SOPS FOR MEDICOLEGAL WORK

The following standard operating Procedures should be followed:-

1. All Medicolegal cases in Accident & Emergency (A&E) will be registered at the reception registration counter and will be referred to the duty demonstrator in the medicolegal clinic by the referral of Emergency Medical Officer (EMO).
2. Duty demonstrator on medical duty (Duty Medicolegal Officer) is reasonable for issuance of Medicolegal report for all such cases.
3. In case of emergency where the life threatening condition is involved the patient is taken directly to emergency operation theater or ICU of medical emergency ward for treatment / any procedure purpose and will be referred to Medicolegal officer through emergency medical officer for issuance of Medicolegal report.
4. It is mandatory that no serious patient will be refused from treatment conditionally that he should be initially registered in Medicolegal clinic as lifesaving of the patient should be the prime object.
5. When a serious patient is treated in emergency medical or surgical unit and after being stabilized or discharged he / she is referred to back to Medicolegal clinic for registration of Medicolegal case and its reporting with the help of treatment notes from the concerned ward being furnished on request from that ward for fulfillment of Medicolegal formalities.
6. It is mandatory to maintain a single register in Medicolegal clinic for registration of Medicolegal cases.
7. In case of death of such patients the dead body will not be handed over to the attendants. It will be referred back to Medicolegal clinic DMLO through EMO for fulfillment of Medicolegal formalities.
8. All such dead bodies will be retained in the A&E department. The director A&E will deploy ~~sprat~~ separate staff for security the area allocated for such dead bodies.
9. The register of record of dead bodies will be maintained by DMLO in Medicolegal clinic in collaboration with AMS / DMS and concerned ward on duty in A&E.
10. The presence of DMLO shall be strictly monitor by head of department / chairman of Forensic Medicine Department, King Edward Medical University, Lahore to avoid any inconvenience.
11. In the finalization of MLR the DMLO in addition to the treatment notes can request help of any concerned expertise of the Mayo Hospital, Lahore.

Head of the Department
Forensic Medicine & Toxicology
King Edward Medical University, Lahore

Accident & Emergency Department
King Edward Medical university
Mayo Hospital Lahore

SOPs FOR TRIAGE IN ACCIDENT & EMERGENCY DEPARTMENT

SOP Number	SOP/MHL/ED/002
Version	2.0
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Document Manager (job title)	Head of A&E Department
Date of Implementation	20 January 2019
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Related Procedural Documents	PHC MSDS Reference Manual 2013

Approvals	Name	Date	Signatures
Prepared By	Dr. M. Naeem Safdar Chap	24 October 2018	
Reviewed By	Prof. Dr. Yar Muhammad	10 November 2018	
Approved By	Policy and Procedures Committee A&E	12 January 2019	

Version	Date Ratified	Brief Summary of Changes	Author
2	10/11/2018	Updated SOPs as per ESI Triage – Previous were issued under No. AMS(PHCC)/11642/MH-Lahore dated 14-02-2016	Dr. M. Naeem Safdar

CONTENTS

1. INTRODUCTION

Triage is the process of determining the priority of treatments based on the severity of the condition of patient. This rations patient treatments efficiently when resources are insufficient for all to be treated immediately. This document describes the policy to ensure that all aspects of the management of medicines within the Accident & Emergency Department comply with Minimum Standards of Service Delivery (MSDS) by Punjab Healthcare Commission(PHC).

2. PURPOSE

This policy is designed to:

- ensure that all aspects of the triage sops for A&E have been covered.
- provide clear standards and procedures for staff carrying out triage.

3. SCOPE

This policy applies to Accident & Emergency Department

4. DEFINITIONS AND ABBREVIATIONS

MSDS	Minimum Service Delivery Standards
PHC	Punjab Health Care Commission
A&E	Accident & Emergency Department
Ind.	Indicator
PMDC	Pakistan Medical & Dental Counsel
Physician	Includes but not limited to Professor, Associate Professors, Assistant Professors, Senior Registrars, Consultants, Medical Officers, Postgraduate residents, House Officers
EMO	Emergency Medical Officer

5. SOPs for Triage:

Punjab Health Care Commission MSDS **Standard 3, Indicator 18** states Policies and procedures guide the triage of patients for initiation of appropriate care.

5.1. Dedicated Triage Area:

Pre-registration Triage shall be done in a dedicated Triage Area with couch to examine the patient if needed. Clear direction for incoming patients shall be displayed and will be guided by the staff present at the emergency gate.

5.2. Patient Arrival:

Walk-in patients shall arrive in triage area. Patients with limited mobility shall be received by the paramedical staff at stretcher/wheelchair area and shall bring the patients to triage area on wheelchair/stretcher. Upon arrival, triage staff shall introduce himself/herself to the patient to break the ice and make the patient comfortable.

5.3. Triage Manager:

Triage shall be done by Triage Nurse. If she is not clear about triage category of patient, she shall refer the patient to Emergency Medical Officer in Triage Area who shall decide triage category of patient after evaluation.

