医生也在日本接受了短期训练，此外，一名护士，一名医务助理及医药职员也前后於今年二月及三月前往日本受训，彼等将于今年杪完成他们的课程。

在去年，中央医院也为紧急治疗部的医生，护士，医药助理，救伤车司机等提供训练计划，以提高表现及服务。

在今年二月，两名来自日本的医药专家也已分别在古晋，诗巫及美里医院为当地医生，医务助理进行主讲，以提供训练。

日本国际协力会顾问团团长竹内一夫教授今早也指出，他很高兴看到古晋中央医院已接获援助。他也表示日本政府将继续为古晋中央医院作出援助，尤其是意外紧急治疗部。

今早，随同竹内一夫教授前来访问尚包括日本杏林大学的岛崎修次教授，东京大学之前川和彦教授及日本国际协力会之吉田弘。



图示：日本国际协力会顾问团团长竹内一夫教授（右五）将医药器材移交给州副医务司姚锡祺医生（右三）时影。

資料4

MINUTES OF THE MEETING ON JICA PROJECT: UPGRADING OF A&E SERVICES IN SARAWAK

TIME: 9.00 A. M.

DATE: 6 MARCH, 1993

VENUE: DMS Office

PRESENT:

DATUK DR. STALIN HARDIN	DIRECTOR, SARAWAK MEDICAL SERVICES DEPT.
DR. YAO SIK CHI	DEPUTY DIRECTOR (HOSPITAL) SARAWAK MEDICAL SERVICES DEPT.
DR. YAO SIK KING	MEDICAL SUPERINTENDENT, SGH.
DR. H. KUROGI	JICA TEAM LEADER

AGENDA:

1. Selection of Malaysian medical personnel for training in Japan
2. Permission to visit A&E depts of other hospitals
3. Review of terms of Agreement
4. Certification of M.O. training in Japan
5. Nomination to attend the International Emergency and Disaster Conference in Japan
6. Other matters arising

1. Selection of Malaysian medical personnel for training in Japan

1.1 DMS. Datuk Dr. Stalin Hardin agreed to the selection process proposal as submitted by the JICA Technical Committee. Dr. Yao Sik Chi is to make the necessary addition, amendment and deletion in the proposed format of eligibility criteria contained in the " Guide for training in Japan" as prepared by Dr. Kurogi. The selection process will be as follows:

* advertisement by Medical Headquarters - Dr. Yao Sik Chi to all government hospitals to invite applications from eligible and interested staff

* submission of list of eligible applicants by Medical HQ - Dr. Yao Sik Chi to JICA Technical Committee

* Shortlisting of applicants by JICA Technical Committee

* Interview of shortlisted applicants by JICA Technical Committee

* Submission of list of recommended candidates to DMS for his approval

* Inform successful candidates

* Submission of appropriate forms to KHN, EPU and JICA Kuala Lumpur Office

1.2 For the selection of staff to go for training in 1993, due to time constraints and limited number of eligible Medical Officers, the following staff have been decided:

Medical Officer - Dr. Clement Lee
Medical Assisstant - Patrick Jee
Staff Nurse - to be finalised next week

Dr. Clement Lee is chosen for the following reasons:

he is confirmed in service
he has written a letter, stating his willingness to serve in Sarawak for 3 years after returning from Japan
he is interested to work in the A&E dept.

Dr. Kurogi will fly to Limbang sometime next week to interview him.

MA Patrick Jee is chosen because he is confirmed in service, very keen and diligent worker with good PR. It is also decided that after he returned from his 6 - months A&E training at Seremban Hospital in December, 1993, he be sent for another 6 months training in Japan in January, 1994. Dr. Kurogi has interviewed him and confirmed that he is willing to be away for 1 year training.

2. **Permission to visit A&E depts. in other hospitals.**

Dr. Kurogi requested permission to visit the A&E depts in the hospitals so as to be familiar with their set-up thereby giving him a better insight and perspective to advise on how best to upgrade our A&E services. DMS approved his request and the hospitals to be visited are:

Singapore General Hospital
Seremban General Hospital
Subang Specialist Centre

Dr. Yao Sik King will accompany Dr. Kurogi and expenses for the visit will be borne by Sarawak General Hospital. Proposed date for the visit : 14 to 17 March or 19 to 21 March, 1993.

3. **Review of Terms of the Agreemnt**

Datuk Dr. Stalin Hardin proposed there be a review of the original terms of the Agreement as there is a provision for it. Dr. Kurogi will bring this proposal to the attention of JICA. Ideally, this discussion can coincide with the forthcoming visit of the mission headed by Professor Takeuchi in June, 1993.

4. **Certification of M.O. training in Japan**

Datuk Dr. Stalin Hardin suggested that Dr. Kurogi discussed with Professor Takeuchi and Professor Matsuda (Head, Emergency Medicine Dept. and owner of Kyorin University) about the possibility of certificationa and documentation in detail of the training given to M.O. at Kyorin University. Though the training in Japan is not recognised officially by Ministry of Health, Malaysia, the certification and documentation may help shorten the period of training for M.Os. interested to pursue postgradnate training specialising in Accident and Emergency Medicine.

5. Nomination to attend International Emergency and Disaster Conference in Japan

Dr. Kurogi informed that the above conference will be held in November, 1993 in Tokyo. He proposed that Datuk Dr. Stalin Hardin be invited to attend this conference under JICA Fellowship/sponsorship. It is hoped that while in Japan Datuk visits Kyorin University and other A&E depts in Japan. Datuk is agreeable to the proposal. Dr. Kurogi is requested to obtain the necessary application forms from JICA for Datuk's action.

6. Other matters arising

6.1 Datuk Dr. Hardin requested Dr. Kurogi to give comments on the design brief for the A&E dept. as submitted by VAMED MASTER PLAN TEAM. The team will hold discussions with the department on 12 to 13 March, 1993 at HQ Conference Room.

The meeting adjourned at 10.00 a.m.

Recorded by Dr. Yao Sik King

DR. YAO SIK KING
MBBS PGDHHSA
Penguasa Perubatan,
Hospital Umum Sarawak,
Kuching.

