Emergency Care

Standard Operating Procedures
For Medical Assistants in Emergency Department

Ministry Of Health, Malaysia

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FOREWORD

Standard Operating Procedures for Medical Assistants in the Medical Care Programme serves as a guide to meet the standards of care and professionalism set out by the Ministry of Health of Malaysia (MOH). It also serves to enhance public awareness of standards expected from Medical Assistants (MAs) who provide specialized care for patients. Public awareness of standards expected from MAs will hopefully encourage greater compliance amongst MAs themselves to these guidelines. It is in their best interest to adhere, at all times, to the Standard Operating Procedures laid in this book.

Of late, Medical Assistants have seen many positive changes initiated by the Medical Development and Practice Divisions of MOH as well as the Medical Assistant Board with full support from all senior consultants on MOH. The MOH recognizes the valuable contributions by MAs and have created several senior posts of Medical Assistants to enhance and improve the clinical supervision and management of patients. The Ministry of Health has always stressed on the importance of effective supervision of their peers by senior Medical Assistants, under the guidance of medical officers. The preparation of the Standard Operating Procedures and other guidelines are aimed at providing useful information for quality patient care and I hope these guidelines will be used as reference material for Medical Assistants throughout the country in the execution of their duties and efforts to provide quality health care to the community.

I am confident the Standard Operating Procedures will be well accepted. We will of course ensure that updates with new topics, activities and procedures will be introduced in future editions.

May I congratulate the Medical Programme of MOH, all senior consultants and the Medical Assistants Technical Committee for their tireless efforts and commitment to publish the Standard Operating Procedures. We would also like to record our thanks to all doctors and Medical Assistants involved in the successful preparation of this first edition of the Standard Operating Procedures. I am always impressed with efforts to strive for excellence in service delivery and such efforts by the MAs are most commendable indeed.

Datuk Dr. Hj. Mohd. Ismail Merican
Director General of Health
Ministry of Health, Malaysia
July 2005

FOREWORD

Successive generations of Medical Assistants who have worked in the Ministry of Health have all practiced the long-held tradition of hands-on training to ensure that everyone can acquire the latest knowledge and skills. While formal training has always been encouraged this is not always possible for some for various reasons. To their credit this form of knowledge and skill sharing has been done rather effectively. While practicing the skill which they acquired through training never posed any problem, the lack of documents which specify standard methods of carrying various tasks has been a cause of anxiety and concern to many. Thus the arrival of this document on the standard operating procedures for emergency care medicine into the scene now should alleviate the anxiety of many.

The importance and relevance of this SOP Standard Operating Procedures for emergency care medicine, which is long overdue, can never be overstated. This SOP will ensure uniformity/standardization, correctness/accuracy, effectiveness as well consistency in performance. Not all tasks require SOP as they are carried out routinely. SOPs can be considered as mandatory for tasks which are complicated. Tasks and procedures associated with the four above mentioned disciplines are certainly complicated.

SOP can easily be "linked" to quality assurance. Compliance to SOP would certainly ensure quality care for the patient. This is important as our patients now are increasingly well informed of their rights and they expect nothing less than the quality of care that they perceive they deserve. This SOP will not only be useful to those who are already familiar with the procedures but staff who are fairly new will find it very useful.

Writing this SOP, I am sure, has not been an easy task. It requires an certain depth of knowledge, team approach and the courage to decide on what should constitute standard methods. To the authors of this SOP we owe them deep gratitude for their effort, time and resilience. They must be congratulated for a job well done.

Thank you

Datuk Dr. Abdul Gani bin Mohammed Din
Deputy Director General of Health (Medical)
Ministry of Health

MESSAGE

All praises for Allah, the Exalted. May Allah's Peace and Blessings be on Muhammad on his Family and on his Companions.

The medical profession, especially medical assistant in this country has always been held in high value by the society. Patients and public alike expect medical assistants to be responsible both to the individuals and community's needs. It is rather discouraging and alarming to note that there is a marked increase in the numbers of complaints being received lately directed towards the Emergency Medical and Trauma Services (EMTS) of this country.

It is our vision and mission to ensure that the EMTS in Malaysia is at par or even better with the rest of the world. The respectability and dignity of the services cannot be compromised in whatever circumstances.

The production of the S.O.P. (Standard Operating Procedure) gives our medical assistant and edge in managing and dealing with patients. It give a uniform (standard) written instructions on how procedures should be carried out with emphasis on professionalism and technical know how. This S.O.P is meant and aimed for medical assistants to streamline their procedures and services at the Emergency Department in order to ascertain higher standards of emergency medical and trauma care in this country.

I would like to congratulate to all those who are involved in and have contributed tirelessly during the preparation of this S.O.P.

"Performing virtuous deeds is the crown on the head of happy life"

Dato' Dr. Abu Hassan Asaari bin Abdullah
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THE EVOLVING OF MEDICAL ASSISTANTS

The Medical Assistants evolved from "Dresser" during the Pre war times in then Malaya. Later the name was changed to Hospital Assistants in 1970 and in 1985, the name has designated as Medical Assistants. The leading roles and responsibilities of Medical Assistants can be considered as the backbone of the rural Government curative and preventive component of the health care services.

Their services were comparable as those of physician's assistant in the United States, nurse practitioner in Europe, the "Bare-foot Doctor" in China and then in Soviet Union the "Feldsher". Medical Assistants elsewhere perform the many tasks of physician. They were the main health care personnel which represent an alternative to physician centred health care both in outpatient and inpatient service.

The training of the dresser was conducted with lectures and supervised in his practical work through his routine duties from seasoned medical graduates.

After passing the Probationer to Grade III Examination, at the end of two years, these dressers were assigned to work as junior members of a team of more senior dressers in carrying out their professional duties. At the end of his four years, after passing the examination, he had to sit for his Grade III to Grade II Examination.

A Dresser with Grade II rank and status was then considered as "sufficiently competent" and experienced to handle surgical and medical problems in hospital.

He is competent to handle any emergencies and has practical experience in Midwifery. Dresser Grade II to Grade I, considered prestigious, were for the Senior Grade Dresser. The subjects were Medicine, Surgery, Materia Medica, Preventive Medicines and Midwifery.

In early Malaya, and now Malaysia, Dressers have been called different names. They were referred to as Apothecaries, Sub-Assistant Surgeon, Surgical Assistant, Hospital Assistants and now Medical Assistants.

Towards 1965, Crash-Program was started by recruiting youths of the Straits that had completed their School Certificate level examination to the Crash-Program to overcome the acute shortage of trained medical personnel.

In January 1971,the first Hospital Assistants School in Seremban commenced its training solely for Hospital Assistants in the country. Today Malaysia has four Medical Assistants colleges (Seremban, Alor Setar, Ipoh and Kuching). The curriculums are structured specifically to enable the Hospital Assistants to function in various

health settings with emphasis on the health promotions, prevention, rehabilitation, curative and health management skill. Candidates who passed their Sijil Pelajaran Malaysia, successfully gone through interview conducted by Public Service Commission are accepted into the three years Medical Assistants training programme.

Upon completion and having passed the final examination, they will be registered by the Medical Assistants Board and then be appointed by the Public Service Commission (Government) before they are posted to the various health care services in Malaysia. Those sponsored by respective agencies private entities will serve their employer.

The Act 180 of Hospital Assistants Act 1977 allows the establishment of Hospital Assistants (Registration) Board which supercede all matters related to the regulations and registration of Medical Assistants.

In 1993, the Medical Act 1971,Medical (Instrumental)(Exemption) Regulations 1986 was recommended for Enhancement to allow the Medical Assistants to use list of medical instruments such as stethoscope, laryngoscope, sphygmomanometer in the course of his duties.

In 1992, the Certificate level was upgraded to a Diploma level due to the various new development and challenges in the health care demanding for a highly skilled and knowledge based health care profession.

Today, in an era of specialization, rapid technology and medical science development, the Medical Assistants role as complement and supplement are evolving with times so as to remain relevant, clients focus in this ever-fast changing health care scenario.

CONTENTS

1. MEDICAL ASSISTANT IN EMERGENCY & TRAUMA SERVICES

The Emergency Department acts as a gateway for patient requiring emergency treatment and admission to the hospital. In those days Emergency Unit performed more like a "Bus Stop" where patients are quickly seen and then admitted without resuscitation, stabilisation and definitive care. Towards the later half of the 1990, rapid and fast development in emergency and trauma services and the setting up of zones within the Emergency and One Stop Crisis Centre for the management of violence on women and children.

The Medical Assistants working in the Emergency Unit are competent in the provision of emergency cares and function as the main care provider that includes, provision of emergency treatment, stabilization, definitive care and function as an important component of the Trauma Team. Other important roles include Triaging, Asthma Care and the provision of Pre Hospital Care Services.

The Medical Act 1971,Medical (Instrumental)(Exemption) Regulations 1986 was recommended for Enhancement to allow the Medical Assistant to use list of medical instruments such as stethoscope, laryngoscope, sphygmomanometer etc in the course of his duties. With this enhancement, it allows the Medical Assistant to function optimally in the provision of Pre Hospital Care Services.

2. ADMINISTRATIVE & SUPERVISORY ROLES OF MEDICAL ASSISTANT IN EMERGENCY & TRAUMA SERVICES.

The senior Medical Assistant with Grade U32 and U36 are being rested with administrative and supervisory responsibilities. They are the senior MA with vast clinical experience and are responsible in the maintaining standard of emergency patient cares provided by the junior Medical Assistant. Among the leading roles are: -

- Conduct Clinical Supervision and audit. Organized Clinical Quality Assurance and continuous Quality Improvement for the Medical Assistant in Emergency.
- Ensure full compliance with the Standard Operating Procedures among the staff.
- Training of the junior staff. Continuing Medical Education.
- Assist the Head of Unit on Human Resource Management.
- Assist in Medical Equipment Procurement process by providing input for the technical specifications.
- Assist the Head of unit in formulating departmental policy and administration procedure.
- Takes charge of employee relations, occupational safety and welfare of the staff. (Professional Development)
- Assist Head of unit with implementation and operation policy.
- Takes charge of the Public Relation matters and the networking with other local governmental agency and non governmental agency like BOMBA, JPA3, Red Crescent and St John Ambulance. This cooperation will allow emergency response in tandem and able to provide a comprehensive response.

3. MEDICAL ASSISTANT IN VARIOUS DEDICATED AND SUB-SPECIALTY IN EMERGENCY & TRAUMA SERVICES.

Triage

The Medical Assistant functions as Triage Officer by sorting out patient according to the urgency of treatment. This is the first step of management in the Emergency. The triage categories are Red for critically ill patients

Yellow for the urgent cases and Green for the stable and walk-in cases. Patient can also be subtriaged into Asthma Bay and One Stop Crisis Centre. Based on the triage guidelines, the Medical Assistants are responsible for the Triaging of all patients seeking treatment in the Emergency. In order to ensure competency, lectures on Triaging and on job training are provided by the Senior Medical Officer and Medical Assistant from time to time.

Resuscitation, Stabilization and Treatment of Unstable Patients.

The Medical Assistant works as team member that provide resuscitation, stabilization and definitive care to the critically ill patient. They are trained and competent in recognizing life threatening conditions such as airway obstruction, tension pneumothorax, hyportention , cardiac failure and extensive haemorrahge. They are skillful and able to initiate life saving measures like intubation, defibrillation and I/V fluid cannulation.

Together with other team members, they provide a comprehensive approach to resuscitation that includes continuous critical care monitoring and transportation of and the critically ill. The other vital roles and responsibilities are the daily upkeep and maintenance functioning of the critical equipment including airway management, vital sign monitor, defibrillator and ventilator.

Immediate Zone

These are group of patients that thought haemodynimically stable required immediate medical attention. The Medical Assistants work as team in this zone to provide initial patient assessment, stabilization and treatment. The Medical Assistant carries out the provision of patient cares and monitoring throughout. Procedures like I/V cannulation, immobilization and basic investigations (ECG & Blood for glucose), are initiated, if need arises.

They are also responsible for the daily maintenance and functioning of medical equipment in the zone.

Non Critical Zone.

These groups of patients include those who could be discharged after some procedures done in Emergency e.g. Dressing, Bandaging, plastering, Injection, toilet & Suturing, Closed Manipulation Reduction or nebuliser for asthmatic.
The Medical Assistants are trained and competent in carrying out those procedures, which form their core function in this zone. Their comprehensive roles includes, performing the procedures, recognizes complications, able to refer when encounter difficulties and provide necessary patient education and counseling according to the needs upon discharge.

Pre Hospital Care

The Medical Assistants form the main care provider in this scope of service. They provide the on site management with supervision by Medical Officer via communications channel. Based on local Clinical Procedures and Protocols and in cases where the conditions appear not to be serious, the Medical Assistants are able to perform the on site management.

On job training, scenario testing and communication skills are given by Senior Medical Officer and Medical Assistant to provide them with sufficient skills in conducting the Pre Hospital Care Services.

The Medical Act 1971,Medical (Instrumental)(Exemption) Regulations 1986 was recommended for Enhancement has greatly assisted the Medical Assistant to perform their roles especially in Pre Hospital Care setting.

4. EXTENDED ROLE OF MEDICAL ASSISTANT IN EMERGENCY DEPARTMENT SERVICES

Introduction :

Emergency Departments (ED) are under relentless pressure as a result of constantly increasing numbers of patients attending with complex illness and injury.

Most Emergency Departments remain significantly under-resource in terms of doctors and paramedical staffs available to provide the prompt high quality care which the patient rightly expect and which staff wish to deliver. Many problems like inappropriate ED utilization by the public and inaccessibility of the primary health care services after office hours, leading to prolonged waiting times and "trolley waits" in ED are related to the 'whole system' problems within health service. The ED staffs become frustrated when they are portrayed in the media as being solely responsible for the significant delays that patients experience in being admitted to a hospital bed.

This problem reflects the difficulties within the whole system of emergency care and does not just related to the ED. It is linked to the number of available beds and difficulties in the areas of primary health and secondary health.

In the competitive health care of arena today, the Emergency work is demanding and aggressive thus the role of Medical Assistants in the emergency service continues to expand and evolve. The Medical Assistant roles have to be properly looked into with the view of extending and expanding in order to render quality care.

Beside the current existing job responsibilities, they have to be trained to function on a higher level assuming more responsibilities and a greater role in providing emergency health care.

Among the benefits that are being recognised are: -

- Increased quality and cost-effective patient care.
- Reduced actual contact time ED physician must spend with non-urgent patient.
- Overcome ED overcrowding.
- Improve patient access to Emergency care, speed of care and treatment provision.
- Increased patient satisfaction.

A specially designed and structured in-service training module is recommended for Medical Assistant working in ED in assuming these extended and expanded roles.

Among the extended and expanded roles of Medical Assistant in Emergency and Trauma Services considered are: -

Skill Based :

- Intubation,
- Advanced Airway Adjunct,
- Defibrillation,
- Chest Tube Insertion,
- Arterial line sampling.
- Close manipulation & reduction of simple fractures.
- Ultrasound – Perform and interpret ultrasound studies. (Focus Abdominal Studies for Trauma)

Clinical activities based. (Assessment / investigation / treatment):

- Perform complete physical exams and assessments of patient in the ED. (including urgent/non urgent and semi urgent presentation)
- Order test and procedures to augment physical findings.
- Define/document differential diagnosis with most likely diagnosis indicated
- Perform diagnostic and therapeutic procedures and appropriate for plan of care. (in collaboration with physician by delineation of privileges)
- Initiation and administration of emergency drugs in life compromised situations.
- Interpret data and diagnostic results for appropriate of action including blood gases, radiology, ECG etc.
- Participate in education including as preceptor for basic and posts basic Emergency Student.