5.4. Referral to OPD from Triage Area:

If a patient needs to be referred to OPD , he/she shall be directly asked to go to OPD from triage. However such decision to refer patient to OPD shall only be taken by EMO. Triage nurse shall direct such patients to EMO in triage area who shall then re-assess the patient and refer to OPD. Triage nurse shall not refer patients to OPD on his/her own.

Record of patients referred to OPD shall be maintained in a register , mentioning the following

Sr. No.	Patient Name	S/O,D/O,W/O	Age/Sex	Presenting Complaint	Known Diagnosis if any	Referred to which Dept

5.5. Triage Levels:

Triage will be done according to ESI (Emergency Severity Index) which can be found online here (Link). Patients will be categorized into five Priority (P) categories as follows

P1: Immediate Resuscitation

P2: Emergency

P3: Urgent

P4: Semi Urgent

P5: Non Urgent

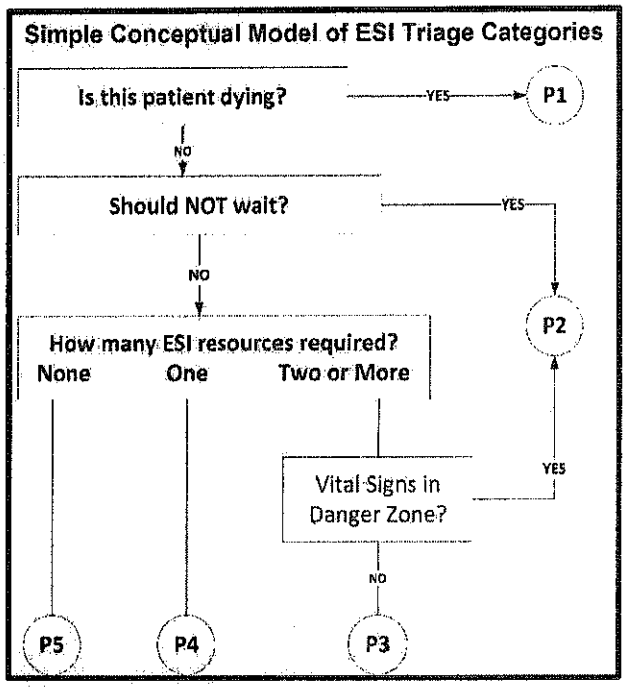

Figure 1 : Simple Conceptual Model of ESI Triage Categories

5.6. ESI Resources:

Resources	Not Resources
Labs (blood, urine)	History & physical (including pelvic)
ECG, x-rays CT-MRI-ultrasound angiography	Point-of-care testing
IV fluids (hydration)	Saline or heplock
IV, IM or nebulized medications	PO Medications Tetanus immunization Prescription refills
Specialty consultation	Phone call to PCP
Simple procedure = 1 (lac repair, Foley cath)	Simple wound care (dressings, recheck)
Complex procedure = 2 (conscious sedation)	Crutches, splints, slings

