資料

1) technical committe 議事録

2) クアラルンプールにおける救急セミナー資料

1) technical committe 議事録

HOSPITAL UMUM SARAWAK,
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Minutes of the 1st Meeting of the Technical Committee for JICA PROJECT - UPGRADING AND IMPROVEMENT OF ACCIDENT & EMERGENCY SERVICES IN SARAWAK, on 3rd October, 1992 : Venue - Mini Conference Room, Sarawak General Hospital, Kuching.

AGENDA:

1. Annual Work Plan - Training
   - 1.1 Goals of training
   - 1.2 Trainer
   - 1.3 Methods of training
   - 1.4 Training Plan
2. Technical Matters of Annual Work Plan
3. Monitoring or Evaluation of the Project
4. Issues concerning Implementation of the Project
5. JICA Scheme
6. JICA equipment List for FY 1993
7. Cooperation Plan for the Project and Annual Work Plan for FY 1992 & 1993

PRESENT :

DR. H. YADAV	CHAIRMAN, MEDICAL SUPERINTENDENT
DR. K. CHANDRAN	PHYSICIAN
DR. GOH KIANG HUA	HEAD, GENERAL SURGERY DEPT.
DR. WONG MAY SUM	HEAD, ANAESTHESIOLOGY DEPT.
DR. PATRICIA LING	AG. HEAD, O & G DEPT.
DR. KHIN MAEUG WIN	HEAD, ORTHOPAEDICS DEPT.
DR. NORULHUDA	HEAD, RADIOLOGY DEPT.
DR. YAO SIK KING	DEPUTY MEDICAL SUPERINTENDENT
DR. PETER TING	MOIC, A & E DEPT. SGH
HJ. SERUJI b. ACHEK	SMA, A & E DEPT. SGH

CO-OPT MEMBERS :

PUAN IVY LIM	MATRON, SGH
MR. TING ING ONN	SENIOR PHARMACIST, SGH

JAPANESE SIDE :

DR. KEIICHI IKEGAMI	TEAM LEADER
DR. YUJI ASOH	NEUROSURGEON
MR. M. ARIMA	PROJECT CO-ORDINATOR
MS. Y. SUGIE	NURSE

ABSENT :

DR. TAN POH TIN	HEAD, PAEDIATRICS DEPT.
DR. CHEW PENG HONG	HEAD, MEDICINE DEPT.(on leave)

CHAIRMAN OPENING REMARKS :

DR. Yadav welcomes all present to this first meeting of the Technical Committee which from henceforth is to meet monthly or whenever necessary. He also welcomes and introduces all 4 members of the JICA TEAM. Refernce is made to the TERMS OF REFERENCE for the Technical Committee (a copy is as attached). He also briefly explains the nature of the JICA PROJECT which consists of 3 broad aspects, i.e. transfer of technical knowledge and skills through despatch of Japanese experts, training and donation of equipment.

1. ANNUAL WORK PLAN - TRAINING

1.1 Goals of training

Dr. Yao Sik King proposes that the priority categories of medical personnel identified for training must include the Medical Officers, Medical Assistants and nurses. Other categories of medical staff that may be included for basic training can be the ambulance drivers and hospital attendants working in A & E Dept. The proposed level of training to be achieved for the above priority staff categories is as follows:

MO of the A&E Dept.SGH	level of #certified emergency physician
MO of A&E Dept. Sibu & Miri Hospitals	same as above
MO of district hospitals	capable of ACLS and #trauma life support
MO of the wards	same as above
MA of A&E Dept.	level of #Emergency Medical Technician
MA of PK & KD	same as above
Nurse of A&E Dept.	level of #emergency nurse
Nurse of the wards	capable of CPR (BCLS)

Note : # see Appendix 1

All present are in favour of the above proposal. However, the Chairman pointed out that a special paper needs to be prepared and brought to the attention of Director, Datuk Dr. Stalin Hardin concerning the ability of the Medical Assistants to defibrillate, set up IV lines and intubate after completion of their training. This is because currently the above procedures are not allowed based on their existing list of duties. The points in favour of the Medical Assistants be allowed to perform their newly acquired skills are :

a) Medical Assistants (Anaes.) are already performing intubation and setting IV lines.

b) Medical Assistants in Sarawak are the backbone of health care delivery system in the rural areas and will play the most important integral part in improving pre - hospital emergency care services.

1.2 Trainer

1.2.1. Japanese Expert (long term - 1 to 2 years)

a)Emergency Medicine Specialist

i)Training program : Triage of emergency patients, emergency room care for trauma/non-trauma patients, burn care

ii)On-the-job training : CPR, emergency procedures, stabilization of critical patients, emergency operations

b)Neurosurgeon

i)Training program : Management of head injury patients, CVA and brain tumours

ii)On-the-job training : Emergency (elective) neurosurgery operations, pre - and postoperative neurosurgical care, diagnostic procedures

c)Nurse

i)Training program : CCU/ICU nursing, emergency nursing

ii)On-the-job training : emergency nursing

1.2.2. Japanese Experts (short term - 1 to 3 months) - at least 3 for each fiscal year

The specialists feel that in order to maximise the expertise of the short term JICA Experts, the timing of their arrival should coincide with the dates of training courses being planned for each year. Suggested JICA short term experts by Dr. Ikegami are : Orthopaedic Surgeon, Cardiologist, Radiologist and Gastroenterologist.

1.3. Methods of training

It is proposed that there be 3 venues for conducting the training courses - Sarawak General Hospital, Sibu Hospital and Miri Hospital. The reasons being :

a) cheaper to have regional training centres, with Kuching catering for staff from Kuching, Kota Samarahan and Sri Aman divisions, Sibu catering for Sibu, Kapit and Sarikei divisions and Miri catering for Miri, Bintulu and Limbang divisions.

b) each of these 3 hospitals and towns may have emergency cases peculiar or specific to their catchment areas.

c) Sibu and Miri hospitals are the first referral hospital for their respective regions in terms of provision of "specialist" A&E care, before the patients are referred to SGH.

The methodology of training proposed will include :
a)Formal lectures/workshop
b)On-the-job training at the A&E Dept. (transfer of practical skills)
Duration of each training course proposed: 1 - 2 weeks

As for Malaysian counterparts training in Japan, up to 10 can be nominated for each fiscal year. For FY 1992, 3 nominees have been submitted unofficially to JICA. By end October,1992, official nominations have to be submiited using Form A1 to JICA. The 3 nominees are:
Dr. Peter Ting
MA Hosni b. Abdullah
SN Veronica Wong
The proposed place(s) for their training is as follows:

MO	Kyorin University Hospital(mainly in the Tertiary Emergency Centre)
MA	Tokyo Fire Dept. and Kyorin University Hospital(Tertiary Emergency Centre)
Nurse	Kyorin University Hospital(Tertiary Emergency Centre)

1.4. Training Plan

1.4.1. FY 1992 (until 31.3.1993)

Long Term Experts : It is suggested that the Emergency Medicine Specialist, Neurosurgeon and the Nurse each conduct at least one training course within FY 1992.

Short Term Experts : If the expert is here for 3 months, it is suggested that he conducts at least 1 course per month. Should the venue of the training course be outside Kuching, it is suggested that both the long term and short term experts go together as trainers.

The tentative dates for the training courses conducted for FY 1992 are : January, February and March, 1993.
The tentative courses are shown as in Appendix 2

1.4.2. FY 1993

It is suggested that the long term experts each conduct at least 4 courses with or without the short term experts.
It is suggested that short term experts to be requested by Malysia for FY 1993 include a Medical Engineer, Traumatologist and Orthopaedic Surgeon.
The number of courses to be conducted by the short term experts for 1993 are similar to what is proposed for 1992.

2. TECHNICAL MATTERS OF ANNUAL WORK PLAN

2.1. Role of MA

As discussed earlier, clarification needs to be sought regarding the ability of trained MAs to defibrillate, set up IV lines and intubate.

2.2. Training Houseman in A&E Dept.

All specialists present are in favour of rotating the HOs for 2 weeks to 1 month in the A&E Dept., SGH as initial exposure and acquisition of awareness of emergency patients management. However, they feel that it is only possible to post HOs to A&E Dept. from 1994 onwards, allowing the department itself to be more systematically organised first. It is generally felt that HOs from Surgery, Orthopaedics and Medicine Depts. should be involved.

3. MONITORING OR EVALUATION OF THE PROJECT

Suggested indicators are as follows :

- No. of staff trained
- No. of trained staff able to perform skills acquired correctly
- Equipment donated
- Ambulance response time
- 24 hrs. mortality after injury/onset of illness
- No. of complaints from clients

4. ISSUES CONCERNING THE IMPLEMENTATION OF THE PROJECT

4.1. JICA Scheme

Mr. Arima and Dr. Ikegami briefed the various procedures required by JICA. JICA fiscal year is April to April(31st March) and activity year is August to August. Request for JICA Experts has to be submitted using Form A1 and for equipment using Form A4. For details, refer appendix 3.

4.2. JICA Office

4.2.1. Request for JICA driver - Mr. Arima informed that for 1992, JICA is renting a car for use by Japenese experts and for 1993, a car or 4WD will be purchased. JICA cannot employ a full-time driver on monthly salary, only part-time short-term driver can be employed. As such, he requests the assistance of Sarawak Medical Dept. to provide a driver. The Chairman says that he will refer the matter to Datuk Dr. Stalin Hardin.

4.2.2. Request for a secretary/typist/clerk

Dr. Yao informs that a letter has been sent to DMS for approval to employ a daily-paid clerk; so far, no reply from HQ. The Chairma. says he will speak to DMS again on this matter.

4.2.3. Request for a direct telephone/fax line

This is already approved by DMS. Hj. Seruji has already written to Telekom.

4.3. Clinical activity of long term experts

In particular, Dr. Yuji Asoh, Neurosurgeon faces some problems. Outstation hospitals and the general public are approaching him directly for elective neurosurgery. He is assured emergency neurosurgery is the priority at the present moment due non-availability of OT time. DDMS(Hospital) Dr. Yao Sik Chi will issue a state-wide circular to this effect and to refer such cases to Mr. Goh. He will also write to KLGH and JBGH reminding them to continue accepting out state elective neurosurgery referrals.

5. JICA Scheme

No objection; for details refer Appendix 3

6. Equipment LIst FY 1993

A tentative list has been prepared by Dr. Yao Sik King. The list has to be submitted to JICA KL by end of October, 1992. for details, refer Appendix 4.

7. COOPERATION PLAN FOR THE PROJECT/ANNUAL WORK PLAN

The Chairman proposes that the Cooperation Plan be in tabulated form for the 5 years period. He suggested a separate meeting among the four of them; himself, Dr. Yao Sik King, Dr. Peter Ting and Dr. Ikegami to formulate this. The annual plan for 1992 and 1993 will be details of activities broadly stated in the Cooperation Plan.

8. Other matters arising

Dr. Yao Sik King informed that the renovation of the existing A&E Department building is delayed due to delayed completion of the new Specialist Clinic Block. The new Specialist Clinic Block is expected to be completed and be handed over by J.K.R./Contractor to Sarawak Medical Department by the end of October 1992. On 31st September, 1992 Mr. Wong, Architect from Kompulan Design, held a meeting with Dr. Yao Sik King, Dr. Peter Ting, and Dr. Keiichi Ikegami to discuss the desired internal layout of the proposed renovated A&E Department. At list of equipment according to the various rooms was also attached for Mr. Wong's attention.

The meeting adjourned at 1.00 p.m.

"QUALITY SERVICE MAKES A DIFFERENCE"
"BERKHIDMAT UNTUK NEGARA"

Recorded by:
Dr. Yao Sik King

DR. H. YADAV
Medical Superintendent,
Sarawak General Hospital,
Kuching.

Ref: HUS/408/B/V.2/78

Date: 5/10/1992

Distribution:
All Committee Members

YSK

Appendix

Certified mergency physician: certified by JPN Association for Acute Medicine

ACLS, Trauma Life Support

Advanced Cardiac Life Support

Management of trauma, organ failure, poisoning, burn, and acute illness

Trauma Life Support: contents

Assessment of trauma victims

Airway management and ventilation

Resuscitation of patients in shock

Chest trauma management

Abdominal trauma management

Head trauma assessment and management

Spine and spinal cord trauma assessment and management

Extremity Immobilization

Stabilizaiton and transport

EMT level: BCLS, airway management, give IV line, semi-automatic defibrillator

Ambulance man level: care of the injured and acutelly ill patients, triage

Emergency nurse: trained to care all emergency patients

Emergency physician: (revision of qualification for emergency physician in JPN)

A. Technique (absolutely necessary)

- CPR (ACLS)
- Intubation
- Bag-mask ventilation
- Defibrillation
- Insertion of Folley's catheter
- Arterial catherterization
- Measurement of arterial blood gas
- Measurement of electrolytes
- Spinal puncture
- Splinting of fracture
- Simple suture
- Tamponade for nasal bleeding
- How to use respirator
- Chest tube insertion
- GI tract lavage
- Placement of CVP line
- Venous cutdown

B. Technique (relatively necessary)

- Tracheotomy
- Preicardiocentesis
- Insertion of Sengstaken-blakemore tube
- Peritoneal tap/lavage
- General anesthesia
- Skeletal traction for fractures
- Vascular pressure monitoring
- Fasciotomy
- How to use MAST
- Cystostomy
- Measurement of cardiac output

C. Knowledge (necessary)

- Evaluation of emergency radiology
- Evaluation of emergency ECG
- Indioation of emergency operation

Evaluation of emergency laboratory data

Differential diagnosis of unconscious patient

Management of shock

How to use emergency drugs

Indication of defibrillation

Differential diagnosis of respiratory distress, chest pain, abdominal pain, GI bleeding, and arrhythmias

Management of burn

Indication of hemodialysis

Correction of electrolyte imbalance

Correction of acid-base imbalance

Treatment of intoxication

Diagnosis of brain death

EMT level: CPR, airway management, give IV line, semi-automatic defibrillator

Emergency nurse: trained to care all categories of emergency

Trauma Life Support: contents

Assessment of trauma victims

Airway management and ventilation

Resuscitation of patients in shock

Chest trauma management

Abdominal trauma management

Head trauma assessment and management

Spine and spinal cord trauma assessment and management

Extremity Immobilization

Stabilizaiton and transport

Ambulance man level: emergency care and transportation of the injured and acutelly ill patients, triage

a. Radiologist

Title: diagnostic imaging for emergency cases
(what to order, how to read)

Date: January 1993

Place: SGH, Sibu hospital, Miri hospital

Trainee: MOs, MAs, (radiographer)

Method: lecture without practice and on-the-job training

b. Cardiologist (ABC in ECG, management of cardiac emergency)

Title: * ABC of ECG
* Diagnosis and management of ischemic heart disease
* Diagnosis and treatment of arrhythmias

Date: February 1993

Place: SGH, Sibu hospital, Miri hospital

Trainee: MOs, MAs, Ns

Method: lecture with practice

c. Gastroenterologist

Title: how to use sonography for abdominal emergency

Date: March 1993

Place: SGH, Sibu hospital, Miri hospital

Trainee: MOs, MAs

Method: lecture with practice and on-the-job training

Note: These training courses are tentative.

1.4.2. FY 1993 (from 1.4.93) (proposal)

1) Long term experts

2) Short term experts

a. Medical engineer (maintenance of donated medical equipment)

b. Traumatologist (treatment of extensive burn - a team approach)

Appendix 3

JICA scheme:

1992	9	Equipment List for Fiscal Year (FY) 1992 (with A4 form);done
	10	Donation of equipment for FY 1991(first part)
		A2-3 form for C/P training for FY 1992
		operation policies/standing orders
		Team leader: Ikegami→ Kuroki
		Request for JPN expert(short term) for FY 1992 (A1 form)
	11	Equipment List for FY 1993 (A4 form)
		Request for JPN expert(short term) for FY 1993 (A1 form)
	12	Request for C/P training (unofficial/official) for FY 1993
		? despatch of C/P (FY 1992) to JPN
1993	1	Leader Meeting (TOKYO: annual plan for 1993)
		(? Mission)
		Dispatch of JPN expert1 (short term)
	2	(? donation of equipment for FY 1991)
		Development of training programs
		Preparation of treatment manuals
		Dispatch of JPN expert2 (short term)
	3	? New A/E Dept
FY 1992		
	1	Dispatch of JPN expert3 (short term)
	4	
FY 1993		
		(? donation of equipment for FY 1992)

JICA EQUIPMENT LIST FOR FY 1993

	particulars	No. of Units	Unit Cost	Total Cost
1.	Ambulance, fully equiped with: Oxygen therapy equipment Portable ventilator Resuscitator set Portable Defibrillator with 3 ECG leads monitor Portable Suction apparatus Wheeled light-weight Adjustable Trolley Two way radio set/walkie-talkie Rescue kit equipment & accessories	1	$300,000	$300,000
2.	Laerdal Disaster Kit	4	$12,000	$48,000
3.	A&E Patient Trolley/ Trauma Stretcher (Stryker)	3	$20,000	$60,000
4.	Two way radio/telephone communication set/system between Ambulance and A&E Department, Sarawak General Hospital Ambulance Services Station.	1	$100,000	$100,000
5.	Diathermy Machine	1	$30,000	$30,000
6.	Blood Warmer	2	$5,000	$10,000
7.	Blood Pump	4	$250	$1,000
8.	Glucometer	1	$1,000	$1,000
9.	Portable Defibrillator with ECG Monitor	1	$25,000	$25,000
10.	Neurosurgery Operating set of Instruments	1 Set	$100,000	$100,000
11.	Orthopaedic Operating set of instruments	1 Set	$60,000	$60,000

...../2

	particulars		No. of Units	Unit Cost	Total Cost
12.	LAERDAL Equipment for ACLS Training.		1	$29,655.00	$29,655.00
	(a)	Skillmeter Resusci-Anne.	$5,420		
	(b)	Heartsim 2000	$7,050		
		Haemodynamic Waveform Module	$ 925		
		Ventricular Fibrillation Module	$ 370		
		ECG Sequence Module	$ 370		
		Defibrillator Training System Module	$ 925		
	(c)	Easy Defibrillator Training System including training mannequin with defibrillation skin, mini heart sim & monitor interphase.	$14,595		
13.	New ECG machines (Currently 1 new & 1 old units)		2	$ 2,000.00	$ 4,000.00
14.	Fetal Doppler (Daptone)		1	$ 6,000.00	$ 6,000.00
				Grand Total:	$772,655.00

N.B.: The above items are gross estimate with custom tax duties.