4. 今後の暫定実施計画

4－1 協力内容

4－1－1 全体計画

平成4年から平成9年までの暫定実施計画を資料1に示す。主に講習会による技術向上を目指したプログラムを展開して行く予定である。日本側専門家はカリキュラム作成及び教材作成といった分野で協力すると同時に，on the job trainningでは技術指導を行う。

初年度はSGHを中心とした活動を行ってきたが，今後はシブ，ミリといった都市においても活動が強化されて行くことになる。

一方カウンターパートの研修効果を向上させるために，日本以外での研修以外にシンガポールでの第3国研修も検討を開始した。本ミッション派遣時にシンガポール総合病院を視察しその妥当性を検討した結果，先方の受け入れ体制は十分適していると判断された。

資料1

Cooperation Plan

12 Nov. 1992 A/E technical commitee SGH

Goal of the Project: Improvement of pre-hospital care and development of human resources, as well as to upgrade accident and emergency care service at the Sarawak General Hospital, especially at its Accident & Emergency Dept in line with the national plan for improvement of accident and emergency care service.

Objectives:
#1. Enhancement of the functions and scheme of the A/E dept at the SGH
#2. Development of A/E care as a speciality
#3. Development of training programs for A/E care in Sarawak

	Strategies	Activities	F YEAR 92	93	94	95	96
OBJECTIVE #1	1. Cooperation of all staff of the SGH	1. Encourage commitment from specialist, medical staff, nursing staff, and all support personnel who help care for the emergency patient.					
		i) establishment of close inter-medical-paramedical relationship	●	●	●	●	●
		ii) firm transmission of information about emergency patient	●	●	●	●	●
		2. For medical staff, care means a commitment to availability and education.					
		i) prompt response to consultation (*)	●	●	●	●	●
		ii) participation in on-the-scene teaching/discussion with HO/MO of A/E dept	●	●	●	●	●
	2. Reorganization of existing A/E dept	1. Introducing new operational policies	●				
		2. Modification of lay-out	●	●			
		3. Permanent A/E manpower (**)	●	●			
		4. Formal and structured organization hierarchy; function/manpower	●	●			
	3. Refinement of patient transfer within A/E dept and in the hospital	1. Revision of standing order/existing procedures for X-ray examination of A/E patient2. Trasfer orders to the wards/development of admission policy for A/E dept	●	●			
			●	●			
	4. Upgrade level of pre-hospital care (ambulance service)	1. Establishment of medical emergency control center in A/E dept/ambulance service station			●	●	●
		2. Training of A/E paramedic personnel (MA, Ns)/ambulance driver/porter					
		i) locally	●	●	●	●	●
		ii) C/P training in Japan	●	●	●	●	●
		3. Upgrade equipment in the existing ambulances of A/E dept	●	●	●	●	●
		4. Public education for proper usage of A/E dept		●	●	●	●
	5. Upgrade level of care at A/E dept through improving levels and standards of emergencyy care in terms of diagnosis, therapeutic and operative service	1. Proper usage of equipment					
		i) JICA donated	●	●	●	●	●
		ii) locally purchased	●	●	●	●	●
		2. Implement the new operational policies and standing orders	●	●			
		3. Maximum utilization of all facilities available/provided newly renovated A/E dept			●	●	●

* There is a possible limitation to this at present because the inpatient staffs may occationally be tied up with various procedures from which they may not be able to respond as desired. eg) Surgeon occupied in operation theater.

** A potential problem is noted as far as permanent A/E manpower is concerned.
Need to have a specialist post in A/E department to ensure a permanent head of the dept.

Objectives: #2. Development of A/E care as a speciality
#3. Development of training programs for A/E care in Sarawak

	Strategies	Activities	F YEAR 92	93	94	95	96
OBJECTIVE #2	1. Education of the public for proper usage of the A/E dept	1. Production/dissemination of education pamphlets 2. Education/information through mass media 3. In-house public education programmes		● ● ●	● ● ●	● ● ●	● ●
	2. Development of training programs in the A/E dept at SGH	1. Rotation attachment for third posting MO at A/E dept. (*) 2. Education of MO & HO of the various disciplines in A/E dept. 3. Postgraduate training - training attachment of 6 months for MO with Part 1 (MRCP, FRCS) at A/E dept especially for those with interest/intention to pursue postgraduate qualification in A/E or emergency medicine .(*)	●	●	● ● ●	● ● ●	● ● ●
	3. Formal recognition of A/E dept as a full-fledged clinical department in hospitals providing tertiary level health care	Formal petition and submission of working paper to Ministry of Health, Malaysia through Diector of Medical Service, Sarawak	●	●	●	●	●
	4. Active involvement of all specialis ts in the various hospitals in the State in providing expertise and services whenever required in the care of emergency patient.	Provision of consultative/therapeutic/operative service by all hospital specialists to doctors at A/E dept in the clinical management of emergency patient when referred upon	●	●	●	●	●
OBJECTIVES #3	1. Upgrade level of pre-hospital care	Development of training programs to improve ambulance service in Sarawak (see ref. Outline of 5-year plan for the project; Training)	●	●	●	●	●
	2. Upgrade level of care at A/E dept	Development of training programs to improve A/E care in Sarawak (see ref. Outline of 5-year plan for the project; Training)	●	●	●	●	●

* To commence when the A/E department is fully functional.

4－1－2　脳神経外科

SGHにおいて本格的に脳神経外科の専門的な診療業務を確立するためには，未だ困難な問題が山積している。したがって本プロジェクトでは，やはり脳神経外科的な救急医療の確立に主眼を置くべきであろう。そのためにもできるだけ多くのMOにたいして専門的な基礎知識および基本技術を教授し，救急患者の診療に当たれるよう技術移転に心がけねばならない。

脳神経外科領域では近年診断にも治療にも種々の高度な医療機器が導入され，いわゆる重装備のもとに診療が行なわれるようになった。しかしSGHにおいて急速にこれらの機器を整備することは無理であり，当分は最小限の装備で診療に当たらねばならないであろう。そのため今後の専門家の派遣にあったっては，その点の覚悟を十分にもってもらう必要がある。ただ，今やこの領域では聴診器代わりに使われていると言っても過言ではないX線CTぐらいは，日常不自由なく随時使用できるような体制を整えたいものである。そのためまず，現在SGHに1台しかないCTを，救急用に制限なく利用できるよう申し入れたところである。近い将来，頭部専用でもよいから小型のX線CTをA&Eに設置したいものである。

