マレイシア国

サラワク総合病院救急医療プロジェクト

実施協議調査団及び長期調査員報告書

平成４年１月

国際協力事業団
医療協力部

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序　　文

マレイシア政府は、サラワク州における救急医療分野及び脳外科等の専門医の絶対的不足解消を図るべく、サラワク総合病院を拠点に救急医療従事者の養成、救急医療システムの改善等を目的としたプロジェクト方式技術協力を平成２年１月我が国に要請越した。

本要請に基づき平成２年１月事前調査団を、同年５月長期調査員をそれぞれ派遣し、その調査結果を踏えて、マレイシア側の具体的協力要請内容、背景とされる救急医療事情等の現状把握、技術協力の可能性等を検討した上で、平成４年１月実施協議調査団を派遣した。

その結果、双方で技術協力の内容に合意し、討議議事録に基づき、平成４年８月１日より５年間の協力が開始されることとなった。

本報告書は、実施協議調査団並びに先に派遣した長期調査員の調査結果をとりまとめたものである。

ここに、本件調査にあたり、ご協力賜わった関係各位に対し、深甚なる謝意を表するとともに、今後とも本件技術協力の成功のために、更なる協力をお願いする次第である。

平成４年１月

国際協力事業団

理事　　西野世界

目　　次

1. 序　論

1－1　派遣の経緯と目的

マレイシア国サラワク州では、近年、交通事故及び木材伐採・搬出時の事故等による救急患者が増加しているが、同州にある公立１６病院のうち、救急部を設置している施設は７病院のみであり、これら公立病院に勤務している外科系の専門医の数は極めて少く、特に救急に携わる専門医、脳神経外科専門医は皆無の状況であること、さらに病院助手、看護婦やパラメディカル・スタッフの救急医療に関する訓練も十分とはいい難いこと、等の理由から、これまで救急医療の質的向上を目的とし、脳神経外科、整形外科各１名の個別専門家をサラワク総合病院に派遣し、協力してきた。

上記個別専門家の協力実績並びにサラワク総合病院救急部の改築・拡張がなされることが決定されたことに伴い、マレイシア政府より救急医療分野につき、我が国へ体系的な協力を求めるべくプロジェクト方式技術協力を要請越した。

我が国は、この要請の背景・内容・実施体制等を調査するため、平成２年１２月杏林大学長 竹内一夫氏を団長とする事前調査団を派遣した。調査の結果、詳細な長期調査を行った上でプロジェクト実施に踏みきるべきであるとし、右長期調査のため、平成３年５月長期調査員３名を派遣した。

実施協議調査団は、これら調査の結果を踏まえマレイシア側と協議の上、本プロジェクト実施基本計画を作成し、これを討議議事録（Ｒ／Ｄ）として取りまとめ署名を行うこと、及び年次別協力実施計画（暫定計画）を協議の上、取りまとめ署名を行うことを目的として、平成４年１月５日から１月１４日まで派遣された。

1－2　調査団の構成

団長　竹内　一夫　（総括）
　　杏林大学長
団員　前川　和彦　（副総括・救急医療）
　　東京大学医学部附属病院救急部教授
団員　上原　鳴夫　（救急医療）
　　国立病院医療センター厚生技官
団員　望月　一男　（救急医療）
　　杏林大学医学部整形外科講師

団員　池上　敬一　（救急医療）

杏林大学医学部救急医学講師

団員　川上　兼弘　（協力計画）

国際協力事業団医療協力部医療協力課職員

1－3　調査日程

平成4年1月5日～同年1月14日（10日間）

1月5日（日）　13:25 JL-719 19:35／21:00 SQ-122 21:50
成田発 → シンガポール → クアラルンプール(K・L)着

6日（月）　午前　JICA事務所打合せ、大使館表敬

午後　経済企画庁（EPU）、保健省企画・開発局にて協議

7日（火）　午前　クアラルンプール総合病院救急部にて協議

午後　セランゴール州クラン総合病院救急部視察

8日（水）　9:20 MH-534 11:00
午前　K・L発 → クチン着

午後　サラワク州大臣表敬

サラワク州医務局長表敬・協議

9日（木）　午前　サラワク州経済企画庁開発局長表敬

サラワク総合病院にて協議

午後　サラワク総合病院にて協議

10日（金）　午前　サラワク総合病院にて協議

午後　サラワク総合病院にて協議、R／D、TSI署名

11日（土）　午前　サラワク総合病院にて協議

Serian District Hospital, Seri Aman

Divisional Hospital 視察

12日（日）　10:00 MH-519 12:45
クチン発 → K・L着

13日（月）　午前　EPUに報告

午後　マレー大学附属病院視察

大使館員、JICA事務所長に報告

14日（火）　10:45 CX-720 14:20／15:30 CX-503 20:00
K・L発 → 香港 → 成田着

1－4　面談者リスト

〔マレイシア側〕

(1) 経済企画庁(Economic Planning Unit)

・Mr. Annuar Maaruf	Deputy Director General
・Mr. Mohamad Zainol Abidin	Director, External Asst. Division
・Mr. K. Thillainadarjan	Principal Assistant Director, ditto
・Mr. Mohd. Sani bin Mistam	Assistant Director, ditto
・Mr. Hassin bin Abdul Rahman	Assistant Director, Social Section

(2) 保　健　省

・Dr. Lim Kuan Joo	Deputy Director, Planning & Development Division
・Dr. Low Chock Seng	Implementing Officer, ditto
・Dr. Choong Jon Lan	Administrative Medical Officer

(3) クアラルンプール総合病院

・Dato' Dr. Megat Burhanuddin	Director
・Dr. T. Selvarajah	Medical Officer, Accident & Emergency Unit
・Mr. Rahman Basar	Medical Assistant, ditto
・Mr. S. Loganathan	Medical Assistant, ditto
・Mr. Tham Kam Chooi	Medical Assistant, Orthopaedie Unit

(4) セランゴール州クラン総合病院

・Dr. Sadha Sibam	Medical Superintendent
・Dr. Jeya Indran	Head, A & E Dept.

(5) サラワク州政府

・Datuk Dr. George Chan Hong Nam	Honourable Minister of Special Duties in Chief Minister's Office
・Dr. Nik Ibrahim Bin Nik Mahmood	Director, Dept. of Development Sarawak
・Datuk Dr. Stalin Hardin	Director, Medical Services of Sarawak
・Dr. Yoo Sik Chi	Deputy Director, ditto

(6) サラワク総合病院

・Dr. H. Yadav	Medical Superintendent

・Dr. Yao Sik King	Deputy Medical Superintendent
・Dr. Chew Peng Hong	Senior Consultant Physician
・Dr. Tan Poh Tin	Consultant Paedidtrician
・Dr. Goh Kiong Hua	General Surgeon
・Dr. Lim Jor Kiong	General Surgeon
・Dr. Chen Kian Nam	Obstetrician and Gynaecologist

(7) マレー大学附属病院

・Dr. Alex Delillban	Head, Dept. of Anaesthesia

〔日本側〕

(1) 日本大使館

・福田　博	特命全権大使
・片上　慶一	一等書記官
・赤木　利介	二等書記官

(2) 国際協力事業団マレイシア事務所

・小泉　純作	所長
・小樋山　覚	次長

2. 調査要約（団長総括報告）

マレイシア（マ）国サラワク総合病院救急医療プロジェクト実施協議調査団は、予定どおり平成4年1月5日から14日までの10日間、クアラルンプール（KL）市及びクチン市に滞在し、討議議事録（R／D）及び年次別協力実施計画（TSI）を取りまとめ、署名を行うことができた。

本計画に関する調査団派遣は、これまでに3回を数えるが、前2回に比して今回はマ側のより積極的な態度が注目された。すなわち、KLにおける経済企画庁（EPU）及び保健省（MOH）の担当官及びサラワク州政府及び同医務局、サラワク総合病院（SGH）首脳部など本件に関係する重要人物全てに面会し、協議することができた。特にサラワク州政府はもちろん中央政府においても、本件を積極的に取りあげ、最近になってかなり実際的な受け入れ体制を立案していることが確認できた。ちなみにSGHでは、新救急部の責任者、運営方針及び設計図なども決定し、中央政府の協力・支援のもとに、平成4年8月からJICAチームを受け入れることがほぼ可能であると判断された。

本調査団は、さらにKL総合病院救急部、セランゴール州クラン総合病院救急部、マレー大学附属病院救急医学教室などを訪問・見学し、同国で比較的高いレベルにある救急施設の現状を認識することができた。いずれにしてもSGHにおける新救急部は、KL総合病院に将来予定されている「外傷センター」には及ばないとしても、一般総合病院のそれよりも、より高いレベルを目指している。従って本施設を同国のモデル施設として位置づけたい意向であることが判明した。

R／Dに添付された本件の主要計画の中で、マ側の要請により、A＆E医療を専門分野として育成することが明記された。そのため、救急専門医、脳神経外科医及び関連する種々の専門職の派遣及びカウンターパートの招聘、教育が必要となる。また両国間の連絡委員会の座長は、マ側のMOH企画開発局長が務めることになった。

暫定計画の内容においては、当初の原案が大幅に修正され、日本側とマ側との分担区分が明確に示された。従って、マ側においても本件の推進のため十分な経済的・行政的配慮が必要であることがよく認識されたものと思われる。

要するに本件に関しては、これまで長期間にわたり種々準備を重ねてきたが、今回の調査により、ほぼその全体像を作り上げることができ、また年度ごとの評価方法も示されることになった。いずれもマ側の政府責任者の了承が得られているので、今後はこの計画に沿って万事円滑に運営されることが望まれる。

3. 実施協議

3－1　実施協議内容

調査団は、事前調査団及び長期調査員の調査結果を踏まえて、我が方の方針として本プロジェクトの目標を、「保健省の救急医療改善計画のもとで、サラワク総合病院を拠点とした救急医療の充実を図ると同時に、プレホスピタルケアの改善及び救急医療の人材の育成により、サラワク州の救急医療の向上に貢献すること」とした。

この目標に基づき、協力内容は次のとおり設定した。

① サラワク総合病院救急部の機能・組織の強化

② 救急医療専門領域の形成

③ サラワク州の地域医療ニーズに対応した、救急医療教育プログラムの形成

上記により、R／D（案）・TSI（案）を作成し、あらかじめマレイシア側に送付しておき協議を行ったところ、R／D（案）に対して大きな異議はなく、TSI（案）については、日本側・マレイシア側のプロジェクト実施における協力分担区分を明確にし、それぞれ署名を行った。

(1) R／Dの発効日

サラワク総合病院救急部の改築が１９９２年６月開始され、同年８月に完了予定であること、並びに日本側専門家の人選の都合もあり、救急部改築が完了する８月１日発効で合意した。

(2) 協力計画

技術協力の具体的な協力内容のブレイクダウン、及び年度ごとの計画策定が必要であり、平成４年８月派遣する専門家とマレイシア側関係者と詳細を詰めることとなった。なお、調査団来訪の際に、サラワク州医務局作成のA＆E方針（案）の提出が別添付属資料2.のとおりなされ、右内容につきマレイシア側の考えをヒアリングするとともに、我が方のコメントとして、A＆Eの取り扱う範囲・レベルの基準は世界のどこにも模範とするにたる案がないので、日本人専門家とマレイシア側からのカウンターパートとが協力して今後作り上げていくものであることを強調した。

3－2　技術協力計画

(1) 技術移転の目的及び内容

技術移転の目的及び内容については、今後、国内委員会、マレイシア側関係者との協議により決定されるところ、次のとおり考えられる。

目　的

技術移転の目的は、サラワク州における救急医療の充実をはかること。

内　容

1）概略

サラワク州における救急医療を充実させるためには、救急医療制度を作り上げると同時に、コメディカルも含めた救急医療従事者の能力をさらに向上する必要がある。従って、技術移転の内容は以下の二つに分けられる。

a）救急医療体制の整備

b）医療従事者の技術水準の向上

また、サラワク州医療におけるサラワク総合病院の役割と、マレイシア国医療行政の基本方針を考えれば、技術移転の主たる対象はサラワク総合病院となる。

2）具体的な内容

a）救急医療体制の整備

対象は州政府において救急医療体制のプランニングを行っている部局で、これらと協力し救急医療システムを作り上げる。具体的には以下に挙げるようなガイドラインやレギュレーションを一つ一つ作成していく過程が不可欠と考える。

・病院のランクに応じた救急診療設備・機材リスト

・（ランク別）救急診療部門の運営マニュアル

・コメディカルの労務規定の再考

・救急診療部門専属医制度の新設

b）医療従事者の技術水準の向上

・対象はコメディカルと医師（サラワク総合病院以外の病院職員も対象とする）。

・トレーニングコースの新設

・救急診療マニュアルの作成

(2)　専門家派遣について

R／Dが発効する平成4年8月より、長期専門家を派遣予定。

分野：・リーダー兼救急医

・調整員

・脳神経外科

なお、協力初年次に協力計画の詳細の詰め、救急部のオペレーション・ポリシーの明確化、評価指標の開発、トレーニング・プログラムの準備等につき、マレイシア側関係者と協議を行うことになっているため、長期専門家をサポートすべく計画・立案をアドバイスする短期専門家の派遣が必要であろう。

(3) 研修員受け入れ

本プロジェクトのカウンターパート研修として、毎年度数名の訪日が予定されている。

第一陣は、平成2年度の予算枠で、本年度3月末までにサラワク総合病院副院長Dr. Yao（中国系人、女性）と、サラワク総合病院救急部長に内定しているDr. Gul（マレー系人）の2名が来日する。

現地の事情から、Dr. Yaoは3週間、Dr. Gulは3カ月間の滞在予定である。

上記2名は管理者として本プロジェクトの成否に重要な位置を占める立場にあるため、日程・予算に問題を生じない限り、以下の諸施設における視察・研修が可能となるよう、取り計るべきと考える。

なお、今後5年間に来日する他の研修員については、現地の雇用事情から、やはり研修期間は3カ月が限度であるため、Dr. Gulの研修内容を参考に、日程・研修先を検討すべきである。

＜視察日程＞（案） 計3週間

・東京地区 10日間

杏林大、北里大、日本医大、東大、都立広尾病院、東京消防庁の各救命救急センター、救急部 各1～2日間

・関西地区 7日間

千里救命救急センター、中毒情報センターなど

・沖縄地区 3日間

沖縄県立中部病院

＜Dr. Gul 研修日程＞（案）

視察日程分3週間を除く9週間

受け入れ主体	杏林大学附属病院救命救急センター	6週間
	脳外科	1週間
	整形外科	1週間
	北里大学病院救命救急センター	1週間

サラワク総合病院副院長及び救急部長内定者に係る研修日程（案）

月　日	研　修　期　間
3月31日(火)	来日
4月　1日(水)	ブリーフィング、プログラムオリエンテーション、担当部との打合せ
2日(木)	杏林大学附属病院救命救急センター視察
3日(金)	A．M．同視察
	P．M．厚生省救急医療政策ガイダンス
4日(土)	休み
5日(日)	休み
6日(月)	北里大学病院救命救急センター視察
7日(火)	同視察
8日(水)	東京消防庁視察
9日(木)	日本医科大学
10日(金)	都立墨東病院
11日(土)	関西地区へ移動
12日(日)	京都見学等
13日(月)	大阪府立千里救命救急センター視察
14日(火)	大阪府立千里救命救急センター視察
15日(水)	大阪中毒情報センター、吹田市民病院
16日(木)	東京へ移動
17日(金)	公立昭和病院視察
18日(土)	研修レポート作成
19日(日)	休み
20日(月)	研修評価会、帰国準備
21日(火)	帰国

ただし、Dr. Gul については、4月20日より下記日程にて実務研修を予定。

4月20日～5月29日：杏林大学附属病院救命救急センター

6月　1日～6月　5日：同脳外科

6月　8日～6月12日：同整形外科

6月15日～6月19日：北里大学病院救命救急センター

6月22日　　：研修評価会、帰国準備

6月23日　　：帰国

(4) 供与機材について

初年度（平成３年度分）供与機材については、年度内に購送手続きを実施すべく、機材リストを協議の上作成するとともに、Ａ４フォームを速やかに提出するよう申し入れた。初年度分については、救急医療指導に最低限不可欠な機材に絞り込み、原則として現地調達が可能なものとした。

＜Sarawak General Hospital A & E Dept：供与機材リスト＞

1) 平成３年度供与機材リスト

① Emergency trolley：ストレチャー

1 unit

② Infant resuscitator：新生児搬送用 incubator

1 unit

③ Infusion pump (droplets)：輸注ポンプ

2 unit（6,000M$）

④ Infusion pump (volumetric)：輸注ポンプ

2 unit（3,500M$）

⑤ 日本チーム用事務機器

パーソナルコンピューター

ファクシミリ機

⑥ Cardiac monitor (multiple monitor)：モニター

血圧（観血的、非観血的）、酸素飽和度、体温、心拍出量算出、呼吸モニター、心電図などのモニターが同時にできるmultiple monitor、モニター本体を２台と個々のカートリッジ