5. ACCREDITATION & PRIVILEGING OF MEDICAL ASSISTANT IN EMERGENCY SERVICES.

Rapid advances in medical technology have resulted in the introduction of new procedures and techniques in every aspect of medicine with an increasingly well-informed and knowledgeable public, it is essential that the care providers are competent in each procedure that they perform and produced an acceptable outcomes. The Medical Assistants in the Emergency and Trauma Services are undergoing the process of accreditation & privileging. The Medical Assistants in the Emergency Department will be required to perform up to a required competency for a number of identified procedures and skill. And in future, only Credential candidate is allows working in the sub speciality area in the Emergency and Trauma Services.

OBJECTIVES :

- To produce qualified subspecialty Medical Assistants who are knowledgeable and clinically competent in all fields of emergencies thus ensuring the delivery of quality emergency cares.
- To ensure the Emergency Medical Assistants are accredited within the limit of their training experience and competency.
- To identify appropriate advances in emergency services and training needs when necessary as well as with the ability to train others.
- To reduce risk of preventable malpractice.

Clinical sub speciality Areas consider: -

- Resuscitation/Critical Care
- Triage
- Pre Hospital Care
- Disaster Management.
- Administrative and Clinical Supervisory Roles.

6. CORPORATE CULTURE VALUES PRACTISES BY MEDICAL ASSISTANT IN EMERGENCY AND TRAUMA SERVICES.

The Ministry of Health has since 1991 initiate the Corporate Culture values in its entire staff in terms of their work approach especially in relation to the three core values of **Caring, Teamwork** and **Professionalism.**

These values are shown by the expression of soft skills exhibited by the Medical Assistants as care providers in an emergency setting. The Medical Assistants are **knowledgeable** and **caring** and able to anticipate the needs of his clients. The Medical Assistants roles are essential from the patient's first encounter with the Emergency Department to the time the patient leaves the Department, Ward or Hospital. **Caring and intelligent** Medical Assistant triages the patient to the appropriate zone according to patient's clinical conditions. Information on patient consultation's process is **tactfully** explained to the patient or relatives while waiting for consultation, so as they fully understand the waiting times required. Patient's discomforts are greatly minimised. The Medical Assistant conducts the secondary assessment of the patients **effectively and intelligently.** They maintain patient's privacy while **carefully** monitored and documented all the vital sign findings in the patient's clinical note. When a procedure is required, the Medical Assistant **promptly** and in a **courteous** manner explained to the patient and before the starting the procedure all **safety** aspects of the patient are taken care of with **reassurance**. Before discharge, the Medical Assistant provides patient's education, which are tailors to their needs **tactfully and repeatedly.**

How to Communicate With Patient in Emergency Setting.

For those critically ill patients whose death is inevitable, their relatives are taken care of while they wait for their love ones in the resuscitation bay. A bereave room or a comfort place near the resuscitation bay is made available for their closed relatives to be as near and as close to their loves one. The attending doctor is **compassionate** and constantly briefs them on the patient progress and working plan. All staff including the Medical Assistant providing the resuscitation, stabilisation and carried out the definitive plan with the highest degree of **caring, skill** and imbued with **teamwork spirit** to achieve the shared goal of **excellent patient care and management.**

How to be courteous in Triage.

- Proactive – anticipate patient needs. Fast & prompt response to their needs. Elderly patient, wounded or injured, debilitated patient (Trolley/Wheel Chair)
- Caring – Attentive, shown concerned and provides appropriate response. Stop active bleeding and provides dressing to wounds/cuts, provides proper temporary support to limbs fractures.

- Respectful – reduces patient embarrassment and anxious. One Stop Crisis Centre, Domestic violence cases., mentally retarded or psychiatric illness.
- Knowledgeable – Able to triage accurately and it reduces waiting time.
- Effective Communication – Intermittent eyes contact, smile if appropriate, positive gesture, allow to ask questions, correct tone and voice and able to identified patient problems.

Performing A Procedure / Assessment / Care Plans.

- Greet patient – Establish relationship, good rapport, communicate well.
- Explanation – nature and purpose, allow questions.
- Reassurance – Safety aspect, benefits.
- Clean environment – comfortable, friendly.
- Knowledgeable – Performing the procedure, doing well, gentle, and confident.
- Documentation – Maintain proper record of procedure done and results.
- Patient Education – Necessary advises, prevention measures
- Complications – Watch out for certain symptoms.
- Discharge – Medications, Follow up appointment.

Administrative Environment.

The Medical Assistant in the Emergency and Trauma services exhibits excellent management techniques in assisting the Head of Unit in the running the services effectively. The good management and administrative skill entails the following practices: -

- Effective Communication – among staff, telephone & electronic etiquette.
- Organising a meeting - Plan well before a meeting.
- Precise in writing minutes of meeting.
- Good record maintaining.(Clinical Data, Census)
- Maintain Qualities of services - Quality Assurance activities, programme.
- Keep good documentation of Asset and inventory list & budget account. (Schedule Maintenance, Plan Preventive Maintenance, Prudent budget)

7. ROLE OF MEDICAL ASSISTANT IN PRE HOSPITAL CARE AND MEDICAL COVERAGE

The title **'Pre Hospital Care'** is assigned to those who are trained in pre hospital emergency care. In Malaysia scenario, there is no any clear guidelines on pre hospital care. At certain places the pre hospital services is taken care by the NGOs' such as Red Crescent Society, St. John Ambulances and Civil Defense Department. This NGOs' are not proper train in this pre hospital care. A few of them are only under go First Responder Life Support and Basic Life courses therefore this scope of the services are limited. These courses are inefficient in pre hospital care. They only do scoop and run services.

The Medical Assistant who is experienced working at Emergency Department need to have appropriate qualification in several courses like Basic Life Support, Advance Life Support, Malaysian Trauma Life Support, Paediatric Life Support and other related life support courses. These will provide them a deeper knowledge, skills, attitudes necessary to be a competent, productive and valuable in managing patients in pre hospital emergency care or as stay and play role.

These deeper knowledge and skills in pre hospital care enable the Medical Assistant to perform advance intervention including retrieval or extraction of the patient, airway maintenance, control of external hemorrhage, starting intravenous lines, administrating medications, immobilization, inserting endo tracheal tubes, decompressing the chest cavity, reading electrocardiograms, using manual or automotive electrical defibrillators and provide the transportation to the nearest appropriate medical facility or institutions.

In The Initial Stage A Medical Assistant Plays An Important Role In :

1. ***Daily pre-run preparation of the ambulance***

   Preparing the grade A ambulance – for critical care or advance life care. Grade B ambulance is for non critical care. Both ambulances should always be ready to respond at all times and in all condition and well equipped with all necessary supplies. This will ensure that the Medical Assistant can reach, care for and transport the patient safely.

2. ***Daily pre-run preparation of the supplies and medical equipment's***

   Properly maintained equipment is important to emergency pre hospital care. Supplies and the medical equipment should be checked each shift or day, restocked, cleaned, operational and well maintained after each ambulance calls

   (Attachment I - Checklist of Medical Equipment for Ambulance Grade A)

   (Attachment II - Checklist of Medical Equipment for Ambulance Grade B)

3. *Dispatch and pre-run documentation of ambulance calls*

Upon receiving the call a Medical Assistant will usually categorise the situation as trauma or it is a medical illness call. Then prepare the proper documentation in ambulance run report form.

(Attachment III – Ambulance Run Report)

The roles of medical Assistant upon arrival at the scene are :

1. *Evaluation of the scene or scene size-up*

An overall assessment of the scene to which a Medical Assistant has been called to gain useful information that includes ensuring scene safety; determining whether a patient is suffering from trauma or a medical problem; and determining the total number of patients and whether additional resources are needed to handle.

2. *Patients Assessment*

The most important role will be assessing the patient and provide an emergency care and transport to a medical facility. Once the scene is safe and under control, they must prepare to start an initial assessment using **AVPU**, (**A**- alert, **V**- response to verbal, **P**-response to pain and **U**- unresponsive). Performing an accurate and reliable assessment is important because all the decisions about the care and transportation of the patient will be based to it. This is to discover and treat immediately life-threatening conditions.

The purpose of patients assessment are:

2.1. To determine whether the patient is injured or has a medical illness based on the scene size-up and during initial assessment
2.2. To identify and manage immediately life-threatening injuries or medical conditions
2.3. To examine and gather a patient's **SAMPLE** history (**S**- sign & symptoms, **A**- allergies, **M**- medications, **P**- past medical/surgical history, **L**- last oral intake and **E**- event leading to the injury)
2.4. To provide further emergency care based on findings
2.5. To monitor the patient's condition, assessing the effectiveness of the care that has been provided
2.6. To do a rapid or ongoing assessment (monitoring the vital signs) until the patient is transferred to the hospital
2.7. To communicate patients condition and information to medical facility staffs and to document the details

3. *Transportation*

Medical cases – for a patient whose condition is not critical (based on history and physical examination) the patient can be prepared for transport. If the patient's condition is critical, then on scene management of life-threatening conditions has been accomplished.

This such as ensuring a patient's airway or providing positive pressure ventilation with supplemental oxygen if breathing is inadequate. The critical medical patient should be transported promptly with additional assessment and emergency care provided en route.

Trauma cases – the transport is simultaneously prepared as the rapid trauma assessment is being conducted. The transportation should be prepared with spinal board, cervical collar, head immobilization device, limbs immobilization, stretcher following with assessment of the vital signs.

4. *Handover the patient to emergency medical staffs*

The transition from pre hospital phase to hospital, the handover is a very important step. Successfully done, it sets the tone of the pre hospital emergency care and resuscitation where the situations are controlled, orderly and quiet. Pre hospital details can be transferred to the medical staffs or trauma team succinctly under the following heading MIST,(M- Mechanism of injury or medical illness, I- Suspected injuries or illness, S- Vital signs and T- Treatment given).

5. *Post run documentation of the ambulance call*

At this stage the Medical Assistant need to complete the ambulance call-run report. He need to give the details about the patient's condition and intervention given appropriately.

(Attachment III – Ambulance Call-Run Report)

Medical Coverage

Besides 'Pre Hospital Care', a Medical Assistant is also responsible in Medical Coverage team for the activities and ceremonies organized by Government and non Government organizations.

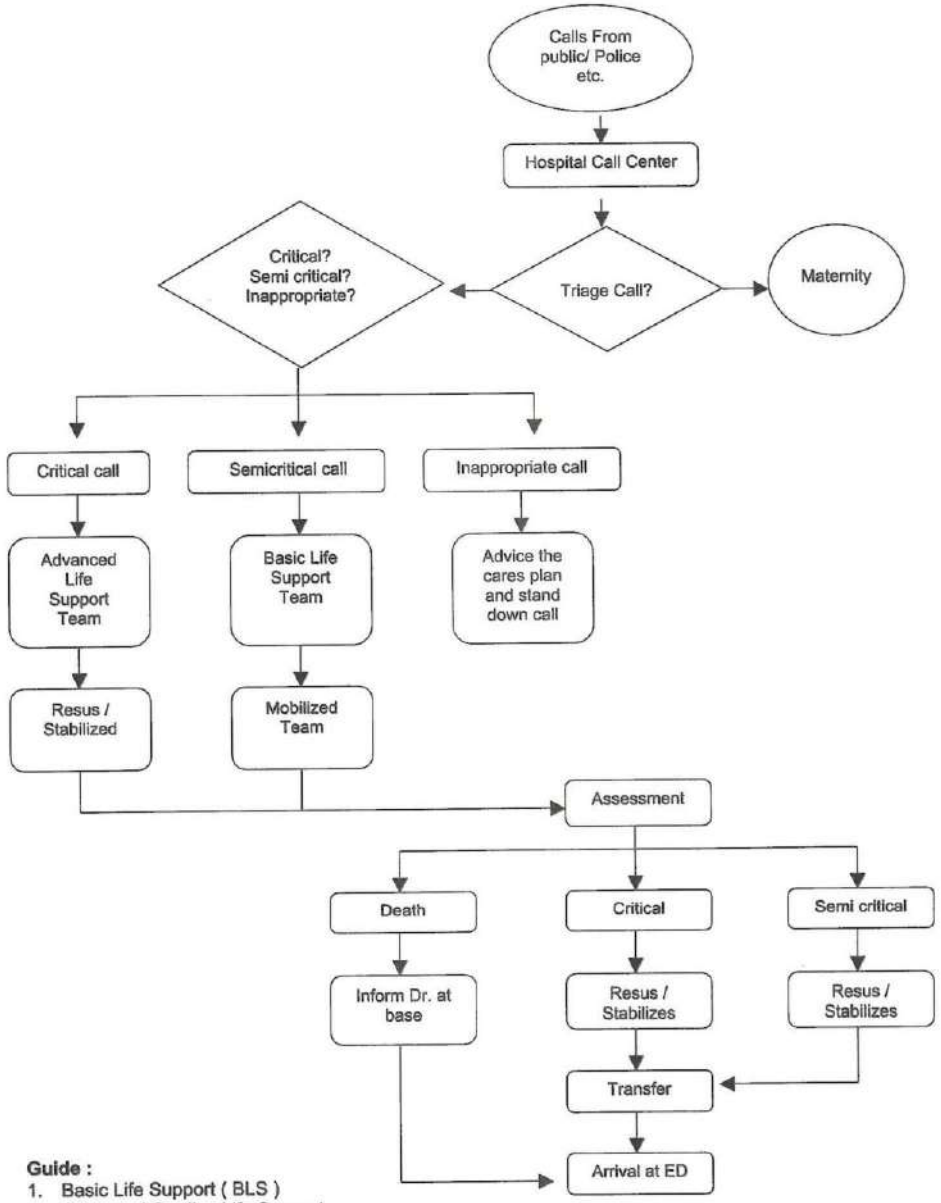
The role played by a Medical assistant in the Medical Coverage is same as in pre hospital care that is managing non risk situation. Only when there is a requirement by the organizing party, a Medical Officer will be on duty.

A Medical Officer is only needed in situation such as :

- High risk sports activities
- Body contact sports activities
- National and International activities
- Ceremonies where the VIPs' attend

In this situation, a Medical Assistant plays the role of assisting the Medical Officers.