最後に，現地スタッフに対する脳神経外科学の基礎教育も必要と思われる。そのため，今後専門医師が現地を訪問する場合には，何らかの形でセミナーをもつように計画することが望まれる。これは先の蜂屋・似鳥両専門家による放射線医学セミナーが好評であったことから，その必要性を認めることができよう。

4－2　専門家派遣計画

プロジェクトは2年目に入り，今後は徐々に整備されつつあるセミナーなどの人材養成のための短期専門家派遣を行うと共に，長期専門家の派遣も検討している。

1)　平成5年度

長期専門家派遣

外傷外科学	安田直史氏	平成5年秋から派遣予定
医療機器エンジニア	桐澤　明氏	平成6年初頭から派遣予定

＊本分野はミッション派遣時に相手側との交渉の際，短期専門家で対応することとしていたが，その後変更することとなった。

短期専門家派遣

心臓病学	掘　進悟氏	平成5年9月5日から同年9月11日
整形外科学	未定	未定
消化器内科	未定	未定
放射線診断学	似鳥俊明氏	平成5年12月24日から平成6年1月9日
その他		

2) 平成6年度

長期専門家派遣

救急医学/チーフアドバイザー（黒木リーダーの後任，人選中）

脳神経外科

業務調整員

短期専門家派遣

EMT (Emergency Medical Technician)

麻酔学

その他

4－3 研修員受入れ計画

1) 平成5年度

1. 救急医療行政	Ms. Lee Khoon Siew	平成5年10月から1カ月間
2. 救急医療	Dr. Clement Lee Siek Lim	平成5年9月から6カ月間
3. 救急看護	Ms. Bida AK Sanggau	平成5年9月から6カ月間

2) 平成6年度

1. 救急処置技術	Mr. Patrick Jee
2. 医療機器エンジニア	未定
3. 救急医療	未定
4. 救急看護	未定
5. MA指導者	未定

(プライオリティ順)

平成6年度の受入要望として，マレイシア側は5名を希望しているが，わが方の予算に基づき対処する旨説明し了解を得ている。

今まではMO, MA, Nsの受け入れ要望が中心であったが，今般医療機器エンジニア及びMA指導者の受け入れの要望があった。医療機器エンジニアの研修は，新規に供与された機器の保守管理，修理技術の習得を目的としている。本研修に関しては，研修事業部の実施している『医療機器保守合同研修コース』の活用を想定している。

また，MA指導者の研修はカリキュラム，教材の策定と云ったmethodologyを希望している。当該研修についてはこれから検討予定である。

4－4 機材供与計画

初年度はプロジェクト立ち上げのための機材を供与したが，2年度も引き続き前年度整備

が不十分であった機材を供与する。3年度以後は補完的な機材，またスペアパーツ等を中心に供与を行う予定である。なお2年度供与する予定機材は資料2の通りである。

資料2

Amended JICA Equipment List 1993

Particulars	No of Units	Unit Cost	Total Cost
1. Tonometer (standing-type)	3	$ 600	$ 1,800
2. Tonometer (Ticos)	3	$ 1,300	$ 3,900
3. Electric thermometer (desk/table top type)	3	$ 2,000	$ 6,000
4. Traction accessories for operation table (attachable to multi-purpose operating table)	1	$ 8,000	$ 8,000
5. ECG Monitor with pulse oximeter NK BSM-2101, portable with non invasive blood pressure monitor.	2	$ 19,545	$ 39,090
6. Portable Suction Unit, High powered, electrical	1	$ 13,000	$ 13,000
7. Curved Xray Cassettes	4	$ 1,000	$ 4,000
8. Hot water type blanket	2	$ 10,000	$ 20,000
9. Flow meter for oxygen cylinder	5	$ 300	$ 1,500
10. Small standing type freezer	1	$ 1,200	$ 1,200
11. Portable standing type surgical operating light	1	$ 10,000	$ 10,000
12. Plaster of Paris table for children with traction device	1	$ 20,000	$ 20,000
13. Operating microscope Carl Zeiss OPMI CS-I	1	$480,000	$480,000
14. Neurosurgical operation instrument and equipment	1 set	$ 20,000	$ 20,000
15. Pneumatic craniotome/ perforator with pneumatic hand switch	1	$ 15,000	$ 15,000

16.	Magyl airway laryngoscope forceps	2 sets	$ 3,000	$ 6,000
17.	Adult IV Cut down set	3 sets	$ 600	$ 1,800
18.	Infusion pump-droplet (Terumo)	5	$ 3,800	$ 19,000
19.	Ultrasound flow meter for extremeties	1	$ 3,000	$ 3,000
20.	Probes for ultrasound machine (TOSBEE 9SSA-240A) 703B)	1 set	$ 10,412	$ 10,412
21.	Portable lead screen shield	2	$ 10,000	$ 20,000
22.	Lead apron for Radiographer	5	$ 2,000	$ 10,000
23.	Lead/rubber abdominal shield	1	$ 500	$ 500
24.	Xray film viewer for 12 films with carrier	1	$ 10,000	$ 10,000
25.	Refrigerator for blood and blood products	1	$ 25,000	$ 25,000
26.	Suction unit, electrical low pressure	3	$ 8,000	$ 24,000
27.	Adult ventilator compressed air, volume cycled	1	$ 40,000	$ 40,000
28.	Monopolar Diathermy machine	1	$ 20,000	$ 20,000
29.	Emergency Resuscitation Trolley	2	$ 3,000	$ 6,000
30.	Plaster of Paris Trolley complete with accessories & instruments	1	$ 30,000	$ 30,000
31.	Desk-top Steam Steriliser (for rapid sterilisation of small load): 500 mm wide x 560 mm deep	1	$ 20,000	$ 20,000
32.	Pneumatic Bone Drill	1	$ 35,000	$ 35,000