⑦ Non-invasive BP monitoring set：自動血圧計

単独の自動血圧計（multiple monitor とは別に） 4台

⑧ Bloog Gas machine：血液ガス分析装置

⑨ Transport incubator：移動用インキュベーター

⑩ Ventilator：人工呼吸器

⑪ Ultrasound machine (with linear/sector probes with echocardiography capabilities)：超音波診断装置

1 unit（50,000M$）

⑫ Training materials：教材

特に、外傷領域の教科書

実習に必要なモデル、など

2) 平成4年度供与機材リスト

① C-ARM with memory／image intensifier：X線透視装置

② その他

長期専門家と現地C／Pと協議の上、その他の機材を決定する予定。

(5) マレイシア側の実施運営体制

1) プロジェクト実施責任体制

a) 総括全責任者：サラワク州医務局長：プロジェクトの実施に係わる全責任を負う。

b) プロジェクト実施責任者：サラワク総合病院長：プロジェクトの運営、技術的事項に係わる責任を負う。

2) プロジェクト実施運営委員会の設置と構成

a) Joint Coordinating Committee

（機能）①R／Dの枠内で策定された暫定実施計画に沿って、プロジェクトの年次業務計画策定

②年次業務計画の進捗及び達成度の確認

③プロジェクトに生じた問題の再調整、協議

（構成）委員長：保健省企画・開発局長

メンバー：

①マレイシア側：・サラワク州医務局長
・サラワク総合病院長
・同病院救急部長
・同病院整形外科医、一般外科医
・保健省病院局責任者
・経済企画庁対外援助課職員

②日　本　側：・チームリーダー
・調整員
・専門家及びＪＩＣＡより派遣された関係者
・ＪＩＣＡマレイシア事務局長

注）オブザーバーとして、日本大使館館員が出席しうる。

b) Technical Committee

（機能）①プロジェクトの年次業務計画立案

②プロジェクト年次業務計画の技術的事項におけるレビュー、提言に係るJoint Coordinating Committee への助力

③ プロジェクト活動、成果のモニター及び評価

④プロジェクト実施上の問題点の協議

⑤サラワク州医務局の州企画委員会への定期報告

（構成）委員長：サラワク総合病院長

メンバー：

①マレイシア側：・サラワク総合病院副院長

・同病院救急部長

・各科専門医

・チーフ医療助手

・委員会メンバー

②日　本　側：・チーム・リーダー

・調整員

・専門家及び必要に応じＪＩＣＡより派遣された関係者

3）救急部スタッフ

本プロジェクトの総括責任者サラワク州医務局長のもと、サラワク総合病院長の交替（副院長が昇格、現院長は保健省企画・開発局次長ポストへ1月下旬配置換）、新救急部長の指名がなされるとともに、M．O．の配置*については8月までに6人、平成5年2月までにさらに7人が予定されており、着実に救急部の実施体制が強化されつつある。

＊現状では、3交替制でM．O．が必ず1人いて、3人のM．A．がトリアージュと創処置などを担当しているが、改築後の新救急部の人員配置として具体的に必要な看護婦、M．A．は計画中であり、8月には決まるとの由。

4）予算措置

医療関連予算については、全て中央政府より交付されることになっており、サラワク総合病院救急部の予算は同州医務局が保健省に対して予算要求をしているが、救急部ハード改善面経費約450,000リンギット、同部の人員40人分620,000リンギットを申請、トレーニング・コース実施経費は計画・策定中としている。

なお、1992年サラワク総合病院救急部の予算（改築デザイン、建物、機材分）として、3.6百万リンギットを保健省企画・開発局にて承認している。

5）新救急部の改築スケジュール

新救急部のデザインを3月までに終了、専門外来病棟が完成する6月より改築工事を開始し、8月に完了する予定。

3－3　マレイシア政府の取るべき措置

R／Dの中で、マレイシア政府の取るべき措置につき、次の点を規定し、先方と合意した。

(1)　現地カウンターパートの確保

(2)　土地・建物・施設の提供

①サラワク総合病院の土地の提供

②建物・施設については以下を提供する。

- プロジェクトの実施に必要な十分なスペース
- 日本人専門家の事務室、必要な施設
- プロジェクトの活動に必要な電気・ガス・水道・排水・電話及び家具等の施設

(3)　機材の調達

日本側が供与する機材以外に、プロジェクトの実施上必要な機械、機材、機器、車両、道具、スペアパーツ、その他の資材等を調達すること。

(4)　日本人専門家に対する以下の特権免除事項等の付与

①　専門家及び家族に対する住居の提供あるいは手当の支給

②　マレイシア国内における公務出張に係る交通手段及び旅費の支給

③　休暇取付権利

④　専門家及び家族に対する無料医療

⑤　海外よりの滞在費送金に係る取得税、その他あらゆる税からの免除

⑥　マレイシア赴任後6カ月以内の専門家及び家族に係る私物（専門家1名につき1台の車両を含む）に係る輸入税、その他あらゆる税からの免除

⑦　医師免許を有する医療専門家に対してマレイシア国内にて有効な医師免許の発給

(3)　日本が供与する機材のマレイシアにおける内陸輸送、機材の据付け、操作、維持管理経費の負担

(4)　日本の機材供与に係る一切の課税負担

(5)　その他、プロジェクトの実施のために必要なランニングコストの負担

3－4　討議議事録（R／D）

RECORD OF DISCUSSION
BETWEEN THE JAPANESE IMPLEMENTATION SURVEY TEAM AND THE AUTHORITIES CONCERNED OF THE GOVERNMENT OF MALAYSIA ON JAPANESE TECHNICAL COOPERATION FOR THE PROJECT FOR UPGRADING ACCIDENT & EMERGENCY CARE SERVICE AT SARAWAK

The Japanese Implementation Survey Team (hereinafter referred to as "the Team"), organized by the Japan International Cooperation Agency (hereinafter referred to as "JICA") and headed by Dr. Kazuo Takeuchi, President of Kyorin University, visited Malaysia from January 5 to 14, 1992 for the purpose of working out the details of the technical cooperation program concerning the Project for Upgrading Accident & Emergency Care Service at Sarawak (hereinasfter referred to as "the Project").

During its stay in Malaysia, the Team held a series of discussions and exchanged views with the Malaysian authorities concerned with respect to desirable measures by both Governments for the successful implementation of the Project.

As a result, both parties agreed to recommend to their respective Governments the matters stated in the document attached hereto.

Kuching, January 10th, 1992

Dr. Kazuo Takeuchi
Leader,
Implementation Survey Team,
Japan International Cooperation Agency.
JAPAN.

Datuk Dr. Stalin Hardin
Director,
Medical & Health Services,
Sarawak.

10/1/92
Director,
Planning & Development Division,
Ministry of Health,
MALAYSIA.

ATTACHED DOCUMENT

I. COOPERATION BETWEEN THE TWO GOVERNMENTS

The Government of Japan and the Government of Malaysia will cooperate with each other in implementing the Project in accordance with the Master Plan given in Annex I.

II. MEASURES TO BE TAKEN BY THE GOVERNMENT OF JAPAN

In accordance with the laws and regulations in force in Japan, the Government of Japan will take the following measures through JICA, at its own expenses, according to the normal procedures under the Colombo Plan Technical Cooperation Scheme (hereinafter referred to as "the Colombo Plan Scheme"):

1. Dispatch of Japanese experts

The Government of Japan will provide the services of Japanese experts as listed in Annex II.

2. Provision of machinery and equipment

(1) The Government of Japan will provide such machinery, equipment, and other materials (hereinafter referred to as "the Equipment") as listed in Annex III.

(2) The Equipment will become the property of the Government of Malaysia upon delivery C.I.F. to the Malaysian authorities concerned at the ports and/or airports of disembarkation and will be utilized exclusively for implementation of the Project in consultation with the Japanese experts referred to in Annex II.

3. Training of Malaysian Personnel in Japan

The Government of Japan will host Malaysian personnel connected with the Project for technical training in Japan.

III. MEASURES TO BE TAKEN BY THE GOVERNMENT OF MALAYSIAN

In accordance with the laws and regulations in force in Malaysia, the Government of Malaysia will take, at its own expense, the following measures through the normal procedures under the Colombo Plan Scheme:

1. Services of counterparts and administrative personnel:

   (1) The Government of Malaysia will secure the services of suitable qualified Malaysian counterparts and administrative personnel as listed in Annex IV.

   (2) The Government of Malaysia will secure that the knowledge and experience acquired by the Malaysian counterpart personnel from technical training in Japan will be utilized effectively for the successful implementation of the Project.

2. Provision of land, buildings and incidental facilities.

   The Government of Malaysia will provide land, buildings and incidental facilities as listed in Annex V.

3. Supply and/or replacement of machinery and equipment.

   The Government of Malaysia will supply and/or replace machinery, equipment, instruments, vehicles, tools, spare parts and other materials necessary for implementation of Project other than the Equipment referred to in II.2 above.

4. Extension of Privileges, exemption and benefits to the Japanese experts The Government of Malaysia will extend the following:

   (1) Privileges, exemptions and benefits referred to in General Circular No. 1 of 1979 of the Government of Malaysia and Amendment to the said Circular to the Japanese Experts and their families in Malaysia.

   (2) Transportation facilities and travel allowance for official travel by Japanese experts within Malaysia referred to in General Circular No.1 of 1979 of the Government of Malaysia and Amendment to the said Circular.

   (3) Housing and other allowances referred to in General Circular No. 1 of 1979 of the Government of Malaysia and Amendment to the said Circular.

   (4) Appropriate medical licences to Japanese doctors working on the Project, who are qualified to practice medicine in accordance with the laws and regulations in force in Japan, upon arrival in Malaysia.

5. Expenses necessary for implementation of the Project

   The Government of Malaysia will cover the following expenses:

(1) Expenses necessary for the transportation of the equipment within Malaysia, as well as for the installation, operation and maintenance thereof.

(2) Customs duties, internal taxes and any other charges imposed in Malaysia on the Equipment.

(3) All running expenses necessary for implementation of the Project.

IV. ADMINISTRATION OF THE PROJECT

1. The Director of Medical & Health Services, Sarawak will bear overall responsibility for successful implementation of the Project.

2. The Medical Superintendent of the Sarawak General Hospital, as Head of the Project, will be responsible for administrative and managerial matters of the Project.

3. The Medical Superintendent of the Sarawak General Hospital will be responsible for technical matters of the Project.

4. The Japanese Chief Advisor will provide necessary recommendation and advice on technical and administrative matters concerning implementation of the Project.

5. The Japanese experts will give necessary technical guidance and advice to the Malaysian counterpart personnel on matters concerning implementation of the Project.

6. For effective and successful implementation of the Project, a Joint Coordinating Committee and a Technical Committee will be established with the functions and composition as described in Annex VI.

V. CLAIMS AGAINST JAPANESE EXPERTS

The Government of Malaysia undertakes to bear claims, if any arise, against the Japanese experts engaged in the Project resulting from, occurring in the course of, or otherwise connected with, the discharge of their official functions in Malaysia, except for those arising from willful misconduct or gross negligence by the Japanese experts.

VI. MUTUAL CONSULTATION

There will be mutual consultation between the two Governments on any major issues arising from, or in connection with, this Attached Document.

VII. TERM OF COOPERATION

The duration of technical cooperation for the Project under this Attached Document will be five (5) years beginning August 1, 1992.

ANNEX 1. MASTER PLAN

1. Goal of the Project

The goal of the project is to improve pre-hospital care and develop human resources, as well as to upgrade accident and emergency service at the Sarawak General Hospital, especially at its Accident & Emergency Department in line with the national plan for improvement of accident and emergency care service, thus contributing to the promotion of accident and emergency services in the State of Sarawak.

2. Objectives of Japanese Technical Cooperation

The specific objectives of Japanese Technical Cooperation with the Sarawak General Hospital will cover the following activities:

(1) Enhancement of the functions and scheme of the Accident & Emergency Department at the Sarawak General Hospital.

(2) Development of accident and emergency care as a speciality.

(3) Development of training programs to meet the local needs for accident and emergency care in the State of Sarawak.

3. Implementation of Technical Cooperation

The Government of Japan will cooperate with the Government of Malaysia in carrying out the Project through despatch of Japanese experts, acceptance of Malaysian personnel for technical training in Japan and provision of equipments.

ANNEX II. JAPANESE EXPERTS

1. Experts:

(1) Emergency medicine specialist

(2) Neurosurgeon

(3) Experts of such other specialities as Orthopaedic surgeon, radiologist, medical engineer, nurse, laboratory technician and others mutually agreed as necessary

2. Coordinator

ANNEX III. EQUIPMENT

1. Equipment and materials necessary for development of the Accident & Emergency Department at the Sarawak General Hospital.

2. Equipment, materials and reference books necessary for development of training courses for medical officers, medical assistants, nurses and others engaged in accident & emergency care medicine.

3. Other equipment and materials mutually agreed upon as necessary.

ANNEX IV. MALAYSIAN COUNTERPART AND ADMINISTRATIVE PERSONNEL

1. Head of the Project:

   Medical Superintendent of the Sarawak General Hospital

2. Head of the Accident & Emergency Department

3. Other technical counterpart:

   (1) General Surgeon

   (2) Medical Officer

   (3) Medical Assistant

   (4) Other staff engaged in Accident & Emergency services, mutually agreed upon as necessary such as nurse, radiologist, medical engineer, laboratory technician etc.

5. Administrative personnel

   (1) Administrative officers

   (2) Other supporting staff mutually agreed upon as necessary

K.G.

ANNEX V. LAND, BUILDINGS AND FACILITIES

1. Land of the Sarawak General Hospital

2. Buildings and facilities

(1) Sufficient space for implementation of the Project

(2) Office for Team Leader of Japanese experts

(3) Offices and necessary facilities for the Japanese experts

(4) Facilities such as electricity, gas and water supply units, sewerage system, telephone and furniture as necessary for activities under the Project

ANNEX VI. FUNCTIONS AND COMPOSITIONS OF THE COMMITTEES

1. Joint Coordinating Committee

(1) Terms of Reference

The Joint Coordinating Committee will meet at least once a year and whenever the necessity arises:

(1) To approve the annual work plan of the Project in line with the Tentative Schedule of Implementation formulated within the framework of this Record of Discussion;

(2) To review the overall progress of the Project and the achievements of the above-mentioned annual work plan; and

(3) To review and exchange views on major issues arising from or in connection with the Project.

(2) Composition

(1) Chairman:

Director of the Planning & Development Division, Ministry of Health

(2) Members:

Malaysian side:

(a) Director of Medical & Health Services, Sarawak

(b) Medical Superintendent of the Sarawak General Hospital

(c) Head of Accident & Emergency Department of the Sarawak General Hospital

(d) Orthopaedic Surgeon/General Surgeon of the Sarawak General Hospital

(e) Representative of Hospital Division, Ministry of Health

(f) Staff of External Assistance Section of Economic Planning Unit

Japanese side:

(a) Leader

(b) Coordinator

(c) Other experts and personnel concerned to be despatched by JICA

(d) Resident Representative of JICA Malaysia Office

Note: Official(s) of the Embassy of Japan may attend the Joint Coordinating Committee meetings as observer(s).

2. Technical Committee

(1) Terms of Reference

The Technical Committee will meet monthly or whenever necessary:

(1) To formulate an annual work plan of the project.

(2) To assist the Joint Coordinating Committee in reviewing and recommending on the technical matters of annual work plan of the project.

(3) To monitor and evaluate project activities and outcome.

(4) To discuss any issues concerning implementation of the project.

(5) To report regularly to the State Planning Committee of Sarawak Medical Department.

(2) Composition

(1) Chairman:

Medical Superintendent of the Sarawak General Hospital

(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, Anaestiologist

(d) Chief Medical Assistant

(e) Coopt members

Japanese side:

(a) Leader

(b) Coordinator

(c) Other experts and personnel concerned to be dispatched by JICA, if necessary.

3－5　暫定実施計画（ＴＳＩ）

TENTATIVE SCHEDULE OF IMPLEMENTATION OF THE PROJECT FOR UPGRADING ACCIDENT & EMERGENCY CARE SERVICE AT SARAWAK

The Japanese Implementation Survey Team (hereinafter referred to as "the Team") and the Malaysian authorities concerned have jointly formulated the Tentative Schedule of Implementation of the Project as annexed hereto.

This Schedule has been formulated in line with the Attached Document of the Record of Discussions signed between the Team and the Malaysian authorities concerned for the Project for Upgrading Accident & Emergency Care Service at Sarawak, on condition that the necessary budget be allocated for implementation of the Project, although it is subject to change in the course of implementation within the framework of the Attached Document of the Record of Discussions when the necessity arises.