8. PRE HOSPITAL CARE FLOW CHART



Guide :

1. Basic Life Support (BLS)
2. Advanced Cardiac Life Support (ACLS)

WORK PROCESS OF PRE HOSPITAL CARE

Activity	Work Process	Standard	Requirement
1. Received Call	To document the following from the caller : • Caller Name & I/C No. • Address / Contact Number • Chief complain • How many people are involved • Patient condition • Location any danger • Victim location / landmark	Fill the particulars in the forms provided clearly & legibly.	Ambulance Run Report. **Attachment I** Trunk radio.
2. Call Triage	Assess type of case : • Determine the severity of cases. (Life threatening conditions or non urgent case.) • Maternity Case – refer to maternity	Urgent and **life threatening cases** to response fast with fully equipped Grade A ambulance with high speed and siren. **Semi** critical case with no immediate life threatening condition will be response with Grade B ambulance normal speed with ambulance light on only. **Non Urgent** cases to refer to First Responder Agency for help.	Grade A Ambulance & Grade B Ambulance Equipment Checklist. (Attachment II) Personnel – ACLS and BLS
3. Alert Pre Hospital Team	Pass information to the Pre Hospital Team • Alert the pre hospital team. • Brief patient condition. • Type of case. • Type of ambulance to be used. • Record time of departure. Scene assessment	Respond time less than 5 minutes. (From the time the call received and ambulance departs the hospital compound.)	NIA – delay in ambulance response **Attachment III**

Activity	Work Process	Standard	Requirement
4. Arrival at scene area	• Assess the area / surrounding. • Condition of the area whether safe to the rescuer / patient. • Carry patient to a safe area if the scene is unsafe.	Always ensures scene safety before attending to patient.	Health and safety Regulation. **Attachment IV**
5. Primary survey	Assess **level of consciousness** using **AVPU** • A : Alertness • V : Verbally response to rescuer • P: Respond to pain by applying pressure to the sternum, pinching the thigh of the patient / ear lobe • U : Unresponsiveness to words / pain Care of cervical and spine of trauma victim Check the patient airway, breathing and circulation. To **maintain airway** check whether the patient • Breathing normally. • Remove any airway obstruction. • Remove any dentures if patient unconscious. • Do suction if any mucous or blood / gag reflex. If patient **unconscious** insert Oropharyngeal airway. **Check patient breathing** ▪ If no breathing assist ventilation ▪ If patient dyspneanic, prop up the patient and provide oxygenation. • **Check patient circulation** ▪ Feel for patient pulse ▪ Check for site of bleeding ▪ Take patient blood pressure	Documentation of any abnormalities found and treatment rendered at site on the Ambulance Call Report. Provide cervical spine control for suspected neck injury cases. Clear the airway According to MTLS guide lines (Primary Survey) 100% oxygen with 10 L to 15 L Apply external pressure bandage to the bleeding sites.	Grade A ambulance Grade B ambulance

Activity	Work Process	Standard	Requirement
	• **Check patient circulation** ▪ Feel for patient pulse ▪ Check for site of bleeding ▪ Take patient blood pressure • **Rapid body survey** ▪ Quick assessment of the patient from the head to toe. Check for any bleeding, fracture or injuries over the chest, upper and lower limbs.	Assessment of patient from the head to toe for Injury site. Fractures Immobilization.	
6. Death	• To determine death : - no response - no spontaneous breathing - no pulse / heart beat - ECG asystole - Pupil fixed dilated • Inform doctor regarding the findings.	No response, no pulse, no spontaneous breathing, pupil fix and dilated Inform Doctor at Base Station. Advised relative to report to local Police.	
7. Critical / Semi critical	• Airway – open / maintain airway. • Breathing. • Circulation • Immobilize fracture and stop bleeding. • Contact base center-informs doctor on duty the findings for further management.	If obstructed clear the airway If breathing difficulties assist with 100% oxygen. IV cannulation if recording low blood pressure. Pressure bandage to all bleeding sites. Contact doctor at base for further advice and medical directions if in doubt.	Grade B ambulance equipment.

Activity	Work Process	Standard	Requirement
8. Transfer	▪ Monitor vital sign of the patient every 5 minutes ▪ Reassessment of the patient condition Check Airway, Breathing , Circulation and intervention. ▪ Documentation of all the finding and action taken in the ambulance case note	Documentation of clinical finding and treatment.	Ambulance Run Report
9. Arrival ED	Pass over to the Doctor on duty : • History • Patient Conditions. • Interventions.	Handing over the case to the attending doctors	

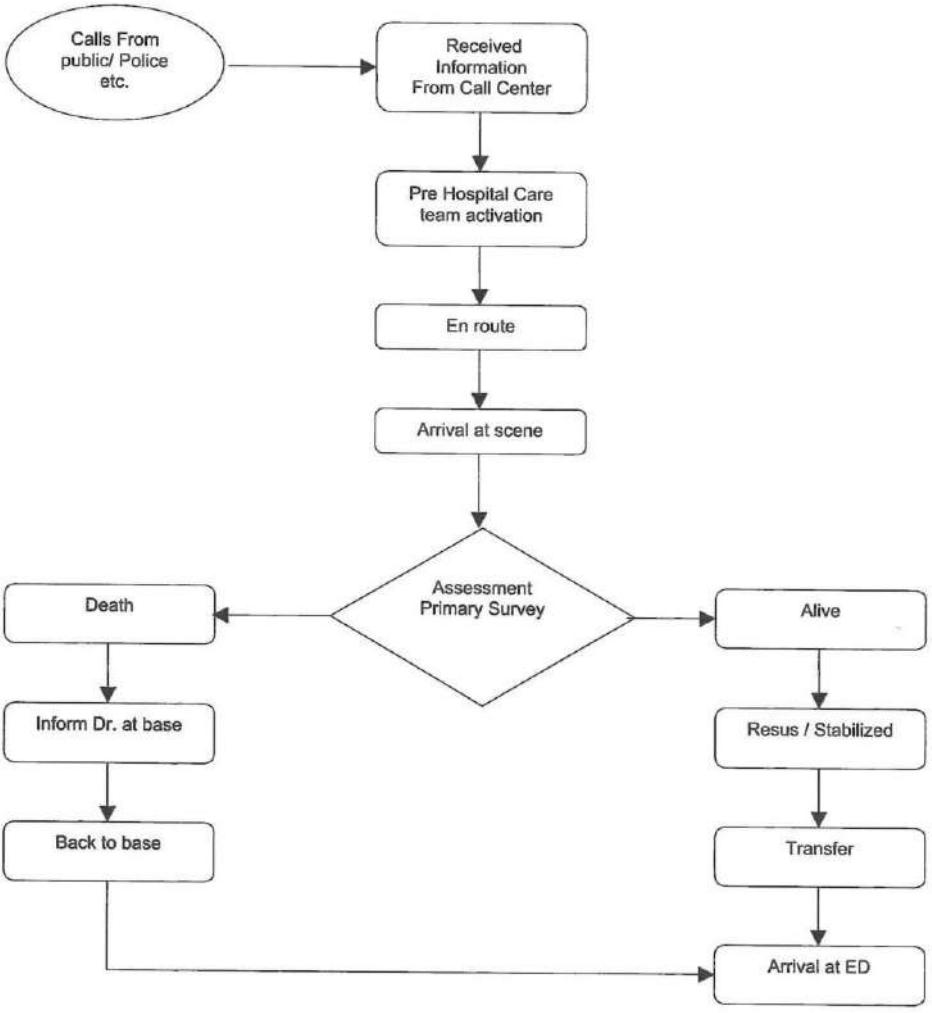
Reference :

Joseph J. Mistovich et al (2000). *Prehospital Emergency Care* and Prentice Hall Health, USA.

Bruce D. Browner et al (2002). *Out Door Emergency Care* Jones and Bartlett Publisher, London.

Malaysia Trauma Life Support

PRE HOSPITAL CARER MANAGEMENT OF POLYTRAUMA FLOW CHART



Reference :

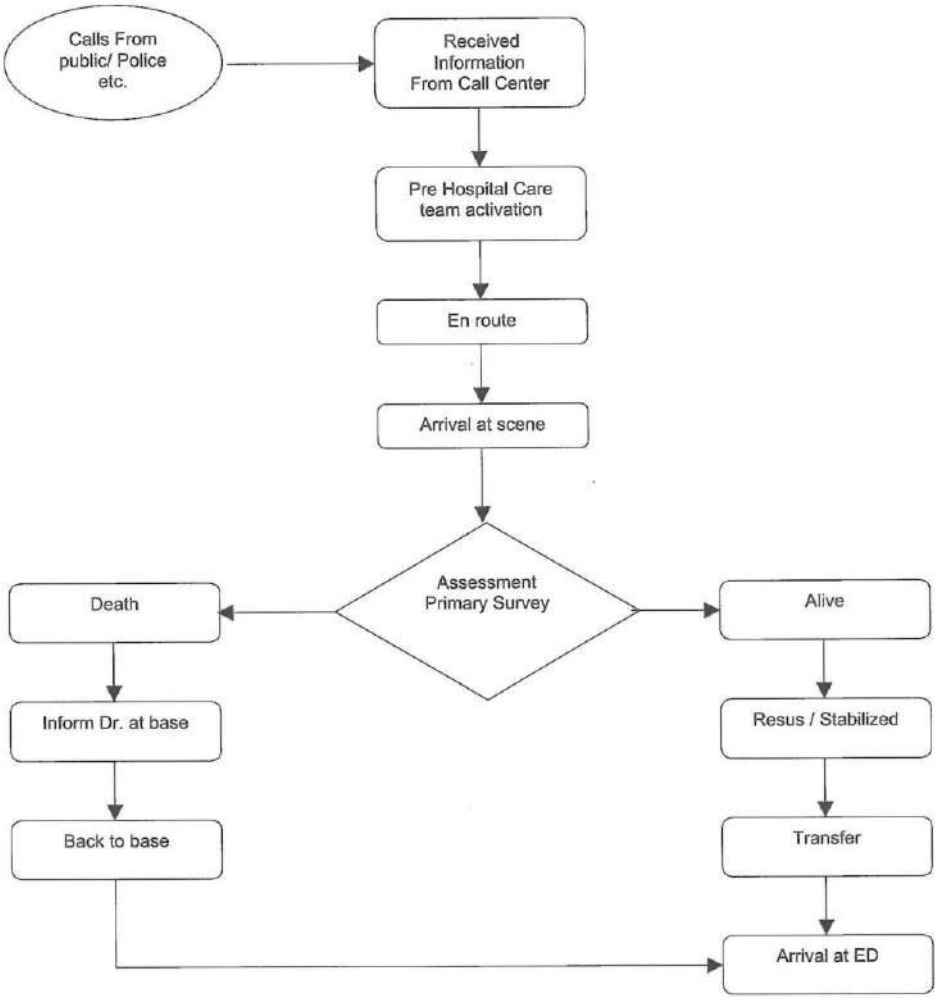
Basic Life Support

Trauma Life Support

Joseph J. Mistovich et al (2000). Prehospital Emergency Care Prentice Hall Health, USA

Bruce D. Browner et al (2002). Out Door Emergency Care Jones And Bartlet Publisher, London

MANAGEMENT OF VENTRICLE FIBRILATION / PULSELESS VENTRICLE TACHYCARDIA FLOW CHART



WORK PROCESS MANAGEMENT OF VENTRICAL FIBRILLATION/ PULSELESS VENTRICAL TACHYCARDIA

Activity	Work Process	Standard	Requirement
1. Receive Call	To document the following from the caller : • Caller Name & I/C No. • Address / Contact Number • Chief complain • How many people are involved • Patient condition • Location any danger • Victim location / landmark	Fill the particulars in the forms provided clearly.	Ambulance Call Report
2. Team activation	Pre Hospital team alerted with some information with regards to nature of incident, victim conditions and the nature of response.	Urgent and life threatening cases to response fast and with fully equipment Grade A ambulance with ACLS medical personnel and at high speed and siren.	Grade A ambulance
3. En route	Time Departure.	Respond time less than 5 minutes. (From the time the call received and ambulance departs the hospital compound.)	
4. Arrival at scene area	Scene assessment • Assess the area / Surrounding. • Condition of the area wether safe to the rescuer / patient • Carry patient to a safe area if the scene is unsafe	Always ensures scene safety before attending to patient.	Health and safety regulation

Activity	Work Process	Standard	Requirement
5. Primary survey	**Assess level of consciousness using AVPU** • Check airway **Delicate spine** • If suspected of neck injury. **Breathing** • No breathing beg valve mask (BVM) **Circulation** • Feel for pulse (if no pulse begin Chest Compression) • CPR procedure • Head to toe examination • Inform Doctor – advise for further management	Clear the airway Provide cervical Spine control for suspect neck injury cases. Ventilate patient. Airway adjunct Documentation of any abnormalities found and treatment rendered at site on the Ambulance Call Report.	Grade A ambulance
6. Death	To determine patient death.	No response, no pulse, no spontaneous breathing, pupil fix and dilated	Grade A ambulance
7. Conscious patient with Cardiac Arrest	Airway • Intubation with permission. Breathing • Oxygenation. Circulation • IV infusion , SPO2 monitoring Fix Cardiac monitor. Contact base centre • Inform Doctor about Cardiac rhythm	Always update base on the patient progress via two ways communication. Contact doctor at base for further advice and medical directions if in doubt.	Grade A ambulance
8. Transfer	Secondary assessment • History taking • Monitor vital sign every 5 minute • Reassess airway, breathing and circulation Defibrillation, cardiac drug according to ACLS protocol (Attachment (Pre Hospital Care) II with doctor verbal consent.	Documentation of clinical finding and treatment.	Grade A ambulance Trunk radio Ambulance Run Report
9. Arrival in Emergency Department.	Present case to Doctor • History • Patient condition • Intervention done	Handing over the case to the attending Doctors.	

Reference :

Basic trauma life support

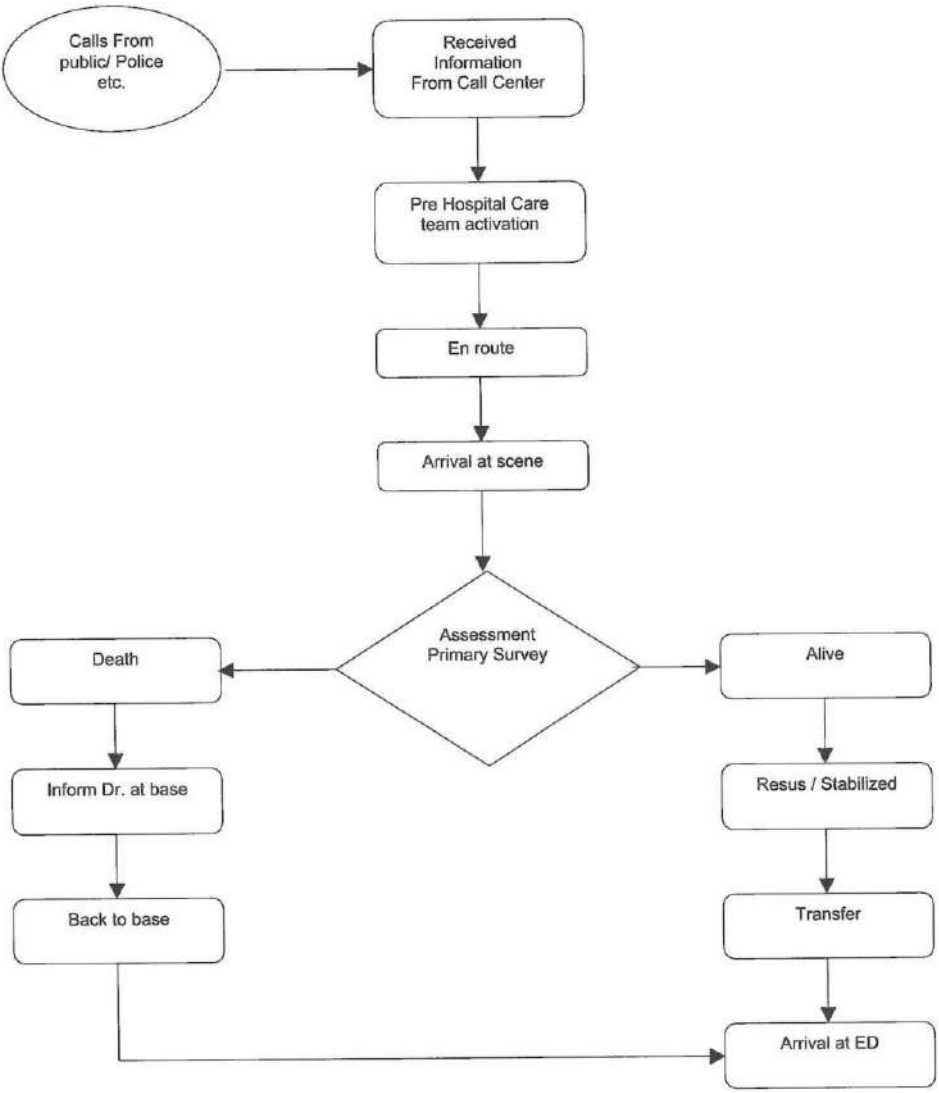
Basic life support

Joseph J. Mistovich et al (2000). Prehospital Emergency Care Prentice Hall Health, USA

Bruce D. Browner et al (2002). Out Door Emergency Care Jones And Bartlett Publisher, London

Guidelines 2000 for CPR and Emergency Cardiovascular Care. (American Heart Association)

PRE HOSPITAL MANAGEMENT OF ADULT CARDIAC ARREST



MANAGEMENT OF CARDIAC ARREST

Activity	Work Process	Standard	Requirement
1. Receive Call	To document the following from the caller : • Caller Name & I/C No. • Address / Contact Number • Chief complain • How many people are involved • Patient condition • Location any danger • Victim location / landmark	Fill the particulars in the forms provided clearly.	Ambulance Run Report
2. Team activation	Pre Hospital team alerted with some information with regards to nature of incident, victim conditions and the nature of response.	Urgent and life threatening cases to response fast and with full medical personnel and at high speed and siren.	Trunk radio
3. En route	Time Departure.	Respond time less than 5 minutes. (From the time the call received and ambulance departs the hospital compound.)	
4. Arrival scene area Perform scene survey.	The provider must be always assure scene safety: • any potential hazards to you or patients eg: gasoline, fire, electrical wires • Use of universal protective garment. • Determine the mechanism of injury. • Determine the number of patients. • Rapid scene assessment. • Carry patient to a safe area if necessary.	Always ensures scene safety before attending to patient.	