34. Haemoglobinometer	1	$ 5,000	$ 5,000
35. CVP Stand	2	$ 600	$ 600
36. Patient Transfer Trolle (OT)	1	$ 5,000	$ 5,000
37. Paediatric ventilator pressured cycle to ventilate 0-40 kg.	1	$ 32,000	$ 32,000
38. BP transducer kits for BP monitor	3	$ 6,000	$ 18,000
39. Electrodes for blood gas machine.	3	$ 3,000	$ 9,000
40. ICU bed	6	$ 10,000	$ 60,000
41. Orthopaedic operation equipment	1	$ 10,000	$ 10,000
42. Training materials 2 (Video, Books)	1	$ 20,000	$ 20,000
43. Lecture scope & camera for fiberscopes	1	$ 10,390	$ 10,390
44. Scope washing machine	1	$ 31,285	$ 31,285
45. Pedicular screw set	1	$ 5,000	$ 5,000
		Total:	$1,140,477

5. 実施運営上の問題点

1) A/E 責任者の不在

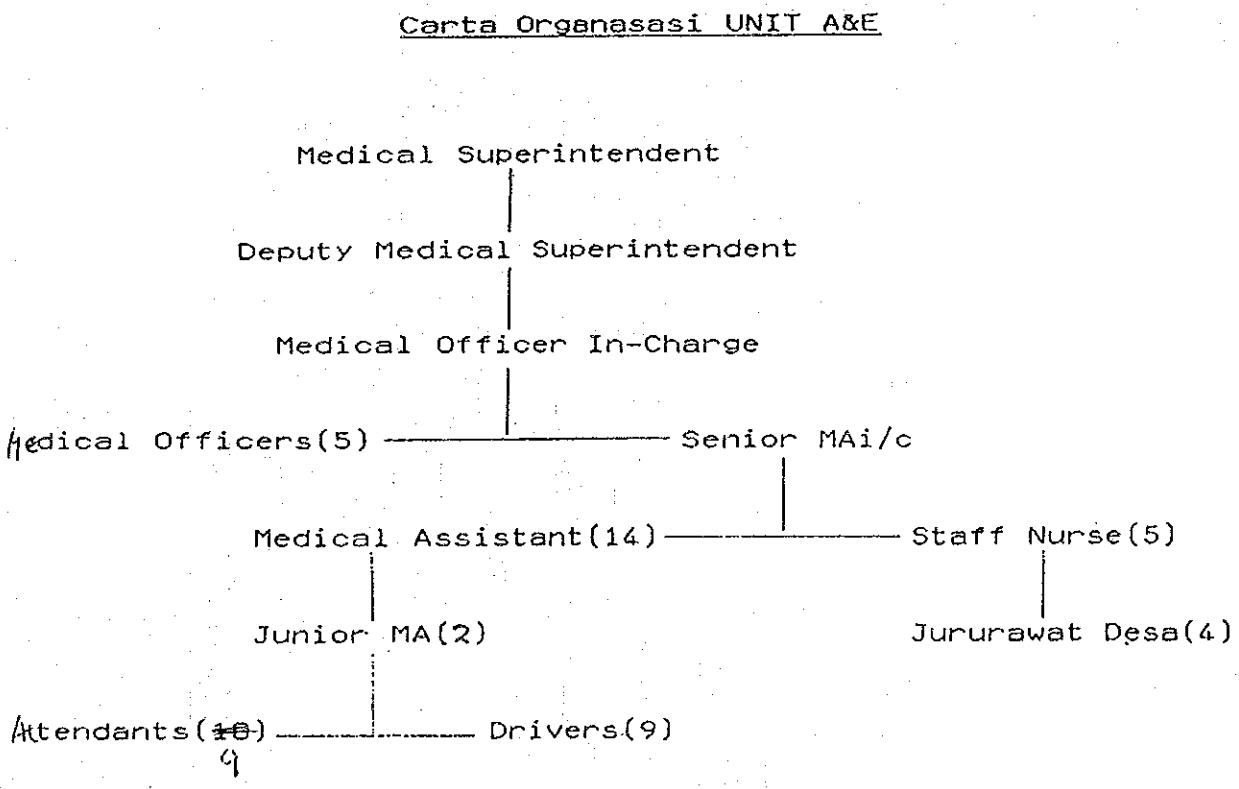
SGH の他の臨床部門はスペシャリストが責任者となり部門を統括しているが，A/E では資料 1 のごとく MO in charge しか直接の責任者におらず，組織運営上下記の点で問題がある。

① MO in charge の病院内における権限が弱く，他診療部門スペシャリストと対等ではない。したがって A/E の機能強化に不可決であるスペシャリストとの連携が取りにくい。