Kuching, January 10th 1992

Dr. Kazuo Takeuchi
Leader
Japanese Implementation Survey Team
Japan International Cooperation Agency
JAPAN

Dr. Hematram Yadav
Medical Superintendent
Sarawak General Hospital
MALAYSIA

TENTATIVE SCHEDULE OF IMPLEMENTATION

I. Measures to be taken by the Japanese side

Japan International Cooperation Agency will carry out the following activities for Technology Transfer related to the Project

(1) Assist in the enhancement of the functions and organization of the Accident & Emergency Department of the Sarawak General hospital:

1.1. Advice on improvement of administrative organization, staff allocation and the operation system

1.2. Assistance in preparation of operation manuals of the Accident & Emergency Department

(2) Assist in developing accident and emergency care as a speciality:

2.1. Advise on job descriptions of medical officers and other related personnel involved in accident and emergency care

2.2. Assist in the preparation of treatment manuals on accident & emergency care

2.3. Train medical officers and related personnel in accident and emergency care

(3) Develop training programmes for accident and emergency care in the State of Sarawak:

3.1. Develop training courses for medical officers and para-medical personnels of other medical facilities in Sarawak

3.2. Assist in evaluating the training programmes by selected indicators in the related area

K.T.

II. Measures to be taken by the Malaysian side

The Sarawak Medical Department will:

(1) Provide the necessary materials and funds for the development of local training programmes for medical staff

(2) Provide the necessary funds for the training of medical staff within the State of Sarawak

(3) Assign appropriate counterparts to Japanese personnel

(4) Be responsible for the development of the Accident & Emergency Department of the Sarawak General Hospital including among others, physical facilities and equipment

(5) Be responsible for the functioning of the Accident & Emergency Department as recommended by this Project

OUTLINE OF ACTIVITIES OF THE PROJECT

(1) 1st year

1.1. Develop detailed Cooperation Plan

1.2. Define the operation policies of the Accident & Emergency Department in Sarawak General Hospital

1.3. Develop the annual work plan

1.4. Develop specific evaluation indicators for the Cooperation Plan and the annual work plan

1.5. Preparation of relevant training programmes

1.6. Implement the new operational policies in the Accident & Emergency Department

(2) 2nd to 5th year

2.1. Reinforce the implementation of the new operational policies in the Accident & Emergency Department of Sarawak General Hospital

2.2. Implement training courses

K.T.

TENTATIVE SCHEDULE OF IMPLEMENTATION

	1st year		2nd year		3rd year		4th year		5th year	
	8/1 1992	1993		1994		1995		1996		1997
1. Counterpart Training in Japan a) Medical Officer b) Nurse c) Medical assistant d) Administrater e) Medical engineer f) Others	3 to 4 persons		3 to 4		3 to 4		3 to 4		3 to 4	
2. Japanese Expert a) Chief Advisor / Emrgency medicine specialist b) Coordinator c) Neurosurgeon d) Orthopaedic surgeon e) Nurse f) Medical engineer g) Radiologist h) Laboratory technician i) Others	———		———		———		———		———	
3. Mission	Planning & Consultation team		Advisory Team		Advisory Team		Advisory Team		Evaluation Team	
4. Equipment	☆	☆	☆		☆		☆			
	Necessary equipment for technology transfer									
5. Remarks			Annual Report (1992)		Annual Report (1993)		Annual Report (1994)		Annual Report (1995)	Annual Report (1996)

K.C.

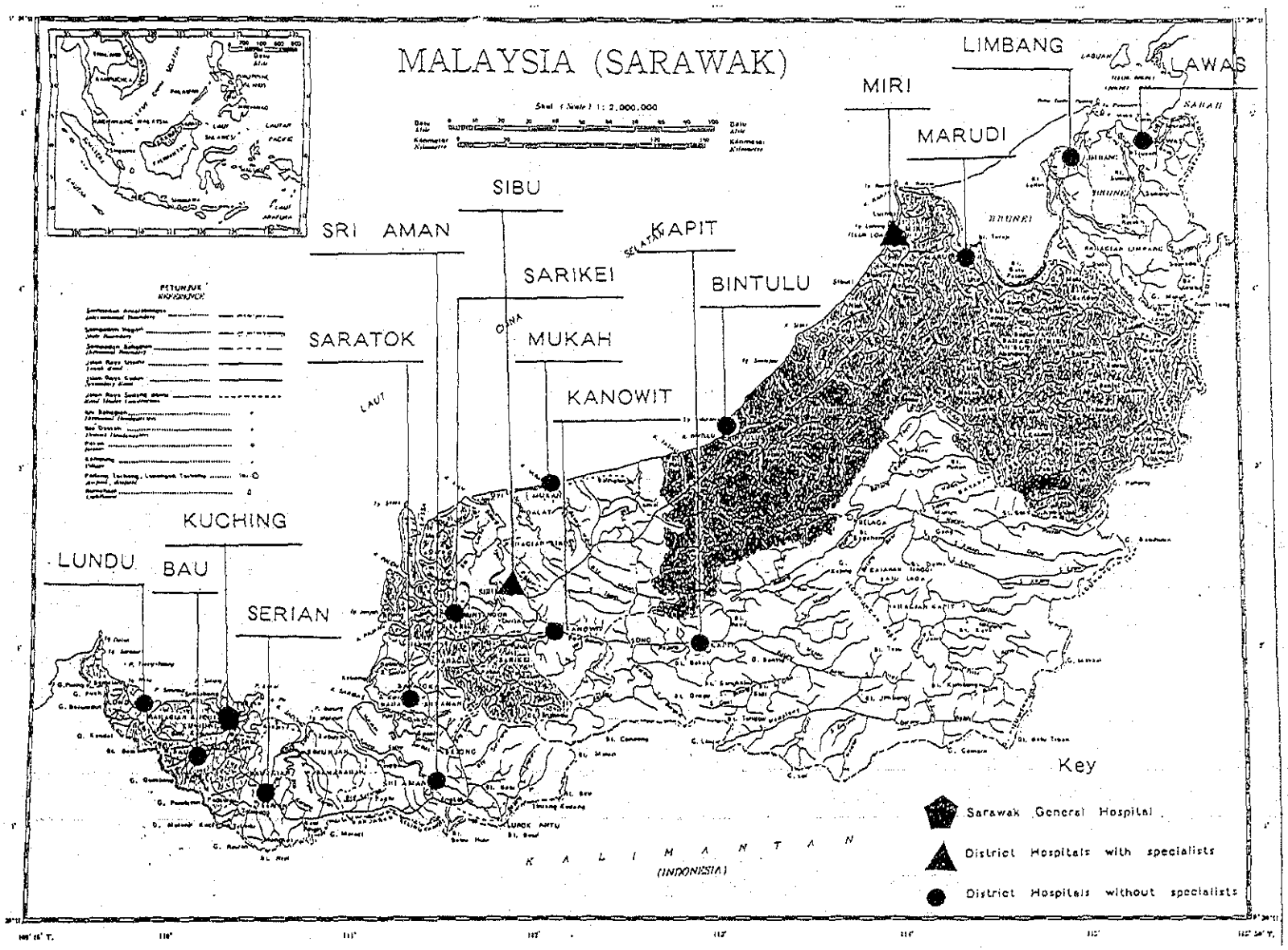
3－6　プロジェクトログフレームワーク

(Draft) Technical Cooperation Plan of the Project for Upgrading Accident & Emergency Care Service at Sarawak

	Evaluation Indicators	Means of Verification	Important Assumptions
1.Goal of Development : Contribution for improvement of accident and emergency care service in the State of Sarawak	· Mortality rate of preventable deaths in emergency cases · Disability rate in emergency cases	· Statistics in Sarawak, etc.	· Administrative organization and financial measures support the pursuit of the development goal
2.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(SGH), especially at its Accident& Emergency Dept. in line with the national plan for improvement of accident and emergency care service.	· Reduction in number of preventable deaths in emergency cases in the Kuching area and in the selected district. ·Disability rate in emergency cases in the Kuching area and in the selected district.	· SGH annual report · Investigation of the actual conditions of emergency medicine at sarawak.	· Working in closer cooperation with the federal government
3.Outcome of the project : 1.Assist in the enhancement of the functions and organization of the Accident & Emergency Dept. of the SGH 2.Assist in developing accident and emergency care as a speciality 3.Develop training programmes for accident and emergency care in the State of Sarawak	· Operation manuals · Technical manuals · Training curriculums and teaching materials · No of trainees · No of graduates of the courses Specific indicators should be developed and evaluated in the related area within the 1st year of the project	· The reports of the short-term Japanese experts · The quarterly reports of the long-term Japanese experts · Publications · Dispatch of planning & consultation team, advisory teams, and evaluation team · Reports on training · Inspections	· Assignment of trained counterparts and physician instructors for a fixed term · Malaysian government should provide the necessary materials and funds for the development of training programmes · Malaysian government should provide the funds for training of Malaysian medical personnel in Malaysia
4.Input of the project : ① Dispatch of Japanese experts ② Training of counterparts in Japan ③ Supply of equipment ④ Others	· Expert { long-term 4~5 persons short-term less than 6 persons per years · Counterpart training 3~4 persons per year · Equipment ¥150,000,000 for 5 years · Others	· R/D, TSI · Confirmation of achievements for dispatch of experts, counterpart training in Japan and supply of equipment	· Start of operation of A & E Dept. : around August 1992 · Diagnosis and treatment by clinical depts. concerned and close cooperation among them. · Sufficient cooperation supported by clinical depts. concerned · Assignment of trained counterparts · Assurance of necessary staff engaged in accident & emergency care · Assignment of long-term responsible person in charge of management of the A & E Dept. and training in accident & emergency care

各レベル施設で取り扱われる主な救急症例と年間概数
（各施設担当医の意見による）

救急外傷・疾患	HC（テバカン）	HC（ピンタゴン）	郡病院（スリアマン）	郡病院（サリケイ）	備考
＜外傷・中毒＞					
骨折、脱臼	6～7	12～24	100		内固定材料、気胸処置
重度頭部外傷	1	3（疑診例30）	180	110	診断方法、血腫除去、気道管理、搬送
中毒				15	パラコート以外は軽症
＜疾患＞					
上部消化管出血	3		180	10～12（止血困難例）	潰瘍早期診断、内視鏡
潰瘍穿孔			6	4～5	潰瘍早期診断、内視鏡
急性腹症（虫垂炎・腸閉塞他）	20	70	360	210	早期受診、診断法、超音波、応急手術
子宮外妊娠（破裂？）	0．3		10	25	診断法、超音波
心筋梗塞・狭心症		3	3～4	26	心電図診断・ACLS
脳卒中		3		47	急性期処置
髄膜炎				24～36	診断
喘息	1～2	50（転送例）	1～2（重症のみ）	250（軽症を含む）	薬物療法
小児重症肺炎	4～6	12～24	60～120	48	呼吸管理、転送前処置
新生児仮死・未熟児	0．6		48		産前管理、新生児管理
産科合併症（出血・遅延・流産他）	1．2		200		産科手技


MALAYSIA (SARAWAK)
LIMBANG
LAWAS
MIRI
MARUDI
SIBU
SRI AMAN
KAPIT
SARIKEI
BINTULU
SARATOK
MUKAH
KANOWIT
KUCHING
LUNDU
BAU
SERIAN
LAUT
SELATAN
BRUNEI
SARAWAK
KALIMANTAN
(INDONESIA)
Key
Sarawak General Hospital
District Hospitals with specialists
District Hospitals without specialists

付　属　資　料　1

付　属　資　料

(Sulit BPE 40/100/9 Vol. III.)

KERAJAAN SERI PADUKA BAGINDA

MALAYSIA

GENERAL CIRCULAR NO. 1 OF 1979

TERMS AND CONDITIONS FOR FOREIGN EXPERTS SERVING IN MALAYSIA

I. Introduction

The purpose of this Circular is to revise the existing terms and conditions provided to foreign experts in Malaysia. This revision is necessary in the light of experience gained in the past years and to effect general improvements in the administration of technical assistance programmes as a whole. This Circular will thus supersede General Circular No. 1 of 1969.

2. The provisions of this Circular will come into effect as from 1st January, 1979 and will be applicable to experts recruited and assigned to Malaysia after this date. Experts assigned to State Governments, Public Authorities and other Agencies such as Malaysian Industrial Development Authority, Federal Agricultural Marketing Authority, Malaysian Industrial Development Finance Limited, University of Malaya etc. will be governed by the provisions of this Circular. The payment of allowances and other remuneration to experts so assigned will be the responsibility of the respective agencies.

II. Definition and Categories of Technical Assistance Experts or Projects

3. In general, the term 'expert' in this Circular refers to suitably qualified and experienced personnel provided under the Colombo Plan and other bilateral programmes to carry out specific assignments requested by the Malaysian Government. The terms of this Circular will not be applicable to those experts for which separate agreements between the Malaysian Government and other Countries/Agencies concerned have already been entered into e.g. the United Nations Development Programme and other United Nations Specialised Agencies, the Ford Foundation, the International Executive Service Corps, etc.

4. Three broad categories of technical assistance experts/projects are distinguished and covered by this Circular. These are:

(*a*) provision of a long-term expert defined as an expert whose period of assignment in Malaysia is not less than six months;

(*b*) provision of a short-term expert defined as an expert whose period of assignment is less than six months;

(*c*) provision of consulting services and surveys involving a single or a team of experts with final responsibility resting on the chosen consulting firm or appropriate body.

III. Allowances and Other Privileges of Experts

A. LONG-TERM EXPERTS

5. The allowances and other privileges provided to long-term experts serving in Malaysia are as follows:

(1) *Installation Grant*

A lump sum installation grant will be paid to meet the initial settling-in cost of the expert for the first 14 days of his arrival in Malaysia. Thereafter the expert will be paid housing and subsistence allowances as specified in (2) below with payment for the month following the first 14 days being calculated on a *pro rata* basis. The rates of installation grant are as follows—

Single (or unaccompanied by wife) ...	$ 780
Married and accompanied by wife ...	$1,100
Married and accompanied by wife and one or two children not exceeding 18 years of age	$1,500
Married and accompanied by wife and more than two children not exceeding 18 years of age	$1,900

The installation grant is a once-for-all payment appropriate to the expert's circumstances at the time of arrival and no other claims can be made following the arrival of his family or when an expert returns from overseas leave on extension of his assignment.

(2) *Housing and Subsistence Allowances*

The Malaysian Government will not be responsible for providing the expert with accommodation. However, at the request of the expert, the Agency to which the expert is assigned will assist him in finding suitable private accommodation for rental. In lieu of housing the expert will be paid the appropriate rates of housing allowances as set out below.

An expert assigned to Sabah or Sarawak may be given accommodation provided there are available unoccupied Government quarters. In such a case no housing allowance will be paid to the expert nor will he be charged the normal government rental on the quarters. The expert will, however, be responsible for payment of water, electricity and other charges incurred while in occupation of such premises.

Subject to the above paragraphs the rates of housing and subsistence allowances payable to an expert depending on his family status are set out as follows—

	Allowances for		*Total per month*
	Housing	*Subsistence*	
Single (or unaccompanied by wife)	$500	$300	$ 800
Married and accompanied by wife	550	500	1,050
Married and accompanied by wife and one or two children not exceeding 18 years of age	650	650	1,300
Married and accompanied by wife and more than two children not exceeding 18 years of age	650	750	1,400

NOTE:

(i) At the request of the donor Government/Agency, the housing and subsistence allowances may be combined and considered as a single allowance.

(ii) The housing allowance is viewed as a subsidy and payment will be effected through the donor Government/Agency.

(iii) For the purpose of payment of subsistence allowance, an expert who is married without children and is not accompanied by his wife will be deemed as if he is single.

(iv) Where both husband and wife are assigned as experts they will be paid housing and subsistence allowances as for an expert accompanied by wife plus an additional sum of $300 per month.

(v) Changes in the family circumstances of an expert should be reported immediately to the Head of Department concerned to permit adjustments to be made in respect of the expert's entitlement to allowances under this category. In cases of doubt the Department will refer the matter to the Economic Planning Unit (E.P.U.) for a decision which will be final.

(3) *Mileage and Other Allowances While on Duty*

Mileage allowances will be paid at the normal rates for journeys performed on official duties in accordance with the existing regulations governing transport and travelling claims in the State/Public Authority to which the expert is assigned. No claim is permitted for travelling between house and office. An expert who does not own or use a personal car for official duties will be reimbursed for the cost of actual transportation used and in conformity with existing rules applicable to Government officers. An expert on duty tour away from his Headquarters is eligible for a Day Allowance/Subsistence Allowance in the same way as Government Group A officers. The payment is governed by the relevant

regulations currently in force and at the rates applicable in Peninsular Malaysia, Sabah and Sarawak and of the Authority to which he is assigned.

For purposes of calculating an expert's claim for mileage and other allowances while on duty, an expert's salary will be deemed to be within the range of either $1,006-$1,804 or $1,805-$2,865 depending on the salary of his Malaysian counterpart in the State/Agency to which the expert is assigned.