Activity	Work Process	Standard	Requirement
5. Assessment Primary survey	Assess level of consciousness using AVPU **Perform assessment ABC** • Conscious – Reassure patient • Unconscious – open airway **Breathing** • Dyspnea • Positioning • Oxygenation **No breathing** • Bag Valve Mask. **Circulation** • Feel for pulse if Head to toe examination • Inform Doctor advise for further management	Give 100 % oxygen with High Flow Mask (NRB) Ventilate patient Airway adjunct • no pulse give Pre Cordial Thumb if witness infarct, begin Chest Compression Documentation of any abnormalities found and treatment rendered at site on the Ambulance Call Report.	Grade A ambulance
6. Death	To determine patient death.	No response, no pulse, no spontaneous breathing, pupil fix and dilated	Grade A ambulance
7. Alive patient with Cardiac Arrest	**Airway Breathing** • Oxygenation **Circulation** • IV infusion,SPO2 monitoring **Fix Cardiac monitor** Contact base Center- inform Doctor about Cardiac rhythm	Ventilate patient Airway adjunct Always update base on the patient progress via two ways communication. Contact doctor at base for further advice and medical directions if in doubt.	Grade A ambulance

Activity	Work Process	Standard	Requirement
8. Transfer	Secondary assessment • History taking • Monitor vital sign every 5 minute • Reassess airway, breathing, circulation Defibrillation, cardiac drug according to **ACLS protocol Attachment (Pre Hospital Care) II** with doctor verbal consent.	Update report	Ambulance Run Report
9. Arrival in Emergency Department.	Present case to Doctor • History • Patient condition • Intervention done	Documentation on the Ambulance Run Report.	Ambulance Run Report

Reference :

Basic trauma life support

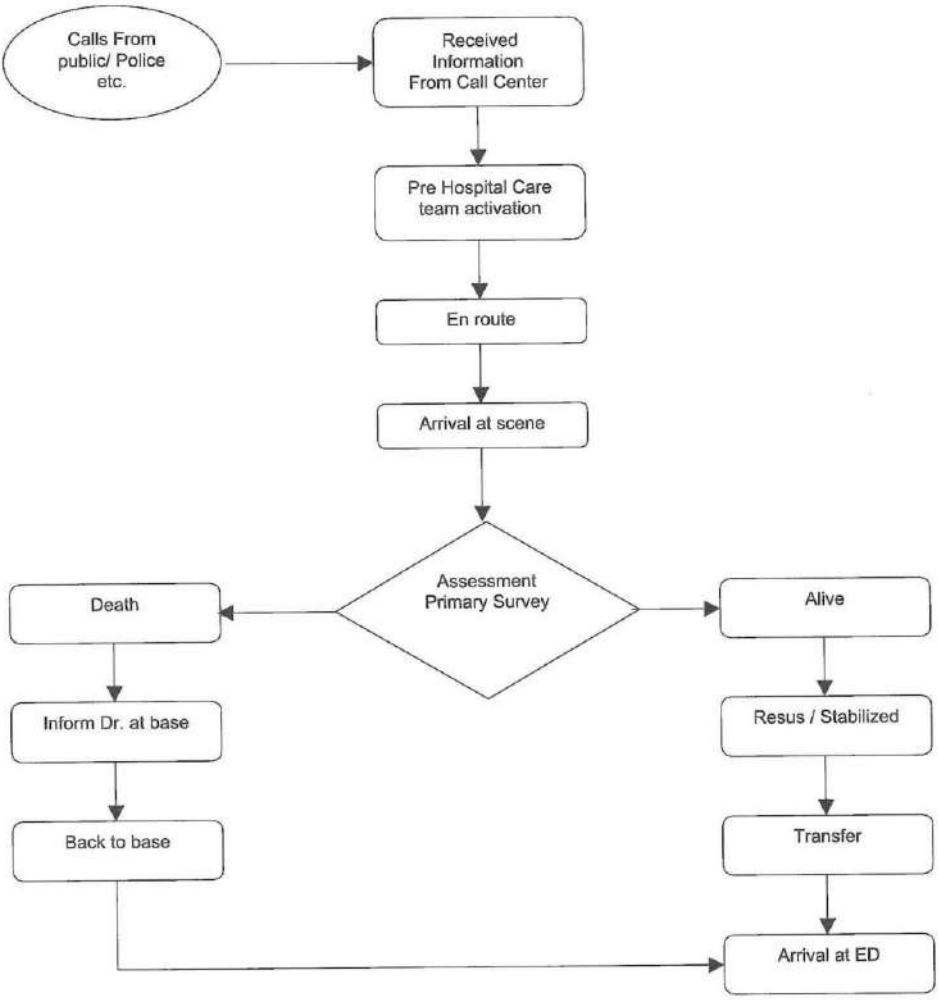
Basic life support

Joseph J. Mistovich et al (2000). Prehospital Emergency Care Prentice Hall Health, USA

Bruce D. Browner et al (2002). Out Door Emergency Care Jones And Bartlett Publisher, London

Guidelines 2000 for CPR and Emergency Cardiovascular Care. (American Heart Association)

MANAGEMENT OF UNCONSCIOUS PATIENT FLOW CHART



MANAGEMENT OF UNCONSCIOUS PATIENT

Activity	Work Process	Standard	Requirement
1. Receive Call	To document the following from the caller : • Caller Name & I/C No. • Address / Contact Number • Chief complain • How many people are involved • Patient condition • Location any danger • Victim location / landmark	Fill the particulars in the forms provided clearly.	Ambulance Run Report Trunk radio
2. En route	Pre Hospital team alerted with some information with regards to nature of incident, victim conditions and the (nature of response)	Urgent and life threatening cases to response fast and with full medical personnel and at (high speed) and siren. Respond time less than 5 minutes. (From the time the call received and ambulance departs the hospital compound.)	Trunk radio
3. Arrival at scene area	Rapid scene assessment Carry patient to save area	Always ensures scene safety before attending to patient.	
4. Assessment Primary survey	Assess level of consciousness using AVPU Perform assessment airway, breathing and circulation (ABC) **Airway** • Unconscious **Breathing** • No breathing **Circulation** • Feel for pulse	Open the airway Clear the airway. Ventilated the patient Airway adjunct no pulse begin Chest Compression	Grade A ambulance

Activity	Work Process	Standard	Requirement
	Head to toe examination Inform Doctor advise for further management	Documentation of any abnormalities found and treatment rendered at site on the Ambulance Run Report.	
5. Death	To determine patient death.	No response, no pulse, no spontaneous breathing, pupil fix and dilated Inform Dr at Base Station.	Grade A ambulance
6. Alive patient with Cardiac Arrest	**Airway** • Airway pattern / clear. • Intubation with permission **Breathing** • Oxygenation **Circulation** • IV infusion, SPO2 monitoring **Fix Cardiac monitor.** Contact base centre- inform Doctor about patient condition.	To give 100% Oxygen with High Flow Mask (NRB) Communication at the base from time to time. Contact doctor at base for further advice and medical directions if in doubt.	Grade A ambulance Trunk radio
7. Transfer	Secondary assessment • History taking • Monitor vital sign every 5 minute. Reassess airway, breathing, and circulation.	Documentation of clinical finding and treatment.	Ambulance Run Report
8. Arrival in ED	Present case to Doctor • History • Patient condition. • Intervention done	Handing over the case to the attending Doctors.	

Reference :

Basic trauma life support

Basic life support

Joseph J. Mistovich et al (2000). Prehospital Emergency Care Prentice Hall Health, USA

Attachment I

AMBULANCE RUN REPORT

Part 1 Call Information (To be fill by Call Taker)		
Tarikh	Masa Panggilan Diterima	MA Yang Terima Panggilan
Nama Pemanggil	Nombor Telifon.	
Alamat/Lokasi kejadiaan	Petanda	
Butiran kes kes trauma MVA ☐ M-bike ☐ Pillion ☐ Driver ☐Passenger ☐Pedestrian Fall from height ☐ Others No. of Casualties :	Chief Complain for non Trauma	
Jenis Ketogori Kes : Level ☐ Level II ☐ Level III ☐ Inter-facility ☐		
Masa Bertolak		

Part 2 Assessment on Scene										
Masa Tiba Di Lokasi										
Nama Pesakit				Nombor KP			Umor	Jantina		Bangsa
Time	Conscious Level	Airway obstruction	Breathing	B.P	Pulse	SaO2	Color		R. R	Pupil
	A☐V☐P☐U☐	Yes☐/No ☐	Yes☐/No ☐				Normal☐ Cyanoses☐ Pale ☐			L☐mm R☐mm
	A☐V☐P☐U☐	Yes☐/No ☐	Yes☐/No ☐				Normal☐ Cyanoses☐ Pale ☐			L☐mm R☐mm
	A☐V☐P☐U☐	Yes☐/No ☐	Yes☐/No ☐				Normal☐ Cyanoses☐ Pale ☐			L☐mm R☐mm
	A☐V☐P☐U☐	Yes☐/No ☐	Yes☐/No ☐				Normal☐ Cyanoses☐ Pale ☐			L☐mm R☐mm

Part 3 Initial Resuscitation and Treatment					
Oxygen	L/min	Oropharyngeal airway	☐	Defib	☐
IV Infusion		Pressure dressing	☐ Site	CPR	☐
Suction	☐	Cervical Collar	☐	Nebulizer	☐
Spinal Board	☐	ECG Monitoring	☐	Drugs Given :	
Limb Immobilization	☐ Site	Intubation	☐		
Masa Bertolak Dari Lokasi		Masa Ketibaan Di Hospital			

Brief Summary	Ambulance team members
	Medical Officer
	Medical Assistant
	Trained staff Nurse
	Driver
	Others

Attachment II

PERALATAN KELENGKAPAN AMBULANS : GRED A

BIL	PERKARA	ULASAN /CATATAN
1.0	KENDERAAN	
	1.1 Bunyi siren high and low	
	1.2 Lampu Light Bar	
	1.3 Sistem perhubungan radio 2-hala dan berfrekuensi tinggi	
	1.4 Pemadam api	
	1.5 Peta jalanraya	
	1.6 Tangki air dan singki	
2.0	Alat-alat kelengkapan asas	
	2.1 Pillows 2 unit	
	2.2 Pillows Cases 2 unit	
	2.3 Blankets 2 unit	
	2.4 Draw sheets 2 unit	
	2.5 Mackintoch 2 unit	
	2.6 Disposable omesia 1 unit	
	2.7 Urinal 1 unit	
	2.8 Tissue box 1 unit	
3.0	Alat Kelengkapan Untuk Memindahkan Pesakit	
	3.1 Wheeled Ambulans Stretcher 1 unit	
	3.2 Folding Ambulance Stretcher 1 unit	
	3.3 Folding Stair Chair 1 unit	
4.0	Alat Kelengkapan Pemulihan Pernafasan (Air Maintenance Ventilation and Resuscitation)	
	4.1 CPR Board	
BIL	**PERKARA**	**ULASAN /CADANGAN**
	Airway Management	
	4.2 Oxygen Resuscitator Set 4.2.1 Oxygen regulator pin index with demand valve and continuous oxygen flow meter	
	4.2.2 Suction device oxygen operated	
	4.2.3 Venture Mask With Tubing	
	4.2.4 Suction Tube with finger control	
	4.2.5 Oxygen cylinder key	
	4.3 Oxygen Resuscitator Bag for adult	**Silicone material**
	4.3.1 Adult Airway size 1,2,3	
	4.3.2 Adult Oxygen Mask	

	4.3.3 Oxygen reservoir Bag	
	4.4 Oxygen Resuscitator Bag for Child	*Silicone material*
	4.4.1 Child Airway size 1,2,	*Size: 0*
	4.4.2 Child Oxygen Mask	
	4.1.3 Oxygen reservoir Bag	
	4.1.4 Laryngeal Mask size 3,4	
	4.1.5 Cricothyroidotomy	
	4.1.6 Laryngeal Tube size 3,4	
	4.1.7 A Tracheal Intubation Kit	Tambahan
	4.1.8 High Flow Mask	Tambahan
5.0	**Two Suction Equipment (fixed and portable)**	
6.0	Supplies and equipment for the immobilization of fracture:	
	6.1 Traction Splints Set ***(Hare)***	
	6.2 Triangular Bandages	
	6.3 Universal Head Immobilizer	
	6.4 Rigid cervical Collar in variety of sizes	
	6.5 Two 5 pound sand bags	
	6.6 Upper Limb Splint (1 set of 3) **Lower Limb Splint (1 set of 3)** **Pelvic Clamp**	
	*6.7 (**Short spinal with Extrication Device**)*	
	6.8 Spinal Board	
7.0	Kelengkapan Tambahan	
	7.1 Nebulizer Machine	
	7.2 Entonox inhalation analgesia	
8.0	Medical Emergency Bag **(SILA LIHAT KANDUNGAN BAG EMTS)**	
	8.1 Sterile gauze pads	
	8.2 Sterile multi trauma dressing	
	8.3 Soft self adhering roller bandages	
	8.4 Sterile burn sheet	
	8.5 Mosquito forcep	
	8.6 Sponge forcep	
	8.7 Plaster zink oxide adhesive	
	8.8 Glove – all sizes	
	8.9 Torch Light	
	8.10 Sphymomanometer kit with separated culls for adult/children/infant	
	8.11 Stethoscope	
	8.12 Safety pin	
	8.13 Scissors	
	8.14 Thermometer	
	8.15 Diagnostic Set	
	8.16 Dextrostic /Glucostic	
	8.17 Tornique	
	8.18 Roller cotton bandage all sizes	
	8.19 Crepe bandage	
	8.20 Quick Clot	
9.0	A Portable Cardiac Monitor Defibrillator	
	9.1 Defibrillator	
11	I/V Fluid infusion Kit	
12	Medical box	
	List Of Equipment :	

1	Upper Limb Immobilizer x 2 set	
2	Lower Limb Immobilizer x 2 set	
3	Traction Immobilizer x 2 set	
4	Head Immobilizer x 2 set	
5	Scoop Stretcher x 1 Set	
6	Triage Card x 100	
7	Trauma kit x 2 bag (Content Refer to attach list)	
8	Airway Management Set x 1 set	
9	Cervical Collar x 2 set	
	Miscellaneous	**Tambahan**
1	Raincoat with reflector	
2	Medical Vest With Reflector	
3	Protective Helmet	
4	Protective shoes	
5	Heavy Duty gloves	
6	Ice Box with cold pack	
7.	Dry hand washing disinfectant	