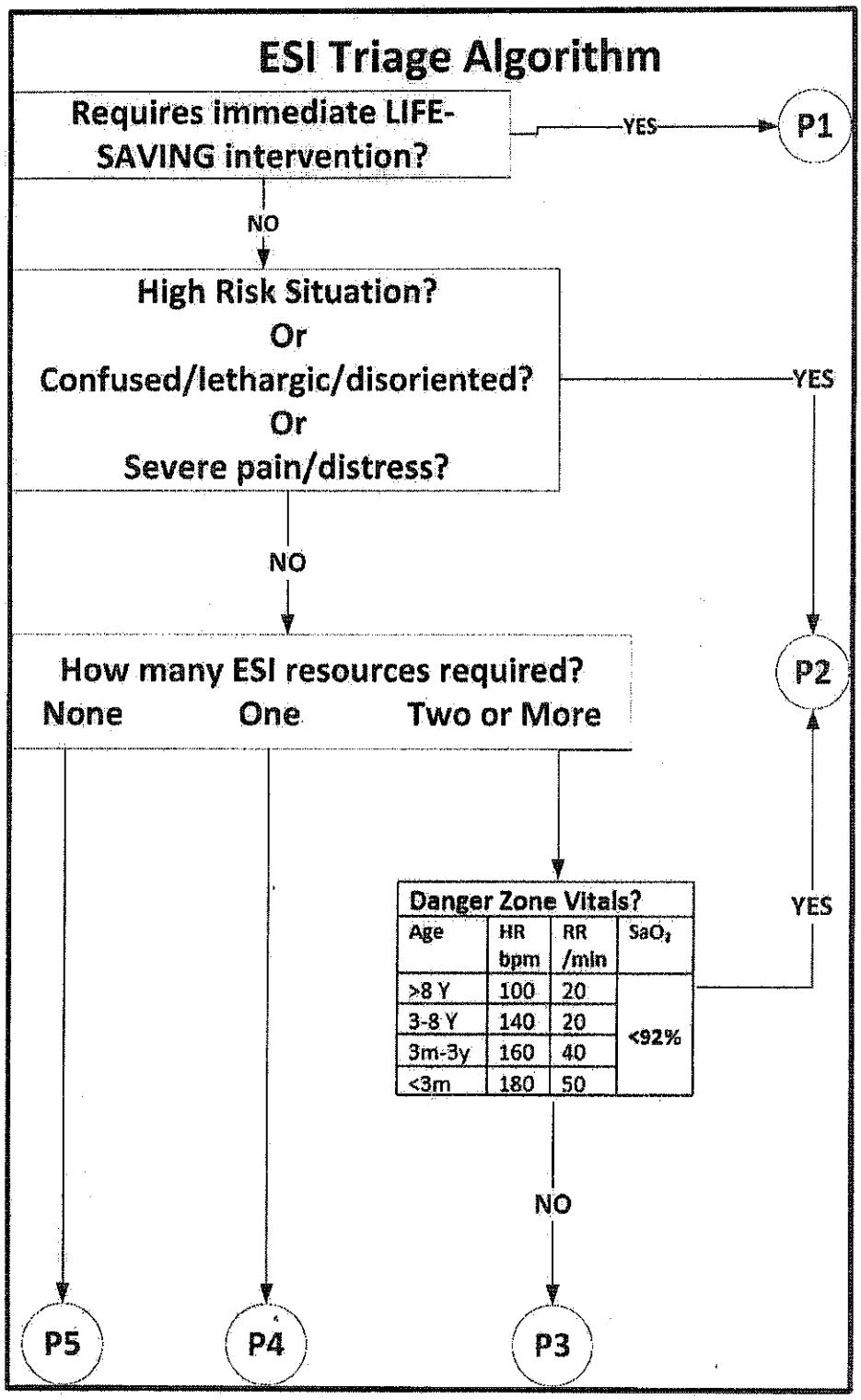

Figure 2 : ESI Triage Algorithm

In order to simplify, these categories have been merged to define three level triage system. Patient will be given colour coded forms according to the triage level.

TRIAGE LEVELS					
P1	LEVEL-1	RED	IS THE PATIENT DYING?	Airway Breathing Pulse Needs lifesaving medication or procedure	Cardiac Arrest, Respiratory Arrest, Major Trauma, Anaphylaxis, Hypoglycemia, Major Limb amputation, Poisoning
P2			IS THIS A PATIENT WHO SHOULD NOT WAIT?	1. High risk situation? 2. Confused/Disoriented 3. Severe Pain 4. Severe Distress	New onset confusion Chest injuries, Severe pain Active chest pain – suspected ACS Signs of Stroke Immunocompromised with Fever Shock
P3	LEVEL-2	YELLOW	HOW MANY ESI RESOURCES NEEDED? Vitals ?	More than 1 Vitals not in danger zone	Pneumonia, Abdominal Pain , Malena, DVT
P4	LEVEL-3	GREEN		One Stable vitals	Ankle sprain, UTI, Simple Laceration
P5				None Stable vitals	Chronic Headache, came for BP Check, wants medication

5.7. Referral To Concerned Treatment Area:

Triage staff shall mention the treatment area on triage form where patient will be managed.

5.8. Time to full Assessment & initiation of Management by Doctor

Time to full assessment and initiation of management by doctor is determined by patient category as follows:

Level	Priority	Referred To	Registration after Triage before going to Treatment Area	Vitals Done In Vitals Area	Maximum Time (minutes) To Full Assessment And Initiation Of Management By Doctor*
1	P1	Medical ICU/ Surgical Bay	No , to be done later through attendant	No	0
	P2	Surgical/ Medical Bays	No , to be done later through attendant	No	10
2	P3	Surgical/ Medical Bays	Yes	Yes	30
3	P4	Filter Clinic/COD**	Yes	Yes	60
	P5	Filter Clinic/COD	Yes	Yes	120

* Time as in PHC MSDS Reference Manual 2013 **COD: Causality OPD

If a surgical patient having is seriously injured and bleeding, he/ she will be taken straight to Emergency Operation Theater (EOT) for further management.

5.9. Triage Form:
Each triage form shall have minimum of following mentioned on it by triage staff.

i. Name of patient
ii. Age/Gender
iii. Presenting Complaint
iv. Triage Category & Level
v. Treatment Area to which patient is being referred
vi. Initials of triage staff
vii. Triage Time

5.10. Registration:
After triage, Level 2,3 patients shall arrive at registration counter where they will be issued registration slip. Level 1 patients shall skip this and shall be rushed to concerned treatment area immediately and their registration shall be done later through their attendants.

5.11. Entry of Referral Treatment Area:
After registration, patients shall get their entry in register to keep record of treatment area where they have been referred to by triage staff.

5.12. Vitals:
After entry, level 2,3 patients shall arrive in Vitals Area for vitals monitoring. Level 1 patients shall skip this and will directly go to treatment area after triage.