(4) *Conveyance Advance*

An expert is eligible to apply for a loan for the purchase of a motor car. The terms for the granting of this loan are as follows—

(i) the loan is granted only once in the whole tenure of the expert including all extensions of his assignment;

(ii) the amount of loan applied for should not exceed the value of the vehicle to be purchased subject to a maximum amount of $7,000. The terms of the loan will be in accordance with existing regulations enforced in each of the States of Malaysia or as amended from time to time. If a second hand car is purchased a valuation certificate on the car must be attached with the application;

(iii) the loan is to be repaid in monthly instalments and to be settled in full before the expert departs from Malaysia. At the time of making the application for the loan the expert is requested to submit his proposal for the repayment of the loan;

(iv) during the period of the loan the expert is requested to ensure that the car is adequately covered by insurance and he is not permitted to sell or transfer his motor car without the prior permission of the Government;

(v) provision of sureties for the loan is not required but the Head of Department to which the expert is assigned should ensure that the Registration Card of the car is stamped with the words "Ownership Claimed by the Government" until the full loan has been repaid.

Application for motor car loan should be made in the usual forms and clearly identified with the words "EXPERT" for submission to and approval by the Secretary General to the Ministry/Head of Department/State/Public Authority concerned which will also ensure that the various conditions set out above have been and will be satisfactorily met.

(5) *Local Leave*

Local leave at the rate of 25 days a year will be granted to an expert. However, an expert assigned to an educational institution will not be eligible for leave other

than the normal school or college terminal holidays or with the prior permission of the authorities concerned. Such leave may be accumulated throughout the expert's tour of duty in Malaysia and may also be taken outside Malaysia. All local leave shall be taken within the period of the expert's assignment in Malaysia and an expert will not be permitted to accumulate his leave immediately prior to the completion of his assignment thereby in effect bringing forward his date of departure from Malaysia.

The Head of Department to which the expert is assigned or the officer designated by him is the approving authority for such leave and application for leave must be made in the usual form.

(6) *Medical Attention*

During his assignment in Malaysia, an expert and his family will be eligible for free medical and dental attention at Government hospitals. A letter of identity for this purpose will be issued to an expert seeking medical attention or dental attention.

No reimbursement will be made by the Government if the expert or his family elects to be treated by private practitioners. If admitted at a Government hospital the expert will be required to pay ward charges as laid down in Government regulations applicable to his Malaysian counterpart in the State/Department/Public Authority where the expert is assigned.

For purposes of determining class of ward, an expert's salary will be deemed to be within the range of either $1,006—$1,804 or $1,805—$2,865 depending on the salary of his Malaysian counterpart in the State/Department/Public Authority to which the expert is assigned. If an expert requests to be admitted to a higher class of ward than that to which he is eligible, he will be billed accordingly as is laid down in government regulations. Head of Departments must ensure that the appropriate hospital bills incurred by an expert are promptly settled.

(7) *Exemption from Income Tax*

An expert is exempted from Malaysian income tax on his official emoluments in respect of the period of assignment in Malaysia. An expert filling a cadre post will be required to pay taxes on the local portion of the salary paid to him.

(8) *Exemption from Customs Duty/Excise Duty and Sales Tax*

(*a*) Subject to the conditions enumerated in sub-paragraph (*d*), an expert will be exempted from the payment of customs duty/excise duty and sales tax in respect of bona fide personal effects and essential basic household equipment brought into or purchased in Malaysia for his own use or the use of

his dependents provided that such personal effects and equipment are brought into Malaysia or purchased locally within the period of six months from the date of his arrival in Malaysia. For the purpose of facilitating customs clearance of the said personal effects and equipment a list thereof must be presented to the Head of Department to which the expert is assigned;

(*b*) In addition and also subject to the conditions in sub-paragraph (*d*), an expert is exempted from the payment of *ad valorem* registration fee and customs duty/excise duty and sales tax in respect of one motor car only brought into Malaysia or purchased locally in Malaysia, provided that—

(i) such imported motor car has been used by the expert concerned in his country of orgin or the country of last posting, or

(ii) the motor car is purchased locally within the period of six months from the date of his arrival in Malaysia.

(*c*) Any expert desiring to make purchases of duty free locally manufactured/assembled items must in the first instances apply for the approval of the customs through the Head of Department. Such purchases are only permitted if orders are placed with the manufacturers and delivery made from bonded warehouses. These purchases are allowed only in the first six months of the expert's stay in the country;

(*d*) The exemptions in sub-paragraphs (*a*), (*b*) and (*c*) are given subject to the following conditions—

(i) the aforesaid exemptions are given only once irrespective of whether the expert's assignment in Malaysia is extended beyond the original period of his assignment;

(ii) each expert is confined to only one unit or set or a reasonable number of any bona fide personal effects to be imported or purchased locally;

(iii) the personal effects and household equipment for which the aforesaid exemptions are given, if imported, should be from the country of origin or the country of last posting or acquired from any other country while on transit to Malaysia;

(iv) the personal effects and household equipment or motor car in respect of which the aforesaid exemptions are given will be cleared by and delivered from the Customs upon presentation there to of a Certificate of Exemption prepared and duly signed by the Head of Department to which the expert is assigned;

(v) the Head of Department to which the expert is assigned shall maintain a complete record of all the personal effects, household equipment and motor car so cleared and shall make such records available upon request for inspection by the Customs or other appropriate Government authority;

(vi) any personal effects or household equipment or motor car in respect of which the aforesaid exemptions are given, if disposed of in Malaysia during or at the end of the period of an expert's assignment in Malaysia shall be subject to the normal customs duty or other charges at the rate in force on the date the exemption was given and on the value at the time of disposal.

B. SHORT-TERM EXPERT

6. A short-term expert will be paid an all-inclusive per diem allowance of $70 per day. He is not entitled to the allowances and privileges stated in paragraph 5, items (1), (2) and (4). He is however eligible to the facilities provided under paragraph 5, items (3), (5), (6), (7) and (8).

7. The despatch of an expert or mission by the donor Country/Agency to evaluate any project or request will not be considered as falling within the scope of this Circular and therefore no payment of allowances or other privileges will be made to such expert besides the normal reception and other arrangements for his programme of visits, discussions, etc.

C. CONSULTING SERVICES AND SURVEYS

8. Consulting services normally involve the provision of a team of experts from the donor Government, other bodies and firms for the purpose of carrying out feasibility, management and specific projects. The fee for such services will be paid by the donor Government/Agency and that individual experts provided under this arrangement will not therefore be eligible to any other allowances from the Government.

9. The Government will, however, provide the Consultants with local facilities including reasonable transport, office accommodation which are necessary in carrying out the assignment. All reports and materials obtained in the course of their assignment remain the property of the Government which has absolute discretion as to their use or disposal.

IV. Equipment Associated with Provision of Experts and Services

10. All equipment brought into Malaysia associated with the assignment of the expert and consulting services will be exempted from customs and other duties. The Head of the Department/Authority concerned will ensure that such equipment is speedily cleared at the port of discharge. A Certificate for Exemption from

customs duty under this category, to facilitate customs clearance, is to be issued by the Head of Department/Public Authority concerned and copies of such Certificates are to be extended to the Treasury, Customs and E.P.U. A condition of this exemption is that the equipment is not to be resold in Malaysia but may be re-exported or left behind as a gift to the Government/Public Authority.

V. General

11. An expert is not immune from the laws and regulations prevailing in Malaysia including communication regarding classified matters/documents. In the exercise of his duties he is required to give due regard to these laws. In the event of any legal action arising from the performance of his official duties he will be entitled to legal assistance in the same manner as a Government officer.

12. The Government of Malaysia will have the right after due consultation with the donor Government/Agency to request the recall of any expert whose work or conduct is unsatisfactory.

13. The terms of this Circular are subject to review from time to time in accordance with policy and regulations and they may be modified, amended or terminated by the Government.

TAN SRI DATO' ABDULLAH BIN AYUB,
Chief Secretary to the Government,
Malaysia

ECONOMIC PLANNING UNIT,
PRIME MINISTER'S DEPARTMENT,
KUALA LUMPUR,
31st July, 1979

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JABATAN CETAK KERAJAAN, KUALA LUMPUR
68083—27-7-79.

(Sulit UPE. 40/100/9 Vol. III.)

KERAJAAN SERI PADUKA BAGINDA

MALAYSIA

AMENDMENT TO GENERAL CIRCULAR NO. 1 OF 1979

TERMS AND CONDITIONS FOR FOREIGN EXPERTS SERVING IN MALAYSIA

The following amendments are to be incorporated in General Circular No. 1 of 1979 of 31st July, 1979 and effective from 1st January, 1979:

(i) Delete "ad valorem registration fee and" in paragraph 5 (8) (*b*).

(ii) Paragraph 5 (8) (*a*) (vi) now reads as follows—

"the goods of which the aforesaid exemptions are given cannot be sold or otherwise disposed of within a period of 3 months from the date of import or 6 months from the date of (local) purchase, provided that in the case of a motor vehicle if sold or otherwise disposed of shall be subject to the normal duties as the rate in force on the date the exemption was given and on the value at the time of disposal".

(iii) Last sentence of paragraph 6 now reads as follows—

"He is, however, eligible to the facilities provided under paragraph 5, items (3), (5), (6), (7), (8) (*a*) and (8) (*b*) (i) subject to item (8) (*d*)".

TAN SRI DATO' ABDULLAH BIN AYUB,
Chief Secretary to the Government,
Malaysia

ECONOMIC PLANNING UNIT,
PRIME MINISTER'S DEPARTMENT,
KUALA LUMPUR.
1st November, 1979

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JABATAN PERCETAKAN NEGARA, KUALA LUMPUR

68702—27-11-79.

JICA PROJECT - UPGRADING OF ACCIDENT & EMERGENCY SERVICE IN SARAWAK

****

(a) Capability of proposed A & E Unit at Sarawak General Hospital, Kuching

(b) Major equipment required at the A & E Unit

(c) Duties & Responsibilities of Medical Officers at the A & E Unit

(d) Duties & Responsibilities of Medical Assistants at the A & E Unit

Produced by

Director of Medical Services
Sarawak

10 December 1991

Proposal for Upgrading of Accident and Emergency Unit of Sarawak General Hospital, Kuching.

Summary of Special Equipment Required

A. Ambulance

1. Emergency resuscitation set with
   - laryngoscope
   - artificial airway
   - endotracheal tubes
   - ambu bag
   - intravenous fluid
   - drugs
2. Oxygen cylinder
3. Portable suction apparatus
4. ECG monitor cum defibrillator
5. Transport incubator
6. Two-ways radio set

B. Emergency Resuscitation Rooms

1. Emergency resuscitation trolleys with
   - laryngoscope
   - artificial airway, masks
   - endotracheal tubes
   - ambu bag
   - intravenous cannulae
   - drugs
   - intravenous solutions
2. Oxygen supply - from cylinders or piped
3. Portable electric suction apparatus
4. ECG monitor cum defibrillators
5. Cardiac monitors
6. Infant ventilator with air compressor
7. Adult ventilator with air compressor
8. Infusion pumps - syringe, droplet and volumetric types
9. Non-invasive blood pressure monitor
10. Invasive blood pressure monitor
11. Pulse oximeter
12. Temporary pacemaker units and pacing wires of various gauges

13. Ultrasound machine

14. Lung function test equipments

15. Nebuliser units

16. Haemodialysis machine

17. Haemoperfusion machine

18. CAVH capability

19. CVP monitoring equipment

20. ECG machine

21. Low temperature probes

22. Holter monitor (for stoke Adams, etc.)

23. Swan-ganz equipment

24. Fetal heart doppler detector

25. Cardiotocograph machine

26. Camera

27. Chest drainage sets

28. Peritoneal drainage sets

29. Two ways radio call set

30. Infant resuscitator

31. Portable X-ray machine

32. Thomas Splints

C. Operating Theatres (1 major, 1 minor)

1. Anaesthetic machines with ventilators

2. ECG monitor cum defibrillators

3. Non-invasive blood pressure monitors

4. Invasive blood pressure monitors

5. Temperature monitor

6. Pulse Oximeter

7. C-arm X-ray machine with image intensifier capability

8. Wrigley's forceps

9. Simpson's forceps

10. Kjelland's forceps

11. Fibreoptic Laparoscope

12. Dilatation and Curettage set

13. Suction dilatation and Curettage set

14. Vacuum Extractor

15. Major operation sets for
- caesarean section
- *gut resection
- *gut anastomosis
- *splenectomy
- *vascular surgery (vasular clamps)
- *thoracotomy
- *laparotomy

*16. Craniotomy equipment

*17. Skull traction equipment

18. Oesophagoscope

19. Chest wall traction apparatus

20. Autologous transfusion system

21. Infusion pumps - syringe, droplet and volumetric types

22. Pneumatic hand drill

23. Chest drainage sets

24. Peritoneal drainage sets

25. Blood pumps

26. Blood warmers

27. Fibreoptic gastroscope

28. Cystofix for urethral tear

29. K-wires

30. Walsham and Ash forceps

31. Minor orthopaedic surgical instrument set

32. Magnet

'* Requirement in Phase II development (i.e. trauma centre)'.

D. Observation Ward

1. Emergency resuscitation trolleys
2. Oxygen supply - from cylinders or piped
3. Portable electric suction apparatus
4. ECG monitor cum defibrillators
5. Cardiac monitors
6. Infant ventilator with air compressor
7. Adult ventilator with air compressor
8. Infusion pumps - syringe, droplet and volumetric types
9. Non-invasive blood pressure monitors
10. Invasive blood pressure monitors
11. Pulse oximeter
12. Lung function test equipment
13. Nebulizer units
14. CVP monitoring equipment
15. Fetal heart droppler detector

E. Laboratory

1. Blood gas machine
2. Poison analyser
3. Electrolyte analyser

Proposal For Upgrading Of Accident And Emergency

Unit Of Sarawak General Hospital, Kuching

Condition	Capability of A & E Unit	Specific Equipment Required
1. General Medicine		
1.1 Coro... Artery Di	(a) Diagnosis of Acute myocardial infarction. (b) Resuscitation and stabilisation of condition before despatch to Coronary Care Unit (CCU), including ability to :- (i) Diagnose arrhythmias and treat them, (ii) Stabilise cardiogenic shock, (iii) Treat pulmonary oedema, (iv) Install emergency pacing when severe complete heart block or bradycardia.	1. Resuscitation trolleys. 2. EGG Machine(s). 3. Defibrillator(s). 4. Cardiac Monitor(s). 5. Ventilator(s), portable, which can also be used during transfer of patients towards, x-ray department etc. 6. Infusion pumps syringe, droplet, and volumetric types. 7. C-arm X-ray with image intensifier capability. 8. Electronic blood pressure monitor. 9. Temporary pacemaker unit(s). 10. Pacing Wires, various gauges.
1.2 Severe acute exacerbations of asthma, chronic obstructive pulmonary disease.	(a) Diagnose these conditions. (b) Deal with the acute attacks to the point where patients are out of danger, and dischargeable to general medical wards or home. (c) Detect and deal with associated mechanical problems, e.g. peneumothorax. (d) Recognise "failed" cases for transfer to Intensive Care Unit.	1. X-ray machine. 2. Blood gas machine. 3. Infusion pumps. 4. Lung function test equipments. 5. Pulse Oximeter. 6. Cardiac Monitor(s). 7. Nebuliser Units
1.3 Poisoning.	(a) Diagnose poisoning including identifying the poison(s).	1. Equipments for poison identification.

Condition	Capability of A & E Unit	Specific Equipment Required
	(b) Removal, neutalisation of the poison, and stablisation of the patient's conditon.	2. Haemodialysis machine.
	(c) Life-support where needed.	3. Haemoperfusion machine.
	(d) Monitoring and addressing of anticipated metabolic and haemodynamic derangements.	4. CAVH capability.
	(e) Haemodialysis for acute renal shutdown.	5. Machine for electrolytes, urea estimations (Micro-capillary).
		6. Infusion pumps.
		7. CVP monitoring equipments.
		8. Ventilator.
Patients in Coma.	(a) Diagnosis of different causes of coma.	1. Laboratory machines for measurement of a. Blood gas. b. Urea. c. Electrolytes. d. Sugar. e. Poisons. f. Hormones.
	(b) Resuscitation and maintenance of life till transfer to appropriate unit/department.	2. Single lead EEG Machine.
	(c) Deal definitively with specific causes.	3. Ventilators.
		4. Infusion pumps.
		5. Pulse oximeter.
		6. Low temperature probes.
		7. Cardiac Monitor.
		8. Holter Monitor (for Stokes Adams, etc.)
		9. Suction Machines.
Patients in Shock.	(a) Diagnose the different causes of shock.	1. Non-invasive continuous blood pressure monitoring equipments.
	(b) resuscitate and stabilise shock.	2. Invasive blood pressure monitoring equipments for intra-arterial monitoring.