As alternative equipment list should ambulance be not approved/requested

1.	Slit Lamp with Tono meter	1	$15,000	$15,000
2.	Indirect Ophthalmoscope	1	$6,000	$6,000
3.	Direct Ophthalmoscope	1	$4,000	$4,000
4.	Snellen Chart: Motorised and Illuminated	1	$3,000	$3,000
5.	3 mirror Goldman contact lens	1	$4,000	$4,000
6.	Panfundoscopic Lens	1	$4,000	$4,000
7.	Asphenic lens 20D, 30D, 90D 2.2	1 each	$2,000	$2,000
			Total:	$38,000
8.	Examination lamp-fibreoptic halogen (Welch-Allyn Model)	1	$3,000	$3,000
9.	Head mirror-King's College Hospital.	1	$200	$200
10.	Head Light C/W light source: Portable battery carrier/ transformer	1	$5,000	$5,000
11.	Welch-Allyn Otoscopy Set	1	$1,500	$1,500
12.	Ear Speculum			
	a) Yearsley aural specula	1 set of 3	$500	$500
	b) Tumarkin (Fenestrated black)	1 set of 4	$1,000	$1,000
13.	Foreign body removing forceps:			
	2 peanut forceps: 1 adult/1 child 1 toothed forceps 1 pin removing forceps 1 denture cutting forceps			$1,200
14.	Complete tracheostomy set (Inclusive of instruments & tracheostomy tubes)	1	$2,500	$2,500

15.	Metal suction tubings for use with: Oesophagoscope and Bronchoscope Long - 1 Medium - 1 Paediatric - 1			$800
			Total:	$15,700
16.	Ceiling-mounted static X-ray machine c/w patient table and accessories	1		$250,000
			Grand Total:	$303,700

Appendix 5

JICA Technical Committee

1. Terms Of Reference

1.1 The Technical Committee will meet monthly or whenever necessary:

(a) To formulate an annual work plan of the project.
(b) To assist the Joint Coordinating Committee in reviewing and recommending on the technical matters of annual work plan of the project.
(c) To monitor and evaluate project activities and outcome.
(d) To discuss any issues concerning implementation of the project.
(e) To report regularly to the State Planning Committee of Sarawak Medical Department.

2. Composition

2.1 Chairman
Medical Superintendent of the Sarawak General Hospital.

2.2 Members

Malaysian Side
(a) Deputy Medical Superintendent.
(b) Head of Accident & Emergency Department of the Sarawak General Hospital.
(c) Relevant specialists of the Sarawak General Hospital such as Orthopaedic, General Surgeon, Medicine, OB/GYN, Paediatrics, Radiologist, Anaesthesiology.
(d) Chief Medical Assistant.
(e) Coopt Members.

Japanese Side:
(a) Leader.
(b) Coordinator.
(c) Other experts and personnel concerned to be despatached by JICA, if necessary.

Minutes of the 2nd Meeting of the Technical Committe for JICA PROJECT - UPGRADING AND IMPROVEMENT OF ACCIDENT & EMERGENCY SERVICES IN SARAWAK, on the 14th November, 1992.

Venue:

Conference Room, Sarawak General Hospital,
Kuching.

Time :

9.30 a.m On 14th November, 1992

Agendas :

A. Approval of the 5 Year Co-operation Plan.
B. Approval of the Annual Work Plan for Fiscal Year 1992.
C. Approval of the Training Programme until December 1993.
D. Any matters arising.

PRESENT:

DR. YAO SIK KING	CHAIRPERSON, DEPUTY MEDICAL SUPERINTENDENT
DR. CHEW PENG HONG	HEAD, GENERAL MEDICAL DEPT.
DR. GOH KIAN HUA	HEAD, GENERAL SURGICAL DEPT.
DR. WONG MAY SUM	HEAD, ANAESTHESIOLOGY DEPT.
DR. NORULHUDA	HEAD, RADIOLOGY DEPT.
DR. PATRICIA LING	AG. HEAD, O & G DEPT.
DR. KHIN MAEUG WIN	HEAD, ORTHOPAEDICS DEPT.
DR. PETER TING	MOIC, A & E DEPT. SGH
MA MOHD. HOSNI	AG. SMA, A & E DEPT. SGH

JAPANESE SIDE :

DR. HIROFUMI KUROGI	TEAM LEADER
MR. MITSUMASA ARIMA	PROJECT CO-ORDINATOR
MS. YOSHIKO SUGIE	NURSE

ABSENT :

DR. H. YADAV	MEDICAL SUPERINTENDENT, SGH (on leave)
DR. TAN POH TIN	HEAD, PAEDIATRICS DEPT. (on leave)
DR. YUJI ASOH	NEUROSURGEON, JICA (operation theatre)
HJ. SERUJI B. ACHEK	SMA, A & E DEPARTMENT (on leave)

CHAIRPERSON OPENING REMARKS :

DR. Yao commenced the second meeting of the Technical Committee by welcoming all present.

A. Approval of the 5 Year Co-operation Plan.

The Goal of the JICA Project is to improve the pre-hospital care and develop 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.

The objectives are
a.) To enhance the functions and scheme of the A&E Dept. at SGH.
b.) To develop A&E Care as a speciality.
c.) To develop training programme for A&E Care in Sarawak.

To achieve the above objectives, the following strategies and activities were discussed and agreed upon by the members of the technical committee (Please refer to the attached copies of the Cooperation Plan.)

The Cooperation Plan is to be submitted by the chairperson of the technical committee to the Director of Medical Services, Sarawak for approval.

B. Approval of the Annual Work Plan for Fiscal Year 1992.

The following list of the Annual Work Plan 1992 were discussed and agreed upon by the members of the technical committee.

1. Renovation and Extension of the A&E Department, Sarawak General Hospital:

a) Readjustment of the present A&E Department to maximise function and service into an emergency and non-emergency zones. This was done in September 1992.

b) The use of the space in the new specialist clinic building to house the A&E Department to enable the renovation and extension of the Department to be done. This move is expected to be done in January 1993.

c) To move into the completed A&E Department, expected in March 1993.
The design of the renovation and extension plan was discussed and generally agreed upon.

2. Provision of machinery and equipment under JICA Project.

The list of equipment for Japanese fiscal years 1991 and 1992 are mentioned in the attached copies.
Some of the equipment will be delivered in January 1993 while others on the list will be delivered in March 1993.

The chairperson requested the various members of the technical committee to give their input to make the list for fiscal year 1993. Dr. Chew Peng Hong felt that in order to make the appropriate list, the scope of the fully functional A&E Department need to be ascertained.

Dr. Kurogi raised the point that the maintenance of the machineries and equipment must be done by the supplier as well as the staffs of Sarawak General Hospital.
In addition, Dr. Kurogi stated that the supply of consumables must be made by the Sarawak General Hospital.

3. Training of staffs of the medical department.

a) 3 personnels of A&E Dept are scheduled to be despatched to Japan in January 1993.

A list of the staffs for training in Japan for fiscal year 1993 is attached.

b) The training programme for the medical staffs of the A&E Department by the JICA experts in collaboration with the local specialists is on the attached copy.

4. Establishment and implementation of the operational policies and the standing order.

a) The final draft of the operational policy is completed and pending approval.

b) Standing order is to be established for the clinical management of patients as well as for the administrative management of the Department.

c) The triage guideline was discussed in the meeting. The members of the technical committee felt that it is best to perform triage using the 3 tier system of patients under Critically Ill, Intermediate Level, and Non-Emergency.
The reasons given were that this will facilitate the critically ill patient to be treated immediately, and attention directed to the intermediate care patients thereafter before the non-emergency patients are attended. This is particularly of benefit in the absence of a full strength A&E staffing.

5. Public education and information on the use of A&E Department.

Pamphlets and educational materials for educating the public on the use of A&E Department must be produced by the end of fiscal year 1992.

C. Approval of the training programme until December 1993.

The training programme until December 1993 was discussed and agreed upon.

It was agreed that the JICA long term and short term experts will conduct the training in collaboration with the local specialists. The local specialists requested to be informed with adequate time to prepare for the training materials.

A copy of the training programme until December 1993 is attached.

D. Any matter arising.

The chairperson brought up the subject on the use of A&E operation theatre and the possibility of performing emergency operations on patients admitted through A&E Department.

Dr Wong May Sum felt that staffing should not be a problem, as the same staffs from the main operation theatre can be called upon. However, the operating equipment existing in the main operation theatre will need to duplicated for the use of A&E operation theatre.

The chairperson also brought up the subject that emergency operations performed on A&E patients should be either done by the A&E Medical Officer (with the supervision of JICA or local specialists) or by the specialists assisted by the A&E Medical Officers. This aims to enhance the training of A&E staffs.

Mr. Goh Kian Hua noted that it may be difficult to differentiate where the line of duty ends for the A&E Department post operatively. Mr. Goh felt that a standing order to clearly delineate this line of duty be established.
In addition, it may not be to the best interest of the patient who was operated by the A&E Medical Officer if follow-up of the patient is to be done by the ward Medical Officer as there may be lack of continuity of care.

The meeting adjourned at 12.10 p.m. with the chairperson thanking the members of the technical committee.

"QUALITY SERVICE MAKES A DIFFERENCE"
"BERKHIDMAT UNTUK NEGARA"

DR. YAO SIK KING
Deputy Medical Superintendent,
Sarawak General Hospital,
Kuching.

Recorded by:
Dr. Peter Ting

Date: 20/11/1992

Distribution: All Committee members

PT

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 programms		● ● ●	● ● ●	● ● ●	● ●
	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.

Training plan

	trainer	title (type of training)	trainee (number)				period/course additional hospitals remarks
			hospital	mainly A/E dept at SGH			
			position	M O	MA	Ns	
1992 Nov	Emergency medicine specialist and nurse (long-term expert)	Airway management for emergency cases (lecture with practice)		●	●	●	2 days for each group (● main target)
Dec	Neurosurgeon (long-term expert)	Diagnosis and management of head injury (lecture and medical quiz)		●	○		4 hours (○ if any request)
1993 Jan	Radiologist or emergency medicine specialist (short-term expert 1 for FY 1992)	Diagnostic imaging for emergency cases (mainly plain X-P) (lecture with practice)		●			4 days Sibu, Miri
Feb	Cardiologist (short-term expert 2 for FY 1992)	ABC of ECG		●	●	●	3 days for three courses Sibu, Miri
		Diagnosis and management of ischemic heart disease		●	○	○	
		Diagnosis and management of arrhythmias		●	○	○	
Mar	Gastroenterologist (short-term expert 3 for FY 1992)	How to use sonography for abdominal emergency (lecture with practice)		●			2 days for lecture 2 days for practice Sibu, Miri
Apr	Emergency medicine specialist (long-term expert)	Assessment and stabilization of trauma victims (lecture without practice)		●	●	●	4 hours
May	Nurse (long-term expert)	Nursing care in A/E department (lecture without practice)				●	4 hours
Jun	Neurosurgeon (long-term expert)	Diagnosis and management of patients with coma or in convulsion (lecture with medical quiz)		●	○		4 hours
Jul	Orthopedic surgeon (short-term expert for FY 1993)	Management of crush-injury of extremities (lecture with practice)		●	●		2 days for lecture rest for practice Sibu, Miri.

Remarks: All short-term experts will be accompanied by long-term experts so that long-term experts can give training program at the same time.

Training plan

	trainer	title (type of training)	trainee (number)			period/course place(s) remarks
			M O	MA	Ns	
1993 Aug	Traumatologist (short-term expert 2)	Management of burn (lecture without practice)	●			3 days SGH, Sibu, Miri
Sept	Traumatologist (teaching staff at EMT school) (short-term expert 3)	Emergency care and transportation of the injured and severely ill patients (lecture with practice)		●	●	4 days SGH, Sibu, Miri
Oct	Emergency medicine specialst (long-term expert)					
Nov	Nurse (long-term expert)					
Dec	Neurosurgeon (long-term expert)					

Remarks: All short-term experts will be accompanied by long-term experts so that long-term experts can give training program at the same time.
In addition, local specialists may be called upon to be involved in the training program.

1993 COUNTERPART TRAINNING IN JAPAN

Date:

Sarawak General Hospital E DEPT.

Priority	Mode of Cooperation	Name of project	JICA Dept.	Subjects	Proposed Content of course	Time, Duratio	Remarks
1	Project Cooperation	SGH A/E Care Servc	Medcl Coopertn dpt	Emergency Medicn	Emergency care, Diagnosis & treatment of trauma ptient	June、6Mnth	Medical Officer A/E
4	〃	〃	〃	〃	〃	December, 6M	-Do-., Sibu
9	〃	〃	〃	〃	Emergency Transport system Emergency Care Service		(MA School Instructor)
					Attending Critical case	June, 6-9mth	Medical Assistant tutor
2	〃	〃	〃	〃	Emergency Transport practice, Emergency care practic		
					Primary Care for crit/ptnt	June, 6Mnth	Medical Assistant A/E
5	〃	〃	〃	〃	〃	Decbr, 6mnth	〃〃, Sibu
10	〃	〃	〃	Emrgncy Nurcng	Emrgncy Nrcng Prctc/systm		(Nurcng scil lectlr)
					ICU Nursing	June, 6-9Mth	Nurse Tutor
3	〃	〃	〃	〃	Emrgncy Nrcng ICU Nurcing		
					Post Operating Nurcing	June, 6Mnth	Nurse, A/E, Kuching
6	〃	〃	〃	〃	〃	Decmbr, 6Mnth	〃, Sibu
7	〃	〃	〃	Emergncy Equpmnt	Lab. Equipmnt, Ventilator Pr	Septbr, 3mnth	Medical Engineer
8	〃	〃	〃	Emrgncy Care in General	Emergency Nrcng System Visit to various Hospitals	Septmbr, 1mth	Sister

EQUIPMENT SUPPLY FOR 1992

No.	Description of Goods	Model/Maker	Qty.	Unit Price	Amount (M$)
1.	Transport Incubator	Atom Model V-80TR (CM-6600)	1	22,580.00	22,580.00
2.	Cardiac Monitor with invasive BP/CVP/temperature monitoring	Datex Model CH-2, Finland	1	52,690.00	52,690.00
3.	Non-invasive BP monitoring set	Pace Tech , USA	2	7,325.00	14,650.00
4.	Blood Gas Machine	AVL 995 + 9835	1	70,680.00	70,680.00
5.	Mobile C-Arm with memory image	Toshiba SXT-600A, Agfa , USA	1	199,786.00	199,786.00
6.	A/E Patient Trolley/Trauma Stretcher	Stryker, USA	2	19,787.20	39,574.40
7.	Anaesthetic Machine with ventilator	Blease Frontline	1	71,135.00	71,135.00
8.	Nebulizer	Pari Inhalerboy	6	610.00	3,660.00
9.	Infusion Pumps 1) Droplets	Terumo Infus	1	3,800.00	3,800.00
	2) Volumetric	Terumo Syringes	1	3,200.00	3,289.96
10.	Electric BP Monitor	Pace Tech USA	2	7,325.00	14,650.00
11.	Fibreoptic Flexible 1) Bronchoscope	Olympus Model BF-20	1	29,045.00	29,045.00
	2) Gastroscope	Olympus Model GIF-Q20	1	33,800.00	33,800.00
12.	Ambu or Laerdal Resuscitative Bags with face mask and airway for all age groups	Laerdal For 3 age Groupe	2	1,345.00	2,690.00
13.	Multi gas analyzer	Datex Ultimas monitor, Model MT-SV Finland			50,116.00
14.	Ceiling mounted X-ray machine	Shimadzu Model UD 1508-10	1	191,677.00	191,677.00
				Total	M$ 803,733.40

EQUIPMENT SUPPLY FOR 1991

No.	Description of Goods	Model/Maker	Qty.	Unit price	amount (M$)
1.	Ultrasound Machine	TOSBEE SSA-240A	1	95,000.00	95,000.00
2.	Portable/Mobile X-ray machine	Shimadzu Model MC-125L-30	1	62,250.00	62,250.00
3.	Portable ventilator	Drager-Oxylog	2	11,400.00	22,800.00
4.	E.C.G.Monitor with Defibrillator	NIHONKOHODEN TEC7100K	3	11,440.00	34,320.00
5.	Emergency Resustation Trolley	Harloff USA	3	2,789.50	8,368.50
6.	A/E Patient Trolley/Trauma Stretcher	Stryker USA	5	19,787.20	98,936.00
7.	Daylight X-ray Film Cassette Multi-loader processing Machine	Kodak MOD 700 50H	1	301,450.00	301,450.00
8.	Multi-purpose Operating Table with accessaries	Muranaka	1	71,852.00	71,852.00
9.	Bipolar/Monopolar Electric Coagulater		1	25,000.00	25,000.00
10.	Training Materials a) Intubation Trainer Brain Model b) Overhead Projector TV set Video Laser Pointer Slide Projector Books for Emergency Medicine Computer projector	Laerdal CPR Training Equipment	1 set 1 set	17,320.00 8,000.00	17,320.00 8,000.00
			Total		M$ 745,666.50

EQUIPMENT SUPPLY FOR 1991

No.	Description of Goods	Model/Maker	Qty	Unit Price	Amount (M$)
1.	Emergency Patient Trolley	Stryker Model 1020	1	21,287.20	21,287.20
2.	Infant Warmer	Atom Model T-3600 CM6335	1	21,748.00	21,748.00
	Oxygen cylinder	500 litres (OX-103)	1	640.00	640.00
3.	Infusion Pump	Atom Model P-300	2	4,200.00	8,400.00
4.	Syringe Infusion Pump	Atom Model 235	1	3,200.00	3,200.00
5.	Personal Computer	Nicom AT80386 DX-33	1	4,300.00	4,300.00
6.	Laser Beam Printer	Canon LBP-4Plus	1	3,950.00	3,950.00
				Total	53,517.00

THE ABOVE ORDERS HAVE BEEN PLACED

Minutes of the 3rd Meeting Of The Technical Committee for JICA Project - Upgrading and Improvement of Accident & Emergency Services in Sarawak on 19th December, 1992

Venue: SGH Mini Conference Room
Time: 9.30 a.m.
Date: 19th December, 1992

Present: Dr. Yao Sik King, Chairperson, Dy. Medical Supt.
Dr. Chew Peng Hong, Head, General Medical Dept.
Mr. Goh Kiang Hua, Head, General Surgical Dept.
Dr. Wong May Sum, Head, Anaesthesiology Dept.
Dr. Norulhuda Bt. Nasiruddin, Radiology Dept.
Dr. Khin Maung Win, Head, Orthopaedic Dept.
Hj. Seruji B. Achek, Ag. Sr. M.A., A&E Dept.