Staff nurse shall check and mention following vitals on the patient registration slip

i. Pulse bpm
ii. Blood Pressure mmHg (Not compulsory for triage as per ESI Algorithm)
iii. Respiratory Rate (per minute)
iv. Oxygen Saturation (SaO_2 %)

If any of the vitals are in danger zone, patient shall be re-triaged accordingly i.e. P3 to be re-triaged as P2.

Due to the much higher patient influx, vitals shall be checked by electronic Vitals Monitors. Errors in electronic equipment are always a possibility and doctor in treatment areas shall confirm the vitals themselves before initiating any treatment based solely on the electronic monitor reported vitals.

5.13. Arrival in Treatment Area:
After vitals, Level2,3 patients shall be directed to concerned treatment area depending upon their turn.

5.14. Medico legal Cases:
If medico legal examination is needed, patient will be referred to Medico legal Officer who will conduct examination as per policy. However, critical patients will be directly sent to ICU to initiate management/ resuscitation and medico legal proceedings shall be initiated after that.

5.15. Re-Triage:

If a patient condition changes any time, then re-triage will be done and patient managed accordingly.

5.15.1. Up-triage:

EMO/PGR can up-triage the patient and referred to concerned treatment area (ICU / Medical, Surgical Bays)

If any patient is being referred to ICU from treatment area as patient is very sick or has become unstable, that patient shall be accompanied by doctor from bays to ICU and hand over patient to ICU staff with proper over

5.15.2. Down-Triage:

Down triage shall be done with consultation of Emergency consultant and patient shall not be down triaged and shifted to lower treatment areas without that (i.e. patient shall be shifted from ICU to bays or from Medical Bays to COD ONLY AFTER CONSULTANT ADVICE.)

5.16. Conflict Resolution:

If a patient has been referred to any treatment area based on triage (e.g. Medical Bay) and the doctor considers patient should have been referred to another treatment area (e.g. Surgical Bay/ COD), doctor shall seek the advice of consultant who shall assess and refer the patient to the appropriate treatment area. No doctor shall refer patient to another treatment area / Back to COD without consultant advice so that patients don't suffer.

5.17. Waiting Area for Level-2,3 Patients:

If Level 2,3 patients are waiting for their turn due to overload, triage staff shall ensure the following

5.17.1. Clarify to the patient whether he/she can eat or drink anything

Sometimes the patient should not eat or drink while waiting to see a doctor because the patient may need to undergo a test or an operative procedure requiring the stomach to be empty.

5.17.2. Clarify the complaint of pain and assess the requirement of pain relief.

Triage medical staff/nurse should clearly ask the patient about pain or any discomfort while waiting for the final disposal.

5.17.3. Medications

Triage staff should elicit the history of medications from the patient.

5.17.4. Contact the next of kin as soon as possible.

Triage staff should explain the condition of the patient to the relatives/friends accompanying the patient. In case the patient is brought to the ED by others, then the triage staff shall contact family, relatives or friends of the patient to let them know that the patient is in Emergency.

5.17.5. Interpreter

Triage staff should arrange an interpreter for the patient, if necessary.