② MO in charge の在任期間は 2 ～ 3 年と短く，A/E に技術的あるいは運営上のノウハウの蓄積が不十分である。

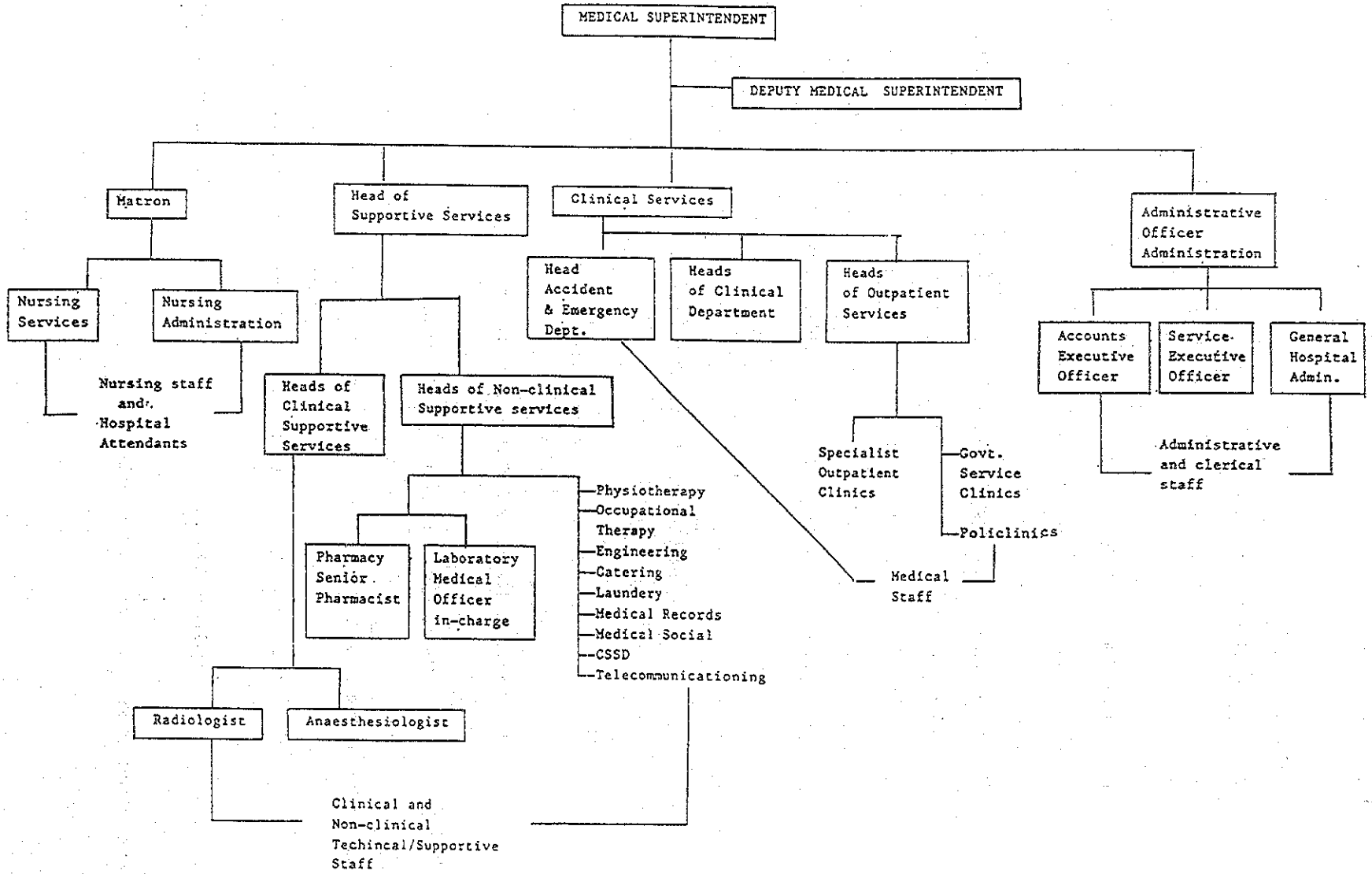
これらに対して，わか方は A/E への専任のスペシャリストの配置を勧告したが，もちろん，以上のような状況はマレイシア側も十分認識している。しかしマレイシア国の恒常的な医者不足が最終的な原因であるため，実現はなお困難な状況にある。

資料 1



5 Ambulances.

ORGANISATION CHART SARAWAK GENERAL HOSPITAL (MANPOWER)



2) A&Eの必要人員の不足

観察室を動かせるだけの機材は投入したが，特に夜間帯においてここに割ける人員はいない。(MO 1人，MA 2人，看護婦1人) 今のところ，救急外来という呼び名がふさわしい。ある程度の観察室を動かすに必要な人員を割だしてみた。またKLGHのA&E職員数を参考としたい。

看護婦必要最低人員は外来部門の補助，観察室及びRES室，産婦の場合は救急車に同乗で 2－2－2 (現在，2－2－1)

MA必要最低人員はTriage受け付け，治療，投薬，救急車同乗で3－3－3 (現在3－2－2)

MO必要最低人員は診察に，2－2－2 (現在1－2－1)

夜勤回数制限を無視した場合でも看護婦10名，MA15名，MO10名となる (MOはafternoon shiftと休日，土曜の夜は2名必要とすると，(6＊70＋5＊52＋4＊243)／265＝6.23で7名，これは外来診察必要数，Emergency Wardの管理はできない。

計算式

連続6日夜勤型勤務者 (看護婦，MA)

X＝ (Y：1日あたり勤務人員数) ＊365＋ (Z：1日あたり夜勤数) ＊183＋ (52：日曜) X＋ (30：年休) X＋ (18：祭日) X

現在の勤務shift	morning shift	9AM-2PM
	afternoon shift	2PM-9PM
	night shift	9PM-2PM

日本においても同様の問題が発生しているが，夜間休日ばかり忙しく終日は閑という事態がある。SGHにPoliclinicが付随していないのも問題だという声があり，尤もと思う。昼間A&Eを受診した非救急患者は車で10分離れたPoliclinic再受診を要請されることには市民の間から不満がある。夜間休日においては，A&Eが外来として忙殺されることには変わりない。しかし少なくとも今回のprojectと期を同じくしてPoliclinicとA&Eのスタッフの分離がなされたのはある意味で失敗だったのではないだろうか。Policlinicには9時から5時まで (ここでは8時から4時まで) が都合の良い家庭もちの女医などが集中しているともいう。

人員の問題として，薬局，受付事務が夜間不在となりMAや看護婦が代行していることが夜間の人員不足に拍車をかけている。昼間だけしか働かない病院職員など不用だと思うが，日本の官公立と同じく悪い習慣がここにもあるのか。事務や薬局部門も夜勤を付けなければ，医師，補助医師，看護婦の負担が増すばかりである。

3) 救急搬送体制の不備

本プロジェクトの協力内容の中にプレホスピタルケアの向上が大きな課題となっているが，基本的なインフラ整備の未発達などの理由により，下記のような現象が生じている。これらを列挙すると

- 救急車を呼んだが中々到着しないため自らがチャーターしたタクシー等を利用して A/E へやって来る。
- 救急車を送ったが位置がわからず引き返してしまう。
- 通報をコントロールする警察の交換機の性能が悪く内容がわからない。
- 日本のようにサイレンを鳴らして救急車が走るわけでなく，機動性にかける。

等がある。結論として既存の救急搬送システムに問題があるため，これを利用する重度の救急患者は少なく，A/E にやって来る患者は比較的 mild な患者が多い。したがって SGH の若手医師にとって臨床研修の場として魅力がある場所とは言い難く，結果的に他の診療部門より本部門を志望する医師は少ない。

4) certification の問題

マレイシア国では従来から英国の医療制度と深く関わっていることもあり，certification は英国を頂点とした英連邦のものが重要視されている。プロジェクトにカウンターパートが積極的に参加するためには本邦研修等に同様のステイタスが与えられなければならないが，本件はマ側で対応を検討することとなっている。