Japanese Side: Dr. Hirofumi Kurogi, Team Leader
Dr. Yuji Asoh, Neurosurgeon
Mr. Mitsumasa Arima, Co-ordinator
Ms. Yoshiko Sugie, Nurse

Absent: Dr. H. Yadav, Medical Superintendent
Dr. Tan Poh Tin, Head, Paediatric Dept.
Dr. Patricia Ling, O&G Dept.
Dr. Peter Ting, MOIC, A&E Dept.

Agenda:
1. Confirmation of Minutes of the 2nd Technical Committee Meeting.
2. Definition of lines of responsibility of A&E Dept.
3. Emergency operations: where to do?
4. Annual Work Plan 1993 Draft.
5. A&E Building
6. Any matters arising

1. Minutes of the 2nd Meeting was read and confirmed.

1.1 Approval of the 5-Year Co-operation Plan
The co-operation plan was approved at the 2nd meeting. No further amendment was made. As such the plan will be submitted to Director of Medical Services for approval.

1.2. Approval of Annual Work Plan for fiscal year 1992
Due to expansion of Sarawak General Hospital as defined in Master Plan and Design Project under ADB Loan, there will be changes in the annual work plan as agreed for fiscal year 1992. A new clinical service block containing a new A&E Department on the ground floor of this building will be available on or before 1995. Dr. Kurogi as Team Leader wishes to

HUS/408/ /53

22 December 1992

Director of Sarawak Medical Services Dept.,
Medical Hq., Jalan Tun Hj. Openg,
Kuching.

Yang Berbahagia Datuk,

Re: Technical Committee - JICA Project

With reference to the above subject, enclosed herewith are the minutes of the 2nd and 3rd meetings of the JICA Technical Committee for your attention and information, please.

Should the 5-year Co-operation Plan, Training Plan/Programme for 1992/1993, and the Annual Work Plan 1992 meet with your approval, I would be grateful if yolu could formally forward copies to:

(a) Chairman - Joint Co-ordinating Committee
(Pengarah, Planning & Development Division,
Ministry of Health).

(b) JICA Representative - K.L. Office

(c) Ketua Pengarah, Unit Perancangan Ekonomi, Jabatan Perdana Menteri, Jalan Dato' Onn, 50502 Kuala Lumpur.
(U.P.: Encik K. Thillainadarajan)

(d) Pengarah, Hospital Division, Ministry of Heath.

Sekian. Terima kasih.

"QUALITY SERVICE MAKES A DIFFERENCE"
"BERKHIDMAT UNTUK NEGARA"

Saya yang menurut perintah,

YAO SIK KING
Ketua Pengarah Perubatan,
Hospital Umum Sarawak,
Kuching.

c.c.: Dr. Yao Sik Chi,
D.D.M.S. (Hospital)

state that JICA expresses regret in respect to the possible repercussions by the above Master Plan Project on the JICA Project. He also said that JICA/Japan Government wishes to be officially informed about the above change.

1.3 Provision of Machinery and Equipment under JICA Project

Dr. Kurogi informed the committee that because of the above changes in respect to the A&E Building he will be advising JICA to withold delivery of approved equipment for fiscal 1991 and 1992. A final decision can only be conveyed officially to the Malaysian Government following a meeting in Tokyo on 28/1/1993. This meeting will be attended by Dr. Kurogi. However, he informed the Technical Committee that the initial equipment approved for fiscal year 1991 amounting to $100,000.00 will be supplied.

1.4 Training of staff of the Medical Department

Dr. Yao Sik King informed that committee that the nomination of Dr. Peter Ting for Malaysian Counterpart training in Japan has not been approved by JPA. Dr. Annuar B. Rapaee presently attached to Lau King Howe Hospital, Sibu has been nominated as replacement. M.A. Hosni and Staff Nurse Veronica Wong are the other two Malaysian counterpart nominated for training in Japan - so far no objection from JPA.

1.5 Establishment and Implementation of Operational Policies and Standing Orders for A&E Department

No amendment made in respect to what is contained in the minutes of the 2nd meeting.

1.6 Public Education and Information on the Use of A&E Dept.

This will be implemented in 1993. Survey on utilisation of A&E services and ambulance response time has been completed. Copy of the report is as attached.

1.7 Approval of the Training Programme 1992/1993

No change made. Dr. Yao Sik King informed the committee that Professor Hachiya and Assoc. Professor Nitatori will be despatched as short term JICA Expert - Radiologist for 1992. There will be arriving Kuching on February 19, 1993 and will be available only for 1 week, though the requested duration is 3 months. In order to fully utilize their time in

Sarawak it is proposed that 3 one-day Radiology Seminar be conducted in Kuching, Sibu and Miri. Medical Officers attached to the A&E Unit of the various hospitals throughout the State will be invited to participate. A detailed programme will be worked out soon and submitted to Dr. Yao Sik Chi for his further action.

1.8 Usage of A&E O.T.
The issue of usage of A&E O.T. will be further discussed under Agenda Item No. 3.

2. Definition of lines of responsibility of A&E Dept.
All present agreed to Dr. Yao Sik King's proposal that the responsibility of A&E Dept. begins the minute the patient enters and/or is registered at the A&E Dept. and ends when the patient leaves the dept. and is being formally handed over to the relevant inpatient department or when discharged home.

3. Emergency Operation- where to do?
In view of the change that will happen as a result of the Master Plan and Design Project the renovation of the existing A&E Dept. building (estimate cost M$1.5 million) is cancelled by the Planning and Development Division, Ministry of Health. Therefore, the existing A&E building will have to be renovated using operating fund of S.G.H. meaning the renovation will be on a much smaller scale. Only absolutely necessary renovation will be done so as to make the existing A&E building space functional. This means that no changes will be made to the existing minor O.T. of A&E Dept. The question of emergency operations is therefore no longer an issue and will continue to be performed in the main O.T. complex. Dr. Kurogi, Dr. Wong May Sum, Dr. Khin Maung Win and Mr. Goh Kiang Hua will work out a list of operations to be performed in A&E minor O.T.

4. Annual Work Plan Draft 1993
Dr. Kurogi informed the committee that because of the above changes the Annual Work Plan Draft 1993 will only be discussed after he returns from Japan.

5. A&E Building
All Malaysian members of the Technical Committee expressed disappointment and regret with respect to the cancellation of the renovation plan for the existing A&E building. The Technical Committee unanimously wishes to make an official stand to the Ministry of Health through the office of the Director of Medical Services Sarawak, for the M$1.5 million

renovation to proceed as planned irrespective of the First Phase Master Plan outcome.

6. Any matter arising

The question of neurosurgery referral system was brought up for discussion because of unfavourable outcome recently involving doctors in the private sector and members of the public. The Technical Committee unanimously agreed to Dr. Chew Peng Hong's proposal in respect of the standard referral system to be followed by both Government doctors and private doctors as well as members of the public. The referral system is as follows:

> All referrals/requests for neurosurgery consultation must be directed to the Head of Surgery Dept., Sarawak General Hospital using the form as attached. Should the referrals be for emergency neurosurgery the referring doctor can obtain verbal approval from the Head of the Surgery Dept. and then directly communicate with Dr. Asoh as the case needs to be seen as soon as possible/within 24 hours. However, the referral form must still be filled and submitted to the Head of Surgery Dept.

Dr. Asoh informed that inorder he can transfer practical skill and technology in the field of neurosurgery to his Malaysian counterpart - Mr. Goh Kiang Hua, he needs to perform elective neurosurgery operation together with Mr. Goh. This is necessary because only then can Mr. Goh appreciate normal anatomy of the brain. Therefore, the Committee is of the opinion that Mr. Goh allocates O.T. time and schedule for the performance of the elective neurosurgery operations. Dr. Asoh and Mr. Goh will hold further discussion to decide on what type of elective neurosurgery operation to be performed in S.G.H.

The Committee also wishes Dr. Yao Sik Chi to issue circulars to MMA Sarawak Branch, GP Society Sarawak Branch, Normah Medical Centre and all government hospitals throughout Sarawak regarding the referral system and the type of neurosurgery services available in S.G.H.

Dr. Asoh also informed the Committee that Japanese working in Kuching/Sarawak have been approaching him for his services. Dr. Yao Sik King informed Dr. Asoh that it is the Ministry Policy that only emergency medical services be rendered to foreigners at all government hospitals.

"QUALITY SERVICE MAKES A DIFFERENCE"
"BERKHIDMAT UNTUK NEGARA"

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

Date: 23/12/1992

Distribution
All Committee Members

YSK/ml

To: Head of Surgery Department,
Sarawak General Hospital,
Kuching.

Request For JICA Neurosurgical Consultation

DATE:

NAME OF ATTENDANT DOCTOR:

DEPARTMENT:

NAME OF PATIENT: AGE: SEX: M F

CHIEF COMPLAINT:

PAST HISTORY:

PRESENT ILLNESS:

CONSCIOUSNESS (GCS):

MOTOR PALSY:

SIGNATURE:

Survey on the Utilisation Of A & E Services, SGH

Subject: Survey on the Utilisation of A & E Services at Sarawak General Hospital, Kuching.

Goal : The primary goals are :
1) to determine the reason for patient utilisation of A & E Services,
2) their perception of the role of A & E Dept.,
3) The Catchment Area of the A & E Dept, SGH.

Venue : The Survey was conducted at the A & E Department, SGH on the patients who attended for treatment in the Dept. Where the patient is unable to give the response to the questionnaire, the accompanying person is interviewed.

Date : The Survey was conducted in October, 1992.

Method : The Survey was conducted using a set questionnaire. The MAs of the Dept. are the primary interviewers.

Number : The total number of patients surveyed were 460, which is approximately equivalent to 4 days of total patients attendance.

The findings of the survey is noted on the charts and graphs in the accompanying pages.

1) 71% of the patients using the A & E Dept, SGH stays within 30 minutes of motor transport.

2) The majority of patients (52%) use motor cars as their means of transportation.

3) 64% of those patients attending the A & E Dept, SGH for treatment are working population.

4) The majority of population attended the A & E Dept. without seeking prior treatment.
Nearly 10% had sought treatment in the government polyclinics for their present complaint prior to seeking further treatment in A & E. Majority of these patients came of their own accord because they are not fully recovered.

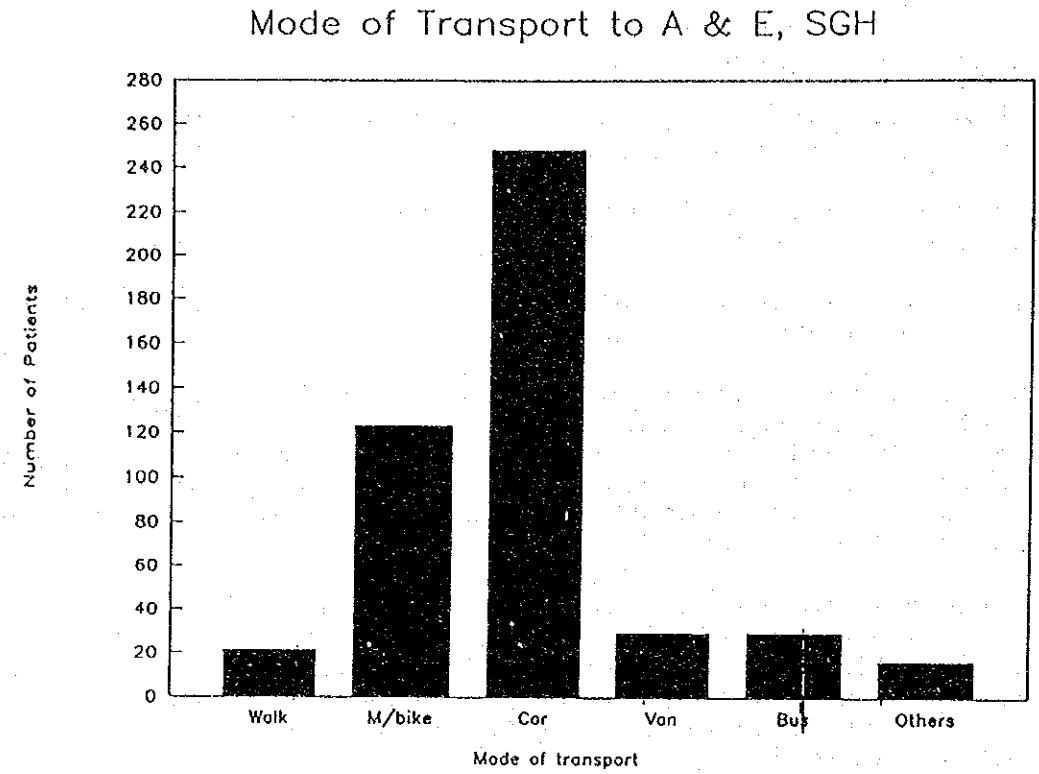
5) Of these patients who utilise A & E Dept., 35.2% of the patients feel that their conditions are emergencies.
24.8% attend because it was the only place open at the time.
23.9% attended bacause of the short waiting time.
16.1% attended bacause it is the nearest place open for medical service.

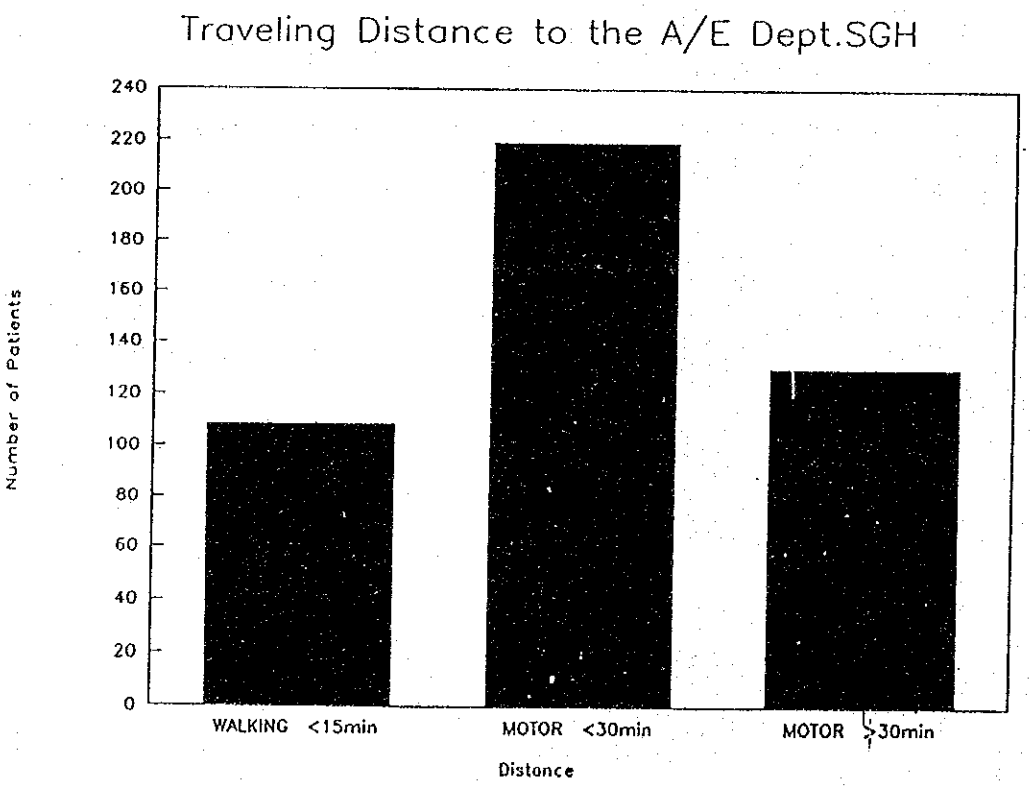
6) Of the 460 patients surveyed, 21% feels that the A&E Dept. should see all patients.
40% feels that the A & E should be used for Emergency purposes during office hour, and also for non-emergency purposes after hours.