5.18. Triage Pathway:

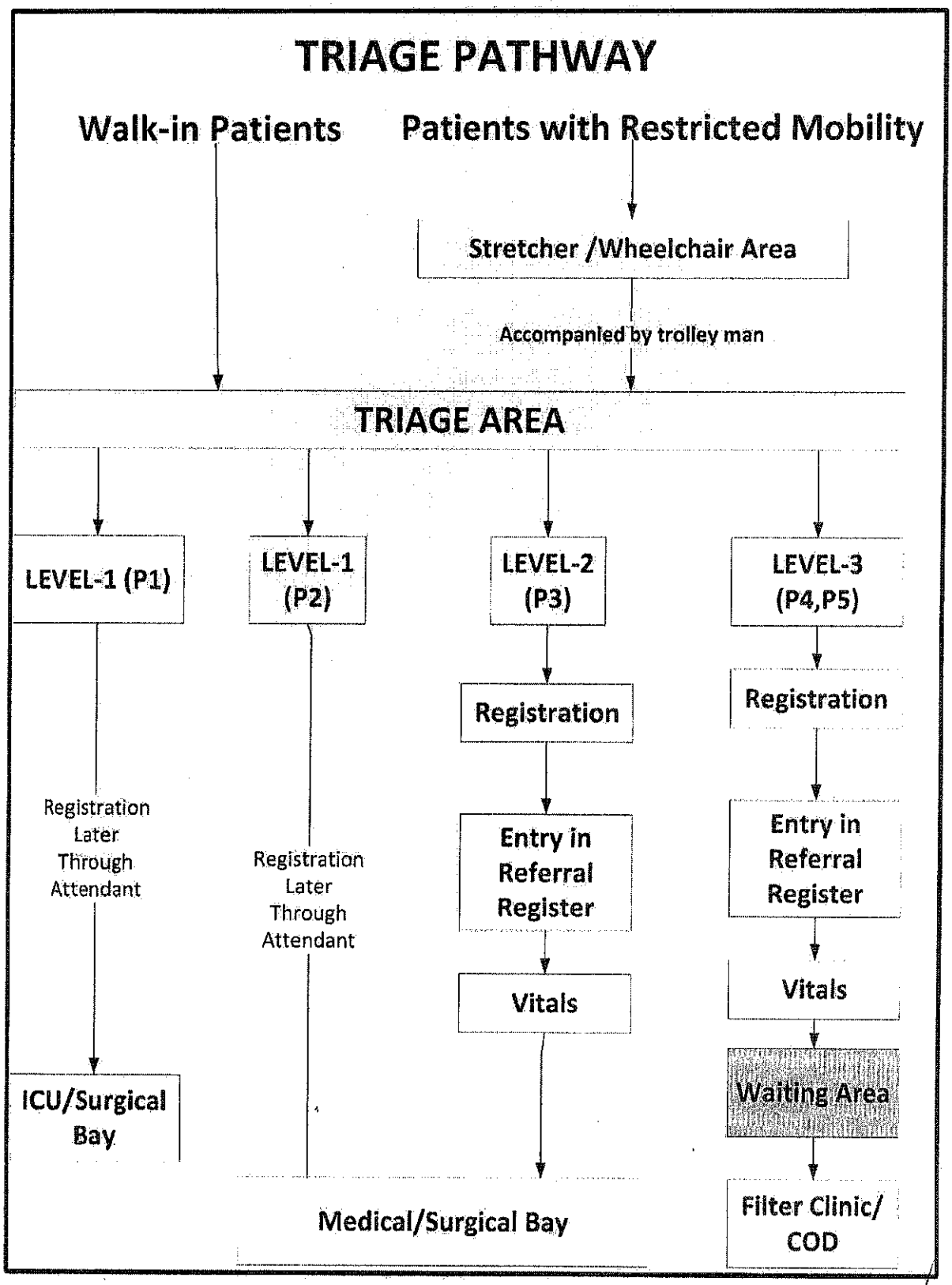

Figure 3: Triage Pathway Accident & Emergency Department KEMU/Mayo Hospital Lahore

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Accident & Emergency Department
King Edward Medical university
Mayo Hospital Lahore

MANAGEMENT OF MEDICATION (MOM) POLICY IN ACCIDENT & EMERGENCY DEPARTMENT

SOP Number	SOP/MHL/ED/003
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Version	1.0
Name of responsible (ratifying) committee	A&E Policy and Procedures Committee
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Review date	12 January 2021 (unless requirements change)
Related Procedural Documents	PHC MSDS Reference Manual 2013 Mayo Hospital MOM Policy 2017

Approvals	Name	Date	Signatures
Prepared By	Dr. M. Naeem Safdar Chap	24 October 2018	
Reviewed By	Prof. Dr. Yar Muhammad	10 November 2018	
Approved By	A&E Polic and Procedures Committee	12 January 2019	

Version	Date Ratified	Brief Summary of Changes	Author
1		First Issue	Dr. M. Naeem Safdar

CONTENTS

1. INTRODUCTION

Medication Errors are one of the most common issues with number of preventable drug related injuries to the patients. Medication Errors are also among the frequently reported types of adverse event. This policy will ensure that all aspects of the management of medications (prescription, dispensing, administration), etc. within the Accident & Emergency Department have been covered.

This policy is in line with prescribed standards of Punjab Health Care Commission (MSDS) and Mayo Hospital MOM Policy 2017 approved by Pharmacy & Therapeutics Committee.

2. PURPOSE

This policy is designed to:

- ensure that all aspects of the management of medicines within the within the Accident & Emergency Department comply with MSDS Punjab Healthcare Commission.
- ensure the safety of all personnel, including patients, visitors and staff
- provide clear standards and procedures for staff carrying out their duties involving medicines.

3. SCOPE

This policy applies to Accident & Emergency Department.

4. DEFINITIONS AND ABBREVIATIONS

MOM	Management of Medications
MSDS	Minimum Service Delivery Standards
PHC	Punjab Health Care Commission
A&E	Accident & Emergency Department
Ind.	Indicator
PMDC	Pakistan Medical & Dental Counsel
IM	Intramuscular
IV	Intravenous
SC	Sub cutaneous
Syp.	Syrup
Inj.	Injection
Inf.	Infusion
Physician	Includes but not limited to Professor, Associate Professors, Assistant Professors, Senior Registrars, Consultants, Medical Officers, Postgraduate residents, House Officers
PO	Per oral
OD	Once daily
BD	Twice daily
TDS	Thrice a day
QID	Four times a day
NKA	No Known Allergies
STAT	Immediately
ACLS	Advanced Cardiac Life Support