6. 先方との協議結果

6－1 シンガポール総合病院救急部視察

従来からサラワク総合病院とシンガポール総合病院は患者の搬送の面等から関係が深い。また言語風習も近いためカウンターパートの研修先としてcost benefitの観点から優れているといえる。今般シンガポール総合病院救急部のレベルを調査するとともに，カウンターパートの受入れの可能性を聴取した。

その結果，調査団の中では，カウンターパートの受入れ先としては充分な技術レベル体制をもっていると判断された。

シンガポール総合病院では大きくわけて4つの研修コースと2つの卒後実習コースを設けており，近隣諸国から研修員を受け入れている。またセミナー／カンファレンス研究活動も行っている

1) 研修コースは，下記のとおり（資料1参照）
   a) Emergency Medicine Course（6カ月，2～3人，スタートは4月，11月）
   b) Basic Trauma life support
   c) Triage Course for A&E Nurses
   d) Post basic Emergency Nursing (1 year)
2) 卒後研修コース
   a) Basic （3年間）
   b) advanced （3年間）
3) セミナー/カンファレンス
   a) Prehospital Seminers
   b) Poisoning
   c) その他
4) 研究

   調査の結果，MO, Nsを対象としたコースは存在したが，NAを対象とするコースは存在しなかった。これは，シンガポールでは，MOが多く救急の現場では初期処理においてMAの必要性が少ないためとのことであった。

6－2 サラワク総合病院救急部における打合せ

6－2－1 A&Eのリノベーション

A/Eの改築は，とりあえず終了し5月より（1993年）運営を開始したが，保健省側のインシアティブにより更なる改築を行うことになった。3つほど案が出ており，そのうちの1

つを選び，後述の Joint Committee では平成５年９月あたりから工事を始めるとのことであった。

６－２－２　シンガポール総合病院での研修（第３回研修）

JICA のスキームに照らし可能性を検討する。

６－２－３　MA スクールにおける上級コース

クチンで開設予定の MA の上級コースに対し教材作成などで協力を行う。

６－２－４　A&E の責任者（専任）

A&E の専任が配置されておらず運営上問題であり専任者を配置するよう申し入れた。

６－２－５　カウンターパートの人数

A/E の，staff が足りず運営上問題なためマ側に増やすよう申し入れた。

なお，７月より MO は２人増える予定である。（以前は６人であったが，２人減となり再び元に戻る）

６－２－６　Emergency Medical System (EMS)

州政府の権限を越えているため再度 Joint Committe で協議することとなった。しかしながら EMS に従事する人材の養成については我が方も協力を行う。

６－２－７　暫定実施計画

1)　1993年度

専 門 家	短期　３名　長期１名
研 修 員	３名（MA を変更し，副院長の Dr. Lee を受入れる）
機械供与	43,000千円

2)　1994年度

専 門 家	短期　EMT tutor, 麻酔医他数名
	長期　リーダー，調整員，脳外科医（全て後任）
研 修 員	５名を希望
	MA, ME, NS, MO, MAtutor
機械供与	未定

６－３　合同委員会での協議

６－３－１　暫定実施計画，及びその他の既協議事項の再確認

６－３－２　機材供与

サラワク GH では機材購入の際，１年間のメインテナンス経費＋消耗品を契約内容に入れるため，今後の購入の際には留意することとなった。既現地調達分には消耗品が含まれていないためマ側が予算措置しておらず今年度に限り現地業務費の範囲で日本

側で負担することとなった。

6－3－3　協議結果を最終的にミニッツにまとめ，これを資料2に示す。

SUMMARY OF COURSES ORGANISED BY A&E DEPT, SGH

Singapore.

TITLE OF COURSE	DURATION	NO OF TIMES CONDUCTED PER YEAR	COST	COURSE DATES
EMERGENCY MEDICINE COURSE	13-day course (1pm - 6pm weekdays & 8am - 1pm Saturdays)	Twice a year	S$350/-	14th Emergency Medicine Course (10 Apr 92 - 25 Apr 92) 15th Emergency Medicine Course (12 Oct 92 - 27 Oct 92)
CONTINUATION TEACHING PROGRAMME	5 months (2-week intensive 2 hours a day & once a month thereafter)	Twice a year	-	11 May 92 - 22 May 92, 13 Jun 92, 18 Jul 92, 15 Aug 92, 19 Sep 92 16 Nov 92 - 27 Nov 92, 19 Dec 92
BASIC TRAUMA LIFE SUPPORT COURSE	3 full-days course	Thrice a year	S$300/-	5th BTLS Course (25 Mar 92 - 27 Mar 92) 6th BTLS Course (9 Sep 92 - 11 Sep 92) 7th BTLS Course (9 Dec 92 - 11 Dec 92)
A&E POST-GRAD TUTORIAL SESSION	2 hour session	Every alternate Friday	-	-
TRIAGE OFFICERS' COURSE	One week (2pm -5pm)	Twice a year	Not planned yet	1st Triage Officers' Course 4 Jul 92 - 10 Jul 92 2nd Triage Officers' Course 7 Nov 92 - 13 Nov 92
MORTALITY ROUND/UNIT MEETING	2 hour session	Once a month	-	First Thursday of every month
CLINICAL CASE PRESENTATION	2 hour session	Weekly	-	Every Thursday except 1st

A&E TRAINEES IN EMERGENCY MEDICINE

BASIC & ADVANCED PROGRAMME

PROGRAMME	OBJECTIVE	DURATION	REQUIREMENTS	REMARKS
BASIC	To prepare trainees for FRCS (A&E) Edinburgh.	3 years or less.	6 months Surgery posting, 6 months Medical posting and 1 year A&E posting. Also, 3 months each in any mix of medical or surgical type posting.	1. There are presently 20 trainees. 2. 2 are in Edinburgh on a 1-year HMDP programme. 3. Trainees have to attend the post-grad tutorial session once in 2 weeks.
ADVANCED	Graduate education programme to give advanced trainee in-depth clinical experience in the management of medical and surgical emergencies.	3 years.	FRCS (A&E) Edinburgh. The 2 centres for advanced training are SGH and NUH.	1. Trainees will be assigned a supervisor trained in A&E. 2. Supervisor reviews trainees' logbooks at intervals and guides trainee through each phase of training. 3. Trainee will be encouraged to take on research programmes, attend courses on medical statistics and medical writing and also contribute scientific papers at national and international meetings.