7) 80.4% of the patients feel that the ambulance service should be used for emergency purposes.

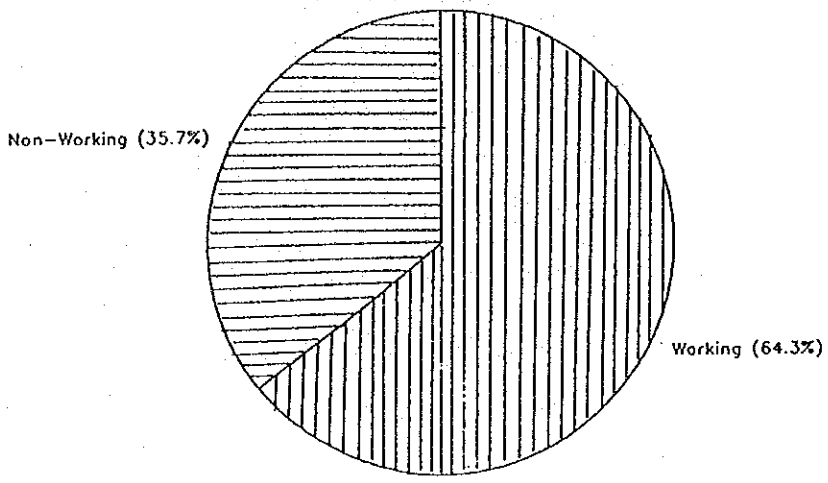
8) Of the number attended, 67% or two thirds are assessed by the MAs as non-emergencies.
Only 9.5% of the patients are emergencies requiring admission.

9) Of the 162 patients who sought treatment at the A & E because they perceived their illness as emergencies, 63.5% of these patients are assessed to be non-emergencies, 24.8% are emergencies not requiring admission, and only 11.8% are emergencies requiring admission.

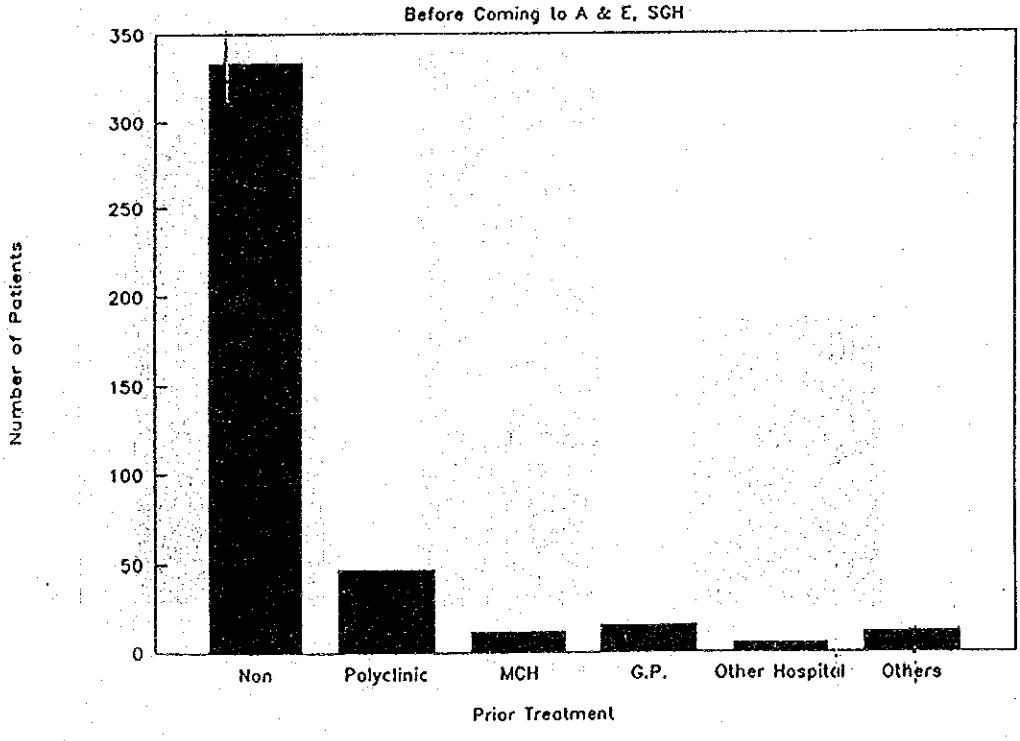

Mode of Transport to A & E, SGH
Number of Patients
280
260
240
220
200
180
160
140
120
100
80
60
40
20
0
Walk
M/bike
Car
Van
Bus
Others
Mode of transport


Traveling Distance to the A/E Dept.SGH
Number of Patients
240
220
200
180
160
140
120
100
80
60
40
20
0
WALKING <15min
MOTOR <30min
MOTOR ≥30min
Distance

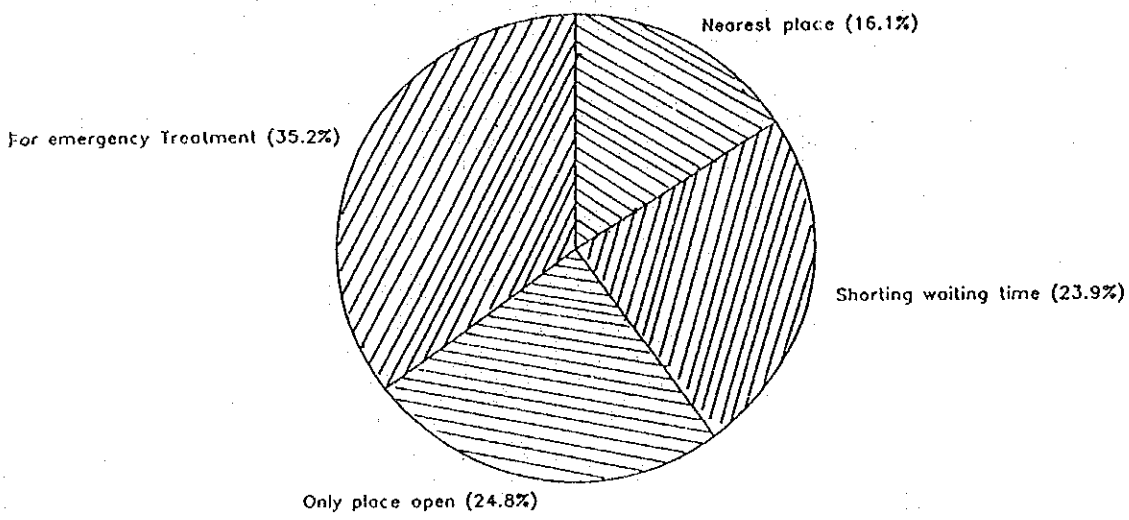
Working Vs Non-Working patients



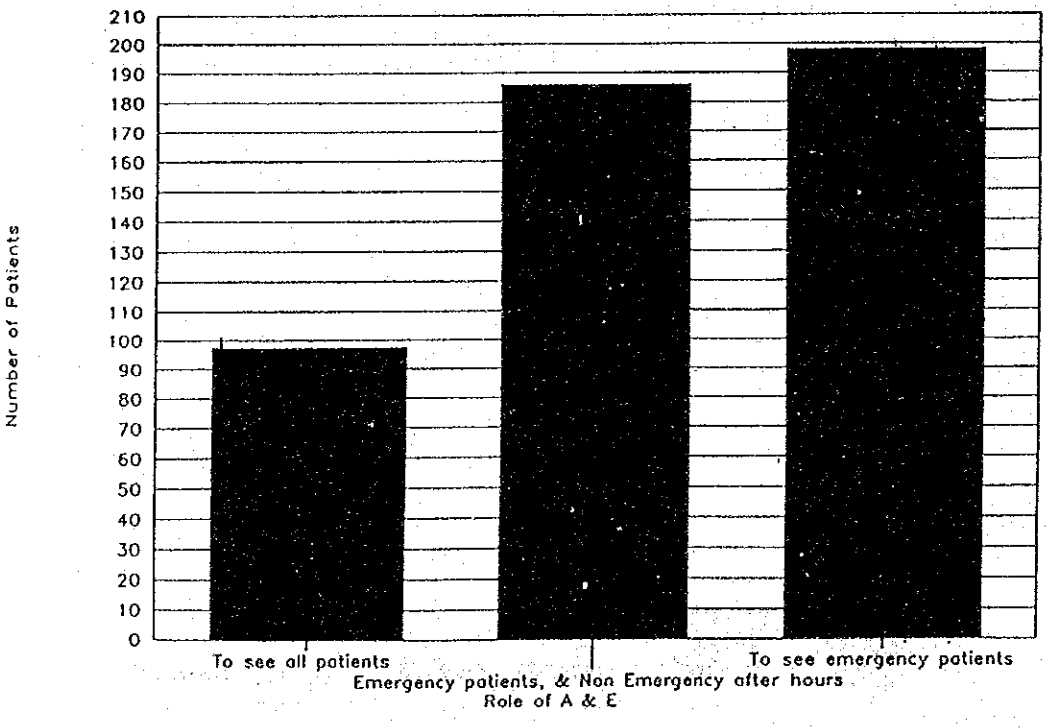
Prior Treatment Sought elsewhere



Reasons why patients use A & E

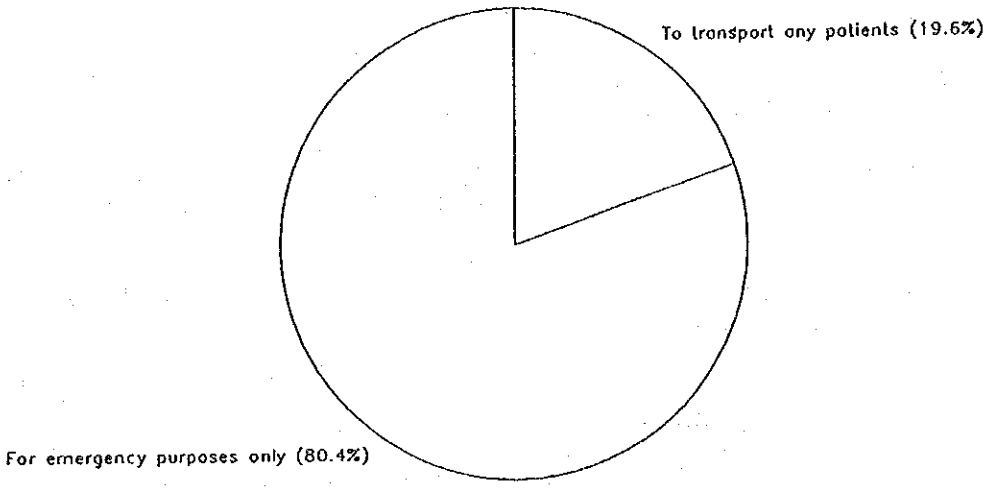


Patients' perception of the role of A&E

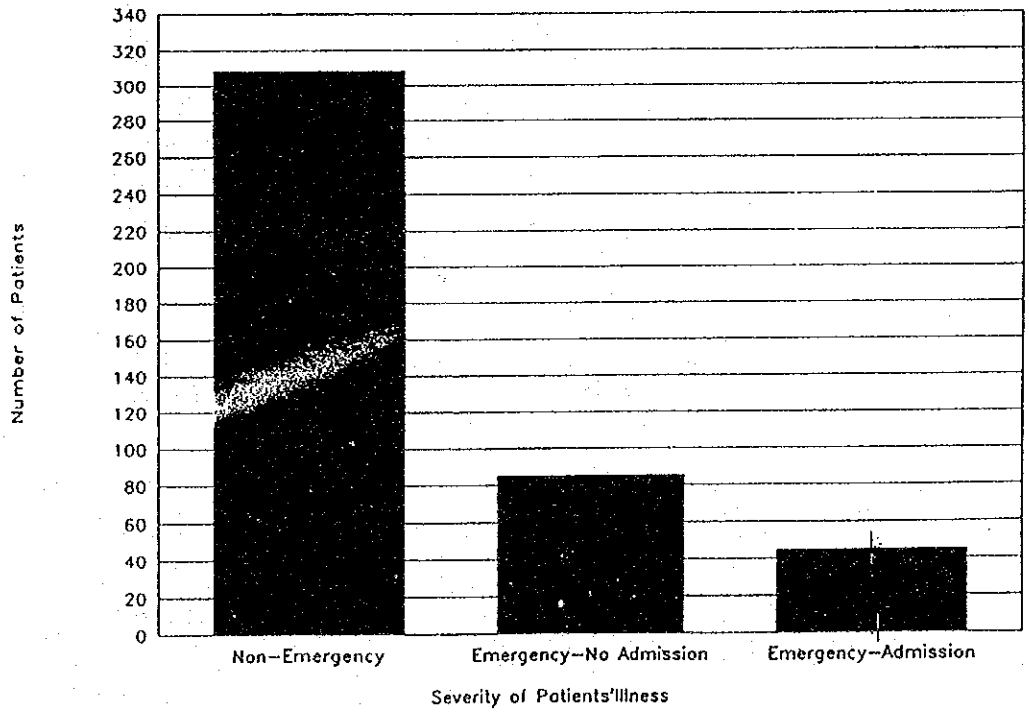


Patients' Perception of

Role of Ambulance Service



Assessment of Patients' Illness



Survey on Ambulance Response Time

The survey is done for the period of 2 months of October and November,1992.

During this period, a total of 132 ambulance calls were received. This averages to 2.16 calls per day.

The average time taken for despatch of ambulance (i.e. the time taken for the ambulance to leave A&E after the call is received) = 6.24 minutes

The average time taken for the ambulance to return to A&E after the ambulance left the A&E = 30.18 minutes

Of the total of 132 ambulance calls,
24.3% were maternity calls
21.3% were med/surgical calls
9.1% were referrals (incl. polyclinics, other hospitals)
4.6% were accidents (incl. RTAs and falls)
2.3% were hoax
2.3% were for collapsed patients
36.4% no diagnosis (either because diagnosis uncertain or not written down by MA)

The plan is to repeat another survey in twelve months time, to assess the ambulance response after training by the JICA experts.

7 Dec 92

Suggestions and their Answers

Dear Staff,

Thank you for the many constructive suggestions and comments to improve our A&E Dept. It is through this working spirit that our Dept may one day achieve Service Excellence.

All suggestions will be given due consideration. Any suggestion to which there is no solution as yet, will be reconsidered later. The following answers to the suggestions are only at a proposal stage, thus amendable if required and if other better answers are available.

S1) Arrangement for a pool nurse on night shift to be stationed at A&E.
A1) Impossible at the moment, as the Nursing administrator felt that we have more nurses than required.

S2) Signboards for MO Room 1 & 2, etc
Mirror inside MO on-call Room
Leaking sink in MO on-call Room
Pigeon hole for A&E Staff
A2) Thanks for the many suggestions.
There has just been an alteration of plan by the Ministry as far as full renovation A&E Dept is concerned. Instead we can only do minimal renovation utilising all the spaces available in the present A&E-Specialist Clinic building. This is because the Master Plan for a new A&E building with full radiology and OT will be scheduled to materialised in 1995. Thus the funds available for present renovation is no longer available.
Back to the suggestions, proper signages and attention on the MO on-call Room will be made once the simple renovation and rearrangement is completed in March.
MOi/c will pursue the need for Pigeon Hole for A&E Staff once the fund is available.

S3) Make cough mixtures unavailable in A&E.
A3) Good suggestion. Surveys done in Singapore where there had been lots of public education on the role of A&E, show that Singapore A&E is still widely misused. A green zone for cold cases has been allocated by our department to meet the needs of this category of patients. Our roles towards this problem is to educate these patients after giving them treatment (it may be impossible to educate some as evidenced in Singapore) and to do triage so that urgent cases get priority in treatment.

S4) PA system at casualty to be controlled by A&E.
A4) Can you please see me and elaborate on the benefits of the PA system being controlled by A&E. I will approach MS if the reasons are good enough. Thanks

S5) Ambulance to have radio call system with central control.
A5) JICA is looking into that at the moment. We are comparing the 2 way radio system versus ATUR system to equip our Centre and ambulances.

S6) Admission counter should be separate from A&E Unit.
A6) This is true. In fact I brought this up recently with Dr Yao when I was asked to look into the new layout plan for A&E. Dr Yao agreed that a separate admission counter be established, and that this counter will be located at our present counter but manned by the general office. Good news!

S7) Admission of specialist clinic patients to be brought up by own ward attendants.
A7) This is a fair suggestion for our A&E attendants. Dr Yao had mentioned about the employment of hospital porters for this service. I will also discuss with the Specialist Clinic Sister in-charge about this problem.

S8) MA to follow for maternity call. The reason being, no one to help carry patient from house to ambulance.
A8) We should all work as a team. Where a potential problem of this nature is expected, the MA should accompany the Nurse. If the casualty is so busy that MA can not be spared, then the ambulance driver is expected to help carry the patient. A stretcher must be kept in the ambulance.