Condition	Capability of A & E Unit	Specific Equipment Required
	(c) Deal definitively with a few varieties to the point of discharge to the general wards or home.	3. Swan-ganz capability. 4. Cardiac Monitor. 5. Arterial blood gas machine. 6. Ventilators. 7. Infusion pumps. 8. ECG Machine. 9. Pulse oximeters.
1.6 Ca. arrest.	(a) Detect and resuscitate a case of cardio-respiratory arrest. (b) Stabilise and diagnose the cause of cardiac arrest. (c) Provide necessary monitoring, life-support system for safe transport to another unit, ward or facility.	1. Defibrillator(s). 2. Vital sign monitor including:- a. ECG. b. Respiration. c. Blood pressure, invasive and non-invasive. 3. Pacemakers. 4. Ambubag(s) and accessories. 5. Ventilators.
2. <u>Obstetrics</u>		
2.1 Antepartum haemorrhage	(a) Resuscitation, definitive diagnosis and stabilisation prior to transfer of patients to the wards.	1. A portable ultrasound scanner.
2.2 Severe pre-eclampsia and eclampsia.	(a) Emergency treatment and stabilisation prior to definitive treatment. (b) Forceps delivery, if necessary.	2. A cardiotocograph machine. 3. A fetal heart doppler detector. 4. A pair of wrigley's outlet forceps. 5. A pair of Simpson's forceps.

Condition	Capability of A & E Unit	Specific Equipment Required
Intrapartum complications, e.g. prolonged labour, cord prolapse, arm pro-lapse etc.	(a) Emergency Caesarean Section, if required.	6. A pair of Kjelland's forceps. 7. Operative equipment for caesarean section operations. 8. Blood pumps. 9. Blood Warmers. 10. Anaesthetic machines. 11. Anaesthetic ventilators. 12. Temperature monitors.
Post-partum complications, e.g. born before arrival, retained placenta with post-partum haemorrhage	(a) Manual removal of placenta under general anaesthesia.	
Post-partum vaginal tear.	(a) Suturing of vaginal tear.	
<u>Gynaecology</u>		
Incomplete abortions.	(a) Evacuation of remnants of product of conception.	1. A suction dilatation and curettage set.
	(b)* Emergency laporotomy.	2. A laparoscope.
Ruptured ectopic pregnancy with obvious haemo-peritoneum.	(a) Laparoscopic examination.	
Bartholin abscess.	(a) Marsupialisaion.	
Aborting molar pregnancy.	(a) Suction, dilatation and curettage.	
Heavy per vaginal bleeding	(a) Suction, dilatation and curettage.	

(* Capability of A & E Unit in Phase II development (i.e. tranma centre)).

Condition		Capability of A & E Unit		Specific Equipment Require.
4.	Paediatrics			
4.1	Young Children with suspected septic focus (e.g. lung, meninges)	(a)	Chest X-ray examination.	
		(b)	Take blood cultures.	
		(c)	Do lumbar puncture.	
4.2	Child Abuse	(a)	Recongnition.	1. Camera
		(b)	Documentation.	
		(c)	Resuscitation and stabilisation of condition.	
4.3	Dehydration, Diabetic, Ketoacidosis, shock	(a)	Give oxygen for shock.	
		(b)	Resuscitration and stabilization of patients.	
		(c)	Do necessary blood tests.	
4.4	Oral poisoning	(a)	Give syrup ipecac to promote gastric emptying in awake, alert patients.	
		(b)	Do gastric lavage.	
		(c)	Give activated charcoal.	
4.5	Seizures, febrile fits	(a)	Control of fits with drugs.	
4.6	Bronchial asthma	(a)	Treatment with nebulizer.	1. Nebulizer units.
		(b)	Give oxygen.	
4.7	Acute epiglottis	(a)	To do emergency intubation before transferring patients to I.C.U. for further ventilation therapy.	1. Laryngoscopes. 2. Endotracheal tubes.
4.8	Cardiac arrhythmias	(a)	Correction of arrhythmias.	1. ECG machine.
		(b)	Giving of drugs for supraventricular tachycardia.	2. Cardiac Monitor 3. Defibrilator.
4.9	Anaphylaxis emergencies	(a)	Treatment of shock and respiratory obstruction.	

Condition	Capability of A & E Unit	Specific Equipment Required
4.10 Bleeding emergencies (haemophilia, vitamin K deficiency, Disseminated intravascular congulation).	(a) Control of bleeding. (b) Treatment of shock. (c) Blood transfusion.	
4.11 Babies born before arrival at hospital.	(a) Resuscitation. (b) Keep warm in incubator.	1. Infant resuscitator. 2. Incubator. 3. Pulse oximeter.
General Surgery		
1 Emergencies		
5.1.1 Intraperitonral inflammation (localized or generlised)		
(a) Localized	(a) Able to diagnose.	1. X-ray machine.
i. Acute appendicitis	(b) Able to do blood and urine tests.	
ii. Cholecysttis	(c) To admit to appropriate wards for further investigation and definitive treatment.	
iii. Diverticulitis		
iv. Salpingitis		
(b) Generalised	(a) Able to diagnose.	1. X-ray machine.
i. Any of the baove 4 conditions	(b) Able to do blood and urine tests.	
ii. Acute pancreatitis	(c) Stablization of condition of patients.	
iii. Perforated peptic ulcer	(d) To admit to appropri :e wards for further investigation and definitive treatment.	

Condition	Capability of A & E Unit	Specific Equipment Required
iv. Perforated bowel v. Infarcted or strangulated bowel		
5.1.2 Severe gastritis, acute oesophagitis.	(a) Observation. (b) Investigate to rule out serious abdominal conditions. (c) Treat with antacids and antispasmodic drugs.	
5.1.3 Painful scrotal swelling i. Acute epididymo-orchitis ii. Testicular torsion iii. Strangulated inguinal hernia iv. Acute haematocoele v. Fulminating tumor	(a) Admit patients to wards for definitive treatment. (b) Operation at A & E Unit to reducetorsion. (c) In case of painful inguinal hernia, admit to wards for surgery. (d) For other conditions, admit to wards for definitive treatment.	
5.1.4 Intestinal Obstruction - Small bowel or large bowel	(a) X-ray investigation. (b) Nasogastric tube suction. (c) Stabilisation of condition of patients - infusion of intravenous fluid. (d) Admit to wards for surgery.	
5.1.5 Painful obstruction in renal or biliary tract	(a) X-ray and ultrasound investigation. (b) Urine test. (c) Treatment with antispasmodic drug.	1. Ultrasound machine.

Condition	Capability of A & E Unit	Specific Equipment Required
	(d) If pain is severe, admit to ward.	
5.1.6 Gastro-intestinal haemorrhage	(a) Blood grouping and cross-matching. (b) Blood transfusion. (c) Stablization of condition of patients. (d) Giving of cimetidine injection. (e) Admit to ward for observation and/or surgery.	
5.1.7 Abdominal trauma (blunt or penetrat-ing)	(a) Plain abdominal X-ray. (b) Blood tests. (c) Diagnostic peritoneal lavage. (d) Stabilization of conditions of patients. (e) Blood grouping and cross-matching. (f) Blood transfusion. (g) Diagnostic laparoscopic examination (fibreoptic laparoscope) (h)* Laparotomy and gut resection, colostomy, splenectomy	
Non-penetrating Chest trauma (due to sudden decleration of victim). - rupture of diaphraga - rupture of aorta - rupture of pericardium	(a) Endotracheal intubation. (b) Tracheostomy. (c) Insertion of chest tube. (d) Stabilization of condition of patients - i.v. influsion, blood tranfusion. (e) Insertion of CVP line (f) Analysis of blood gases.	1. Chest drainage sets. 2. Blood gas analyser. 3. ECG Monitor. 4. Non-invasive BP Monitor. 5. Invasive BP Monitor. 6. Pulse oximeter. 7. Ventilator.

Condition	Capability of A & E Unit	Specific Equipment Required
- fracture of cervical trachea - cardiac tamponade - rib fractures	(g) Continuous monitor of vital signs. (h) X-Ray investigation including CT scan investigation. (i) Assisted (positive pressure) ventilation with ventilator. (j) Pericardial tap. (k) External traction to chest wall for flail chest after multiple rib fractures. (n)* Excision of fractured segment of aorta and replacement with dacton prosthesis. (l) Angiographic examination. (m)* Thoracis Surgery.	8. Chest wall traction apparatus. 9. Autologous transfusion system (for emergency haemothorax procedures). 10. Fibreoptic gastroscope. 11.* Thoracic surgery equipment. 12.* Vascular surgery equipments - Vascular clamps. 1. ECG monitor. 2. Non-invasive BP monitor. 3. Invasive BP monitor. 4. Autologous transfusion system. 5.* Vascular surgical clamps and prosthesis.
5.3 Penetrating injuries to the trunk.		
5.3.1 Penetrating wounds of thoracic inlet. 5.3.2 Penetrating injuries of thorax.	(a) Endotracheal intubation. (b) Tracheostomy. (c) Insertion of chest tube. (d) Stabilization of condition of patients - i.v. infusion, blood transfusion. (e) Insertion of CVP line. (f) Analysis of blood gases. (g) Continuous monitor of vital signs. (h) X-ray incestigation including CT scan investigation. (i) Assisted (positive pressure) ventilation with ventilator.	

Condition	Capability of A & E Unit	Specific Equipment Required
	(j) Angiographic examination.	
	(k)* Resection o fbadly damaged lung.	
	(l)* Vascular surgery for wounds of atria, vena cavae, aorta.	
	(m)* Emergency cardiorrhaphy for wounds of the heart.	
5.3.3 Penetrating injuries of the abdomen	(a) Peritoneal tapping with peritoneal lavage catheter.	1. Laparotomy set.
	(b) Stabilization of condition of patients - intravenous infusion, blood transfusion.	2. Cystofix for urethral tear.
	(c) Continuous monitoring of vital signs.	
	(d) X-Ray investigation including CT scan investigation and intravenous pyelography.	
	(e) Repair of methral tear.	
	(f)* Laparotomy.	
	(g)* Closure of wounds of stomach, duodenum, small and large intestines, liver, biliary tract, urinary tract, urinary bladder, uterus.	
	(h)* Splenectomy.	
	(i)* Gut resection and anastomosis.	
	(j)* Jejunostomy or colostomy.	
	(k)* Salpingohysterectomy.	
	(l)* Vascular surgery for repair of wounds of Major blood vessels.	

(* Capability of A & E Unit in Phase II development (i.e. trauma centre).)

Condition	Capability of A & E Unit	Specific Equipment Required
5.4 Head Injuries		
5.4.1 Skull fractures	(a) Neurological examination.	1. C>T. Scan
	(b) X-ray investigation of head.	2.* Craniotomy equipment.
	(c) CT scan investigation.	
	(d)* Craniotomy.	
	(e)* Elevation of depressed skull fractures.	
	(f)* Control of intra-cranial bleeding.	
	(g) Stabilization of condition of patients.	
	(h) Blood transfusion.	
5 Acute Vascular Emergency		
5.5.1 Arterial embolison	1. Able to diagnose this condition.	
	2. Give heparin intravenously before admitting the patients to the proper ward unit.	
5.5.2 Arterial thrombosis	1. Able to recognise the presence of ischaemia in any grade in the limbs and then to avoid undertaking outpatient procedures on the extremities of the limbs.	
	2. Refer patients to appropriate outpatient department or ward unit.	
	3. Patients with gangrene require to be admitted.	
5.5.3 Rupture of Abdominal aneurysm	1. Recognition of this condition.	
	2. Resuscitation and stabilization of condition of patients including emergency blood transfusion.	

(* Capability of A & E Unit in Phase II development (i.e. trauma centre).)

Condition	Capability of A & E Unit	Specific Equipment Required
	3. X-ray of abdomen including CT scan.	
	4. Relief of pain by giving intravenously morphine or similar drug.	
5.5.4 Acute Thrombophlebitis	1. Recognition of the condition.	
	2. For localized forms - give antibiotic treatment and apply firm crepe bandaging of the affected limb.	
	3. Most acute cases require admission.	
5.5.5 Varicose ulcers	1. Treatment with sterile pad and crepe bandage support from foot to upper leg.	
	2. For large and infected ulcers, admission is required.	
5.5.6 Deep vein thrombosis	1. Recognition of the condition.	
	2. Give heparin intravenously before admitting patients to the proper ward unit.	
Orthopaedics		
6.1 Spinal Injuries	(a) Neurological examination.	
	(b) X-ray investigation.	
	(c) Collar splint.	
6.2 Head Injuries		
6.2.1 Traumatic amputation of fingers.	(a) Skin graft.	
	(b) Terminalization.	
6.2.2 Wound with skin loss	(a) Skin graft.	
6.2.3 Burn or scald	(a) Excision of dead tissues and skin grafting.	
	(b) Immobilisation of hand.	

Condition	Capability of A & E Unit	Specific Equipment Required
6.2.4 Crush Injury	(a) Amputation	
	(b) Delay closure of skin.	
6.2.5 Torn tendon	(a) Repair of torn tendons (repair of flexor tendons in Zone 2 by surgeon; others by trained medical officers).	
	(b) Tendon transplant.	
6.2.6 Torn nerve	(a) Repair of torn nerve.	
6.2.7 Fractures and dislocations	(a) Reduction of fractures and dislocations.	
	(b) K - wiring	Hand drill
	(c) Splinting of fractures.	
	(d) Immobilisation of fractures with plaster of paris.	
6.3 Fractures and Dislocation of Limbs		
6.3.1 Fracture of leg and foot.	(a) X-ray examination.	
	(b) Reduction of fracture, (under general anaesthesia, if necessary).	
	(c) Application of plaster of Paris.	
6.3.2 Fracture of femur.	(a) X-ray examination.	
	(b) Application of Thomas Splint.	Thomas Splints.
6.3.3 Fracture of forearm, wrist, elbow and upper arm.	(a) X-ray examination.	
	(b) Reduction of fracture under sedation/general anaesthesia.	
	(c) Application of plaster of Paris.	
6.3.4 Dislocation of shoulder	(a) X-ray examination.	
	(b) Reduction under sedation/general anaesthesia.	

Condition	Capability of A & E Unit	Specific Equipment Required
4 Burn and Scald - thermal burn - hot liquid - chemical burn - electrical burn	Stabilization of condition of patients by intravenous fluid infusion and blood transfusion. (b) Endotracheal intubation. (c) Tracheostomy. (d) Assisted ventilation with ventilator. (e) Dressing. (f) Splinting of involved limbs.	Tracheostomy set ventilator.
Ear, Nose and Throat Ear, Nose and Throat Emergencies.		
7.1 Tranmatic		
(a) Laceration of pinna	(a) Clean dressing. (b) If bleeding profuse, apply pressure. (c) If wound is dirty, give antibiotic cover. (d) Toilet and sucture. (e) Refer case to plastic surgeon if available).	
(b) Laceration of External auditory canal.	(a) Light sterile plugging (avoid ear drops. No suction). (b) If bleeding profuse, pack with BIPP or antibiotic soaked sterile ribbon gauze (1/4"). (c) Do clinical hearing tests. (d) Give analgesics.	
(c) Tympanic membrane perforation	(a) Light cotton wool plugging if bleeding.	

Condition		Capability of A & E Unit		Specific Equipment Required
		(b)	Check hearing level.	
		(c)	No suction of any blood or debris. No ear drops.	
(d)	Bleeding from external auditory canal & site - Mastoid bone fracture)horizontal or transverse)	(a)	May plug lightly.	
		(b)	Central nervous system observation - Glasglow coma scale.	
		(c)	Leave any clot alone (no touch approach).	
		(d)	Skull X-ray - Towne's view.	
		(e)	Parenteral triple antibiotics.	
		(f)	Assess hearing and facial nerve function.	
7.1.2	Sudden hearing loss	(a)	Assess hearing level.	
		(b)	Set up intravenous line.	
		(c)	Give antiemetic, vestibular sedative for associated vertigo.	
		(d)	Admit to ward.	
7.1.3	Acute otalgia			
(a)	Otitis media	(a)	Do X-ray of mastoids.	
		(b)	Give parenteral antibiotic.	
(b)	Mastoiditis	(a)	Examine ears.	
		(b)	Assess hearing.	
		(c)	Give broad spectrum antibiotic.	
		(d)	Give analgesic.	
(c)	Otitis externa	(a)	Give analgesic.	
		(b)	Suction toilet.	
		(c)	Give local antifungal ear drops if otomycosis.	