5. POLICY:

5.1. Standard 8: MOM-1: Policies and procedures exist for the prescription of medications.

5.1.1. INDICATOR 51. DOCUMENTED POLICIES AND PROCEDURES EXIST FOR THE PRESCRIPTION OF MEDICATIONS.

5.1.2. Ind. 52: THE ORGANIZATION FORMALLY DETERMINES WHO CAN WRITE ORDERS.

1. Only KEMU/Mayo Hospital employees having Certificate of Full Medical Registration by PMDC ,who have been authorised to perform duty in A&E ,can prescribe medicine.
2. House Officers can't prescribe medicine on their own. If House officer has written down prescription, that shall be countersigned by Medical Officer/Post Graduate Resident and above.
3. No medicine shall be administered without a Written Order of a physician.
4. Medicine prescribed by an outside Mayo Hospital doctor shall not be administered in the Emergency unless authorized by an A&E doctor of Mayo Hospital.

5.1.3. Ind. 53: ORDERS ARE WRITTEN IN A UNIFORM LOCATION IN THE MEDICAL RECORDS.

All the medication orders in Emergency shall be written on the area specified as "Treatment" on the computerized Emergency slip or File.

5.1.4. Ind. 54: Medication Orders are Clear, Legible, Dated, Timed, Named and Signed

5.1.4.1. Doctor shall write down prescription clearly and legibly mentioning following elements:

i. Date and time of order
ii. Drug Formulation (Tab, Syp. Inj. etc.)
iii. Drug Name in BLOCK LETTERS , Generic Name with Brand name in brackets.
iv. Dose of Medicine
v. Route of Administration (IV, IM, SC, PO etc.)
vi. Frequency of Medication (STAT, SOS, OD, BD,TDS,QID etc.)
vii. Physician Signatures & Stamp

5.1.4.2. Any known allergies to any medication shall be documented on top in the treatment area. If there are no known allergies, **NKA** should be mentioned. e.g.

> Rx: NKA
> 08/10/2018 10:00 AM Inj. CEFTRIAXONE (ROCEPHIN) 1 Gram IV STAT ATD Sign & Stamp

5.1.4.3. All transcribed medication orders shall be reviewed by the pharmacist before administration of dose (if pharmacist available).

5.1.6. Ind. 55: POLICY ON VERBAL ORDERS IS DOCUMENTED AND IMPLEMENTED.

Verbal orders shall be carried only in resuscitation /exceptional circumstances. Following SOPs shall be observed.

1. Only one STAT dose can be prescribed verbally.
2. More than one doses can be prescribed verbal only during ACLS protocol.
3. Verbal orders shall initially be taken by a Nurse, and repeated to a second Nurse.
4. The Nurse should repeat the order to the doctor to ensure that the details are correct.
5. **The Nurse receiving the order must record the order on the drug treatment sheet.** The entry is to be in red ink and should also include the time, date, name of prescriber and the Nurse's signature, as well as the second Nurse's signature.
6. **The drug treatment sheet is to be countersigned by the doctor who gave the verbal order at the earliest possible time, within 24 hours.**
7. If they are in any doubt, the Staff Nurse should seek clarification from the doctor until they are satisfied about the correctness of the order.
8. NO Verbal Orders for High Alert Medications and High Risk Medications shall be carried on.

5.1.6. Ind. 56: THE ORGANIZATION DEFINES A LIST OF HIGH-RISK MEDICATION

List of High Risk Medications:

i. Potassium Chloride (KCl)
ii. Magnesium Sulphate (MgSO4)
iii. Streptokinase /tPA
iv. Anti-Snake Venom
v. Intravenous Immunoglobulins

5.1.7. Ind. 57: HIGH-RISK MEDICATION ORDERS ARE VERIFIED PRIOR TO DISPENSING.

All High Risk Medication shall be double checked by staff nurse before administration based on following SOPs.

1. Independently comparing the Label and Product Contents in hand versus the written order.
2. Independently verifying any calculations for doses that require preparation (e.g., any time the medication is not dispensed in the exact patient-specific unit).
3. Assuring the accuracy of infusion pump for continuous intravenous infusions of medication

5.2. STANDARD-9. MOM-2: POLICIES AND PROCEDURES GUIDE THE SAFE DISPENSING OF MEDICATION

IND.58 - Documented policies and procedures guide the safe storage and dispensing of medications

IND.59. The policies include a procedure for medication recall

IND.60. Expiry dates are checked and documented prior to dispensing

IND.61. Labelling requirements arc documented and implemented by the organization

Hospital Policy is being followed by Emergency Pharmacy which was approved by Pharmacy and Therapeutic Committee (Annexure 1)

5.3. STANDARD-10. MOM-3: THERE ARE DEFINED PROCEDURES FOR MEDICATION ADMINISTRATION

5.2.1. Ind. 62: MEDICATIONS ARE ADMINISTERED (DISPENSED) BY THOSE WHO ARE PERMITTED BY LAW TO DO SO.

5.2.1.1. Authorised Staff to administer Medications:

Only following Hospital staff who has been authorised to perform duty in A&E Dept. can administer medication

i. PMDC registered Doctors (All type of medications)
ii. Staff Nurse (All type of medications)
iii. Pharmacists & pharmacy technicians (Medications except injectable)