PERALATAN KELENGKAPAN AMBULANS : GRED B

BIL	PERKARA	ULASAN /CATATAN
1.0	KENDERAAN	
	1.1 Bunyi siren high and low	
	1.2 Lampu Light Bar	
	1.3 Sistem perhubungan radio 2-hala dan berfrekuensi tinggi	
	1.4 Pemadam api	
	1.5 Peta jalanraya	
	1.6 Tangki air dan singki	
2.0	Alat-alat kelengkapan asas	
	2.1 Pillows 2 unit	
	2.2 Pillows Cases 2 unit	
	2.3 Blankets 2 unit	
	2.4 Draw sheets 2 unit	
	2.5 Mackintoch 2 unit	
	2.6 Disposable omesia 1 unit	
	2.7 Urinal 1 unit	
	2.8 Tissue box 1 unit	
3.0	Alat Kelengkapan Untuk Memindahkan Pesakit	
	3.1 Wheeled Ambulans Stretcher 1 unit	
	3.2 Folding Ambulance Stretcher 1 unit	
	3.3 Folding Stair Chair 1 unit	
4.0	Alat Kelengkapan Pemulihan Pernafasan (Air Maintenance Ventilation and Resuscitation)	
	4.1 CPR Board	
BIL	**PERKARA**	
	Airway Management	
	4.2 Oxygen Resuscitator Set 4.2.1 Oxygen regulator pin index with demand valve and continuous oxygen flow meter	
	4.2.2 Suction device oxygen operated	
	4.2.3 Venture Mask With Tubing	
	4.2.4 Suction Tube with finger control	
	4.2.5 Oxygen cylinder key	
	4.3 Oxygen Resuscitator Bag for adult	**Silicone material**
	4.3.1 Adult Airway size 1,2,3	
	4.3.2 Adult Oxygen Mask	
	4.3.3 Oxygen reservoir Bag	
	4.4 Oxygen Resuscitator Bag for Child	*Silicone material*

	4.4.1 Child Airway size 1,2,	*Size: 0*
	4.4.2 Child Oxygen Mask	
	4.1.3 Oxygen reservoir Bag	
	4.1.4 Laryngeal Mask size 3,4	
	4.1.5 Cricothyroidotomy	
	4.1.6 Laryngeal Tube size 3,4	
	4.1.7 A Tracheal Intubation Kit	Tambahan
	4.1.8 High Flow Mask	Tambahan
5.0	**Two Suction Equipment (fixed and portable)**	
6.0	Supplies and equipment for the immobilization of fracture:	
	6.1 Traction Splint.	
	6.2 Triangular Bandages	
	6.3 Universal Head Immobilizer	
	6.4 Rigid cervical Collar in variety of sizes	
	6.5 Two 5 pound sand bags	
	6.6 Upper Limb Splint (1 set of 3) & **Lower Limb Splint (1 set of 3)**	
	6.7 (Short spinal with Extrication Device)	
	6.8 Spinal Board	
7.0	Kelengkapan Tambahan	
	7.1 Nebulizer Machine	
	7.2 Entonox inhalation analgesia	Analgesia Inhalation (Entonox)
8.0	Medical Emergency Bag **(SILA LIHAT KANDUNGAN BAG EMTS)**	
	8.1 Sterile gauze pads	
	8.2 Sterile multi trauma dressing	
	8.3 Soft self adhering roller bandages	
	8.4 Sterile burn sheet	
	8.5 Mosquito forcep	
	8.6 Sponge forcep	
	8.7 Plaster zink oxide adhesive	
	8.8 Glove – all sizes	
	8.9 Torch Light	
	8.11 Sphymomanometer kit with separated culls for adult/children/infant	
	8.11 Stethoscope	
	8.12 Safety pin	
	8.13 Scissors	
	8.14 Thermometer	
	8.15 Diagnostic Set	
	8.16 Dextrostic /Glucostic	
	8.17 Tornique	
	8.18 Roller cotton bandage all sizes	
	8.19 Crepe bandage	
	8.20 Quick Clot	
9.0	A Portable Cardiac Monitor Defibrillator	*Cadangan spesifikasi disertakan*
	9.1 Defibrillator	**AED WITH MANUAL OVERRIDE , BIPHASIC AND LIGHTWEIGHT**
	9.2 Lightweight Vital Sign Monitoring	
	9.3 Lightweight Transport Ventilator	
11	I/V Fluid infusion Kit	
12	Medical box	
	List Of Equipment :	

1	Upper Limb Immobilizer x 2 set	
2	Lower Limb Immobilizer x 2 set	
3	Traction Immobilizer x 2 set	
4	Head Immobilizer x 2 set	
5	Scoop Stretcher x 1 Set	
6	Triage Card x 100	
7	Trauma kit x 2 bag (Content Refer to attach list)	
8	Airway Management Set x 1 set	
9	Cervical Collar x 2 set	
	Miscellaneous	Tambahan
1	Raincoat with reflector	
2	Medical Vest With Reflector	
3	Protective Helmet	
4	Protective shoes	
5	Heavy Duty gloves	
6	Ice Box with cold pack	
7.	Dry hand washing disinfectant	

Attachment III

Programme	:	Patient Care Services (Emergency Services).
Area of Concern	:	EFFICIENCY OF Emergency Ambulance Services
Indicator 51	:	Delay in Ambulance Response Time
Rationale	:	Delay in ambulance response time may contribute to increased morbidity or mortality. The aim is to reduce the response time in order to improve pre-hospital care.
Definition of Terms	:	
Response Time		Time taken for an Ambulance to leave the hospital after the call is RECEIVED
Maximum response time	:	Not > 5 minutes.
Type of indicator	:	Rate-based Process Indicator. It measures the efficiency of ambulance services.
Numerator	:	Number of delayed Response Time x100 %
Denominator	:	Total Number of Ambulance calls
Standard	:	Not more than 10 %

Hospital: **Selayang**
Category of Hospital: A / B/ C (Circle appropriate category)
A= State Hospital B: District Hospital With Specialist C: District Hospital Without Specialist

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Indicator: 51 Delay in Ambulance Response Time

Standard: Not more than 10%

Numerator: Number of delayed response Time

Denominator: Total number of ambulance call

Note: Numerator values must be less than Denominator values. For Sentinel events **DO NOT fill in Denominator.

Month	Numerator	Denominator	Performance Achieved
January			
February			
March			
April			
May			
June			
Sub-total			
July	4	46	8.69 %
August	1	39	2.56 %
September	1	24	4.16%
October	7	55	12.72%
November	8	72	11.11%
December	4	31	12.29%
Sub-total	25	267	9.36 %
Total			

PRE HOSPITAL CARE'S CLOSSARY

Glossary	Actions
1. Scene Survey	The provider must be always assure scene safety: • any potential hazards to you or patients eg: gasoline, fire, electrical wires • Use of universal protective garment • Determine the mechanism of injury • Determine the number of patients
2. Establish in-line stabilisation	Establish in-line stabilization if spinal injury is suspected • Gently bring the patient's head into a position in which the nose is lined up with the patient's navel and points 90 degrees from the direction of the spine and holding it there. Maintain in-line stabilization with cervical collar and spinal board.
3. Primary survey	To discover and treat life or limb threatening conditions. Using the AVPU mnemonic can assess the patient's level of responsiveness. • A – Alert • V – Responds to verbal stimulus • P – Responds to Painful stimulus • U - Unresponsive Airway Breathing Circulation
4. Airway assessment	Determine airway patentcy status. Assessing the airway in victim with altered mental status, it is necessary to open it, inspect inside the mouth and listen for any abnormal sounds. Open the airway • Manual airway maneuvers to prevent the tongue and epiglotis from blocking the airway – chin-lift, jaw-thrust • Suction/finger sweeps to remove blood etc. • Airway adjuncts: ▪ Oropharyngeal ▪ Nasopharyngeal Able to know how to use different airway adjuncts
5. Breathing assessment	Able to assess the rate, rhythm, quality and depth of respirations. • Look – inspect the chest expansion • Listen – breath sounds • Feel – air escaping during exhalation Able to do techniques of artificial ventilation using • Bag valve mask • Pocket mask

Glossary	Actions
	Identify adequate or inadequate breathing Adequate breathing: • Give O2 NRB 15L/min Inadequate breathing, • perform intubation
6. Circulation assessment	To detect any major bleeding problems. • Pulse • Possible major bleeding • Skin color, temperature
7. Begin CPR	If the patient's pulse is absent, Cardiopulmonary Resuscitation must be done immediately Understanding basic life support
8. Control bleeding	Direct pressure • Bandaging
9. Secondary survey	History taking Vital sign monitoring Head to toe examination (For unstable patients, secondary survey must be done in ambulance.)
10.Transportation	Unstable patients should be transport immediately. Use a proper equipment base on patients injury
11. Notify	Include : • Scene description • Problem list • Examination finding • Treatments
12. Inform CDC	Inform base control to standby to receive the patient Information include: • Patient's condition • Management • Triaging • Expected Time Arrival (ETA)

9. TRIAGE

Activity	Work Process	Standard	Requirement
1. Receive Patients	**Walk in patients :** • Approach attends to patient needs. **Unable to walk / in the vehicle:** • Extricate non trauma / trauma patients from the vehicle	Possess positive attitude like - Proactive, polite, warm and emphatic. Fast and safe extrication	**Attachment (Triage) I** **Attachment (Triage) II**
2. Patients assessment	Perform rapid visual assessment. Provide appropriate mode of transportation to the designated zones. Provide appropriate immobilization and bandaging if required. For the critically ill patient obtain brief history of present illness whenever possible.	Quick visual assessment < 5 seconds. Categories patients into critical, semi critical, non critical and fast track zones	Personal protective equipment. Gauze and bandages Cervical collar with assorted sizes. Head immobilizer. Long spinal board, Assorted splints for fractures. Oxygen delivery apparatus. Wheel chair. Patient trolley
3. Categorize the patient into appropriate zones	**Non critical cases** are sent to registration before consultation. **Fast track cases** are sent directly to their designated consultation room. **Semi critical cases** are sent directly to the zone for immediate treatment. **Critical cases** are sent directly and fast to the designated area or zone and special Alarm Bell is activated immediately to notify the incoming case. Passing over of vital information obtained to the personnel in the zone.	Immediate action	Hospital Triaging guidelines **Attachment (Triage) III** Bell or alarm system

Activity	Work Process	Standard	Requirement
4. Documentation	For critically ill cases • Record time • Mode of arrival • Chief complain • Brief history of present illness For non critical and semi critical cases • Fill up triage form. • Transfer to appropriate zone.	Documentation	Triage Form Kad Rawatan Pesakit Luar Perubatan 96 Pin-1/78

References:

Guidelines For Implementation Of Triage Scale In Emergency Department, Hospital Selayang

Ethical Dimension Health Policy Danis , Clancy , Churchill

EMT Manual, Third Edition Thomas A. Scaletta , Jeffrey J. Schaiden

Pre Hospital Eergency Care, Sixth Edition, 2000 Joseph J. Mistovich, Brent Q. Hafen, Keith J. Karren

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Attachment (Triage) I

TRIAGE PROTOCOLS.

1. **WALKING PATIENTS.** (Adults and Children)
   1.1. Begin assessment while patient is walking towards you into the ED.
   1.2. If patient is able to walk without any support & looks comfortable, ask for patent, medical problem/complain (see triage criteria below) and triage patient as GREEN.
   1.3. If patient walks with the limp or is being supported, **GO TOWARDS THE PATIENT** and assess the patient (do not wait for the patient to arrive at your doorstep).
   1.4. Put the patient. on a wheelchair when necessary. When patient is put on wheelchair, check that the patient is able to sit on the wheelchair without any distress.
   1.5. If patient's condition is stable Æ triage green.
   1.6. If patient is not able to sit without distress put patient on trolley & send to yellow zone.
   1.7. Do not allow pt to enter the ED without proper assistance.
   1.8. If patient is asthmatic, assess the condition.
   1.9. Look for sign of respiratory distress (unable to complete sentence, dyspneic, cyanosed).
   1.10 If patient having mild to moderate asthmatic attack, direct pt to Asthma Bay (see asthma triage criteria).

2. **INFANTS & CHILD ESPECIALLY THOSE WHO ARE CARRIED IN AN ADULT'S ARMS.**
   2.1. Look at the patient and not the person carrying the child.
   2.2. Perform assessment on the infant/child who is the patient.
   2.3. Assess the child's response (AVPU)
   - Alertness.
   - Movement of limbs.

   2.4. Check for breathing – Open the patient's clothing for assessment
      2.4.1. Look at the child's general condition – comfortable or irritable, fitting or neck rigidity, opisthotonus.
      2.4.2. Look for the cyanosis or pallor or dusky skin
      2.4.3. Look at the chest for respiratory rate, tachypnea and respiratory muscle involvement.
      2.4.4. Look for signs of dehydration – sunken anterior fontanels, sunken eyeballs, loss of skin turgor.

Reference :

Guidelines For Implementation Of Triage Scale In **Emergency Department.**

Attachment (Triage) II

EXTRICATION PROTOCOL.

Guidelines for Extrication of patients in a vehicle.

1. Triage officer goes to the patient in the vehicle.

2. Enter the vehicle to get to the pt's side.

3. Assess patient's AVPU & ABC quickly.
   - 3.1. All assessment must be done at patient's side or as close as possible to the patient.
   - 3.2. Do not perform assessment outside the vehicle or at the patient's foot.

4. Check patient's problem/s.
   - 4.1. Trauma patients.
     - 4.1.1. If patient has sustained fractures, apply correct immobilizer /s to the affected areas e.g cervical collar, limb immobilizers.
     - 4.1.2. Push all obstacles away from patient e.g. seats
     - 4.1.3. Prepare spinal board & trolley.
     - 4.1.4. Bring the trolley right up to the vehicle.
     - 4.1.5. Apply the trolley's brakes
     - 4.1.6. Put spinal board on trolley.

   - 4.2. Start extrication.
     - 4.2.1. Team leader coordinates extrication.
     - 4.2.2. All team members at proper positions.
     - 4.2.3. Team leader maintains control at the head with manual cervical immobilization during extrication process.
     - 4.2.4. On team leader's cue, together start extrication steps towards exit.
     - 4.2.5. * TAKE ONE COORDINATED STEP AT A TIME * i.e. one-step & stop, next step & stop and so on.
     - 4.2.6. Always reposition yourself with proper handling of the patient before each next step.
     - 4.2.7. At all times during the extrication process patient must be manually immobilised.
     - 4.2.8. Stop on reaching the exit door.
     - 4.2.9. Reposition yourselves & get the trolley ready before alighting from the vehicle.
     - 4.2.10. Place the patient. on spinal board on trolley.
   - 4.3. Non trauma patients
   - 4.4. Assist patient to alight from the vehicle if patient is conscious.
   - 4.5. Carry & transfer patient onto trolley or wheelchair accordingly.
     - 4.5.1. Reassess patient and perform triage.
     - 4.5.2. Send patient accordingly to the respective clinical zones.

4.5.3. Pass over the case properly to the attending staff in each related zone.
4.5.4. Assist in transfer of patient onto zone trolley.
4.5.5. Remove triage trolley back to Triage area.
4.5.6. Do not linger unnecessarily in the clinical area.
4.5.7. Return to Triage area as soon as possible.

Reference :

Guidelines For Implementation Of Triage Scale In **Emergency Department.**

Attachment (Triage) III

ZONING CONCEPT

1. **Triaging Guidelines**
   - **1.1. Non Critical / Green Zone**
     - 1.1.1. Haemodynamically stable patients who are able to walk.
     - 1.1.2. All patients who are injured or medically ill but able to walk.
     - 1.1.3. All patients who are able to be on wheel chair without any distress.
     - 1.1.4. Mild head injury and cerebral concussion with GCS 15
     - 1.1.5. Psychiatric patients.
     - 1.1.6. Acute gastroenteritis with mild dehydration.
     - 1.1.7. Per vaginal bleeding of less than 20 weeks pregnancy.
     - 1.1.8. All infants (under 1yr. Of age) with minor illness e.g. fever, cough, cold.
     - 1.1.9. First degree burn.
     - 1.1.10. Mild to moderate abdominal pains but able to walk.
     - 1.1.11. Second degree burn of < 15% body surface area in adults and < 10% body surface area in children.