S9) Consider to have 2 MOs for Weekend pm shift.
A9) In an early meeting with MOs, most MOs agreed that weekday pm need 2 MOs more than weekend because of the dominant number of cold cases during weekend. As such we have to give priority to the urgent cases first.
Commencing 3.1.93 until 16.1.93, the polyclinic has agreed to take over both the senior and junior service clinics. Subsequently, a decision will be made to finalise who will run these 2 clinics. It is very possible to have 2 MOs in every pm shifts (including weekends) if these clinics are run by the polyclinics.

S10) Request for prednisolone tablets in A&E.
A10) Prefer to minimise non-emergency drugs in A&E. Parental steroids is available. If oral steroids is required, to ask patients to F/U in appropriate clinic.

S11) Strictly ban any medical representatives from entering A&E to promote their products. Reason given being patients have to wait for salesman to finish before patients are seen.
A11) A very important point. All MOs should ensure that all patients are attended to before they attend to the salesman. It is important to keep up to date with certain products in the market, but patients take priority. MOs please take note. Thanks!

S12) Request for bone nibbler.
A12) Request already made during a technical and drug committee meeting in October. Approved but still waiting for instrment Will F/U on this.

S13) To allocate more wheelchairs to specialist clinic so that A&E wheelchairs are used for A&E patients only.
A13) This suggestion will be put forward. In addition, I have recently spoken to the Sister in-charge of specialist clinic about specialist clinic patients coming for dressing, STO, POP change etc in the A&E. Sister kindly agreed that the specialist clinic will assume this responsibility when they moved into their new building in early January.

S14) Problems with telephone lines in A&E, especially the Emergency phone.
A14) Will look into this very important problem. Thanks.

S15) Uniforms for A&E staffs.
A15) Being analysed. The pattern for male uniform, including MO, MA, driver and attendant will be ready soon.

Thanks for your contribution. Our aim to improve our service can only be achieved through the efforts of all our staffs.

Dr Peter Ting
MOi/c A&E
26.12.92

Suggestions and Answers 2

S1) Request for each MA to be given the responsibility to be the MA i/c of each shift on rotation basis so that the more junior MA can get the experience.

A1) Suggestion accepted. However, all of you MAs must act with full responsibility, especially more so when you are in charge. Anyone found to lack this responsibility after a trial will not be appointed the MA i/c of shift in future. MA Hosni will arrange roster according to this matter. Thanks for your suggestion and initiative.

S2) Enquiry of patients wrongly directed to A&E when it should be directed to the Enquiry section by the operator. This has led to time wasted both by patients or relatives, and the A&E staff.

A2) Matter discussed with SMA Haji Seruji. SMA will inform the operators to direct enquiries to the appropriate section.

S3) Request for JICA specialist Dr Kurogi to teach A&E staffs on the management of patients during ambulance call, including equiping the ambulance and their usage.

A3) Spoken to Dr Kurogi. Dr Kurogi said that there will be some lectures to be given to you. In addition, Dr Kurogi will make a format to help you assess the patient, bring the patient to the ambulance, and final transportation to A&E. The format is being designed and near completion. Once completed, you will all be briefed and lectured.

S4) Request for car shield for A&E staff.

A4) Please enlighten me on what you mean. Do you mean a sheltered car park? If so, I am without one also due to lack of available facility.

S5) I suggested that when a patient had arrested and resuscitation failed, to inform the other A&E staffs to practice intubation before informing the relatives. This is aimed to improve your skills in airway management.

S6) To analyse the type of ambulance calls we get and also to see the ambulance response time. I request all MAs and Nurses to note down the time call received, the time of departure, the time of arrival at the scene, and the time of arrival back at A&E. In addition, you are also to note down the address and the provisional diagnosis (if unsure, for eg. can write down "Breathing Difficulty", or "Chest Pain", or "RTA"). MAs and Nurses please take note. Thank you.

JADUAL 4.7.: **NISBAH TENAGA MANUSIA KESIHATAN:PENDUDUK MENGIKUT KATEGORI TENAGA MANUSIA, MALAYSIA, PADA 31.12.1990.**

Table 4.7.: ***Health Manpower Population Ratio by Category of Manpower, Malaysia as on 31.12.1990.***

JENIS TENAGA MANUSIA KESIHATAN *Type of Health Manpower*		SEMENANJUNG MALAYSIA *Peninsular Malaysia*		SABAH		SARAWAK		MALAYSIA	
		BILANGAN *Number*	NISBAH TENAGA MANUSIA: PENDUDUK *Health Manpower: Population Ratio*	BILANGAN *Number*	NISBAH TENAGA MANUSIA: PENDUDUK *Health Manpower: Population Ratio*	BILANGAN *Number*	NISBAH TENAGA MANUSIA: PENDUDUK *Health Manpower: Population Ratio*	BILANGAN *Number*	NISBAH TENAGA MANUSIA: PENDUDUK *Health Manpower: Population Ratio*
PEGAWAI PERUBATAN *Doctor*	KERAJAAN *Public*	2 750	1: 5316	112	13 149	159	10 505	3 021	5 680
	SWASTA *Private*	3 622	1: 4036	179	8 227	190	8 791	3 991	4 451
	JUMLAH *Total*	6 327	1: 2294	291	5 061	349	4 786	7 012	2 533
PEGAWAI PERGIGIAN *Dental Officer*	KERAJAAN *Public*	623	1:23467	28	52 595	40	41 759	691	25 706
	SWASTA *Private*	720	1:20306	28	52 595	32	52 198	780	22 773
	JUMLAH *Total*	1 343	1:10886	56	26 297	72	23 199	1 471	12 075
FARMASI *Pharmacist*	KERAJAAN *Public*	357	1:40952	21	70 126	21	78 540	399	44 519
	SWASTA *Private*	768	1:19036	24	61 360	48	34 799	840	21 145
	JUMLAH *Total*	1 125	1:12996	45	32 726	69	24 208	1 239	14 337

(151)

4.Dec.92

Att:Dr.Yao Sik King
Deputy Medical Superintendent
Hospital Umum Sarawak

Puan,
JICA Tokyo HQ informed me as follows.
They'll dispatch two radiologist, Prof.Hachiya and Associated Prof.Nitatori in February. Prof. Hachiya is the leading person of basic radiological diagnosis in Japan. I wish we should be better to make the lecture course as a seminar.
They will probably come 19th Feb. and go back at 26th Feb.(draft plan and changeable)
I want to hear your opinion and make the schedule of flight and lecture soon.

Plan I
Feb 19 (Fry) arrived at Kuching
Feb 20 (Sat) PM Special Lecture (Newest Topics of Diagnosis in Pneumothorax...X-P,CT,NMR) → 2時半 special session to (Kuch A/B staff.
Feb 21 (Sun) flight to Mili 20~30
Feb 22 (Mon) Basic seminar for radiological diagnosis(Mili)
flight to Sibu
Feb 23 (Tue) Basic seminar(Sibu) 20~30 Study over-session
Feb 24 (Wed) flight to Kuching
Feb 25 (Thu) Basic seminar (Kuching) morning session in Sibu
Feb 26 (Fry) Go back to Japan

Plan II
Feb 19 (Fry) arrived at Kuching
Evening Special Lecture (Newest Topics of Diagnosis in Pneumothorax...X-P,CT,NMR)
Feb 20 (Sat) Basic Seminar(Kuching)
Feb 21 (Sun) flight to Mili
Feb 22 (Mon) Basic seminar (Mili)
Feb 23 (Tue) flight to Sibu
Feb 24 (Wed) Basic seminar(Sibu)
Feb 25 (Thu) flight to Kuching
Feb 26 (Fry) Go back to Japan

Plan III
Feb 18 (Thu) arrived at Kuching
Evening Special Lecture (Newest Topics of Diagnosis in Pneumothorax...X-P,CT,NMR)
Feb 19 (Fry) trip to Sibu
Feb 20 (Sat) Basic Seminar(Sibu) flight to Mili
Feb 21 (Sun) Basic Seminar for radiological diagnosis(Mili)
Feb 22 (Mon) flight to Kuching
Feb 23 (Tue) Basic Seminar(Kuching evening)
Feb 24 (Wed) Basic Seminar(Kuching evening)
Feb 25 (Thu) Go back to Japan

40 x 6
min

The Basic seminar course will be intended to MO and MA, consists of 6 periods of (40) minutes as follows,(draft)
chest 1, chest 2, acute abdomen, pelvic cavity, skull & face, emergency angiography and trance-arterial embolization. If you and specialists want, we may have a clinical radiographic conference also. Today I have to go to a JOCV work site,so you will be appreciated if you call me Saturday.

Sekian. Terima Kasih.

Dr.Kurogi Hirofumi
Chief Adviser of JICA,
Hospital Umum Sarawak,
Kuching

Minutes of the 4th Meeting Of The Technical Committee for JICA Project - Upgrading and Improvement of Accident & Emergency Services in Sarawak

Venue: SGH Mini Conference Room
Time: 2.00 p.m.
Date: 17th February, 1993

Present: Dr. Yao Sik King, Chairperson, Medical Supt.
Dr. Norulhuda Bt. Nasiruddin, Head, Radiology Dept.
Dr. Naresh Nirmal Singh, Head, Orthopaedic Dept.
Dr. Patricia Ling, Head, O&G Dept.
Dr. Peter Ting, MOIC, A&E Dept.
Hj. Seruji B. Achek, Ag. Sr. M.A., A&E Dept.

Japanese Side: Dr. Hirofumi Kurogi, Team Leader
Dr. Yuji Asoh, Neurosurgeon
Mr. Mitsumasa Arima, Co-ordinator
Ms. Yoshiko Sugie, Nurse

Absent: Dr. Chew Peng Hong, Head, Medical Dept.
Dr. Tan Poh Tin, Head, Paediatric Dept.
Dr. Wong May Sum, Head, Anaesthesiology Dept.
Mr. Goh Kiang Hua, Head, Surgical Dept.

Agenda:
(1) Matters arising from Minutes of 1st Meeting of Joint Co-ordinating Committee, 21/1/1993.
(2) Report by JICA Team Leader: Dr. Kurogi on JICA Tokyo Meeting, 27/1/1993.
(3) Progress Report on A&E Building Renovation.
(4) Radiology Seminar in Kuching, Sibu & Miri.
(5) Submission of Additional Equipment under Fiscal Year 1993 Allocation.
(6) Annual Work Plan 1993 - Draft.

1. Matters arising from Ministes of 1st Meeting of Joint Co-ordinating Committee, 21/2/1993.

1.1 Medical Supt. Dr. Yao will send a copy of the Operational Policies of Sarawak General Hospital A&E Dept. to Chairman of the Joint Co-ordinating Committee (Pengarah, Bahagian Perancang dan Pembangunan, Kementerian Kesihatan) for his information.

1.2 A&E Extension/Renovation has started on 4/2/1993 and expected to be completed in a month's time. The newly renovated A&E Dept. is scheduled to be functional in mid March 1993.

1.3 Medical equipment costing M$63,517.00 have been received on 10/2/1993. Additional equipment for 1992 costing M$127,470.50 have been approved for purchase and will be delivered soon. Equipment list for 1993 has been submitted to JICA already. Mr. Arima informed that because the day-light xray film cassette multi-loaded processing machine and the ceiling mounted xray machine have not been approved for purchase by JICA and there will be a balance of about M$600,000 for 1993. Dr. Yao requests all Specialist members of the Technical Committe to submit the equipment list to her one week from today's date.

1.4 M.A. Hosni and Staff Nurse Veronica Wong left for training in Japan on 16th February 1993. Dr. Annuar of Lau King Howe Hospital, Sibu will be leaving for Japan on 29/3/1993. Professor Hachiya and Professor Nitatori will be arriving on 19/2/1993 and will be in Sarawak for 1 week.

1.5 As noted from the result of the survey of Sarawak General Hospital A&E service utilisation educational pamphlets will be produced this year to educate the public on how to use A&E services properly.

1.6 The Japanese members of the Technical Committee informed all present that JICA has made an formal official protest against the cancellation of the plan to have a major renovation of the existing A&E building. Dr. Yao elaborated on reasons why the above renovation was cancelled; primarily due to the acceptance of the Ministry of Health Malaysia of the Master Plan Proposals which is a new A&E Dept. will be built in the first phase and be completed by 1995/1997.

1.7 Regarding the development of human resources of A&E services Dr. Yao informed the Committee that there is plan by Ministry of Health, Training Division to train Medical Assistants for A&E care. A training programme will be drawn up and S.G.H. A&E Dept. may be used as a training venue for these trainee M.As. pratical attachment. She also mentioned that throughout Sarawak at the moment there are about 6 M.As. who have had post-training in A&E. Should the above training programme be implemented it would be good to bring back these 6 M.As. to S.G.H. and be attached to A&E Dept. Dr. Singh mentioned that there must be a post available for a specialist to head the

A&E Dept. just like in Kuala Lumpur General Hospital. He also praised the good work done by JICA so far. Dr. Kurogi mentioned that Ministry of Health is going to approve the specialist post if there is a specialist to fill the post. Dr. Singh added that so far 2 Malaysian had been sent by Ministry of Health to U.K. for A&E speciality, one of which has since return with FRCS qualification and is now working in Kuala Lumpur General Hospital. It is very difficult to get young doctors to be interested in A&E as a post-graduate speciality. The problem is further compounded by the Ministry Policy on creation of A&E Specialist Post.

1.8 Dr. Kurogi requests that Minute 5.2.3 be deleted and 5.2.4 be corrected as follows:

A&E Dept., Sarawak General Hospital will be staffed as a matter of priority over the new Sibu and Miri hospitals.

For details of the report on 1st meeting the Joint Co-ordinating Committee from the JICA side refer to the report prepared by Dr. Kurogi as attached.

2. Report by Dr. Kurogi on JICA Tokyo Meeting 25-29/1/1993

For details of the report see attached appendix.

The Technical Committee unanimiously agreed that the selection of Medical Officers for training in Japan should be initially done through this Committee inclusive of advertisement for potential candidates, interview of short-listed candidates and compilation of list of candidates for approval by Director of Medical Services Sarawak.

A mission from Japan may be despatched to Kuching sometime in May or early June 1993.

3. Progress Report on A&E Building Renovation

Dr. Yao reported the renovation started on 4/2/1993 and is scheduled to complete in a month's time. As of now the renovation work is progressing to schedule and under the supervision of the Engineering Division (Ir. Hidzir and Draughtman Saini). After renovation the A&E main entrance will be through the side entrance linking to the covered corridor to the new Specialist Clinic Building. The old outpatient pharmacy counter building will be

demolished soon to allow construction of ambulance parking bay and entrance to the A&E Dept. for critically ill patient arriving by ambulance. Elective admission will not be done at the A&E Dept. Instead a `new' admission counter will be established at its original location i.e. main entrance lobby. This admission counter will be opened possibly from 7.00 a.m. to 9.00 p.m. It will cater for all admissions (i.e. from S.G.H. A&E Dept., S.G.H. Specialist Clinics, district hospitals, polyclinics, and ante-natal mothers admitted for deliveries or from MCH clinics. This admission counter will be manned by counter receptionists and hospital attendants. The function of this admission counter in addition to processing of patient for hospital admission will be as follows:

(i) Collection of ward deposits;
(ii) Collection of ward charges during weekends and public holidays; and
(iii) Provision of patient information services.

4. Radiology Seminar in Kuching, Sibu & Miri.

Dr. Ng Seng Man will accompany Professor Hachiya and Professor Nitatori to Miri and Sibu for the Radiology Seminars respectively on 22th February, 1993. The group will be back in Kuching on 24th February, 1993 and conduct a seminar in S.G.H. on 26th February, 1993. Participants of the seminars include Medical Officers, Medical Assistants, Radiographers and Nurses.

5. Submission of Additional Equipment under Fiscal Year 1993 Allocation.

Committee Members were informed that the ceiling mounted xray machine and daylight processor as requested in the 1992 list have been cancelled by JICA. The culmulative balance up to 1993 is approx. M$600,000.00. All Specialists/Committee Members are requested by Dr. Yao to submit their additional requests for 1993 one week from today.

6. Annual Work Plan 1993 - Draft

6.1 Draft as reported by Dr. Kurogi is as attached.

6.2 Starting March 1993 one to two Medical Officers to A&E Dept. will do three months rotational attachment with Anaesthesiology Dept. so as to obtain on the job training on airway management, ICU management and some practical experience on Anaesthesiology. As such, Anaesthesiology Dept. will not have its own number of Medical Officer.

6.3 Dr. Naresh Singh suggested that the possibility of general anaesthesia services in A&E O.T. in the future be considered seriously by the Committee. As far as orthopaedic patient is concerned he is in favour of immediate operative interventional procedures to be done in the A&E O.T. if indicated. This issue needs to be further with Dr. Wong May Sum and Dr. Kurogi.

6.4 Dr. Kurogi suggested that inorder to widen the scope of availability of candidates for training in Japan the selection process be by open advertisement. He suggested that Sarawakian working in West Malaysia Hospitals and West Malaysian Doctors with Sarawakian spouses be considered eligible to apply. The Committee decided that the above suggestion be brought to the attention of D.M.S. for final decision. For 1993 candidate list the respective Forms must be submitted by 31/3/1993.

6.5 In respect of Japanese Experts despatch for fiscal year 1993 negotiation is in the process for a Gastroentrologist and a Traumatologist. One of them may be visiting Kuching sometime in April 1993 on his own.