REPORT OF VISIT TO SINGAPORE GENERAL HOSPITAL

Sarawak General Hospital
Dr.Yao Sik King M.S.
Dr. Kurogi JICA team leader
Singapore General Hospital A&E
Mr.Lim Swee Keng Head of A&E,Senior Orthopedic Surgeon
Mr. KOh Seoh Kwee Assistant Manager A&E

1.Numbers of A&E Staff are as follows.

	2 consultant		4 consultant
(present)	4 register	(request)	8 register
	22-24 resident		24 resident(MO)
	80-90 nurse		
	10 additional staff		

At present head of A&E is Mr.Lim Swee Keng. He is a senior orthopedic surgeon. Another specialist of A&E is a consultant physician. Registers are finished 3 years basic courses at Edinburgh. The head of A&E is administrative and another consultant is really the director of A&E. An assistant manager who is a senior MA assists the head of A&E. MO is automatically assigned to A&E by Ministry of Health.

2.Doctors shift

8-16	4 doctors
10-18	2 doctors
15-23	1
17-1	1
23-8	1

At Sat. Sun. Mon. more doctors are attached to night sift.
One consultant, one register, some residents are on call 24 hours.Drs must not work more than 50 hours /week.

3. Relation to other department.
All doctors especially specialists have following duties.
a. Total commitment to A&E. Any doctor called by A&E staff must reach A&E within 10 minutes.Response time is recorded. They should teach A&E doctors on the job and by lecture courses. They have to make guidelines and protocol,also.

4. Layout and Service
Emergency entrance is in 1st floor and separated from usual outpatient entrance. Emergency entrance is of 4 automatic doors and 2 doors are for ambulance.In green zone there are 4 triage rooms(bays),automatic BP manometer is set in each triage bay.They have separate cubicles for eye,ENT and dental use,each 9 sqM.
Ambulant patients are brought in resuscitation room directly. 20 observation beds are in A&E, but observation period is 6 hours. Multiple trauma patients are sent from resuscitation room to OT, HCU,ICU directly. The resuscitation room has 4bays in about 36square M. Ceiling mounted X-ray can cover any bay area. At least 2 nurses and 2 doctors gather to the room within first 10 minutes. The average duration in resuscitation room is 1 hour. X-

ray,CT are taken at main radiological dep. in same floor. Main OT is also in same floor. To x-ray examination, a specialist or registrar of each speciality (not A&E) accompany the patient.

5. Ambulance
Patients are usually transported by government ambulance team. A&E has their own ambulance cars, among those one is a high roof highly equipped ambulance. They have motorcycle ambulance team for the cases of traffic jam.
They have two-way radio and mobile telephone in their ambulance. They say two supporting systems are necessary. They keep 3 frequency area for ambulance use.

6. Statistics
Patient number 1300-2073/month to A&E
19% walk in patient
70% intermediate patient
11% critical patient
the peak is in Sat.Sun and Monday.
Discharge within 24 hours will be counted as an unnecessary admission(I don't agree this..KUROGI).In General surgical words it amounts 60%.

6. Training at A&E.
3-4 doctors are under a package training of 3months course.
Course fee is 51 Singapore $ and they can accept participants from neighboring countries.
Before working at A&E they have 5M(2w 2hour/day followed by once a month)

7. Impression
a.Top of A&E is in a high position in the hospital, and given authority to order to specialists.
b. They have been making much effort to attract staff by scholarship or send for training etc.

15th march 1993
Dr. Kurogi Hirohumi
JICA CHief Adviser of SGH A&E project

Report of Seremban General Hospital

17th March 1993 8:30-15:00

SGH MS Dr.Yao Sik King
JICA Dr. Kurogi
Seremban Hospital
Dr.Palam MS
Dr.Thava Deputy MS, responsible to MA school
Mr.Javal senior MA
Dr.Shong H.K. orthopedic specialist in charge of A&E
D.Punitha MO in charge A&E
Mad.redziah Matron

1. Dr.Shift

8-14	1	8-16	1	by 6 doctors(7 doctors necessary)
14-20	1	16-23	1	
20-8	1			

Doctors are on 1 month rotation from OPD pool (20 doctors). In OPD pool many doctors are pregnant or just married.
MA and nurses are fixed to A&E. Most of MAs are already undergone month MA courses.

2.Layout
A&E and orthopedic department are in same floor. The consultant orthopedic take charge in A&E.
Resuscitation room is divided to 4 bays, 40 sqM width.
Observation room is 54 sqM width. Two minor OT and POP room have 12 sqM width each.
Main OT is of 5 rooms. They have 2 ortho OT,1 eye OT,1 O&G OT also.(The sum number of OT is 11)

3. Admission is decided by MO/A&E except CCU.

MA school in advanced course

1. Well managed by small number of staff
2. Much effort would have been done to conquest the lack of teaching materials.
3. At present almost all teaching materials are arranged, semi-automatic defibrillator,scoop stretcher, roll in stretcher, neck and head fixator,shock pants,laryngeal mask, esophageal obstructive air way...
4. Tutors are keen and enthusiastic about teaching and training.