   - **1.2. Fast Track**
     - 1.2.1. OSCC cases : Domestic violence
     - 1.2.2. Battered women
     - 1.2.3. Rape / molested cases
     - 1.2.4. Child abuse
     - 1.2.5. Mild asthma cases

   - **1.3. Semi Critical / Yellow Zone**
     - 1.3.1. Haemodynamically stable patients with the following conditions:
       - Patients who are unable to walk and on trolley.
       - Compound fractures of lower limbs.
     - 1.3.2. Suspected poisoning or drug overdose
     - 1.3.3. Stroke
     - 1.3.4. Hemiparesis/Hemiparalgeia of any cause
     - 1.3.5. Medical emergencies that are haemodynamically stable such as Chronic Congestive Heart Failure, Stable angina and high fever (unable to walk).
     - 1.3.6. Adults with moderate dehydration.
     - 1.3.7. Head injury GCS 13-15
     - 1.3.8. Trauma cases such as deep laceration, muscle cut tendon cut and laceration, amputations.
     - 1.3.9. Psychotic aggressive patients.

1.4. Critical / Red Zone

1.4.1. Patient in the state of shock secondary to:
- Hypovolaemic Shock
- Cardiogenic Shock
- Neurogenic Shock
- Other causes of Shock.

1.4.2. Ongoing external arterial hemorrhage
1.4.3. Lower limb amputation
1.4.4. Crush injuries.
1.4.5. Myocardial Infarct/Unstable Angina or Ischaemic/Unstable heart disease.
1.4.6. Severe asthma/Acute exacerbation of asthma.
1.4.7. Respiratory Distress/Failure.
1.4.8. Uncontrolled fit/Status Epileptics
1.4.9. Severe burns more than 20% of body surface in adult and 15 % in children or patients with facial and/or perennial burns and evidence of smoke inhalation.
1.4.10. Eclampsia
1.4.11. Severe dehydration in adults and moderate and severe dehydration paediatric.
1.4.12. All new born especially with congenital deformities
1.4.13. Severe drug overdose or poisoning
1.4.14. Polytraumatised patient/Multiple Injured Patient.This is defined as patient with 2 or more organ system injuries with haemodynamic unstable.
1.4.15. Patient with life threatening injury discovered on primary survey such as:-
- Airway Obstruction.
- Tension Pneumothorax.
- Open Pneumothorax.
- Flail Chest
- Massive haemothorax.
- Intra abdominal injury.
- Cardiac Tamponade.

1.4.16. Unconsciousness/Comatose.
1.4.17. Severe concussion/Open fracture of skull.
1.4.18. Gun shot wound.
1.4.19. Patient with potentially life threatening conditions discovered on secondary Survey such as Traumatic Diaphragmatic Hernia, Aortic Transaction and Contusion.

Reference :

Guidelines For Implementation Of Triage Scale In **Emergency Department.**

10. GENERAL FLOW OF EMERGENCY DEPARTMENT STANDARD OPERATING PROCEDURE FOR MEDICAL ASSISTANT AT NON CRITICAL/GREEN ZONE

Activity	Work Process	Standard	Requirement
Walking patients are straight away directed to green zone while those who need wheel chair will accompanied by MA to green zone			Wheel chair
1. Secondary Triage	Documentation of registration time Perform brief history taking. To take vital signs To do ECG Perform quick glucometer test To take lab specimen for investigation as ordered by Med. Officer To do simple dressing, bandaging and immobilization	Documentation ECG for all the patients with chief complain of having chest pain and above 40 years old Inform Med. Officers regarding any abnormal finding Aseptic technique in doing dressing	Stethoscope Manual BP set Electrical vital sign monitor Standard emergency trolley Sterile dressing set Bandages, gauze and swabs
2. Treatment / Care plans as ordered by Medical Officers	To give stat medications / drugs via oral or intramuscular. Perform minor procedures as ordered such as : • Toilet and Suture, • Incision and Drainage • Removal of Foreign body • Splinting • Applying Plaster of Paris • Eye irrigation Documentation all intervention given in the specific form or procedure book	Aseptic technique in doing dressing Inform Med. Officers regarding any abnormal finding Documentation	Injection drugs Sterile : Trauma set Incision set Splints

STANDARD OPERATING PROCEDURE FOR MEDICAL ASSISTANT AT SEMI CRITICAL/YELLOW ZONE

Activity	Work Process	Standard	Requirement
1. Patient conscious on wheel chair / trolley will accompany by MA to yellow zone.		Using wheel chair / trolley	Wheel chair Trolley
2. Initial Assessment	Check for responsiveness AVPU method : A – Alert V – Response to verbal P – Response to pain U – Unresponsive Monitor vital signs To do ECG and recognize the abnormal ECG Perform quick glucometer test To take lab specimen for investigation as ordered	ECG for all the patients with chief complain of having chest pain and above 40 years old Inform Med. Officers regarding any abnormal finding	Stethoscope Manual BP set Electrical vital sign monitor Standard emergency trolley
3. Assisting Medical Officer in stabilization of patient	intra vena cannulation apparatus - Secured massive bleeding	Aseptic technique in doing dressing Inform Med. Officers regarding any abnormal finding Documentation	Bandages, gauze and swabs Injection drugs
4. Treatment / Care plans as ordered by Medical Officer	Perform minor procedures as ordered such as : • Toilet and Suture, • Incision and Drainage, • Catheterization, • Stomach washout, • Removal of Foreign body, • Splinting, • Assisting in doing close manipulation and reduction, • Applying Plaster of Paris, • Eye irrigation, Perform proper immobilization and application of traction splint if needed	Aseptic technique in doing dressing Inform Med. Officers regarding any abnormal finding Documentation	Sterile : • Trauma set • Incision set Immobilizer Traction splints / Splints

Activity	Work Process	Standard	Requirement
	Documentation all intervention given in the specific form or procedure book		
5. Reassessment / Monitoring	Continue of monitoring patients vital sign and general condition after stabilization and treatment given	Inform Med. Officers about the progression of the patient Documentation of the progression	
6. Discharge	Give simple advise or health education on medication, wound care and follow up to the discharged patients		Pamphlets on • Health education • Wound care • Care of POP • Care of head injury

STANDARD OPERATING PROCEDURE FOR MEDICAL ASSISTANT AT CRITICAL/RED ZONE

Activity	Work Process	Standard	Requirement
Patient semi conscious / unconscious on trolley will accompany by MA to red zone.		Using trolley	Trolley
1. Quick assessment	Check for responsiveness AVPU method : A – Alert V – Response to verbal P – Response to pain U – Unresponsive Monitor vital signs To do ECG and recognize the abnormal ECG Perform quick glucometer test To take lab specimen for investigation as ordered.	ECG for all the patients with chief complain of having chest pain and above 40 years old Inform Med. Officers regarding any abnormal finding	Stethoscope Manual BP set Electrical vital sign monitor Standard emergency trolley
2. Assisting Medical Officer in resuscitation / stabilization of patient	Monitor vital signs Identify patient with life threatening conditions To do ECG and recognize the abnormal ECG Perform quick glucometer test. Perform as a resuscitation team and initiate the role of MA in maintaining : • Airway - Airway pattern - Cervical Immobilization for trauma patient - Airway management / intubation • Breathing - To give oxygen via oxygen apparatus - Proper technique of Bagging and ventilation • Circulation	Aseptic technique in doing dressing Inform Med. Officers regarding any abnormal finding Documentation	

Activity	Work Process	Standard	Requirement
	- Secured iv lines by using intra vena cannulation apparatus - Secured massive bleeding - Drugs administration Perform Cardio Pulmonary Resuscitation if needed To take lab specimen for investigation as ordered Documentation all intervention given in the specific form or procedure book		
3. Treatment / Care plans as ordered by Medical Officer.	Perform minor procedures as ordered such as : • Toilet and Suture, • Catheterization, • Stomach washout, Perform proper immobilization and application of traction splint if needed Assisting Med. Officer to initiate the following emergency procedures: Chest tube insertion Central venous line Diagnostic peritoneum lavage Needle thoracocentesis Pericardiocentesis Documentation all intervention given in the specific form or procedure book	Aseptic technique in doing emergency procedures Inform Med. Officers regarding any abnormal finding Documentation	Sterile : • Trauma set • Emergency set
4. Assisting Medical Officer to reassess the patient and monitoring the vital signs	Continue of monitoring patients vital sign and general condition after stabilization and treatment given	Inform Med. Officers about the progression of the patient Documentation of the progression	

Activity	Work Process	Standard	Requirement
5. Transfer / Sending patients to critical unit (ICU, CCU, NICU)	Continue of monitoring patients vital sign (BP, SPO2 and cardiac rhythm) with transport monitor to critical units	Patients condition stable while transportation and safely sent to assigned wards	Portable medical equipments such as : • Auto vital sign monitor • Ventilator for intubated patient • Oxygen apparatus • Resuscitation / emergency bags • Suctions • Automated electrical defibrillator (AED)
6. Confirm death by Medical Officer	Preparation of the documents for all the intervention or definitive treatment given by Med. Officer Assisting Med. Officer to make a police report (Brought in death or Death in department)	Documentation	1. Forms : • CPR • BID / DID • Burial Permits • Police report

References :

Guidelines For Implementation Of Triage Scale In Emergency Department, Hospital Selayang

Ethical Dimension Health Policy, *Danis , Clancy , Churchill*

EMT Manual, Third Edition *Thomas A. Scaletta , Jeffrey J. Schaiden*

Pre Hospital Eergency Care, Sixth Edition, 2000 *Joseph J. Mistovich , Brent Q. Hafen , Keith J. Karren*

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Attachment (ED General Flow) I

LIFE THREATNENING CONDITIONS INCLUDE THE FOLLOWING:

1. Patient in the state of shock secondary to:
   - Hypovolaemic Shock
   - Cardiogenic Shock
   - Neurogenic Shock
   - Other causes of Shock.

2. Polytraumatised patient/Multiple Injured Patient. This is defined as patient with 2 or more organ system injuries with haemodynamic unstability.Severe head injury with altered level of consciousness and Glasgow Coma Scale of < 13.

3. Severe burns more than 20% of body surface in adult and 15 % in children or patients with facial and/or perineal burns and evidence of smoke inhalation.

4. Ongoing external arterial haemorrhage

5. Lower limb amputation

6. Crush injuries.

7. Myocardial Infarct/Unstable Angina or Ischaemic/Unstable heart disease

8. Severe asthma/Acute exacerbation of asthma.

9. Respiratory Distress/Failure.

10. Uncontrolled fit/Status Epileptics

11. Eclampsia

12. Severe dehydration in adults and moderate and severe dehydration paediatric.

13. All new born especially with congenital deformities.

14. Severe drug overdose or poisoning

15. Patient with life threatening injury discovered on primary survey such as :-
    - Airway Obstruction.
    - Tension Pneumothorax.
    - Open Pneumothorax.
    - Flail Chest

- Massive haemothorax.
- Intra abdominal injury.
- Cardiac Tamponade.

16. Unconsciousness/Comatose.

17. Severe concussion/Open fracture of skull.

18. Gun shot wound.

19. Patient with potentially life threatening conditions discovered on secondary survey such as Traumatic Diaphragmatic Hernia, Aortic Transaction and contusion.

20. Suspected poisoning or drug overdose and hamedynamically unstable.

21. Trauma cases such as deep laceration, muscle cut tendon cut and laceration, amputations.

Reference :

Guidelines For Implementation Of Triage Scale In **Emergency Department.**

11. ASTHMA CARE

Activity	Work Process	Standard	Requirement
1. Patient arrives at the Triage Counter.	**Identify** patient is having asthma attack. **Facilitate** patient's movement to the Asthma Bay. **Provide** wheel chair / trolley if necessary. Registration shall be done at a later stage.	Fast and prompt response to patient's need.	Wheel chair, Trolley. Stethoscope.
2. Asthma triaging.	**Identify** if the patient is having a mild, moderate or severe asthma attacks and facilitates patient to the appropriate zone base on assessment of severity of asthma in adult **(Attachment (Asthma Care) I** and children. **Attachment (Asthma Care) II**	Rapid assessment of severity of asthma attacks.	
3. Alert working staff in Asthma Bay.	**Transfer** patient to the Asthma Bay and inform the staff working in the Asthma Bay immediately.	Fast and prompt actions.	

References:

Emergency Department Hospital Selayang Policy.

Guidelines on Management of Adult Asthma. (1996). Malaysian Thoracic Society.

ASTHMA ZONE WORK PROCESS

Activity	Work Process	Standard	Requirement
1. Registration	A **preliminary** registration is done once patient arrives at Asthma Bay. A **full** registration shall be done at a later stage.	Brief and fast.	
2. Brief history taking & Vital sign monitoring.	**Brief History** include ; • Is it a **new case**? • When was the **last attack**? • **Medications**? • **Compliance**? • **Place of follow up**? Record and measure the vital signs.	Documentation in patient clinical note.	Vital Sign Monitor. Pulse Oximeter. Stethoscope.
3. Perform PEFR measurement.	Take measurement using Peak Flow Meter. Calculate predicted/best PEFR. **Attachment (Asthma Care) III.**	Based **on** Adult / Children Assessment of Severity of Acute Asthma as attached.	Peak Flow Meter. Peak Expiratory Guide Meter.
4. Examination of patient.	Assist in examination of patient. Recognize respiratory distress signs. • Pulse rate. • Wheeze intensity. • Use of accessory muscle. • Central cyanosis.	Document in patient progress note the distress sign if any.	Vital Sign Monitor. Pulse Oximeter. Stethoscope.
5. Initiation of treatment.	Initiate nebulizer therapy. Give asthma medications and injection.	Understanding of Asthma Management Protocol. Pharmacology knowledge of medications. Dosage **Attachment (Asthma Care) 1V** / side effect adult and child. **Record** all medications given.	Nebulizer. Oxygen Asthmatic Drugs.

Activity	Work Process	Standard	Requirement
6. Monitoring of patient in Asthma Bay.	**Perform** continuous monitoring of patient after nebulizer therapy or asthma medications. Evaluate patient response to treatment. **Identify** the life threatening conditions.	**Document** compliance to medication in patient progress notes. **Attachment (Asthma Care) V**	Oximeter. Vital Sign Monitor. Peak Flow Meter. Stethoscope.
7. Discharges	Check **medications supply** makes sure is enough. **Patient Education** – Technique of using inhaler, close medical follow up appointment. For manual registration and payment.	**Document** discharges advises in the patient progress notes. **Attachment (Asthma Care) VI**	Inhaler. Spacer. Asthma Pamphlet. Referral letter.

References:

Emergency Room Management of Acute Asthma.

Assessment of severity of asthma in adult

Peak Expiratory Flow in normal adults and normal children.

Assessment of severity of acute asthma in paed. (Adapted from henry et al, j paediatric child health 1993; 29:101-103.

Algorithm for management of acute asthma. **Attachment (Asthma Care) VII**

Bronchial Asthma and COAD CPG 2002.

Clinical Management of Asthma in Asia Pacific.

Respiratory symptom and asthma in primary school children in KL.

Emergency medicine 'A comprehensive story guide'

Attachment (Asthma Care) I

ASSESSMENT OF SEVERITY OF ASTHMA IN ADULT

	Mild	Moderated	* Severe and Life Threatening Condition
	Unlikely to required admission to the Hospital	May required admission to the Hospital	Certainly needs admission to the Hospital
Altered Consciousness	No	No	Yes
Physical exhaustion	No	No	Yes
Speech	Sentences	Phrases	Words
Pulse Rate	< 100 Bpm	100 – 120 Bpm	> 120 Bpm
Wheezing Intensity	Moderated	Loud	Often Quite
Use of Accessory Muscle	Absent	Moderated	Marked
Central Cyanosis	Absent	Absent	Present
Initial PEFR	> 75 %	50 % - 75 %	< 50 %
Oxygen Saturation	> 92 %	91 % - 92 %	Below 91 %
Arterial Po2	Test is not necessary	> 60 mm Hg	< 60 mm Hg
Arterial Pco2	Test is not necessary	> 40 mm Hg	> 40 mm Hg

* Any of these invariably indicates that the episode is severe. The absence of these features does not exclude a severe attack

References :

Guidelines On Management of Asthma (1996). Malaysian Thoralic Society.