6.6 Dr. Kurogi raised the issue of documentation of treatment protocols. He strongly feels that this task has to be done together with S.G.H. Specialists. Henceforth, all Specialists are requested to cooperate in this matter.

6.7 Compilation of project indicators need to be addressed to. All Committee Members are requested to submit their suggestions to before the next meeting.

Dr. Yao requested all Committee Members to submit their suggestions and/or amendments in reference to the annual work plan 1993 by 26/2/1993 to Medical Superintendent.

The meeting adjounred to 4.45 p.m. The next JICA Technical Committee Meeting will be on 26th February, 1993 @ 2.00 p.m.

"QUALITY SERVICE MAKES A DIFFERENCE"
"BERKHIDMAT UNTUK NEGARA"

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

Date: 3/3/1993

Distribution
All Committee Members

YSK/ml

Minutes of the 5th Meeting Of The Technical Committee for JICA Project - Upgrading and Improvement of Accident & Emergency Services in Sarawak

Venue: SGH Mini Conference Room
Time: 2.30 p.m.
Date: 2nd April, 1993

Present: Dr. Yao Sik King, Chairperson, Medical Supt.
Dr. Norulhuda Bt. Nasiruddin, Head, Radiology Dept.
Dr. Tan Poh Tin, Head, Paediatric Dept.
Dr. Wong May Sum, Head, Anaesthesiology Dept.
Mr. Goh Kiang Hua Head, Surgical Dept.
Dr. Chew Peng Hong, Head, Medical Dept.
Dr. Lee Khoon Siew, Deputy Medical Supt.
Hj. Seruji B. Achek, Ag. C.M.A., A&E Dept.

Japanese Side: Dr. Hirofumi Kurogi, Team Leader
Dr. Yuji Asoh, Neurosurgeon
Mr. Mitsumasa Arima, Co-ordinator

Absent: Dr. Naresh Nirmal Singh, Head, Orthopaedic Dept.
Dr. Patricia Ling, Head, O&G Dept.
Dr. Peter Ting, MOIC, A&E Dept.
Ms. Yoshiko Sugie, Nurse

Agenda:
(1) Approval of Annual Work Plan 1993
(2) A&E Dept. Renovation Report
(3) Training Programme 1993:
(i) in Japan
(ii) in Sarawak
(iii) in ? Singapore
(4) 1992 Training Courses Report:
(i) Aircraft Crash Drill on 18/2/1993
(ii) Radiology Seminar 22-26 Feb. 1993
(iii) A&E Staff Airway Treatment Course
(5) Project Evaluation Indicators
(6) Review Terms of Reference
(7) Any matters arising

(1) Discussion On Approval Of Annual Work Plan 1993

Medical Superintendent reminded the committee that approval for the various strategies and activities for 1993 have to be given. The plan was then discussed at length.

Strategy 1 - COOPERATION OF ALL STAFF OF THE SGH.

Point 1

1.1 Amend the handing over for Dr. to Dr. to verbally only and by "doing a round", i.e. not necessary to hand over in writing.

1.2 to 1.4 All agreed. Mr. Korugi is still redesigning the the examination sheet for patients.

1.5 For seriously ill patients in the A&E, it was agreed that either the A&E Medical Officer or the respective ward doctor may accompany the patient up to the ward as long as either one is present.

1.6 For mild, moderately ill cases, A&E Medical Officer needs only to inform the ward concerned when admitting.

Point 2

Medical Superintendent pointed out that she hoped the various departments would demonstrate a real commitment to respond to A&E when called upon for consultation. After lengthy discussion, it has decided that the M.O. on-call for the respective units should be consulted first, failure to respond within 10 minutes, the Registrar should be consulted; failing also to respond within 10 minutes, the A&E (MO) should consult the specialist directly.

An official circular on this matter will have to be distributed to all doctors concerned by the Medical Supt. Office. All Heads of Depts. are urged to ensure this circular will be understood and followed by all doctors.

Action: Deputy Medical Supt.

Strategy 2: "REORGANISATION OF EXISTING A&E DEPT."
: All agreed to.

Strategy 3: "REFINEMENT OF PATIENT TRANSFER WITHIN A&E DEPT. AND IN THE HOSPITAL"
: Dr. Norulhuda agreed to revise standing orders for xrays. The other points were all agreed on.

Action: Dr. Norulhuda

Strategy 4: "UPGRADE LEVEL OF AMBULANCE SERVICE"
: Agreed.

Strategy 5: "UPGRADE LEVEL OF CARE AT A&E DEPT. THROUGH IMPROVING LEVELS AND STANDARDS. CARE IN TERMS OF DIAGNOSIS, THERAPEUTIC AND OPERATIVE SERVICE".

1.3 The committee agreed that the C-arm image intensified should not be moved.

#2. Strategy 2 points 1.1 - 1.3 on training of M.O.
: Agreed.

1.4 Protocols.
Dr. Chew Peng Hong raised the point that before treatment protocals could be produced, the level of care to be administered at A&E Dept. has to be decided upon. Another meeting between the Japanese experts and respective departmental heads will be needed to fit the various levels for each discipline.

(2) A&E Dept. Renovation Project

Haji Seruji reported that a few more days work was all that was needed to complete the renovation. Apparently quality of work is very poor. The Engineer, Ir. Hamidon, will be requested to chase' the contractor as such.

(3) Training Programme 1993:

(i) For Sarawak: Apart from training medical officer, it would be necessary to train the ambulance teams to operate the various facilities, etc.
- need to conduct PR Course for A&E staff.
- need to conduct triage course for M.As working in A&E.

(ii) Training in Singapore.
Dr. Yao informed that Singapore General Hospital A&E Dept. would be willing to accept participants for Sarawak for their various courses/attachment. The committee agreed that this should be an avenue to pursue inorder to increase the number of staff who will then receive training. Dr. Yao and Dr. Kurogi will look into this.

Action: Dr. Yao
Dr. Kurogi

(4) 1992 Training Courses

Dr. Yao gave a report on the Air Crash Drill which was conducted recently.

Mr. Goh commented that the plan needs updating and rewriting especially with regards to other necessary actions like clearing of wards, restocking of pharmacy, etc. Dr. Yao commented that at the Sarawak General Hospital level, further drills need to be conducted.

Action: MOIC, A&E Dept.
Deputy Medical Supt.

Following the successful Radiology Seminar, JICA has donated a projector and screen to Sibu Lau King Howe Hospital.

The airway treatment course which was conducted for A&E M.As. will again have to be incorporated in the coming course of M.O.

(5) JICA Project Evaluation Indicators

Dept. heads are asked to submit their indicators to Medical Supt. 1 week from today.

(6) Review Terms Of Reference

Dr. Yao brought to attention that the Director of Medical Services would like to have a review of the terms. The Committee agreed to leave it to Dr. Yao to discuss with the Japanese team if any changes need be made.

(7) Any Matters Arising.

Dr. Asoh sought clarification on why his request for CT Scan/Angiogram was turned down for a patient he saw. It was pointed out and explained that as the patient was referred by a GP, patient needed to pay first, failing which, the examination was not done.

→ Advisory Mission Team.

Dr. Kurogi informed that the Gastroentrologist will be in Sarawak from June 28th - July 4th, 1993. However he will actually be in Kuching only for 2-3 days.

The Traumatologist will be here on 16th April, 1993.

Mr. Arima informed that A&E equipment should be here by May. Mr. Arima will look into the purchase of telephone kiv Smartphone or ATUR. Dr. Yao will have to get the ATUR frequency.

Dr. Yao informed the Committee on the decision made concerning the nomination and selection of candidates for A&E training in Japan. The Director of Medical Services has decided that that priority be given to Sarawakians working in Sarawak Gov't Hospitals and secondly to West Malaysians working in Sarawak Hospitals who agree (gentlemen's agreement) to serve at least 1 year in Sarawak after the Japan training. The Committee will have to advertise when places are available. Medical Headquarters will forward the list of suitable/eligible Medical Officers to this Technical Committee. This Technical Committee will then have to shortlist and interview these candidates before submitting to Director of Medical Services for final approval.

The Committee would like to ask for certification of training from these candidates after they have successfully completed their training in Japan.

The meeting adjourned at 4.55 p.m. The date for the next JICA Tehnical Committee Meeting will be on 30th April, 1993.

"QUALITY SERVICE MAKES A DIFFERENCE"
"BERKHIMAT UNTUK NEGARA"

DR. LEE KHOON SIEW
Timbalan Penguasa Perubatan
Hospital Umum Sarawak
Kuching.

Date: 5.4.1993

Distribution:
All committee members.

Minutes Of The 6th Meeting Of The Technical Committee For JICA Project - Upgrading And Improvement Of Accident & Emergency Services in Sarawak

Venue: SGH Mini Conference Room
Time: 3.30 p.m.
Date: 30th April, 1993

Present: Dr. Yao Sik King, Chairperson, Medical Supt.
Dr. Norulhuda Bt. Nasiruddin, Head, Radiology Dept.
Dr. Tan Poh Tin, Head, Paediatric Dept.
Dr. Wong May Sum, Head, Anaesthesiology Dept.
Dr. Naresh Nirmal Singh, Head, Orthopaedic Dept.
Dr. Chew Peng Hong, Head, Medical Dept.
Dr. Lee Khoon Siew, Deputy Medical Supt.

Japanese Side:
Dr. Hirofumi Kurogi, Team Leader
Dr. Yuji Asoh, Neurosurgeon
Ms. Yoshiko Sugie, Nurse

Absent: Mr. Goh Kiang Hua Head, Surgical Dept.
Dr. Patricia Ling, Head, O&G Dept.
Dr. Peter Ting, MOIC, A&E Dept.
Mr. Mitsumasa Arima, Co-ordinator

Agenda:
1. Confirmation of Minutes of the 5th Meeting on 2nd April, 1993.
2. Other matters arising.

1. Confirmation Of Minutes of the 5th Meeting on 2/4/1993

1.1 The Minutes were approved.

1.2 For Training Programme for 1993, 1 triage course for Medical Assistants, Nurses, Attendants, Drivers was conducted by Dr. Kurogi on 29/4/1993.

For the airway treatment course, 1 Medical Assistant and 1 Staff Nurse given practical training one time in 2 weeks starting mid April 1993.

2. Other Business

2.1 The Committee was informed that A&E Dept. had moved back to the renovated old A&E from today, i.e. 30th April, 1993.

2.2 Triage Card

The triage card revised by Dr. Kurogi was discussed at length. Some changes were made. It was discussed and decided that the BASIC EXAMINATION (TRIAGE) CARD should be kept in A&E Dept. and not given to patient.

For the Examination (Triage) Card for non-trauma and trauma, Dr. Kurogi explained on why the questions and examined were arranged as such.

It was decided that for Examination (Triage) card for non-trauma the section as part of history, signs and symptoms and *suspected diagnosis be omitted as there will be in the basic card.*

Dr. Kurogi will revise these cards again and start using them in A&E Dept.

2.2 The matter of requests for Neurosurgeon and short-term experts were discussed. The Hospital will submit the A1 Form for request for renewal of Dr. Aso's contract which finishes this August 1993.

Concerning the short-term experts, there was some confusion raised. Dr. Yao expressed concern that the quota for requests for 1992 and 1993 had already been submitted and that it would not be proper for Sarawak General Hospital to submit further requests. Dr. Kurogi replied that as far as short-term experts are concerned, the number requested is not limited to 3 a year. Finally, it was agreed that Dr. Kurogi will check up on the Terms of Reference again.

The meeting adjourned at 5.30 p.m. The date for the next JICA Tehnical Committee Meeting will be on *22nd June, 1993 @ 3.30 p.m. at SGH Mini Conference Room.*

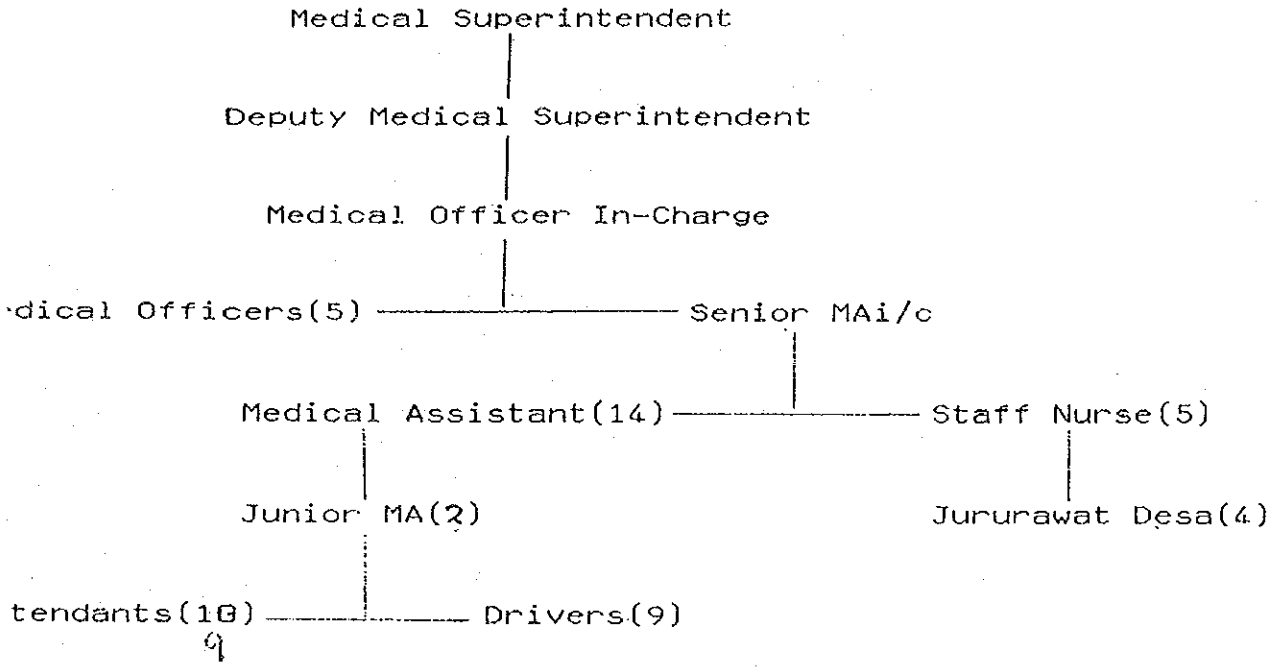
"QUALITY SERVICE MAKES A DIFFERENCE"
"BERKHIMAT UNTUK NEGARA"

DR. LEE KHOON SIEW
Timbalan Penguasa Perubatan
Hospital Umum Sarawak
Kuching.

Date: 19.5.1993

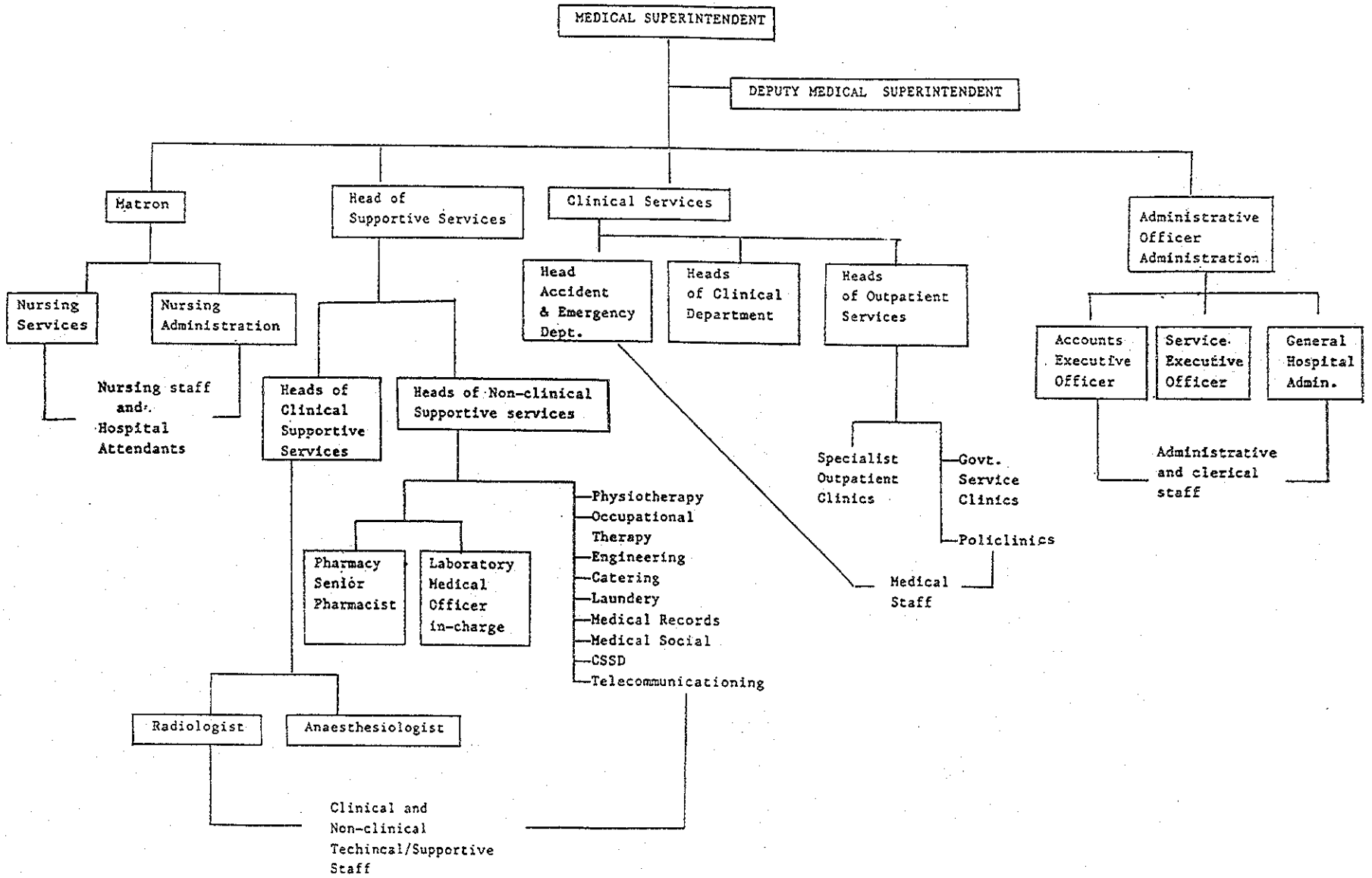
Distribution:
All committee members.