Condition	Capability of A & E Unit	Specific Equipment Required
	(d) Start on antibiotic ear drops if bacterial/malignant otitis externa.	
(d) Foreign body in ear.	(a) Determine nature of foreign body.	
	(b) If insect is alive, may instil clean oil.	
	(c) If insect/vegetable is suspected, admit to ward.	
	(d) Non-organic foreign body case may be sent home and foreign body removed as an elective case in operating theatre.	
	(e) Syringing may be done to remove small insect or inorganic material.	
Nose		
7.2.1 Epistaxis	(a) Check blood pressure.	
	(b) Cold compress.	
	(c) Try to determine site of bleeding.	
	(d) Pack with vaseline or BIPP ribbon gauze (1") anteriorly.	
	(e) Post nasal packing if uncontrolled bleeding.	
	(f) Set up intravenous line.	
	(g) Give antibiotic if packed.	
	(h) Give blood transfusion if epistaxis was massive.	
7.2.2 Traumatic Epistaxis		
(a) Fracture of nasal bone.	(a) X-ray nasal bone.	1. Pneumatic hand drill.
	(b) Control of epistaxis.	2. Walsham & Ash forceps.
	(c) Reduction of fracture.	3. Minor orthopaedic surgical instrument set.

Condition	Capability of A & E Unit	Specific Equipment Required
	(d) Application of plaster of Paris Splint. (e) Wiring in case of comminuted fracture.	
(b) Maxillo-facial fracture (Lefort I - III)	(a) Ensure clear airway. (b) Pack nose. (c) Reduce fracture if no soft tissue swelling or else leave alone. (d) Give analgesic. (e) Give antibiotic if packed. (f) Set up intravenous line. (g) Refer to dental surgeon. (h) Reduction of fracture under general anaesthesia and maintenance of stability by interosseous wiring, interdental fixation and suspension wiring.	1. Pneumatic hand drill.
7.2.3 Foreign body in nose	(a) Determine nature of foreign body. (b) If a plant derivative is suspected, give antibiotic. (c) Do chest X-ray. (d) Observe respiration to rule out aspiration. (e) Remove foreign body under general anaesthesia.	
7.3 Throat		
7.3.1 Peritonsillar abscess	(a) Incision and drainage. (b) Give parenteral antibiotic. (c) Admit patient to ward.	

Condition	Capability of A & E Unit	Specific Equipment Required
7.3.2 Foreign body (e.g. fish bone)	(a) X-ray examination of throat.	
	(b) Do contract studies if bone is suspected lower down.	
	(c) Removal of foreign body using oesophagoscope.	Oesophagoscope.
7.3.3 Bleeding from any cause	(a) Determine site and severity.	
	(b) Do throat packing, if necessary, and tracheostomy.	
7.3.4 Stridor (airway abstruction)	(a) Clear throat of secretions and dentures.	
	(b) Extend neck.	
- inflammatory	(c) Give oxygen by mask.	
	(d) If severe stridor, admit to ward.	
- traumatic laryngeal injury	(e) Start on parenteral antibiotics and steroids if inflammatory (acute laryngotracheobronchitis or epiglottitis).	
- fumes inhalation		
- angioneurotic	(f) Set up intravenous line.	
- neoplastic or foreign body in larynx	(g) Do endotracheal intubation or tracheostomy.	
7.3.5 Foreign body in Tracheobronchial tree	(a) Determine nature of foreign body.	
	(b) Chest X-ray examination.	
	(c) Admit to ward.	
Ophthalmology		
- Acute Ocular Emergencies		
8.1 Lid lesions		
(a) Styes	(a) Incision and release of pus.	

Condition	Capability of A & E Unit	Specific Equipment Required
	(b) Application of antibiotic ointment.	
(b) Chalazion	(a) Incision of infected chalazion cyst.	
	(b) Application of antibiotic eye ointment.	
(c) Lacrimal infections	(a) Treatment with antibiotics local and systemic.	
	(b) Referal to eye clinic for further treatment (lid surgery, lacrimal syringing, surgery to restore patency of tear ducts).	
8.2 Trauma		
(a) Superficial foreign bodies in cornea	(a) Removal of foreign bodies with needle.	
(b) Perforating injuries	(a) Examination of the eyes.	Magnet.
	(b) X-ray of the eye.	
(c) Lid and orbital injuries	(c) Admit to ward for surgery.	
(d) Blunt injuries - very severe orbital haematoma	(a) Emergency decompression of intra-orbital pressure by cutting the lateral canthus to allow the eye-ball to move forwards.	
	(b) X-Ray of maxillary antrum and orbits.	
(e) Chemical injuries - acid and alkali	(a) Copious washing of the eyes with water.	
	(b) Admit.	
	(c) Refer as eye emergency.	
8.3 Red Eye in the absence of trauma		
(a) Infection.	(a) Treatment with antibiotics-topical and systemic.	

Condition	Capability of A & E Unit	Specific Equipment Required
(b) Allergy	(a) Topical steroids.	
(c) Acute closed angle glaucoma	(a) Rapid lowering of intraocular pressure by giving I.V. Mannitol and I.V. acktazolamide (Diamox) 500 mg.	
	(b) Constrict pupil of the eye with pilocarpine eye drops.	
	(c) Refer to Eye Specialist.	
8.4 Sudden loss or blurring of vision.	(a) Examination of the eye.	
	(b) Admit to ward.	
<u>Psychiatry</u>		
<u>Psychiatric Emergencies</u>		
9.1 Hysteria	(a) Sedation of patients with redative drugs.	
9.2 Functional paychoses	(b) Physical restraint with special jacket.	
9.3 Drug dependence with drawal syndrome		

Duties and Responsibilities of Medical Officer in Accident and Emergency Unit of Hospitals in Sarawak.

A. Clinical

1. To examine patients brought to the Accident and Emergency Unit taking proper history and carrying out proper physical examination.

2. To order laboratory tests for patients whenever necessary.

3. To take blood, urine stool, sputum and swab specimens and spinal fluid for laboratory tests.

4. To carry out urgent tests by the ' stick' method, e.g. for blood glucose level and for glucose and ketone levels in urine.

5. To prescribe drugs for patients according to the standard list of drugs that Medical Officers are authorized to prescribe.

6. To give injections to patients - injections prescribed by himself or specialists.

7. To carry out treatment procedures and operative procedures, such as endotracheal intubation, cut-down, setting intravenous drip, giving blood transfusion, toilet and suture, incision and drainage, exploration of wounds for foreign bodies, reduction of fracture and disolaction, application of plaster of Paris, removal of foreign bodies from eyes, nose, ear and throat, lumbar puncture, chest aspiration, insertion of chest tube, defibrillation, tapping of abdomen for internal haemorrhage, inhalation therapy, stomach wash-out, haemodialysis, forceps delivery, emergency caesarean section, manual removal of placenta, evacuation of remnants of product of conception, dilatation and curettage, laparoscopic examination, operation to reduce testicular torsion, nasogastric tube suction,
   - tracheostomy
   - insertion of CVP line
   - putting a patient onto a ventilator
   - use of blood gas machine
   - pericardial tap
   - fixing external traction to chest wall for flail chest
   - repair of urethral tear with cystofix
   - skin grafting and terminalization for traumatic amputation of fingers
   - skin grafting for wounds with skin loss
   - immobilization of upper and lower limbs
   - repair of torn tendons
   - tendon transplant
   - repair of torn nerve
   - K-wiring for fractures of hand
   - packing of the nose to control bleeding
   - incision and drainage of peritonsillar abscess
   - incision and drainage of infected chalazion cyst
   - cutting the lateral canthus for emergency decompression of intra-orbital pressure
   - copious washing of eyes for chemical injuries
   - application of pilocarpine eyedrops in case of acute closed angle glaucoma

Duties and Responsibilities of Medical Assistant in Accident and Emergency Unit of Hospitals in Sarawak.

A. Clinical

1. To examine patients brought to the Accident and Emergency Unit - taking proper history and carrying out proper physical examination.

2. To order laboratory tests for patients whenever necessary.

3. To take blood, urine, stool, sputum and swab speciments for laboratory tests.

4. To carry out urgent tests by the 'stick' method e.g. for blood glucose level and for glucose and ketone levels in urine.

5. To prescribe drugs for patients according to the standard list of drugs that medical assistants are authorized to prescribe.

6. To give injections to patients - injections prescribed by himself or by medical officers or specialists.

7. To carry out toilet and sutures, incision and drainage and dressing of wound, stomach washout, nasogastric suction, inhalation therapy, haemodialysis, copious washing of eyes for chemical injuries.

8. To carry out emergency resuscitative measures, like setting up intravenous drip, giving oxygen through nasal tubing or mask.

9. To refer patients in seriously ill condition or with severe haemorrhage or with complicated disease conditions, to a medical officer for management.

10. To assist medical officer in carrying out treatment procedures and operative procedures like doing endotracheal intubation, cut-down, giving blood transfusion, toilet and suture, incision and drainage, exploration of wounds for foreign bodies, reduction of fracture and dislocation, application of plaster of Paris, removal of foreign bodies from eyes, nose, ear and throat, laparonopic examination, tracheostomy,
    - insertion of CVP line
    - putting a patient onto a ventilator
    - fixing external traction to chest wall for flail chest
    - skin grafting
    - immobilisation of limbs
    - packing of nose to control bleeding

11. To give local or general anaesthesia to the patients requiring surgery.

12. To assist medical officers and specialist in operations whenever necessary.

13. To go with the ambulance in response to call from the public for ambulance service, and to give first aid to patients whenever necessary, before arrival at the hospital.

14. In the absence of a dispenser, to issue drugs and medical supplies to patients as prescribed by medical assistants, medical officers and specialists.

ACCIDENT AND EMERGENCY DEPARTMENT (A + E DEPT.)

1. ROLE OF DEPARTMENT

The Accident and Emergency (A & E) Department operates 24 hours a day to provide an effective and efficient service for the injured and ill patients.

1.1. Aims

The A & E Department aims to do the following:-

1.1.1. Early diagnosis, appropriate and timely management.

1.1.2. Prevention and reduction of disability.

1.1.3. Appropriate referrals to other disciplines for further management.

1.2. Functions

The A & E Department provides pre-hospital and hospital care of patients. It also undertakes training of medical and para medical staff and carries out research.

1.2.1. Pre-Hospital Care

(i) Pre-hospital care includes resuscitation and evaluation of the degree of trauma of the injured and acutely ill patients at the site of occurrence The emergency team will do the following:-

- initiate appropriate treatment,
- take steps to avoid further injury to the patient,
- establish immediate communication with the base hospital and
- provide rapid transport to the A & E Department.

(ii) Pre-hospital care may also be provided by NGOs.

1.2.2. Hospital Care

The A&E Department provides medical consultation and treatment of all acute conditions and emergencies.

Cases which will be seen at A&E include:-

(i) All emergencies (except obstetric), such as coma, collapse, fits, acute asthmatic attack, etc.

(ii) All poisonings (known or suspected).

(iii) Trauma with surface lesion, overt or suspected fractures or suspected visceral damage. Even patients who appear stable should be seen as soon as possible.

(iv) Psychiatric patients who are violent/aggressive.

(v) Cases brought by Police for drug detection, victims of rape or child abuse.

1.2.3. Training of Medical and Paramedical Staff and Research

Training and research in A&E services constitute important functions of the A&E Department of all hospitals.

1.3. Levels of A & E Care

1.3.1. The level of care depends on organisational level of the health care facility, viz.

(i) Health Centre

The basic level of emergency care is provided.

(ii) Hospitals

The District Hospital without specialists has facilities for resuscitation and management of emergencies. The level of care becomes increasingly sophisticated hierarchically at District Hospitals with Specialists and General Hospitals, etc.

1.3.2. The descriptions following this applies to General Hospitals. Details of other levels are to be found in the Appendix.

2. RELATIONSHIP WITH OTHER DEPARTMENTS

2.1. Outpatient Department (O.P.D)

Patients presenting at OPD who need urgent attention and management will be directed to the A&E for attention. Non-acute cases presenting at A&E during office hours will be directed to OPD.

2.2. Admission Section

Patients seen in A&E requiring admission are registered here.

2.3. Diagnostic Imaging Department

The X-ray unit in the A&E Department will be operated by a radiographer from the Diagnostic Imaging Department.

2.4. C.S.S.D

Sterile supplies are drawn from CSSD.

2.5. I.C.U/C.C.U

Critical cases including myocardial infarction and angina pectoris are resuscitated and transferred as soon as possible to ICU/CCU.

2.6. Other Supportive Services

Facilities for the dispensing of drugs for use until the normal supply can be obtained from the regular pharmacy are available at A&E. Laboratory/Blood Bank personnel are available (on call) when the need arises.

3. SERVICES PROVIDED

3.1. Ambulance Service

The A&E Department has ambulances for emergency care/transport of seriously ill patients. Requests for ambulance services will be received and processed at A&E.

3.2. Medical Consultation/Examination

Patients are examined and treated by Medical Officers and other relevant specialists as and when required.

3.3. Investigations in A&E

3.3.1. Investigations will be done using labstix or other simple clinical laboratory methods. More complex investigations are done in the hospital laboratory.

3.3.2. X-rays are done at the A&E Department. Alternative arrangement for this may have to be made with the Diagnostic Imaging Department if the workload is low during office hours.

3.4. Treatment

3.4.1. Resuscitative/Emergency Measures.

Very serious cases are resuscitated before transfer to wards, OT or ICU/CCU. Emergency procedures including tracheostomy, cut down, cardiac resuscitation, gastric lavage etc. will be performed as and when necessary.

3.4.2. Minor surgical procedures are undertaken in the Treatment Room or the minor OT. These procedures include toilet and suture of wounds, incision and drainage of abscesses, catheterisation, foreign body removal, etc.

3.4.3. Observation

Certain patients are placed under observation in A&E for a period of time (e.g. non-serious accident victims with transient loss of consciousness) but admitted if they manifest any deterioration in their condition.

3.4.4. Patients not requiring admission are treated on an ambulant outpatient basis.

4. LOCATION OF DEPARTMENT

4.1. The A&E Department being the receiving and early management centre of emergency cases, must be readily accessible.

4.2. The A&E Department should be located at the hospital frontage with clear directional signs indicating its location. The signboard should be in red and neon lighted at night.

4.3. The A&E Department must be located on the ground floor with a separate entrance and exit. This must be away from visitors' entrance and entrance to OPD, specialists clinics and the Administrative Section.

4.4. A separate thoroughfare restricted for use by ambulances and other vehicles bringing in cases is required.

4.5. Location in Relation to other Department

4.5.1. The A&E Department should be located away from inpatient areas. However there will be easy access to Diagnostic Imaging Department, OT and ICU/CCU, preferably on the same floor of the building.

4.5.2. The admission Section should be nearby.

4.5.3. The A&E Department should be near the OPD. A connecting corridor or staircase/lift is provided so that A&E patients can reach the Outpatient Pharmacy easily and OPD cases may go to A&E Minor OT for minor procedures (during office hours)

4.5.4. The Police Booth should be located near to but outside the entrance of the A&E Department.

4.6. Relation To Service Lines and Staff Traffic

4.6.1. Transport of A&E Department and dirty materials will follow the separate pattern lines. The A&E Department should not be traversed by staff and materials moving between other department.

4.6.2. Public facilities including post-office and shops must be located away from the A&E Department.

5. ORGANISATION

5.1. General Hospitals should have a separate A&E Department headed by a A&E Specialist. In the absence of an available A&E Specialist, specialists will occupy the post on a rotational basis for a minimum period of one year. He will be supported by Medical Officers and paramedical staff.

5.2. In District Hospitals with specialists, the A&E Department should be headed by full time Senior Medical Officer with experience in Medicine, Surgery and Orthopaedics. He will be supported by Medical Officers and paramedical staff.

5.3. In District Hospitals without specialists, the A&E Department should be under the supervision of the Medical Officer in charge of the OPD. He will be supported by Medical Officers and paramedical staff.

5.4. The nursing team should be headed by a Matron or Sister. Staff nurses are required for emergency resuscitation and treatment, at the observation ward, to assist the doctor at the consultation/examination area, OT/Procedure Room and to assist in the Triage System. The staff nurses will be assisted by trained assistant nurses. Midwifery trained staff nurses are required to accompany the ambulance on ambulance calls when necessary.

5.5. A senior Medical Assistant should head the team of Medical Assistants at the A&E. Medical assistants are required to manage the Triage System and to assist in the Emergency Resuscitation Room, Treatment Room and OT/Procedure Room. They will be in charge of ambulance services and be on standby to accompany the ambulance whenever necessary.

5.6. Attendants will be available to perform various general duties ranging from obtaining patients to general maintenance of the department.

5.7. The reception and registration of patients will be done by receptionists in A&E.

5.8. Radiographers will be required to operate the X-ray equipment.

5.9. Essential support services such as anaesthesia, diagnostic imaging, laboratory/Blood Bank etc. should be available on a 24 hour basis.

6. OPERATIONAL PROCEDURES

6.1. Ambulance Services

6.1.1. Upgrading of ambulance services will be done in stages. It is envisaged that in future active resuscitation can be started at the scene of the accident or emergency.

6.1.2. The ambulance crew should consist of paramedic staff trained in Basic Cardiac-Life Support. Selected ambulance drivers should be given training in BCLS including handling of patients at the site of the emergency or accident.

6.1.3. To overcome communication difficulties encountered in pre-hospitals care, a single access telephone line should be available in the A&E Department. This telephone will be located close to the resuscitation bay.