5.2.1.2. Primary Responsibility of Drug Administration in A&E:

1. All the medication shall be prepared by Staff Nurse.
2. All the medication shall be administered by staff nurse.
3. PMDC Registered doctors can also administer drug if required.
4. Medical students/nursing students can administer medication only under supervision of a registered Doctor/Nurse.
5. Administration of following medication shall not be initiated unless there is a doctor on bedside to observe the patient.
   i. Inj. STREPTOKINASE / tPA
   ii. Anti-Snake Venom
   iii. Immunoglobulins (Tetanus immunoglobulins etc.)
6. No medication shall be administered until it has been signed and stamped by MO/PGR or above with their by name stamps.

5.2.2. Ind. 63: PREPARED MEDICATIONS ARE LABELLED PRIOR TO PREPARATION OF A SECOND DRUG.

Prepared medicines are labelled immediately upon preparation, including, at minimum;

i. Patient's full name and medical record number (MRN)
ii. Full generic drug name.
iii. Drug administration route.
iv. Total dose to be given.
v. Total volume required to administer this dosage.
vi. Date of administration.
vii. Date and time of preparation.
viii. Date and time of expiration when not for immediate use.

Immediate Use means to be administered within 02 hours.

5.2.3. Ind. 64: PATIENT IS IDENTIED PRIOR TO ADMINSTRATION

Prior to administering medication, patient must be identified. Following SOPs shall be observed.

i. Prepare medication for one patient at a time.
ii. Give the medication to the patient as soon as you prepare it.
iii. Do not talk to others and ask them not to talk to you when you are giving medication.
iv. Do not stop to do something else in the middle of giving medications.
v. Pay close attention at all times when you are giving medications.
vi. Must compare the patient's name on the prescription label, the medication order and the medication log. Make sure that they match.

If they do not match, or if there is any doubt about whether you are giving the medication to the right individual, ASK QUESTIONS!

vii. If you make a mistake, inform the patient's physician, or take the individual to the emergency ICU ground floor for evaluation if you consider patient is having /about to have immediate side effects/harm.

5.2.4. Ind. 65: MEDICATION IS VERIFIED FROM THE ORDER PRIOR TO ADMINISTRATION

i. Read the medication label carefully. Check the spelling of the medication carefully. If there is any doubt about whether the medication name is correct, stop and call the pharmacist before you give the medication.
ii. Read the medication order carefully. Make sure that the medication name on the order matches the medication name on the label.
iii. Read the medication log carefully. Make sure that the medication name on the label, the medication order and medication log match before giving the medication.
iv. Look at the medication. If there is anything different about the size, shape or colour of the medication, call the pharmacist before you give it. It could be that you have been given a different generic brand of the medication. But sometimes when a medication looks different it means that you have the wrong medication.
v. **All high risk medications which are known to cause serious reactions, should be checked for hypersensitivity reactions before administration** (intra dermal check) e.g. Penicillin, Ceftriaxone, tetanus immunoglobulins, etc.

5.2.5. Ind. 66: DOSAGE IS VERIFIED FROM THE ORDER PRIOR TO ADMINISTRATION

Ensure the following Dose Verification SOP by comparing the Dose on the:

i. Prescription Label
ii. The Medication Order

5.2.6. Ind. 67: ROUTE IS VERIFIED FROM THE ORDER PRIOR TO ADMINISTRATION.

Ensure the following Route Verification SOP by comparing the Route on the:

i. Prescription Label
ii. The Medication Order

5.2.7. Ind. 68: TIMING IS VERIFIED FROM THE ORDER PRIOR TO ADMINISTRATION.

Ensure the timing of administration of medication by checking the Medication Order

5.2.8. Ind. 69: MEDICATION ADMINISTRATION IS DOCUMENTED.

The following instructions must be acted upon for proper documentation;

i. Each time a medication is administered, it must be documented and signed with full name/stamp.
ii. Documentation of medication must be done at the time of actual administration.
iii. All documentation required for the patient, must be completed on the medication log individually and not all together as a batch.
iv. Documentation should be done in BLUE or BLACK ink.
v. NO PENCIL or WHITE OUT can be used.
vi. NEVER OVER WRITE documentation.
vii. In case of a mistake in documenting the medication log, CIRCLE the MISTAKE and write a note on the log to explain what happened.
viii. Double check documentation done by you after finishing the medication process and again at the end of the duty.
ix. Coordinate with a colleague to have documentation done by you double-checked for you, ask him/her to go over your medication log documentation to make sure that it is complete and vice versa.