Carta Organasasi UNIT A&E



5 Ambulances.

ORGANISATION CHART SARAWAK GENERAL HOSPITAL (MANPOWER)



C U R R I C U L U M

March 1 & 2, 1993	Handling & Transport
March 8 & 9, 1993	Dressing & Bandages
April 26 - 28, 1993	CPR (Major First Aid Techniques)
June 24 & 25, 1993	Action at an Emergency Procedure at Major Incidents
July 13 & 14, 1993	Asphyxia
July 27 & 28, 1993	Wounds & Bleeding
August 12 & 13, 1993	Circulatory Disorders Back Injuries
August 24 & 25, 1993	Unconsciousness
September 14 & 15, 1993	Fractures Muscle & Joint Injuries
November 18 & 19, 1993	Burns & Scalds
December 1 & 2, 1993	Effect of Extremes of Temperature Poisoning
December 15 & 16, 1993	Foreign Bodies Aches

The dates are subject to change.

FIRST AID COURSE

OBJECTIVES

Through the course, participants will be able to carry out all First-Aider-level patient assessment and treatment.

FOR WHOM

Drivers and attendants in A/E Department.

DURATION

24 hours over 12 sessions
2 hours per session

COURSE METHODOLOGY

Lecture
Demonstration
Practical Training
Discussion

The textbook "First Aid Manual" will be provided for each participant.

2)　クアラルンプールにおける救急セミナー資料

PERKHIDMATAN KECEMASAN DAN KEMALANGAN DI MALAYSIA

TEMPAT : DEWAN KULIAH 1 UKM
PADA : 3 HB JULAI, 1993
MASA : 8.00 PAGI - 12.30 TGH.

ANJURAN BERSAMA:

KEM. KESIHATAN MALAYSIA
& JABATAN A&E
HOSPITAL KUALA LUMPUR

CONTENTS

GUIDELINES FOR THROMBOLYTIC THERAPY (STREPTOKINASE) AT THE A&E DEPARTMENT,HOSPITAL KUALA LUMPUR.

Criteria: 1.Acute myocardial infarction (AMI) within 6 hours of onset of chest pain.

Diagnostic criteria for AMI:
- -typical chest pain
- -ST segment elevation of at least 2 mm in 2 or more ECG leads

2.Availability of bed in CCU
3.No contraindication for thrombolytic therapy

EXCLUSION CRITERIA
1. Age of >65 yrs*
2. >6 hours after onset of chest pain*
3. Severe hypertension (>200/120)
4. Active/bleeding peptic ulcer
5. History of allergy or reaction to Streptokinase
6. Major surgery or trauma in the previous 4 weeks
7. Anticipated surgery within the next 48 hrs
8. Arterial puncture within the previous 7 days
9. CVP line placement in the 7 days prior to treatment,or anticipated within 48 hrs.
10. Concomitant anti-coagulant therapy
11. Stroke within the last 6 months
12. Bleeding disorders
13. Pregnancy
14 Known AV malformation,intracranial aneurysm or tumour in the brain.
15. Any life-threatening conditions including end-organ failures.
16. If an alternative therapy is strongly suspected eg. pericarditis,dissecting aneurysm or oesophagitis.
16. Streptokinase administration within the previous 3-6 months
17. Prolonged traumatic cardiopulmonary resuscitation

*Streptokinase may still be considered but at the discretion of the Consultant on call.

STEP-WISE PROCEDURE
1. Inform CCU Staff nurse via INTERCOM at A&E
   Staff nurse will ensure bed avilability and inform medical officer to be on stand-by.
2. Inform patient and/or relative
3. Set up two IV lines: one for blood sampling and the other for IV Streptokinase (SK)
4. Send off the following blood tests: Cardiac enzymes
   Renal profile
   Hb,TWDC and Platelet
   PT,APTT
   Others if relevant eg.RBS

5. Group and cross match 2 pints blood and keep in reserve
6. IV Hydrocortisone 200 mg prior to SK for those where allergy is suspected.
7. Commence 1.5 mega units of IV SK diluted to 50-100 cc of N/S or 5% D given over one hour.
8. Following completion of SK infusion, commence IV heparin infusion 1,000 U/hr for 48 hrs (monitor with APTT)
9. Commence Aspirin 75-150 mg orally if there are no contraindications, on day of completion of heparin.
10. Transport the patient to CCU, accompanied by MO and a portable defibrillator/monitor, as soon as bed is available.This should not take more than 15 minutes.

MONITORING

1. Continuous ECG monitoring
2. BP and PR recording every 15 mins during SK infusion,then every hour for 6 hrs.
3. Bleeding
4. Continuing chest pain

COMPLICATIONS AND THEIR MANAGEMENT

1.Arrhythmias

(a) Complete heart block/AV dissociation

ACTION:

IV Atropine 1 mg
Document and inform specialist

(b) Ventricular ectopics or tachyarrthmias with stable haemodynamics

ACTION:

Document and inform specialist

(c) Ventricular tachycardia or fibrillation with unstable haemodynamics

ACTION:

Cardioversion 200 joules
Stop SK
Inform specialist

2.Hypotension (SBP < 90mmHg OR drop of SBP of > 40mmHg)

ACTION

Stop SK
Look for possible bleeding sites
Group and cross match 4 U blood and plasma
Transfuse with Normal Saline
Consider vasopressor agent eg Dopamine

3.Anaphylactic shock

ACTION

Stop SK
IV Adrenalin 1 ampoule diluted appopriately
IV Hydrocortisone 200 mg stat and every 6 hrs
Group and cross match 4 U blood and plasma
Transfuse with haemacoele,Normal Saline,blood

4.Bleeding

ACTION

Stop SK
Group and cross match 4 U blood,FFP and transfuse
Apply pressure over bleeding sites

PRE-REQUISITES AT THE A&E DEPARTMENT

Manpower: 4 trained medical officers (MO)
4 trained Staff nurses
4 trained medical assistants

Equipment: Standard resuscitation equipment
2-beds with bed-side monitors for continuous ECG and BP monitoring
2 portable monitor/defibrillator

MODE OF TRAINING:
(1) BLS and ACLS training

(2) CCU training for one month for 2 MOs on rotation fron A&E.MOs to go on 12-hrly shifts in CCU and to participate actively in the acute management of AMI patients.A VIVA will be conducted at the end of the Course for evaluation.

(3) A one-day workshop on AMI to be conducted by HKL/UKM/IJN 4 times a year for MOs,Staff nurses and medical assistants.

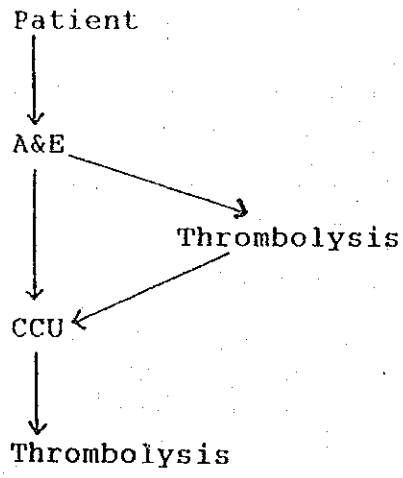
SUCCESS OF THE PROGRAMME WILL DEPEND ON THE FOLLOWING:
1. Awareness of the importance of early thrombolytic therapy amongst doctors and staff at the A&E and other departments.

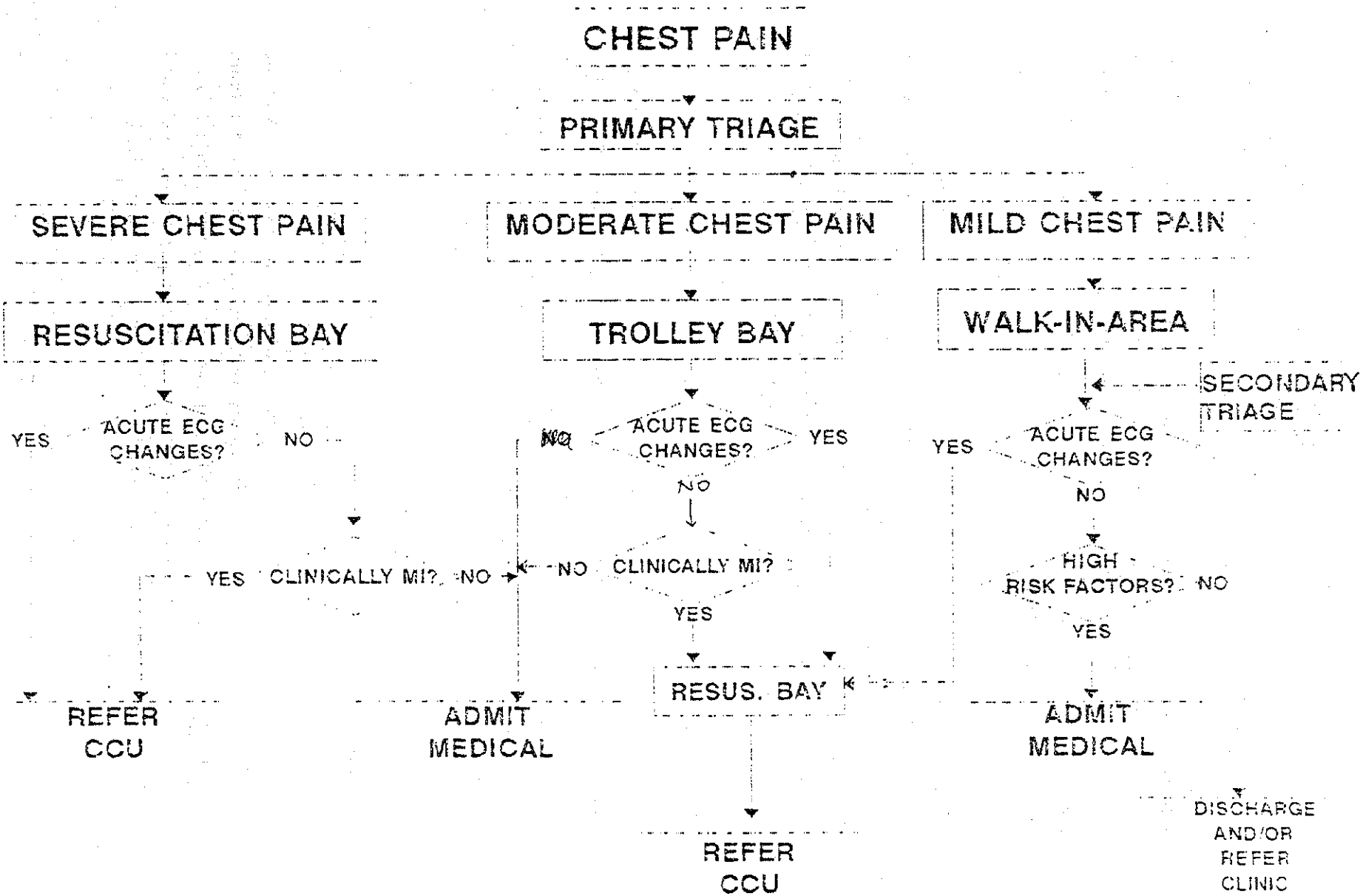
2. Close co-operation amongst the consultants in the Medical department and UKM to ensure the availability of at least one bed in CCU and CRW at any one time.The Sisters in CCU and CRW must co-operate fully to expedite the process of vacating beds for AMI patients requiring thrombolytic therapy.

3. "Fast-tracking" of patients requiring SK therapy.Doctors at the A&E dept. must be familiar with symptoms and ECG changes of AMI and the protocol for thrombolytic therapy at the A&E.

4.Provision of a"fast lane" for patients from A&E to the CCU. Committed staff of utmost importance here.

FLOW CHART FROM A&E TO CCU




CHEST PAIN
PRIMARY TRIAGE
SEVERE CHEST PAIN
MODERATE CHEST PAIN
MILD CHEST PAIN
RESUSCITATION BAY
TROLLEY BAY
WALK-IN-AREA
SECONDARY TRIAGE
ACUTE ECG CHANGES?
YES
NO
CLINICALLY MI?
HIGH RISK FACTORS?
RESUS. BAY
REFER CCU
ADMIT MEDICAL
DISCHARGE AND/OR REFER CLINIC

CONCEPT OF TRAUMA CARE

Dato Dr Mahmud Mohd Nor
Head, Dpartment of Surgery
Hospital Besar, Kuala Lumpur

Throughout the history of the human race injury has been a major cause of death whether accidental or arising from conflicts. Some of the most primitive writings suggest that trauma was a significant factor in the struggle for human survival.Trauma in most developed countries has become the leading cause of deaths in the young and productive age groups. A similar trend is being seen in Malaysia.

The worldwide development of trauma care has now led to better organised care, as evidenced by the development of trauma systems which have had significant impacts on the ultimate outcome of many trauma patients. In the developed countries of the world the U.S.A has been in the forefront in the development of trauma care. The committee on Trauma of the American College of Surgeons has been playing a significant leadership role in the development of trauma care.

Epidemiology

As with most disease, to address the trauma problem effectively the pathophysiology and epidemiology must be studied. A study conducted in 1980 showed that death from trauma has a trimodal distribution characterised by:

i) Immediate
ii) Early
iii) Late.

i. Immediate death

The first peak or immediate death occurs within seconds or minutes of the injury. These are due to massive injury to vital organs like the brain, brain stem, upper spinal cord, heart and the large vessels. Very few of these injuries can be salvaged although in developed countries with rapid transport and a well organised trauma system a small number of these cases have been saved.

ii. **Early death**

The second peak or early death occurs within 2 to 3 hours of injury. The American College of Surgeons Committee on *Trauma's Multiple Trauma Outcome Study* has shown that 62% of all hospital deaths occur within the first 4 hours. These are usually associated with subdural or extradural hematoma, hemopneumothorax, ruptured spleen, lacerations of the liver or multiple injuries associated with severe blood loss. All these injuries are treatable by modern techniques but the interval between injury and definitive care is critical.

iii) **Late death**

This third peak occurs days or weeks after the injury. In nearly 80% of these deaths the cause is sepsis or infection and multiple organ failure. The precise causes of some of these deaths have not been entirely elucidated.

Because each of the death peak has its own unique problems, a strategy to solve trauma problems would have to take into consideration the problems at each peak. The American College of Surgeons Committee on Trauma has been addressing this issue and since 1976 it has been recommending the establishment of a trauma system that addresses all three death peaks.

Constituents of a Trauma System

In 1986 the American College of Surgeons Committee on Trauma defined a trauma system as being composed of two components:

Patient Component which include:

1. Access to care
2. Prehospital care
3. Hospital carre
4. Rehabilitation

Societal Component which include:

1. Prevention
2. Disaster medical care
3. Education
4. Research
5. Economics of trauma care.

I will discuss the patient component in more detail.

Patient Component

1. ***Access to Care***

Access, usually not a problem in urban area, can be a major problem in rural areas. One of the most important aspect of access to care is the recognition that an accident has taken place. An anticipatory approach is necessary.

An example of an anticipatory measure is the installation of emergency telephones along highways and other places or activities with a high risk of trauma.

2. ***Pre hospital care.***

This is composed of many elements but the primary focus is the personnel necessary to provide initial resuscitation, treatment and triage of injured patients. Secondary elements include ambulances and equipment necessary to extricate, treat and transport the patient to the appropriate facility as quickly as possible.

The importance of pre hospital care in terms of rapid transport to minimise the time interval from Injury to Surgery has been clearly borne out by the experience of the U.S.A in four major conflicts as depicted in the table below:

Conflict	Time Interval	Mortality
World War I	12 - 18 hours	8.5%
World War II	6 - 12 hours	5.8%
Korean War	2 - 4 hours	2.4%
Vietnam War	65 minutes	1.7%

Undoubtedly there were other factors that had influenced the reduction of the mortality figures. However other studies have also shown that the time interval

between injury and definitive surgery has not only reduced mortality but has reduced to a significant degree the disability arising from the trauma.

3. *Hospital Care*

Optimal hospital care of injured patients require the total commitment of the management, medical and nursing personnel and all the support personnel.

The quality of surgical leadership is paramount in the development of a trauma centre that is fully equipped and staffed to treat the severely injured patients.

4. *Rehabilitation*

This is a very important component of trauma care. It is pointless to develop sophisticated prehospital and hospital care to resuscitate and treat severely injured patients if they cannot be sufficiently rehabilitated. It is really very costly if the patient cannot be returned to society with minimal disability.

Development of a Trauma System

The development of a Trauma system goes through the following stages:

1) Needs assessment

2) Establishing authority
i.e. Governmental support

3) Developing Criteria

4) Democratise the process

5) Peer review of proposal

6) Ongoing needs assessment and quality assurance.