18th march 1993
Dr. Kurogi Hirohumi
JICA Chief Adviser of SGH A&E project

資料2

Bil (15) dlm KKM 65/15/1/1/6 vol 3

RECORD OF JOINT COORDINATING COMMITTEE MEETING:
JICA SARAWAK A & E SERVICES -UPGRADING PROJECT

Date: 2 July 1993
Time: 10.00 a.m.
Venue: Meeting Room 1, Planning & Development Division
Ministry of Health(MOH), Malaysia

Present:

1.	Y.Bhg.Dato'Dr.Megat Burhainuddin bin Megat Abdul Rahman	Director, Planning & Development (P&D) MOH (Chairman)
2.	Datin Dr. S. Selvaraju	P&D Division ,MOH
3.	Prof.Dr.Kazuo Takeuchi	President Kyorin University
4.	Prof.Dr.Syuji Shimazaki	Kyorin University
5.	Prof.Dr.Kazuhiko	University of Tokyo
6.	Dr. Kurogi Hirofumi	JICA Sarawak General Hospital (SGH) A&E Project leader
7.	Mr. Arima Mitsumasa	JICA Coordinator
8.	Mr.Hiromu Yoshida	JICA, Tokyo
9.	Mr.S.Kohiyama	JICA K.L.
10.	Ms.S.Misumi	JICA K.L.
11.	En.Mohd Sani Mistan	External Assistance Section EPU
12.	En.Hassin Abd. Rahman	Social Section EPU
13.	Dr.Shahidah bte Abd. Manaf	Medical Services Division MOH
14.	Dr.Yao Sik Chi	Deputy Director Medical & Health Services Sarawak
15.	Dr.Yao Sik King	SGH
16.	Dr.Abu Hassan	A&E Dept. GH KL.
17.	Dr.Peter Low	P&D Division MOH
18.	Ms.Gooi Wan Yegt	P&D Division MOH

1. Opening Remarks by Chairman

1.1. The Chairman thanked the members of the meeting for their attendance at the second meeting of the Coordinating Committee.

2. **Confirmation of Minutes**

The minutes of previous meeting of the Joint Coordinating Committee held on 21 Jan 1993 was adopted without amendments.

3. **Matters arising**

3.1 **Operational Policies** of SGH A&E department has been formulated with inputs from JICA. MOH Medical Services Division and GH KL A&E Department were invited to comment on the policies.

3.2. **1992 Annual Work Plan**

3.2.1. Extension works of new specialist clinic block had been completed.

3.2.2. The equipment had been updated and inventoried.

3.2.3. On-going staff training included 3 persons (doctor, nurse and medical assistant) being trained at Kyorin University with additional attachment at the Tokyo Metropolitan Fire Department for the medical assistant.

3.2.4. Public Education pamphlets had been produced and circulated.

4. **Annual Work Plan 1993**

The annual work plan 1993 (appendix A) was presented by Dr Yao Sik King. The Medical Services Division and GH KL A&E Department were requested to give their comments on the work plan within one week. Should any changes be required to conform with national policies, Medical Services Division will be coordinating the necessary changes, if any.

Action: Medical Services Division
A&E Department GH KL

5. **Confirmation of Budget**

The budget from JICA for the financial year 1993 is 43 million Yen.(Approx. RM 1 million) for equipment.

6. **Equipment Planning**

6.1. The Amended JICA Equipment List 1993 has been submitted to EPU which had subsequently forwarded it to JICA KL office for the necessary action.

6.2. As the Amended JICA Equipment List 1993 will cost more than RM 1 million, it will be prioritized by SGH.

6.3. It is noted that this particular equipment budget did not include consumables and maintenance costs. These costs cannot now be obtained from MOH's operating budget for the years 1993 and 1994 as these have already been prepared and approved much earlier. JICA kindly agreed to provide another budget for this purpose to cater for consumables and maintenance of those equipment which has been bought to date.

6.4. Future equipment budget must include consumables and maintenance costs for the first year of operation.

6.5. The hospitals in Miri and Bintulu need to be equipped with the basic neurosurgery kit. A special paper will be prepared for submission to JICA through Medical Services Hospital Division. Similarly, JICA has asked for another paper to justify the purchase of training materials such as CPR models for hospitals other than SGH.

Action: Sarawak GH/JICA

7. **Training Programme**

7.1 The following training programme had been carried out:-

7.1.1. Aug/Sept 1992
Courses on CPR, basic life support, First Aid and Airway management for all the doctors, nurses, medical assistants(M.A.) and ambulance drivers of the A&E Dept.in SGH.

7.1.2. Mar 1993
On-going 3-month attachment to A&E Dept.for 2 medical officer from SHG Anaesthesiology Dept.

7.1.3. April 1993
EMT training for nurses and M.A.

7.1.4. May 1993
On-going 2-week attachment to SGH main OT for airway management training on rotation.

7.1.5. Feb 1993
Radiological seminar for doctors in Kuching, Sibu, Miri.

Action: Training & Manpower Div. MOH

7.2 **Attachment**

Experts from Japan will be attached to SGH both as long term and short term experts. These include one traumatologist (1 year), cardiologist (1 week) and gastroenterologist.

Action: For information

7.3. **Certification of Training**

As an incentive to attract doctors to A&E services the certification of doctors trained in Japan is being studied.

Action: Training & Manpower Div. MOH

7.4. **Training in Singapore as an Alternative**

As personnel especially young doctors are reluctant to accept training fellowships to Japan because of the length of time required, JICA suggested that Singapore GH may be considered as alternative training centre.

As this suggestion involve a third party, MOH will need to study the implications.

Action: Medical Services Division

7.5. **Scope of Work for Medical Assistants**

M.A. working in the A&E Department are involved in special areas of work such as defibrillation and endotracheal intubation. In view of the legal implication of such scope of work, the M.A.s and nurses in the A&E Department must be considered to be working under the supervision of the doctor-in-charge.

The status of M.A. with A&E training was discussed. The meeting felt that if this specialised group is to be a given special status then other specialised groups may also request for similar consideration.

7.6. **Career structure of Doctors in A&E**

To ensure hierarchy of care and continuity of trained staff, the career structure of Specialists in A&E is being studied by the Hospital Division.

Action: For Information

8. **Other Matters**

8.1. **Pre-hospital Care**

JICA felt that the existing pre-hospital care in Sarawak needs to be upgraded especially in first responder care, communication system and transport system. MOH is aware of this and measures are being taken.

8.2. **Master Plan of SGH**

Under the Master Planning component of ADB Loan, seven hospitals including SGH will be upgraded. One of which is SGH. This activity will complement the A&E upgrading project of JICA.

Action: For Information

9. **Technical Committee**

Dr. Abu Hassan from GHKL A&E Department was invited to sit in the Technical Committee.

Action: Sarawak GH

10. **Adjournment**

The Chairman put on record the Malaysian Government's appreciation of JICA's technical and funding assistance under this project and adjourned the meeting with thanks at 12.10 pm.

PLANNING & DEVELOPMENT DIV.
MOH
5.7.1993.

Cr: gooi/JICA.sgh/A.