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

6.2. Patient Flow

See Diagram 1 for patient and activity flow in A&E.

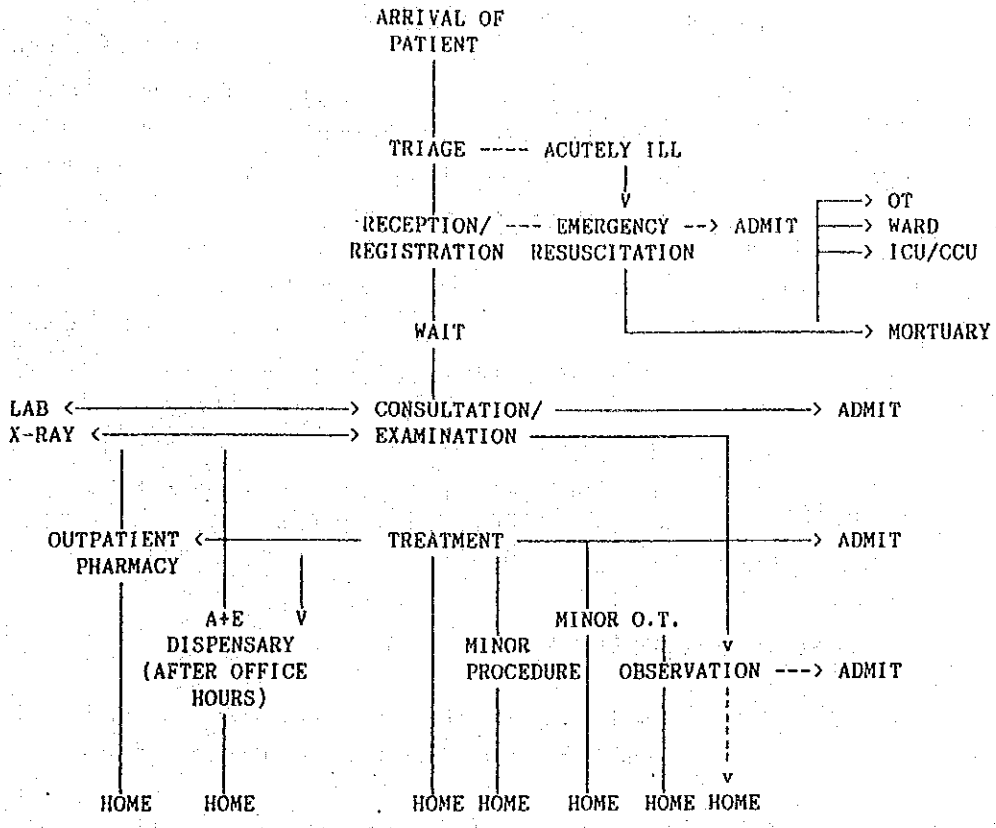

Diagram 1: Patient and Activity Flow in A&E.

6.3. Reception/Triage/Registration

6.3.1. Acutely ill cases should be directed by the Triage Staff to be wheeled straight into the Emergency Resuscitation Room for immediate treatment. The OT or ICU/CCU or the relevant wards should be informed of impending transfer of patients to these areas.

6.3.2. If it is known that a critical case is arriving by ambulance, the medical team should be on standby in the Emergency Resuscitation Room.

6.3.3. After triage, non-acute cases presenting at the A&E Department during office hours, will be directed to receive treatment at the O.P.D.

6.4. A&E Records System

6.4.1. Traditionally the A&E Department maintains its own records separate from those of Central Records.

6.4.2. However for the upgrading of A&E facilities and for new hospitals, it is proposed to integrate A&E records with Central Records. The Central Records will be opened for 24 hours except in District Hospitals where the Medical Assistant in charge will have access to it.

6.4.3. A patient presenting at the A&E Department will be seen as his old records are traced. For A&E cases, immediate medical intervention is the objective and it is not critical to refer to old records beforehand.

6.4.4. The A&E record sheet is subsequently returned with old records to Central Records or follows the patient to the ward. However if para 6.4.1. applies, this record sheet is retained in A&E.

6.5. Examination of Patients

6.5.1. Examination Rooms should be provided for consultation of cases other than acutely ill patients.

6.5.2. Rooms should also be provided for specific services such as for gynaecology, rape and child abuse cases.

6.6. Observation of Patients

6.6.1. A&E Observation Ward.

(i) If the condition of the patient does not necessitate admission but there is a potential risk of deterioration of his condition, the patient will be kept in the observation ward.

(ii) Vital signs are monitored.

(iii) A quiet environment is provided and the patient should be encouraged to rest.

(iv) Food will be provided by the hospital.

(v) The period of observation should not exceed 24 hours.

6.6.2. A&E Observation Bay

A separate observation bay will be provided to temporary monitor the patient's condition for 3 hours.

6.7. Health Education

6.7.1. Health education will be provided to patients who attend the A&E Department.

6.7.2. The public should be educated on the proper use of emergency services as well as the prevention of road, industrial and domestic accidents.

6.7.3. The A&E personnel should take an active part in Health Education activities.

6.8. Training

6.8.1. The A&E Department should be a training ground for doctors.

6.8.2. Specialised training in A&E services should be conducted, at local level, if possible for all medical and paramedical staff.

6.8.3. Specific job assignments at local level should be developed for all categories of staff to ensure effective and efficient delivery of service.

6.9. Equipment

6.9.1. The A&E Department should be equipped to function in accordance with the relevant whole Hospital Policy and Department Policy.

6.9.2. Staff must be trained to use and maintain any sophisticated equipment used.

6.10. Care of the Deceased

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

6.10.2. A room should be provided for distressed relatives.

7. GENERAL LAYOUT OF DEPARTMENT

7.1. The general layout of the A&E Department should follow the activity flow as shown in Diagram 1.

7.2. All patients should be received at the Reception/Registration/Triage which should be off the entrance lobby.

7.3. The areas for management of critical cases must be near the reception and unimpeded passage for these cases is necessary.

7.4. The less acute cases should wait in another area for medical consultation and examination.

7.5. The treatment room, A&E dispensary, procedure room/OT and X-ray room should adjoin the medical consultation/examination area so that patient flow can be orderly and systematic.

7.6. Communicating passages are required for A&E Department to OT, ICU/CCU, wards, Diagnostic Imaging Department and OPD.

7.7. A separate exit from A&E is required for cases requiring admission so that patients can be rushed rapidly to OT, ICU/CCU and wards. This exit from A&E should be reserved only for admissions.

7.8. The observation ward should be located next to the treatment room.

7.9. Staff Areas (e.g. MO on calls room, Staff Room) should be located away from services areas except for the ambulance drivers station which should be fairly near to Reception/Registration area.

7.10. The Police Booth should be situated near the entrance but outside the A&E Department.

A + E Department:

Components	G.H.	D.H. with Specialist	D.H. without Specialist
1. Entrance Reception/ Registration, Waiting Area			
1.1. Entrance Porch	+	+	+
1.2. Entrance Lobby	+	+	+
1.3. Triage Area	+	+	+
1.4. Reception/Registration	+	+	+
1.5. Main Waiting Area	+	+	+
1.6. Trolley/Wheelchair Park	+	+	+
2. Emergency/Resuscitation Section			
2.1. Emergency Resuscitation Room	+	+	+
2.2. Sluice/Wash-up/Disposal	+	+	+
2.3. Clean Utility	+	+	+
2.4. Bay for holding dead body	+	+	+
2.5. Room for distressed relatives	+	+	+

Components	G.H.	D.H. with Specialist	D.H. without Specialist
3. Medical Consultation/ Examination, Treatment Areas			
3.1. Medical Consultation Room	+	+	-
3.2. Examination Bays	+	+	+
3.3. Room for rape cases	+	+	+
3.4. Preparation Room (Serving 3.1. - 3.3.)	+	+	+
3.5. Wash-up/Disposal/Sluice (attached to 3.1. - 3.3.)	+	+	+
3.6. Subwait for Consultation/ Examination	+	+	-
3.7. Treatment Room	+	+	+
3.8. Dressing Room	+	-	-
3.9. Preparation Room (attached to 3.7.)	+	+	+
3.10. Wash-up/Disposal/Sluice (attached to 3.7.)	+	+	+
3.11. Clean Utility (attached to 3.7.)	+	+	+
3.12. Subwait for Treatment	+	+	+
3.13. Toilet attached to Treatment Room	+	+	+
3.14. A&E Dispensary	+	+	+

Components	G.H.	D.H. with Specialist	D.H. without Specialist
4. A&E O.T. Unit			
4.1. OT	+	-	-
4.2. Minor OT	+	+	-
4.3. Procedure Room	-	-	+
4.4. Entrance Lobby	+	+	+
4.5. Reception/Nurses Station	+	+	+
4.6. Subwait	+	+	+
4.7. Patients' Preparation Room (with attached toilet)	+	+	-
4.8. Recovery area	+	+	-
4.9. Sterile Lay-up/Preparation Room	+	+	+
4.10. Wash-up/Disposal/Sluice	+	+	-
4.11. Scrub-up	+	+	+
4.12. Change Rooms - Male - Female	+	+	+
4.13. Doctor's Room	+	+	-
4.14. Staff Room	+	+	-
4.15. Linen Room	+	+	+
4.16. General Store/Equipment Store	+	+	+
4.17. Sister's Office	+	+	-
4.18. Wash-up/Disposal	+	+	+
4.19. Cleaner's Store	+	+	-
4.20. Plaster Room	+	-	-
4.21. Store for plaster room	+	-	-

Components	G.H.	D.H. with Specialist	D.H. without Specialist
5. Plaster Room Section			
5.1. Reception	+	+	-
5.2. Plaster Room	+	+	+
5.3. POP Substore	+	+	+
5.4. Equipment Store	+	+	+
5.5. Disposal/Wash Room	+	+	+
5.6. Subwait	+	+	-
5.7. Public Toilets (attached to 5.6.)	+	+	+
6. Observation Section			
6.1. Observation Ward	+	-	-
6.1.1. Waiting Room	+	-	-
6.1.2. Nurses Atation/ Treatment	+	-	-
6.1.3. Pantry	+	-	-
6.1.4. Disposal/Wash-up/ Sluice	+	-	-
6.1.5. Clean Utility	+	-	-
6.1.6. Toilets - Male - Female	+	-	-
6.1.7. Trolley/Wheelchair Park	+	-	-
6.1.9. General Store	+	-	-
6.2. Observation Bay	+	+	+

Components	G.H.	D.H. with Specialist	D.H. without Specialist
7. X-ray Unit			
7.1. Examination Room	+	-	-
7.2. Radiographer's room/ reception	+	-	-
7.3. Store	+	-	-
7.4. Waiting Bay	+	-	-
7.5. Dark Room	+	-	-
7.6. Radiographer's duty room	+	-	-
7.7. Mobile X-ray Bay	+	+	-
8. Laboratory			
8.1. Laboratory	+	+ (more than 350 beds)	-
8.2. Store	+	+	-

Components	G.H.	D.H. with Specialist	D.H. without Specialist
9. Staff Areas			
9.1. Duty MO's Rooms (2)	+	+ (1)	+ (1)
9.2. Ambulance Drivers' Station/Rest Room	+	+	+
9.3. Staff Rest Room	+	+	+
9.4. Office of Specialist/MO i/c (cum meeting room)	+	+	-
9.5. Office of Sister i/c	+	+	-
9.6. Subwait	+	+	-
9.7. Doctor's Rest Room (adjacent to 9.1.)	+	+	-
9.8. Staff Toilets	+	+	+
9.9. A&E Office	+	+	-
9.10. Prayer Room	+	+	-
9.11. Lecture Room	+	-	-

Components	G.H.	D.H. with Specialist	D.H. without Specialist
10. Other Rooms			
10.1. Police Booth	+	+	-
10.2. General Store	+	+	+
10.3. A&E Linen Store	+	+	+
10.4. A&E Cleaner's Room	+	+	+
10.5. A&E Records Room	+	+	+
11. Ambulance Bay	+	+	+
12. Parking			
12.1. Staff	+	+	+
12.2. Public	+	+	+
13. Public Phones	+	+	+

資料(1)　保健省から提出されたＡ＆Ｅ構想

＜Ａ＆Ｅ部門の機能＞

(1)　プレホスピタル・ケア

(2)　ホスピタル・ケア

・病院救急の対象

1－産科領域を除く全ての救急疾患

2－中毒（疑いを含む）

3－外傷

4－危険を伴う精神病患者

5－薬物判定のため警察官が連れてきた者や、レイプ、児童虐待の被害者

(3)　医師やパラメディカルの研修及び研究

＜救急ケアのレベル＞

ヘルスセンター、郡病院、専門医配属郡病院、総合病院で異なるが以下には総合病院についてのみ説明。

＜他の部門との関係＞

Ａ＆Ｅのレントゲン室は、画像診断部門の技師が運営する。

心筋梗塞など重症例は蘇生後ただちにＩＣＵ／ＣＣＵに入室させる。

緊急手術を要する場合はただちに入院手続きを行い、関係科のオンコールのＭＯやＯＴスタッフに連絡後、直接ＯＴ（手術室）に搬送する。時間外はＡ＆Ｅで薬を出せる。検査室や血液銀行のスタッフはオンコールでいつでも呼べる。

＜業務＞

1－救急車

2－ＭＯによる診療

3－検査；尿簡易検査以外は病院の検査室で行う。レントゲン撮影はＡ＆Ｅの中でやる。

4－治療；気管切開、静脈切開、ＣＰＲ、胃洗浄などの救急処置は、ＩＣＵやＯＴに運ぶ前にＡ＆Ｅで行う。小外科処置は処置室か小手術室で行う。一過性の意識障害などの軽症はＡ＆Ｅで一定期間観察する。

＜院内の場所＞

入院病棟からは分離させ、しかし画像診断室やＯＴ、ＩＣＵ／ＣＣＵには近いこと、できれば同じ階で。入院受け付けは近くに。Ａ＆Ｅ患者が外来薬局に行けたり、診療時間内の外来患者がＡ＆Ｅの小手術室に来れるよう、ＯＰＤ（一般外来）とは近いこと。

醫官駐在所を近くに置くこと。

＜組織体制＞

総合病院では長は専門医であること。当面は１年以上の単位で専門医の交替制とする。

専門医配属郡病院では長は内科、外科、整形外科の経験がある上級ＭＯが専属で従事。

一般の郡病院では外来部長であるＭＯの管理下に置く。長以外にＭＯとパラメディカルを置く。看護チームは総婦長（メイトロン）かシスターが管轄。観察室での救急蘇生・治療、診察室・ＯＴや処置室での医師の介助、トリアージュの手伝い、が求められる。ＭＡはＳＭＡ（上級ＭＡ）が管轄、トリアージュを行い、蘇生、処置室・ＯＴを手伝う。救急車はＭＡの担当である。このほか介助員（アテンダント）、受け付け、レントゲン技師が必要。

検査室や血銀は２４時間利用可能であること。

＜運営＞

Ａ＆Ｅに直通電話を置く。救急車とＡ＆Ｅに無線を備える。

これまで病歴は独自に管理しているが、Ａ＆Ｅを改善するところや新しい病院では中央病歴室に組み込んで、２４時間利用できるようにする。

産科・レイプ・児童虐待例のための部屋を設ける。死体を一時保存する部屋、親族の待機室も。観察室は２４時間までとし、食事を提供。

患者教育を行う。

Ａ＆Ｅ研修をそれぞれの地域で行う。また、各機種の業務を特定する。

資料3－a　A＆E保健省プラン

ACCIDENT AND EMERGENCY DEPARTMENT (A + E DEPT.)

1. ROLE OF DEPARTMENT

The Accident and Emergency (A & E) Department operates 24 hours a day to provide an effective and efficient service for the injured and ill patients.

1.1. Aims

The A & E Department aims to do the following:-

1.1.1. Early diagnosis, appropriate and timely management.

1.1.2. Prevention and reduction of disability.

1.1.3. Appropriate referrals to other disciplines for further management.

1.2. Functions

The A & E Department provides pre-hospital and hospital care of patients. It also undertakes training of medical and para medical staff carries out research.

1.2.1. Pre-Hospital Care

(i) Pre-hospital care includes resuscitation and evaluation of the degree of trauma of the injured and acutely ill patients at the site of occurence. The emergency team will do the following:-

- initiate appropriate treatment,
- take steps to avoid further injury to the patient,

- establish immediate communication with the base hospital and
- provide rapid transport to the A & E Department.

(ii) Pre-hospital care may also be provided by NGO..

1.2.2. Hospital Care

The A & E Department provides medical consultation and treatment of all acute conditions and emergencies. Cases which will be seen at A & E include:-

(i) All emergencies (except obstetric), such coma, collapse, fits, acute asthmatic attack, etc.

(ii) All poisonings (known or suspected).