The above sequence is necessary as opposition to the establishment of Trauma Centres do not usually come from the public who are usually not well informed of the trauma problem. The objections to the establishment of a trauma centre has mainly come from doctors and surgeons who have questioned the concept from its inception. Although they are a small minority, they can impede the development of a trauma system.

Impact of a Trauma System

Does the establishment of a Trauma System have an effect on the survival of the trauma victims? Is there any evidence that a trauma system does make a difference?

The experience of West Germany in establishing a trauma system based on the American experience is perhaps the most convincing evidence for the the need to establish trauma centres. In 1970 the West Germans studied and applied the American model throughout their country and established trauma centres along their major autobahns. Integral to their trauma system is the rapid prehospital transport using either air or ground transport. Within this system 90% of all citizens of West Germany are no more than 15 minutes from a designated trauma centre. In addition to the superb prehospital care, they also have surgeons, anesthesiologists and nurses in-house 24 hours a day in the designated trauma centre.

As a result of this regionalised system the mortality for motor vehicle accident dropped from 16,000 / year in 1970 to 9,000 in 1988, a reduction of 40%. Their rehabilitation system is also excellent, with 85% of critically injured persons going back to work within 3 months.

A number of studies in the U.S also showed drastic reduction in the percentage of preventable deaths when patients are treated in designated trauma centres as compared to non trauma centres.

One of the best examples of the value of a trauma system is demonstrated in Orange County California. A study published in 1979 compared Orange County which did not have a trauma system with San Francisco, a county which did. Preventable death rate in Orange County was 33% whilst only 1 patient died in San Francisco. A second study also confirmed the findings of the first study.

As a result five trauma centres were established in 1980 in Orange County. A third study subsequently done showed that when patients were treated in one of the five designated trauma centres, preventable deaths were reduced from 73% to 9%. For patients who were sent to a hospital that was not a trauma centre the preventable death remained at 67%.

Conclusion

In conclusion, trauma is a devastating health and social problem. The solution is in the development of a nationwide trauma system. The evidence around the world is overwhelming that a trauma system can make a difference in not only saving lives but prevents disability and reducing costs. The leadership for its establishment must come from the surgical community.

REVIEW OF ASTHMA BAY

INTRODUCTION: The Asthma Bay was reorganised in late 1992. A review was done to identify various problems there for further improvement. Points to note are:

1. Asthma patients are seen here immediately without any delay.
2. There is a medical officer incharge of the Asthma Bay to assess patients and start treatment immediately.
3. Patients stay in Asthma Bay, and are reviewed periodically until they are discharged or admitted.
4. There is a Medical Assistant to monitor these patients.

A data collection was done on the Asthma Cases for a period of one month from 5.2.93 till 5.3.93.

Total number of patients - 1118

I.	Sex:	Male -	692
		Female -	426
	Average Daily Number:		38
II.	Race:	Malays -	742
		Chinese -	111
		Indians -	251
		Others -	14
III.	Age:	< 12years -	294
		12-60yrs -	743
		> 60years -	81

IV. Treatment and Average Time Spent in Asthma Bays.

	Number of Cases	Average Time Spent
Nebuliser salbutamol(A)	705	50mins
A + subcutaneous terbutaline(B)	145	1hr 35min
B + intravenous hydrocortisone(C)	165	2hr 15min
C + aminophylline drip(D)	103	5hr 45min

PROBLEMS IDENTIFIED IN ASTHMA BAYS:

1. Inadequate space for optimal management of patients.

2. High patient turnover at certain times depletes staff, equipment and space.

3. Non-availability of disposable sputum bags.

4. Lack of privacy for patients during clinical examination and treatment (eg. injections).

5. Space constraints does not allow management of asthma patients on trolleys, who, sometimes have to be lifted and helped into the bay.

6. The central air-conditioning is often too cold and not conducive for patient recovery and ventilation is inadequate.

7. Lack of oxygen points.

8. No proper peak flow meter with disposable mouth-pieces.

9. Nebulisers are inadequate in number and equipment servicing is lacking.

10. Certain drugs eg. atrovent, becotide not available.

11. Asthma Bay scenario with wheezing adults not healthy from a psychological point of view for children with wheeze - some separation is advisable.

CONCLUSION: Further data is continuously being collected and close liaison with the Medical and Paediatric Departments is being maintained to further improve the services.

BODY FLUID CONTAMINATION STUDY (A & E HKL)

Introduction: Contamination from body fluids during management of the multiply injured patient or the acutely ill medical patient is very common. In view of the present situation where HIV and Hepatitis present real dangers to medical personnel attending to such patients, the Accident & Emergency Department undertook a study to investigate the extent of the problem.

Methodology: This prospective study spans a period of 3 months, ie, from 5.1.93 till 5.4.93.

The cohorts includes all doctors, medical assistants, nurses and male attendants. Each person was required to fill a form (Appendix A) at the end of his shift. The forms were then collected and the findings noted.

Results:

Duration of study	5.1.93 till 5.4.93
No. of forms received	584
No. of forms with contamination	430
Percentage of contaminated staff	73.8%

Common sites of contamination:

Hands	45%
Upper Arms	32%
Below wrist	31%

Area where most contamination occure was the Resuscitation Room.

Breakdown of staff with contamination

Medical Assistants	29%
Nurses	20%
Doctors	17%

SUMMARY:

The study clearly shows that medical personnel, in particular those working at the Accident and Emergency Departments are exposed to a significant amount of body fluid contamination.

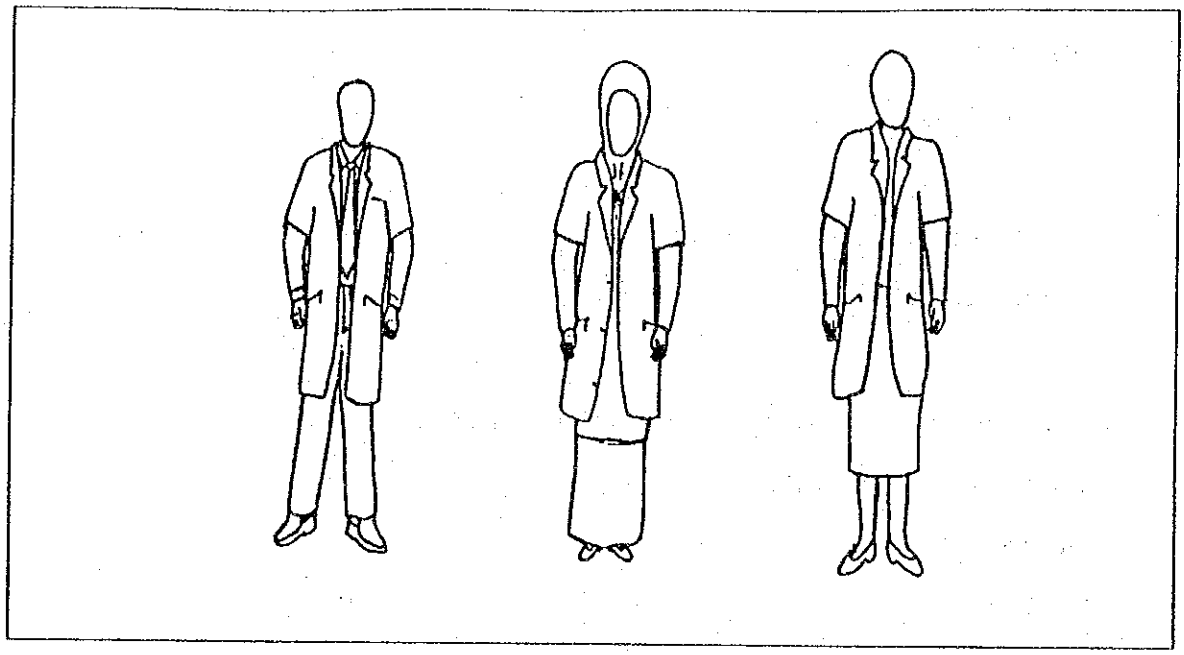
As such, there is a need for a new standard uniform for all staff to minimise the risks of contamination. It would be more hygienic and also enable personnel to work without restrictions and would project an image of efficiency.

HOSPITAL BESAR KUALA LUMPUR

FLUID CONTAMINATION STUDY

NAME:.....

POSITION.:..... DATE:.....



A.	**Please complete for contamination of uniform and underlying skin contamination. Please indicate site/s and body fluid/s involved e.g blood**	Please check beneath uniform for skin contamination				
		Head		Abdomen		
		Chest (front)		Back		
		Upper arm		Below waist		
B.	**Please complete for contamination of skin not protected by uniform**	Face/neck		Hands		
		Arms		Leg/ankle		
C.	**A/E Location**	Resus		Trolley		
		Reception Area		Exam		
		IC		Not known		
D.	**Procedure being performed**				Not known	
E.	**Other protective clothing worn at time of incident**	Gloves		Visor/goggles/ own spec		
		Lead apron				
		Face mask		plastic apron		
		medic 1 jacket				

STUDY ON BATTERED WIVES (A & E, HKL)

The A & E Department of HKL receives patients who fall under the category of "Battered Wives." These patients are first examined and treated appropriately. They are then referred to the Medical Social Worker in the hospital for counselling. They may be then referred to the Welfare Deaprtment, Women's Aid Organisation, the Police Department or Jabatan Ugama Islam Wilayah (JAWI), depending on the nature of the case. Cases who come after office hours can be admitted if necessary, for protection, in the Casualty Ward, and arrangements will be made for them to see the Medical Social Worker the next day. A study was initiated in February 1993, and data collected for the first month is analysed in this report (26 cases). Up to the end of June 1993, 125 cases of wive battering have been recorded.

RESULTS OF DATA ON WIFE-BATTERING FROM 7.2.93 TILL 7.3.93.

1. Number of Cases - 26

2. Ethnic Breakdown:
   - Malay - 11
   - Chinese - 7
   - Indians - 5
   - Others - 3 (Thai, Eurasians, Indonesians)

3. Age Groups:	20-25yrs	-	5
	26-30yrs	-	7
	31-35yrs	-	7
	36-40yrs	-	6
	41-45yrs	-	1

4. Occupation of Wives:	Housewives	-	10
	Clerks	-	5
	Officer	-	1
	Entertainer	-	1
	Manual Workers	-	9

5. Occupation of Husbands:	Manual/Lower Category Workers	-	12
	Officers	-	3
	Clerk	-	1
	Entertainer	-	2
	Policemen	-	3
	Salesmen	-	3
	Unemployed	-	3

6. No. of children amongst battered wives:

No Children	-	2
1 Child	-	11
2 Children	-	3
3 Children	-	2
4 Children	-	3
5 Children	-	2
6 Children	-	2
7 Children	-	1

7. Mechanism of abuse/injury in battered wives.

Punched/Slapped	-	17
Attacked with objects	-	7
Kicked	-	6
Throttling	-	2
Burns	-	2
Bites	-	1

8. Types of Injuries in Battered Wives:

Bruises	-	14
Haemotomas	-	9
Abrasions	-	9
Lacerations	-	3
Subconjuctiral Haemorrhage	-	2
Ruptured Tympanic Membrane	-	1
Bleeding per vaginum	-	1

ANALYSIS OF DATA AND CONCLUSIONS:

1. Malay wives fromed 42% of total number of wives battered.

2. Almost 50% of wives battered were below the age of 30years.

3. About 72% of abuse of wives occurred in housewives and manual workers.

4. Husbands who battered their wives were mainly form the manual workers group (almost 50%).

5. Most couples had one child.

6. 65% of wives were punched and / or slapped.

7. Bruises, haematomas and abrasions were the main type of injuries.

SUGGESTIONS.

1. The police, WAO and JAWI take a serious view, (especially at grassroot level) of this issue and to provide necessary aid to the victims.

2. To formulate a set of guidelines or protocol to aid these victims (without adding further abuse) - from the time the patient first approaches the hospital or police till the complaint is settled/solved amicably and satisfactorily.

This protocol should be used nationwide.

3. There should be more social workers at HKL, and to have 24 hours counselling service.

4. More shelter for the victims and children.

5. A seminar be held involving concerned agencies,

   i. to provide a smooth machinery to help the victims.

   ii. to obtain publicity pertaining to this issue and thus make the public more aware of the ugly existence of this problem.

INDUSTRIAL ACCIDENTS (A & E HKL: Mar - May 1993)

An estimated 500 people die each year from accidents at the workplace. Another 100,000 sustain significant injuries. The estimed loss to the Government as a result of this is RM4 Billion a year.

A study was done at the A & E Department HKL pertaining to industrial accidents.

Patient selection: All patients who were admitted to the Casualty Ward or Immediate Care Area were selected. Those with minor injuries and eye injuries (who were admitted direct to the eye ward) were excluded. A total of 244 patients were studied.

DATA:

1. Breakdown by Sex: Male - 222 (90.9%)

Female - 22 (9.1%)

Breakdown by Ethnic Origin:

Race	Number	%
Malay	57	23.3
Chinese	50	20.4
Indian	34	13.9
Indonesian	78	31.9
Bangladeshi	19	7.7
Others	6	2.4

3. MECHANISM OF INJURY

Machine-related	151	61.8
Fall from height	48	19.6
Hit by a falling object	44	18.0
Explosion	1	0.4

4. MORTALITY

Cause of Death	No. of Deaths
Severe head injury	4
Intrabdominal injury	1
Crushed by crane	1

CONCLUSION:

1. Almost 40% of Industrial Accidents occured in Indonesians and Bangladeshis.

2. Machine-related injuries for 61.8% of types of injuries.

3. The mortality rate was 2.4%, leaving a morbidity of 97.6%.

This study should serve as a basis for more studies to gauge the safety standards in the construction industry (wher most Indonesians and Bangladeshi males are employed) and the manufacturing industry which contribute to the large percentage of machine-related injuries.

GS/vasr

POISONING CASES SEEN IN MARCH 1993 (A & E) HKL

Types of Poisons	No of cases	Details
Therapeutic agents	15	PCM 8 Sedative 3 LMS 2
Household Products	9	Bleach 4 Dettol 2 Shampoo 1 Perfume 1 Mapthalene 1
Plant/ Animal Poisons	8	Paraquat 2 OP 2 Insecticide 2 Rat poison 2
Others	5	Unknown

POISONING CASES IN MARCH 1993 (A & E HBKL)

1.	SEX	: MALES	12
		FEMALES	15
2.	RACE	: INDIANS	19
		CHINESE	11
		MALAY	5
		OTHERS	2
3.	AGE	: 11-15 yrs	4
		16-25 yrs	15
		26-35 yrs	8
		36-45 yrs	3
		> 46 yrs	2
		Unknown	5

POISONING IN MARCH 1993 (A & E) HKL

No of cases : 37

OUTCOME	:	Adm to Medical Wards	35
		Adm to ICU	1
		Discharged	1

MOST FREQUENT UNDERLYING FACTORS:
DOMESTIC CONFLICTS (10)

STUDY ON PRE-HOSPITAL CARE IN A & E DEPARTMENT HOSPITAL KUALA LUMPUR

A one month study (May 1993) to assess the type of transport utilised to bring in patients to the Accident and Emergency Department Hospital Kuala Lumpur was done. The data is appended below.

Mode of Transport of patients to A&E Department Hospital Kuala Lumpur May 1993

	MEDICAL	TRAUMA
MRCS Ambulance	17%	16%
Private Cars	31%	16%
Ambulance (referrals	20%	24%
Taxis	32%	44%

It can be seen that;

i) The Malaysian Red Cresent Society Service was utilised by 16 - 17% of patients.

ii) Taxis (44%) formed the bulk of transport mode to the Accident and Emergency Department.

It can be broadly concluded that re-organisation of this aspect of pre-hospital care is needed.

CRITICAL AND SEMI CRITICAL ADMISSION TO THE A&E DEPARTMENT, HOSPITAL KUALA LUMPUR

A 4 month analysis (March - June 1993) of admissions to the Resuscitation Room (critical cases) and Immediate Care area (semi-critical) revealed the following data:

	TRAUMA			MEDICAL	TOTAL
	SEMI CRITICAL	CRITICAL	TOTAL TRAUMA	CRITICAL	
MAR	448	167	615	300	915
APR	508	109	617	193	810
MAY	551	126	677	357	1034
JUNE	485	98	583	194	777
TOTAL	1992	500	2492	1044	3536

The data reveals:

i) There was an average of 884 critical and semi-critical cases per month.

ii) The ratio of medical critical against trauma critical cases was 2:1.

iii) 80% of the trauma admission were semi critical.

(NOTE: Semi-critical medical cases were seen in Immediate Care but not registered; hence these figures are not available).

MORTALITY STATISTICS, A & E DEPARTMENT
HOSPITAL KUALA LUMPUR
APRIL - JUNE 1993

MONTH	APRIL		MAY		JUNE		TOTAL
CATEGORY	BID	DID	BID	DID	BID	DID	
MEDICAL CASES	13	10	14	9	10	4	60
MVA RELATED	13	3	5	3	9	3	36
INDUSTRIAL ACCIDENTS	2	1	2	0	1	0	6
OTHERS	2	1	2	2	1	0	8
TOTAL	30	15	23	14	21	7	110

A review of the most recent statistics from a 3- month study of mortality reveals:

i) 54% of deaths are due to medical-related causes

ii) 33% of deaths are due to motor-vehicle accidents (MVA)

iii) 67% of deaths (74) were deaths outside the department (BID) of which 50% were related to medical causes, and 36% were due to MVA.

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