Attachment (Asthma Care) II

ASSESSMENT OF SEVERITY OF ASTHMA IN CHILDREN

	Mild	Moderated	* Severe and Life Threatening Condition
	Unlikely to required admission to the Hospital	May required admission to the Hospital	Needs admission To the Hospital
Altered Consciousness	No	No	Yes
Physical exhaustion	No	No	Yes
Talk in	Sentences	Phrases	Words
Pulses Paradoxus	Not Palpable	May be Palpable	Palpable
Wheezing Intensity	Present	Present	Silent chest
Use of Accessory Muscle	Absent	Moderated	Marked
Central Cyanosis	Absent	Absent	Present
Initial PEFR	> 60 %	40 % - 60 %	< 40 %
Oxygen Saturation	> 93 %	91 % - 93 %	Below 90 %

* Any of these invariably indicates that the episode is severe. The absence of these features does not exclude a severe attack

References :

Guidelines On Management of Asthma (Malaysian Thoracic Society 1996)

Tom Lissauer and Graham Clayden. Illustrated Textbook of Pediatrics. (Page 168)

Ellen F. Crain and Jeffrey C. Gershel, Clinical Manual of Emergency Pediatrics (4th Edition).

Attachment (Asthma Care) III

PEAK FLOW VALUES FOR OPTIMAL ASTHMA CONTROL

Predicted mean values for healthy adults

Female PEFR (Litres / min)

Age	Heights								
	1.40m	1.45m	1.50m	1.55m	1.60m	1.65m	1.70m	1.75m	1.80m
	4' 7"	4' 9"	4' 11"	5' 1"	5' 3"	5' 5"	5' 7"	5' 9"	5' 11"
16/25	358	377	395	414	433	451	470	489	508
30	348	366	385	404	422	441	460	478	497
35	337	356	374	393	412	430	449	468	487
40	327	345	364	383	401	420	439	457	476
45	316	335	353	372	391	409	428	447	466
50	306	324	343	362	380	399	418	446	455
55	295	314	332	351	377	388	407	426	445
60	285	303	322	341	359	378	397	415	434
65	274	293	311	330	349	367	386	405	424
70	264	282	301	320	338	357	376	394	413
75	253	272	290	309	328	346	365	384	403
80	243	261	280	299	317	336	355	373	392
85	232	251	269	288	307	325	344	363	382

Predicted mean values for healthy adults

Male PEFR (Litres/min)

Age	Heights								
	1.50m	1.55m	1.60m	1.65m	1.70m	1.75m	1.80m	1.85m	1.90m
	4' 11"	5' 1"	5' 3"	5' 5"	5' 7"	5' 9"	5' 11"	6' 1"	6' 3"
16	438	456	474	492	509	527	545	563	581
18	493	511	529	547	564	582	600	618	636
20/25	536	554	572	590	607	625	643	661	679
30	525	542	560	557	595	612	630	647	665
35	513	531	548	565	582	599	616	633	650
40	502	519	536	553	569	586	603	619	636
45	491	507	524	540	556	573	589	606	622
50	480	496	512	528	544	560	576	592	608
55	468	484	500	515	531	547	582	578	593
60	457	472	488	503	518	533	549	564	579
65	443	468	483	498	513	528	543	558	573
70	435	449	464	478	493	507	522	536	551
75	423	438	452	466	480	490	508	522	536
80	412	426	440	453	467	481	495	508	522
85	410	414	428	441	454	468	481	495	508

References :

Gibson J. el, Med, J, Aust. 1979.

Data From Royal Alexandria Hospital , Sydney.

Attachment (Asthma Care) IV

DRUG DOSAGES IN ACUTE ASTHMA

Drug	Formulation	Dosage
Beta 2 Agonist : Salbutamol (Ventolin)	Nebuliser solution 5 mg/ml or 2.5 mg/ml	0.15 mg/kg/dose (max 5 mg) or < 2 years old : 2.5 mg/dose > 2 years old : 5.0 mg/dose Continuous : 500 mcg/kg/hr
	Intravenous	Bolus 5 – 10 mcg/kg over 10 min. Infusion Start 0.5 – 1.0 mcg/kg/min Increased 1.0 mcg/kg/min Every 15 min to a maximum of 20 mcg/kg/min
Terbutaline (Bricanyl)	Nebuliser solution 10 mg/ml or 2.5 mg/ml	0.2 – 0.3 mg/kg/dose or < 20 kg : 2.5 mg/dose > 20 kg : 5.0 mg/dose
	Parenteral	5 – 10 mcg/kg/dose 0.25 – 1.5 mg/dose
Steroids: 1. Prednosolone.	Oral	1 – 2 mg/kg/day in divided doses (for 3 – 7 days)
2.Hydrocortisone	Intravenous	4 – 5 mg/kg/dose 6 hourly
3.Methylprednis-olone	Intravenous	1 – 2 mg/kg/dose 6 – 12 hourly
Aminophylline	Intravenous	6 mg/kg slow bolus (if not previously on theophylline) Followed by infusion 0.5 – 1.0 mg/kg/hr.

Reference :

Micromedex Healthcare Series Integrated Index , Intranet Hospital Selayang.

Govoni And Hayes, Drug And Nursing Implication, 7th Edition.

Attachment (Asthma Care) V

PATIENT EVALUATION IN ASTHMA TREATMENT

Good Response to the initial (PEFR > 75 %)

Patient should :
Free of wheezing and dyspnoea.
- Have a clear chest on auscultation.
- Have a post Bronchodilator PEFR which is > 75 % of Predicted or best value.

Incompleted response to initial treatment (50 % – 75 %)

Patient has :

- Persistent wheezing or dyspnoea.
- Rhonchi on auscultation.
- A post bronchodilator PEFR which is 50 % - 75 % of predicted or best value.

Poor response to initial treatment (< 50 %)

Patient has :
- Persistent, marked wheezing or breathlessness.
- Diffuse rhonchi on chest when ausculatation and other signs of acute severe asthma.
- A post bronchodilator PEFR which is < 50 % of predicted or best value.

Indication for discharge.
- Mild acute asthma who has good response after initial treatment.
- Mild acute asthma who has incomplete response after initial treatment but responded to secondary nebuliser.
- Moderate acute asthma who has good response after treatment.

Indication for admission.
- Mild acute asthma who does not has good response after the secondary nebuliser.
- Moderate acute asthma who does not has good response after the secondary nebuliser.
- All acute severe asthma.

Reference :

1. Guideline On Management of Asthma (Malaysian Thoracic Society 1996)

Attachment (Asthma Care) VI

BEFORE DISCHARGE

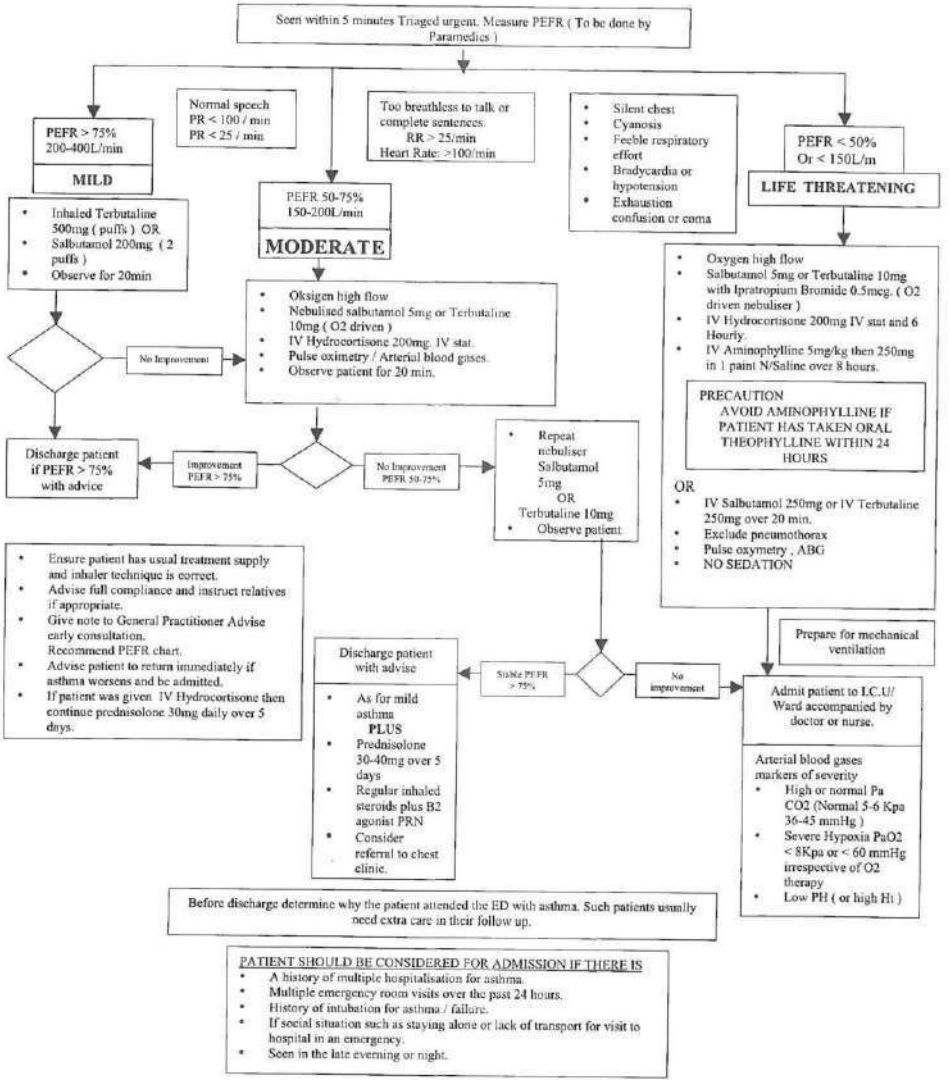
- Review adequacy of the usual treatment and step up if necessary according to the guidelines for treatment of chronic persistent asthma.
- Ensure that patient has enough medication.
- Check inhaler technique and correct it if faulty.
- Patent should know :
  - How to use inhaler.
  - When to use inhaler.
  - It must be understood which inhaler "Prevent" and which inhaler "Relieves"
  - Self-monitoring by Peak Flow measurement can be taught in asthmatic patient.
- Advice patient to come immediately if asthma worsen.
- Make sure that patient has Clinic follow up appointment.
- Discharge with Asthma Phamplet.

Reference :

1. Peak Expiratory Flow in normal adults and normal children.
2. Emergency Room Management of Acute Asthma.

Attachment (Asthma Care) VII

MANAGEMENT OF BRONCHIAL ASTHMA IN ADULTS IN THE EMERGENCY DEPARTMENT.



12. EMERGENCY PROCEDURES

Activity	Work Process	Standard	Requirement
1. Order	Procedure order by Doctor either verbal or written in patient clinical note. Identification of right patient by name, MRN, sex and age.	Check for the written order or confirm the verbal order.	Clinical note. Patient Medical registration number (MRN).
2. The procedure.	Explanation of the procedure. Making patient understand the procedure in order to have maximum cooperation from the patient.	Have a chaperone if patient is a female.	
3. Before the procedure start.	Brief history and examination of wound / affected site. Take simple history e:g , time of injury ,mechanism , allergic history. **Identify the correct site of affected anatomy.**	Brief and targeted history taking.	
4. Local anesthesia	Recognize and understanding of the types of local anesthesia and its side effect.	To take any history of allergy.	Lignocaine 2% Syringe Needle
5. Wound preparation	Wound exploration and hemostasis.	Maintain sterility and aseptic technique at all times. Inform MO if unable to stop bleeding or involvement of tendon or nerve.	Toilet and suture set.
6. Wound Suturing.	Sharp debridment - Clean and repair margin of the wound. Wound closure - Choose the right suture material and approximate with the correct technique.	Maintain sterility and aseptic technique at all times.	Suture material according to layer of skin. Wound glue.

Activity	Work Process	Standard	Requirement
7. Discharges.	Patient education - Make patient understand the important of wound care. Provide patient with slip of wound care guides. Advises on the nearest outpatient clinic for removal of suture.	Brief and clear.	Wound care slip.
8. Documentation	Keep proper recording of procedure done in patient clinical note. Maintain statistic.	All cases done must be recorded.	Clinical note Procedure record book

Reference:

Gerard M. Doherty (1999) The Washington Manual of Surgery. Lippincott Williams & Wilkins

CASING AND SLAB APPLICATION IN EMERGENCY DEPARTMENT

Activity	Work Process	Standard	Requirement
1. Order	Procedure order by Doctor either verbal or written in patient clinical note. Identification of right patient by name, MRN, sex and age.	Check for the written order or confirm the verbal order.	Clinical note Patient Medical registration number.
2. The procedure.	Explanation of the procedure. Making patient understand the procedure in order to have maximum cooperation from the patient. View the type of fractures in the X-ray.	Identified the affected anatomical position of the injured part in the X-ray. Have a chaperone if patient is a female.	Clinical note X-ray X-ray viewer
3. Before the procedure start.	Preparation of procedure. Prepare all equipment include the disposable items. Patient suitably clothed. Self prepare (wear mask, gloves, apron & boot.)	All items functional and enough in quantity for the procedure.	List of equipment in **Attachment (Casting) I**
4. Casting and slab application.	Application of cast / slab. Conduct assessment of neuro vascular status before application of cast. Determine the number of layers and rolls of POP required. Application with the correct length of POP. **Attachment (Casting) II**	Placed the affected limb in the correct position to facilitate the application of cast.	POP stand List of equipment in Attachment (Casting) I
5. Post application	Conduct assessment of neuro vascular status after application of cast.	For upper limbs cast the limbs must be rested by providing an arm sling.	Arm sling Pillow with under pad as cover.

Activity	Work Process	Standard	Requirement
	Perform simple test to check for post application complications by e.g. Opposition test for upper limb. For lower limb all toes must be visible & freely move.	For lower limbs cast, the affected lower limbs be support and elevated with pillow.	
6. Discharges.	Cleanliness of the affected part of the limbs after POP application. Patient Education Explain to patient with regards to "understanding & care of cast" as simple as possible. **Attachment (Casting) III**	Brief and clear. The affected part of the limbs must always remain clean after POP application.	Slip for care of POP
7. Documentation	Keep proper recording of procedure done in patient clinical note. Maintain statistic.	All cases done must be recorded.	Clinical note Procedure record book

Reference:

Panduan Praktikal Pemasangan Plaster Kast 1st Edisi 2003. Dato' (Dr) Muhd.Borhan Tan Abdullah.

Orthopedic Nursing 2nd Edition Anne Footner (1989) Baillier Tindall. London

Attachment (Casting) I

PREPARATION OF PROCEDURE

Equipment

a) Cast cutter with vacuum
b) Plaster scissors
c) Plaster shears
d) Plaster spreader
e) Pail/Basin
f) Boot

Disposable items

a) POP
   a. 10 cm
   b. 15 cm
   c. 20 cm
b) Orthoban
   a. 7.5 cm
   b. 15 cm
c) Stockinet
   a. 56 (UL)
   b. 78 (LL)
d) Crepe bandage
e) Plaster tapes
f) Safety pins
g) Arm sling
h) Collar & cuff
i) Disposable gloves
j) Mask
k) Apron
l) Paper

Facility of room

a) Sink with plaster trap
b) Water supply
c) Electric supply
d) Exhaust fan
e) Clinical waste bin

Reference :

Panduan Praktikal Pemasangan Plaster Kast 1st Edisi 2003. Dato' (Dr) Muhd.Borhan Tan Abdullah. Page 5

Attachment (Casting) II

APPLICATION OF CAST/SLAB

1. Assessment of neurovascular status (pre and post application) Look for :
   - Pain – pain increased by passive movement of finger, toe, forearm or foot for affected limb.
   - Pulselessness – check radial pulse for upper limb.
   - Pallor – finger or toe became white and cold., blanching test for capillary refill or return.
   - Paralysis – an inability to flex and extend the fingers or toe
   - Paraesthesia – a feeling of numbness and/or tingling in the fingers on toe.