(iii) Trauma with surface lesion, overt or suspected fractures or suspected visceral damage. Even patients who appear stable should be seen as soon as possible.

(iv) Psychiatric patients who are violent/aggressive.

(v) Cases brought by Police for drug detection; victim of rape or child abuse.

1.2.3. Training of Medical and Paramedical Staff and Research

Training and research in A & E services constitute importants function of the A & E Department of all hospitals.

1.3. Levels of A & E Care

1.3.1. The level of care depends on organisational level of the health care facility, viz.

(i) Health Centre

The basic level of emergency care is provided.

(ii) Hospitals

The District Hospital without specialists has facilities for resuscitation and management of emergencies. The level of care become increasingly sophisticated hierarchically at District Hospitals with Specialists and General Hospitals, etc.

1.3.2. The descriptions following this applies to General Hospitals. Details of other levels are to be found in the Appendix.

2. RELATIONSHIP WITH OTHER DEPARTMENTS

2.1. Outpatient Department (O.P.D)

Patients presenting at OPD who need urgent attention and management will be directed to the A&E for attention. Non-acute cases presenting at A&E during office hours will be directed to OPD.

2.2. Admission Section

Patients seen in A&E requiring admission are registered here.

2.3. Diagnostic Imaging

The X-ray unit in the A&E Department will be operated by a radiographer from the Diagnostic Imaging Department.

2.4. C.S.S.D

Sterile supplies are drawn from CSSD.

2.5. I.C.U/C.C.U

Critical cases including myocardial infarction and angina pectoris are resuscitated and transferred as soon as possible to ICU/CCU.

2.6. Operating Theatres

Patients requiring immediate surgery are admitted but sent directly to OT after the relevant Unit MO on call and the OT staff are informed.

2.7. Other Supportive Services

Facilities for the dispensing of drugs for use until the normal supply can be obtained from the regular pharmacy are available at A&E. Laboratory/Blood Bank personnel are available (on call) when the need arises.

3. SERVICES PROVIDED

3.1. Ambulance Service

The A&E Department has ambulances for emergency evacuation of seriously ill patients. Requests for ambulance services will be received and processed at A&E.

3.2. Medical Consultation/Examination

Patients are examined and treated by Medical Officers.

3.3. Investigations in A&E

3.3.1. Investigation will be done using labstix only. More complex investigations are done in the hospital laboratory.

3.3.2. X-ray are done at the A&E Department. Alternative arrangement for this may have to be made with the Diagnostic Imaging Department if the workload is low during office hours.

3.4. Treatment

3.4.1. Resuscitative/Emergency Measures.

Very serious cases are resuscitated before transfer to wards, OT or ICU/CCU. Emergency procedures including tracheostomy, cut down, cardiac resuscitation, gastric lavage etc will be performed as and when necessary.

3.4.2. Minor surgical procedures are undertaken in the Treatment Room or the minor OT. These procedures include toilet and suture of wounds, incision and drainage of abscesses, catheterisation, foreign body removal, etc.

3.4.3 Observation

Certain patients are placed under observation in A&E for a period of time (e.g. non-serious accident victims with transient loss of consciousness) but admitted if they manifest any deterioration in their condition.

3.4.3. Patients not requiring admission are treated on an ambulant basis.

4. LOCATION OF DEPARTMENT

4.1. The A&E Department being the receiving and early management centre of emergency cases, must be readily accessible.

4.2. The A&E Department should be located at the hospital frontage with clear directional signs indicating its location. The signboard should be in red and neon lighted at night.

4.3. The A&E Department must be located on the ground floor with a separate entrance. This must be away from visitors entrance and entrance to OPD, specialists clinics and the Administrative Section.

4.4. A separate thoroughfare restricted for use by ambulances and other vehicles bringing in emergency cases is required.

4.5. Location in Relation to Other Department

4.5.1. The A&E Department should be located away from inpatient areas. However there will be easy access to Diagnostic Imaging Department, OT and ICU/CCU; preferably on the same floor of the building.

4.5.2. The admission Section should be nearby.

4.5.3. The A&E should be near the OPD. A connecting corridor or staircase/lift is provided so that A&E patients can reach the Outpatient Pharmacy easily and OPD cases can go to A&E Minor OT for minor procedures (during office hours).

4.5.4. The Police Booth should be located near the cuture of the A&E Department.

4.6. Relation to Service Lines and Staff Traffic

4.6.1. Transport of A&E Department and dirty materials will follow the separate pattern lines. The A&E Department shouldnot be traversed by staff and materials moving between other department.

4.6.2. Public facilities including post-office and shops will be located away from the A&E Department.

5. ORGANISATION

5.1. General Hospitals will have a seperate A&E Department headed by a Specialist. Initially the specialist will occupy the post on a rotational basis for a minimum period of one year. He.she will be supported by Medical Officers and paramedical staff.

5.2. In District Hospitals with specialists, the A&E Department will be headed by a full time Senior Medical Officer with experience in Medicine, Surgery and Orthopaedics. He/she will be supported by Medical Officers and paramedical staff.

5.3. In District Hospitals without specialists, the A&E Department will be under the care of the Medical Officer in charge of the OPD. He/she will be supported by Medical Officers and paramedical staff.

5.4. The nursing team will be headed by a Matron or Sister. Staff nurses will be required for emergency resuscitation and treatment, at the observation ward, to assist the doctor at the consultation/examination area, OT/Procedure Room and to assist in the Triage System. The staff nurses will be assisted by trained assistant nurses. Midwifery trained staff nurses will be required to accompany the ambulance on ambulance calls when necessary.

5.5. A senior Medical Assistant will head the team of Medical Assistants at the A&E. Medical assistants will be required to manage the Triage System and to assist in the Emergency Resuscitation Room, Treatment Room and OT/Procedure Room. They will be in charge of ambulance services and be on standby to accompany the ambulance whenever necessary.

5.6. Attendants will be available to perform various general duties ranging from obtaining patient to general maintenance of the department.

5.7. The reception and registration of patients will be done by receptionists.

5.8. Radiographers will be required to operate the X-ray equipment.

5.9. Essential support services like laboratory/Blook Bank will be available on a 24 hours basis.

6. OPERATIONAL PROCEDURES

6.1. Ambulance Services

6.1.1. Upgrading of ambulance services will be done in stages. It is envisaged that in future active resuscitation can be started at the scene of the accident or emergency.

6.1.2. The ambulance crew shall consist of paramedic staff trained in Basic Cardiac-Life Support. Selected ambulance drivers should be given training in BCLS including handling of patients at the site of the emergency or accident.

6.1.3. To overcome communication difficulties encountered in pre-hospital care, a single access telephone line will be available in the A&E Department. This telephone will be located close to the resuscitation bay.

A radio system will be installed to facilities better communication between the ambulance and the A&E Department.

6.2. Patient Flow

See Diagram 1 for patient and activity flow in A&E.

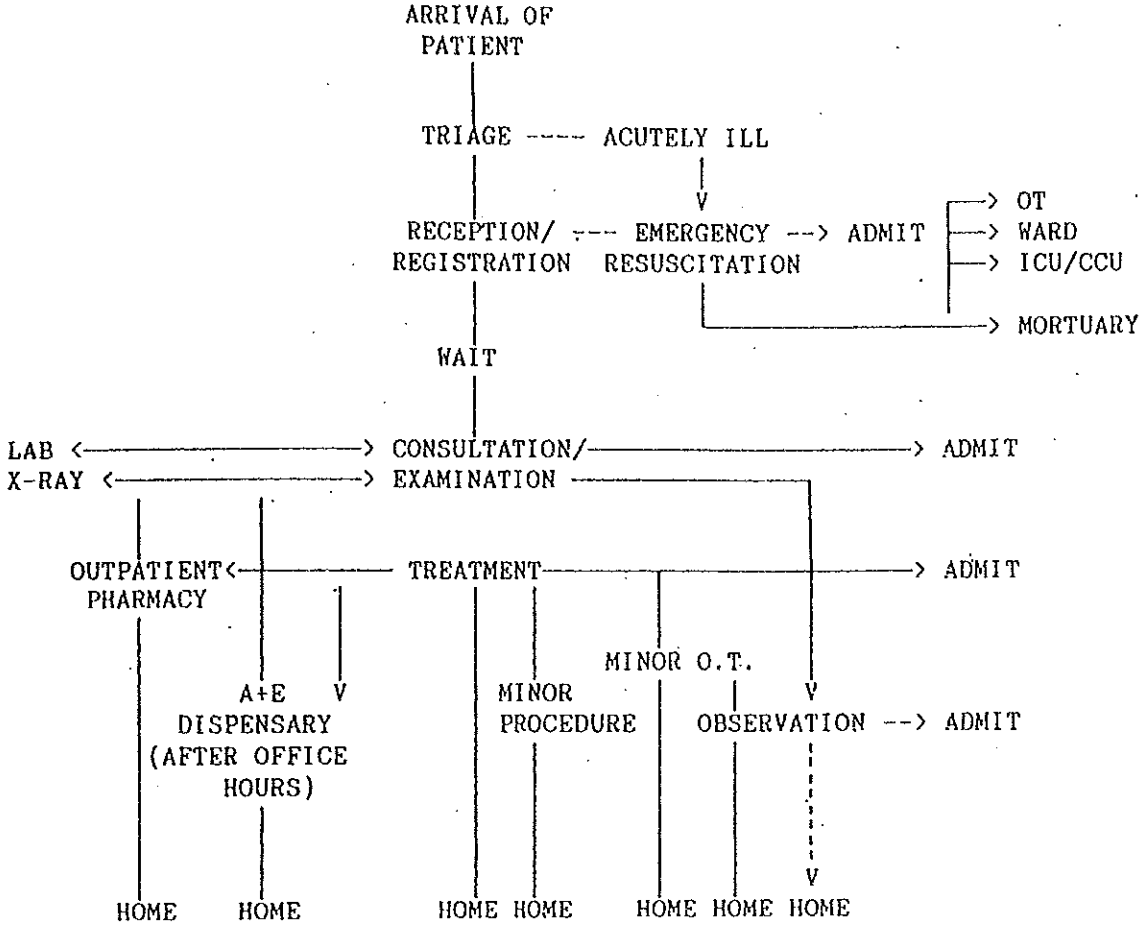

Diagram 1: Patient and Activity Flow in A&E.

6.3. Reception/Triage/Registrarion

6.3.1. Acutely ill cases will be directed by the Triage Staff to be wheeled straight into the Emergency Resuscitation Room for immediate treatment. The OT or ICU/CCU or the relevant wards will be informed of unipending transfer of patients to these areas.

6.3.2. If it is known that a critical case is arriving by ambulance, the medical team will be on standby in the Emergency Resuscitation Room.

6.3.3. After triage, non-acute casespresenting at the A&E Department during office hours, will be directed to receive treatment at the O.P.D.

6.4. A&E Records System

6.4.1. Traditionally the A&E Department maintains its own records seperate from those of Central Records.

6.4.2. However for the upgrading of A&E facilities and for new hospitals, it is proposed to integrate A&E records with Central Records. The Central Records will be opened for 24 hours except in District Hospitals where the Medical Assistant in charge will have access to it.

6.4.3. A patient presenting at the A&E Department will be seen as his old records are traced. For A&E cases, immediate medical intervention is the objective and it is not critical to refer to old records beforehand.

6.4.4. The OPD record sheet is subsequently returned with old records to Central Records or follows the patient to the ward.

6.5. Examination of Patients

6.5.1. Examination Rooms will be provided for consultation of cases other than acutely ill patients.

6.5.2. Rooms will also be provided for specific services such as for gynaecology, rape and child abuse cases.

6.6. Observation of Patients

6.6.1. If the condition of the patient does not necessitate admission but there is a potential risk of deterioration of his condition, the patient will be kept in the observation.

6.6.2. Vital signs are monitored.

6.6.3. A quiet environment is provided and the patient will be concouraged to rest.

6.6.4. Food will be provided by the hospital.

6.6.5. The period of observation will not exceed 24 hours.

6.7. Health Education

6.7.1. Health education will be provided to patients who attend the A&E Department.

6.7.2. The public will be educated on the proper use of emergency services as well as the prevention of road, industrial and domestic accidents.

6.7.3. The A&E personnel will take an active part in Health Education activities.

6.8. Training

6.8.1. The A&E Department will be a training ground for doctors.

6.8.2. Specialised training in A&E services will be conducted, at local level, if possible for all medical and paramedical staff.

6.8.3. Specific job assignments at local level will be developed for all categories of staff t ensure effective and efficient delivery of service.

6.9. Equipment

6.9.1. The A&E Department will be equiped to function is accordance with the relevant whole Hospital Policy and Department Policy.

6.9.2. Staff must be trained to use and maintain any sophisticated equipment used.

6.10. Care of the Deceased

6.10.1. A space will be provided for holding the dead body prior to transfer to the mortuary.

6.10.2. A room will be provided for distressed relatives.

7. GENERAL LAYOUT OF DEPARTMENT

7.1. The general layout of the A&E Department will follow the activity flow as shown in Diagram I.

7.2. All patients will be receiced at the Reception/Registration/Triage which will be off the entrance lobby.

7.3. The areas for management of critical cases must be near the reception and unimpeded passage for these cases is necessary.

7.4. The less acute cases will wait in another area for medical consultation and examination.

7.5. The treatment room, A&E dispensary, procedure room/OT and X-ray room will adjoin the medical consultation/examination area so that patient flow will be orderly and systematic.

7.6. Communicating passages are required for A&E Department to OT, ICU/CCU, wards, Radiology Department and OPD.

7.7. A seperate exit from A&E is required for cases requiring admission so that patients can be rushed rapidly to OT, ICU.CCU and wards. This exit from A&E will be reserved only for admissions.

7.8. The observation ward will be located next to the treatment room.

7.9. Staff Areas (e.g. MO on calls room, Staff Room) will be located away from service areas except for the ambulance drivers station which will be fairly near to the Reception/Registration area.

7.10. The Police Booth will be situated near the entrance to the A&E Department.

資料３－ｂ　Ａ＆Ｅ評価のチェックリスト

A. CHECKLIST FOR OBSERVATION OF A & E DEPARTMENT

	PRESENT	ABSENT	COMMENTS
1. A & E Department			
1.1 Hospital Frontage			
1.2. Readily Accessible			
1.3. Signboard prominent			
1.4. Separate Entrance			
1.5. Separate throughfare for ambulance			
1.6.			
1.7.			
2. Units in A & E Department			
2.1. Reception/Registration Waiting Area			
2.2. Examination Rooms - Number - Special room for rape victim/child abuse victim			
2.3. Minor Procedure/Treatment Room			
2.4. Plaster Room			
2.5. Observation Ward			
2.6. Care of deceased - space/room - Room for distressed relatives			
2.7. Doctor's Call Room			
2.8.			
2.9.			
3. Amenities			
3.1. Rest room for Doctor			

	PRESENT	ABSENT	COMMENTS
3.2. Rest room for staff			
3.3. Toilets - staff - Patients			
3.4. Room/space for ambulance drivers			
3.5. Parking bay for trolleys/ wheel chairs			
3.6.			
3.7.			
4. <u>Other Department</u>			
4.1. OPD - Connecting corridor - Staircase/lift - (Distance from A & E)			
4.2. Admission Section (Nearby)			
4.3. O.T. (same floor)			
4.4. X-ray Department (same floor,nearby)			
4.5. ICU/CCU (same floor,nearby)			
4.6. Laboratory (nearby)			
4.7. Police Booth (near ambulance)			
4.8.			
4.9.			

B. Questions for further Clasification

1. Pre-hospital Care

1.1. Staffing for ambulance team

1.2. Type of treatment given at site of emergency

1.3. Other NGO providing pre-hospital care

1.4.

1.5.

2. Ambulance Service

2.1. Coordination of ambulance service

2.2. Two-way communication (radio)

2.3.

2.4.

3. Triage

3.1. Person responsible

3.2.

3.3.

4. Records

4.1. Where kept ?

4.2. Linkage to OPD ward/ Central records

4.3.

4.4.

5. X-ray investigation

5.1. Office/After office hours

5.2. Serious/ambulant cases

5.3.

5.4.

6. Organisation in A & E

6.1. Head

6.2. Organisation chart
- Time function
- Staff function

6.3.

6.4.

7. Training and Research

7.1. Type of activities

7.2.

7.3.

8. Health Education

8.1. What type ?

8.2.

8.3.

Evaluation of A & E Departments.

Visits to Hospitals.

1. Objectif

   To gather information of A & E Departments from various as to develop norms and standards for the evaluation Department.

2. Hospitals to be visited

   2.1. HB Klang

   2.2. HB Seremban

   2.3.

   2.4.

3. Dates of Visit

4. Name of officers making visits.

   4.1. Dr. Lim Kuan Joo (TPI)

   4.2. Dr. Peter Low

   4.3. Dr. Choong Jon Lan

4. Methodology:

   5.1. Use a Checklist for observation

   5.2. Interview A & E staff using a prepared list of questions.