   * Remember check all the fingers and toes for affected limb. Compare with normal healthy limb.

2. Estimate roll for cast

Type of cast	Plaster of Paris			Orthoban		Stockinet	
	20cm	15cm	10cm	15cm	7.5cm	78 (LL)	56 (UL)
Above Elbow			4 - 6 roll		2 roll		/
Below Elbow			2 roll		1 roll		/
Below Knee		3 - 4 roll	1 roll	1 1/2 roll		/	
Above Knee	2 roll	6 roll		2 roll		/	

   - Length of the stockinet must be added half of the true length.
   - Preparation of slab
     - Consist of 8 layer of Plaster of Paris within stockinet.

3. Position of the limb
   - For upper limb elbow joint must be flex at 90 degree. If the fracture of mid shaft the hand must be in neutral position.
   - For the lower limb
     The alignment is:
     * Second toe must be aligning with patella and anterior superior iliac spine.
     * Ankle joint in 90 degree except for tendon Achilles injury.
     * Knee joint must be flex 10 – 15 degree.

4. The Length and Coverage of POP.
   4.1. For upper limb
      - Above elbow POP must be covered 2/3 of humerus until metacarpal proximal joint, thumb are free to extend.
      - Below elbow 2-3 finger breathe from elbow joint. Elbow joint can be flex at least 90 degree.
   4.2. For lower limb.
      - POP must be covered from 2/3 of femur until Metatarsal proximal joint, all toe can moved for above knee POP.
      - For below knee fibula head must be covered until Metatarsal proximal joint. Knee can be flex at least 90 degree.

Reference :

Panduan Praktikal Pemasangan Plaster Kast 1st Edisi 2003. Dato' (Dr) Muhd.Borhan Tan Abdullah. Page 19,20,23,62,64

Orthopedic Nursing 2nd Edition Anne Footner (1989) Baillier Tindall. London Page 77-83

Attachment (Casting) III

PATIENT EDUCATION

Important of cast/slab, understanding of the important of cast / slab can help patient take care the cast/slab seriously.

Able to recognize the neurovascular impairment can prevent the complication.

Care of green cast

a) Do not press the cast
b) Do not cover cast
c) Firm support for lower limb cast e.g. on pillow
d) Let dry naturally .Do not use heat
e) Do not walk on it!!

Do n' Don't

a) Always keep cast dry cover when shower
b) Don't write on it
c) Don't cut alter the cast

Patient care education

a) Personal hygiene
b) Well balance diet
c) Exercise e.g. static quadriceps for lower limb, upper limb, move all finger.
d) Teach pt how to use crutches.
e) Take medication as ordered.
f) Appointment date in orthopedic clinic.

Reference :

Orthopedic Nursing 2nd Edition Anne Footner (1989) Baillier Tindall. London. Page 82

13. MEDICO LEGAL CASES

Activity	Work Process	Standard	Requirement
1. Received Order.	Instructions for collection are either written or verbal. Type of specimen collection required • Poisoning specimen. • Alcohol Intoxication specimen. • Rape case specimen.	Written in patient clinical note or by verbal.	Patient Clinical Note
2. Confirmation of orders and patient identification.	Confirm that the orders are written clearly and identify the patient by the following: • Name. • MRN • Age and Sex • Identification Number.(I/C) • Location • Type of specimen required. Request Document for rape case include the following:- • Surat Kebenaran Pemeriksaan • Surat Arahan Pemeriksaan Polis. • Polis Pol. 55 – Pin. 2/83. Request Document for alcohol intoxication include the following:- • Surat Kebenaran Pemeriksaan • Surat Arahan Pemeriksaan Polis. • Borang Kimia 15B- Pin 2/82 **Attachment (Medico Legal) II**	Documentation. All official required document must be submitted with request.	Patient Clinical Note Polis Pol. 55 – Pin. 2/83. Borang Kimia 15A – Pin. 2/82 **Attachment (Medico Legal) I** Surat Kebenaran Pemeriksaan Pemeriksaan
3. Preparation	Prepare the specimen containers required and the specimen forms required. Blood Specimen :- • Blood for alcohol – Tube contains Oxalate, Citrate or Fluoride – **AND Not Heparin**	Clean and not expired specimen container.	Plain Blood Tube Tube contains Oxalate, Citrate /Fluoride. Plain Urine Container.

Activity	Work Process	Standard	Requirement
	• ABO (plain blood tube) • DNA (plain blood tube) • VDRL screening (plain blood tube) • HIV screening (plain blood tube) • Hepatitis screening • (plain blood tube) • Toxicology sturdy • (plain blood tube) Urine Specimen • FEME • Drug • Pregnancy Test Plain Urine Specimen Container.		
4. Labeling	Clear and legible handwriting with the following information:- • Name. • MRN • Age and Sex • Identification Number.(I/C0 • Location • Police Report Number • Type of specimen. Doctor signs all specimen forms with name written clearly.	Documentation.	Specimen Labels. Sticker Label Borang Kimia 15A – Pin. 2/82:
5. Specimen Collection	• Introduce one self and explain the purpose. • Identify the right patient. • Taking of the required specimen making sure that the quantity is enough and the procedure is right. • Fill the specimen into the required-labeled specimen bottles and close tightly.	Always observe the right technique of specimen collection.	Rylse Tube. Stomach Tube, Syringes. Specimen Container. Normal Saline
6. Sealing of Specimen	Once the specimen containers are filled and labeled sealing is done to prevent any tempering process of the collected specimen.	Prefect seal and with official chop.	Sealing wax Official chop

Activity	Work Process	Standard	Requirement
7. Handling Over.	The sealed specimens are ready to hand over to police personnel. Particular include in the handling over documentation are:- • Name of staff that handling over. • Medical Officer of the case. • Name of staff that assisted in examination and specimen collection. Acknowledgement of specimen by police personnel. The particular include;- • Name of the police personnel. • ID • Date and time of handling over. • Acknowledge signature. • Official Department Chop. All process of handling over is documented in the Specimen Dispatch Book.	Documentation	Medico legal specimen handling over book. Attachment M III Kimia 15A – Pin. 2/82 dibahagian (B) Specimen Dispatch Book.
8. Safe keeping of the specimen book.	The Specimen Book is kept safely in the department for any future reference.	Documentation	Specimen Dispatch Book. Attachment M IV

Reference:

Undang – Undang Perubatan Persekutuan Tanah Melayu 1976

Legal Implication In Routine Clinical Practice – Kasinathan, Phrabhakaran Nambiar, Dasan Swanminathan.

Akhta Racun Malaysia Ordinal 1952 Seksyen 30, Bab 366.

Buku Perundangan Sivil Polis Malaysia.

Attachment (Medicolegal) I

BORANG KIMIA

(Kimia 15A - Pin. 2/82)

BORANG KIMIA 15A – PIN. 2/82 TOSICOLOGICAL EXAMINATION

SPECIMEN SEAL

NOTE:–1. This form is to be completed by the **Medical Officer** in accor-Dance with the instructions given in No. 23 M. of H.9924 which is printed on the reverse of this form.

2. Where applicable the correct information is to be indicated by a tick in the appropriate box.

A. Kepada: **JABATAN KIMIA,**
* **PETALING JAYA/PULAU PINANG/KUALA TRENGGANU.**

(* Delete which is inapplicable)
The following securely sealed specimen are sent per for your examination:

	Marked	Collected at	on		Marked	Collected at	on
Vomit		a.m p.m		Blood ..		a.m p.m	
Stomach Washout		a.m p.m		Urine ..		a.m p.m	
Stomach & Contents		a.m p.m		Lung ..		a.m p.m	
Brain		a.m p.m		Preservative ..			
Liver		a.m p.m					
Kidney		a.m p.m					

B. **PARTICULARS OF PATIENT OR DECEASED**

(i) Name _____ Hospital Registration No. _____
Occupation _____ Age . . . . . _____
Date and time of admission _____ a.m/p.m on _____ Sex . . . . . _____
Date & time of death _____ a.m/p.m on _____ Nationality . . . . _____
(ii) Police Station _____ Report No. . . . . _____

C. **POISON SUSPECTED**
(i) Class of Poison suspected :

Corrosive ☐ Metallic ☐ Alkaloid ☐ Norcotic ☐
Insecticide ☐ Disinfectant ☐ Gaseous ☐ Unknown ☐

(ii) Identity of Poison Suspected (e.g. Caustic Soda, Arsenic, Opium, etc) _____
(iii) Date and time of suspected administration _____ a.m/p.m. on _____
(iv) Date and time of first symptom _____ a.m/p.m on _____

D. **SYMPTOMS.**
(i)

	Nil	Slight	Repeated		Yes	No		Yes	No
Vomiting	☐	☐	☐	Convulsions	☐	☐	Pupils dilated	☐	☐
Diarrhoea	☐	☐	☐	Delerium	☐	☐	Pupils Contrated	☐	☐
Abdominal Pain	☐	☐	☐	Papalysis	☐	☐	Cyanosis	☐	☐
Thrist	☐	☐	☐	Collapse	☐	☐	Dyspnoea	☐	☐
Salivation	☐	☐	☐	Coma	☐	☐			

(ii) Gum discoloration _____ skin _____
Mouth lesions _____
(iii) Nature of Breathing _____ Breath Odour _____ Pulse _____
(iv) Any other symptoms _____

E. **POST MORTEM SIGN.**

(i) Gastro-intestinal tract:

	Yes	No		Yes	No
Inflammation	☐	☐	Haemorrhage	☐	☐
Perforation	☐	☐	Corrosion	☐	☐
Ulceration	☐	☐			

(ii) Gastric Contents : Odour _____ Colour _____

(iii) Liver and Kidney :

	Yes	No		Yes	No
Fatty degeneration	☐	☐	Inflammation	☐	☐

(iv) Blood : Colour _____

(v) Lungs : Colour _____

(vi) Any other significant abnormalities _____

F. **THERAPEUTIC TREATMENT**

(i) Stomach wash out with :

Water ☐ Saline ☐ Bicarbonate ☐ Dil. Citric Acid ☐ Permanganate ☐

(ii) Has the patient been under the care of a physician? Yes ☐ No ☐

If so, what treatment was given? _____

(iii) Are analytical results required urgently to assist diagnosis? Yes ☐ No ☐

(iv) Was the deceased hospitalised prior to death? Yes ☐ No ☐

If so give a **full** recored of any drug therapy _____

G. **PRESERVATIVE USED** Nil ☐ Saturated Saline ☐ Alcohol ☐

NOTE :- 1. Formaline must **not** be used.
2. Preservative should **not** be added tto blood or urine specimens.

H. **GENERAL INFORMATION** (which the medical officer may deem relevant):

No telefon ☐

Tandatangan _____

Nama **(DALAM HURUF BESAR)** _____

Jawatan (CAP) _____

Attachment (Medico Legal) II

ALCOHOLIC INTOXICATION FORM 15B

SPECIMENS AND EXHIBITS FOR EXAMINATION IN CASES OF SUSPECTED ALCOHOLIC INTOXICATION

NOTE: —1. This form is to be completed by the Medical Officer in accordance with the instructions given in No. (25) in M. of H. 9924 which is printed on the reverse of this form.

2. Whter applicable, the correct information is to be indicated by a tick in the appreprate box.

Police Station : _____ Report No. : _____

SPECIMEN SEAL

FOR POLICE USE

Specimens and Exhibits, bearing this seal, received by me _____

at _____ a.m./p.m. on _____

Signed _____

To : THE DEPARTMENT OF CHEMISTRY,
* PETALING JAYA/PENANG.
(* Delete which is Inapplicable

The following sealed exhibits are sent per _____ for your examination:

A Blood for alcohol taken at _____ a.m./p.m. on _____

B Urine for alcohol taken at _____ a.m./p.m. on _____

C _____

D _____

Patient's Name _____ Hospital Registration No. _____

Occupation _____ Age _____

Nationality _____ Sex _____

Weight (lbs) _____

SUSPECTED ALCOHOLIC INTOXICATION

(a) Date and time fof examination _____ a.m./p.m. on _____

(b) Was the patient involved in an accicdnts? Yes ☐ No ☐

(c) Was the patient injured? Yes ☐ No ☐

SYMPTOMS

(a) NIL ☐

(b) PHYSICAL

Flushed face ☐	Staggering gait ☐	Yomiling ☐
Conjunctivae suffusion ☐	Alcoholic breath ☐	Drowsinces ☐
Pupil changes ☐	Speech confusion ☐	Speechlessness ☐
Tachycardia ☐	Inability to stand ☐	Stupor ☐
Slurred speech ☐	Hiccups ☐	Collapse ☐
Alaxia ☐	Eye convergence ☐	Coma ☐

(c) MENTAL

Talkativeness ☐	Mental confusion ☐	Boiserousness ☐
Euphoria ☐	Perseveration ☐	Shouting ☐
Gentality ☐	Excitability ☐	Weeping ☐
Abnormal self-confidence ☐	Behicosity ☐	Depression ☐

ANTICOAGULANT

Was a solid anticoagulant mixed thoroughly with the blood specimens? Yes ☐ No ☐

(post mortem specimen only)

Indicate substance used — Solid Sodium Oxalate ☐
Solid Sodium Citrate ☐
Solid Sodium Fluoride ☐

GENERAL INFORMATION (which the Medical Officer may wish to record, not provided for above):

_____

_____

_____

_____

Telephone Number ☐

Signed _____

Name in BLOCK LETTERS _____

Appointment (CHOP) _____

INSTRUCTIONS
No. (25) in M. of H. 9924

1. All speciments (including post morlem for alcohol) will be accompanied by Form Chemistry 15B. The Medical Officer is responsible for completing this form, but the forwarding of the specimens in police cases is always the responsibility of the Police who will give related Police information on Form Police 31.

2. SUITABLE SPECIMENS. Not less than 6 mls. of blood and 6 mls. of urine, if available, should be forwarded. Stomach contents, washout or vomitus are only for mothylated spirits or if blood and urine are both unobtainable. In post mortem specimens the blood specimen should not be taken form the heart or abdominal or thoracic cavities, ut from the cubital fossa, femoral or otheer peripheral vein.

3. ANTICOACULANT. Blood speciments must be protected against clotting (prepared tubes are available form the Department of Chemistry Laboratories at Jalan Sultan, Petaling Jaya or Tull Road, Penang.) No preservative should be added. Formalin is never added to any specimen requiring any chemical examination. For blood (not post mortem) a SOLID anticoagulant (SODIUM OXALATE. CITRATE OR FLUORIDE—not Heparin) should be THOROUGHLY MIXED.

4. ANTISEPTIC. Alcohol must NOT be used either for swabbing the area to be punctured or for sterilizing the bypodermic syringe. Aqeous Mercuric Chloride (1:1000) is a suitable antiseptic.

5. LABELLING. The labelling should include the following :

Name Hosp. Rg. no.

Nature of Specimen

Time Taken Date / /

Signature of Medical Office _____

6. SEALING. Blood or urine for alcohol should be forwarded in test tube or small bottle with a tight stopper. The container should be wrapped in paper or clean cloth, tied with string and sealed ONLY on the OUTSIDE of the wrapping.
7. FORWARDING. In Police cases, the exhibits and form should always be submitted through the Police. Clinical speciments, if sent by post will be sealed and REGISTERED. The Chem. 15B Form is forwarded separately and not in the same package as thespecimens.
In all cases the specimens should be forwarded without delay. If delay is inevitable they should be kept in a refrigerator.

Medical Assistant Board
Ministry of Health Malaysia

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