5.2.9. Ind. 70: POLICIES AND PROCEDURES GOVERN PATIENT'S SELF-ADMINISTRATION OF MEDICATIONS (SAM's).

i. The SAM, either those brought into the organization or those prescribed or ordered within the organization, is known to the patient's physician and noted in the patient's record.
ii. Patients' own medicine may be reused for self-administration

5.2.10. Ind. 71: POLICIES AND PROCEDURES GOVERN PATIENT'S MEDICATIONS BROUGHT FROM OUTSIDE THE ORGANIZATION.

SOPs on Patient's Own Drugs

"Every medicine that is brought into hospital by a patient and is either prescribed for them by their registered medical practitioner or purchased for them by others is classified as Patient's Own Drugs (POD)". PODs can only be used in the hospital when permitted by patient's physician

5.4. 6 Rights Prior to administration of Medications:

Staff shall ensure that following 6 rights prior to administration of any medication

i. Right Patient

ii. Right Drug

iii. Right Dose

iv. Right Route

v. Right Time

vi. Right Documentation

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Dean Faculty of Medicine & Allied Specialties,
Registrar, KEMU,
Chairman Department of Medicine
Chairman A&E Polices & Procedures Committee

medicine may be given to the patient under the signature of locally treating doctor and this should be authenticated by the prescribing consultant within 24 hours.

4. SAFE STORAGE OF MEDICATION

Storage areas must be secure and accessible only to designated and authorized person. Proper consideration should be given to the safe storage of poison and flammable compounds. A minimum of quarterly inspections should be carried out, under the direction of the Pharmacist, of all medication storage areas within the hospital. Written record shall verify that safe storage practices including the following,

Written record shall verify that safe storage practices including the following.

i. AMS (Stores) will ensure the safe/ secure storage of drugs / medicine / therapeutic goods.
ii. Separate Register will be maintained in the concerned premises reflecting the opening and closer time of store along with signature of the authorized officers / official.
iii. A minimum of quarterly physical inspections should be carried out by the AMS, and monthly inspection by the DDC, and weekly inspection by the concerned Pharmacist for checking of stocks randomly in the define storage premises. And observation shall be recorded in separate registers.
iv. Head Nurses of the Wards / Theatres will ensure that medications are stored securely and are available to the authorized personnel only.
v. Narcotic, controlled drugs and High Alert Medicines shall be properly listed and stored with proper measures of security.
vi. If necessary then the patient's own medications shall be stored securely and separately at ward level.

5. PROPER STORAGE OF MEDICATION

AMS (Stores) shall ensure the implementation of the following parameter by formulating / displaying requisite SOPs in respective area. The SOPs shall clearly speak about the Name of the officers / official and tasks assigned.

i. External medications should be stored separately from internal medications.
ii. The storage is properly maintained using stacks, bin cards and inventory control documents.

are stored.

iv. Standards of neatness and cleanliness are consistent with good medication handling practices.

v. Reconstituted medications are properly labeled with expiry and preparation date.

vi. Illegible labels are replaced.

vii. Liquid bottles are clean and free of spills.

viii. Disinfectants and drugs for external use are stored separately from internal and injectabeles medications.

ix. Medications are stored properly and medications requiring special environmental conditions for stability are properly stored.

x. Non-pharmaceuticals are stored separately.

xi. Expired or obsolete medications are not stocked.

xii. Medications no longer required at wards / theatres are returned to the stores.

xiii. Medications which may be required on an urgent or emergency basis are in adequate supply and readily available.

6. DISPENSING OF GENERAL MEDICINE

Dispensing shall be restricted to the pharmacist or pharmacy technicians under the direction and supervision of the pharmacist.

a. An automatic Stop-Order Procedure shall be developed at ward level by the HOD, for antibiotics, narcotics and other classes of drugs for which a limited duration of therapy is desirable. There shall be a system in place (notified/displayed by the HOD of Wards) to notify the physician of the impending expiration of the duration of prescribed medication to ensure appropriate patient reassessment.

b. Stat Orders shall be processed and dispensed according to specific written procedures in accordance with policy (Ward Pharmacist in consultation with HOD will prepare and display the SOPs.)

c. Multi-Dose Vials are dated upon first puncture; their maximum use should be defined (Ward Pharmacist will notify / display guidelines in accordance with recommended official compendiums.).

d. The Ward Pharmacist in consultation with the HOD will prepare and display list of acceptable substitutes Therapeutically Equivalent Products without consulting with the prescriber (i.e. therapeutic interchange, equivalent oral dosage form

generic substitute.

7. DISPENSING OF HIGH RISK MEDICATION

All Heath care provider are requested to double check all High Risk Medications before administering. Special attention shall be given to:-

i. To independently compare the label and product contents in hand verses the written order.

ii. To independently verify calculations for doses that requires preparation.

iii. To assure the accuracy of infusion rate / pump programming for continuous I v infusions of medications.

iv. To certify to the effect that the Nurse/dispenser has actually verified the HRM order before administration has to be inserted in the record of the patient and signed by the administering professional.

v. The following strategies can be adopted to avoid errors involving High Risk Medications.

   a. Avoid storing LASA drugs next to each other.

   b. Use of tall man lettering

8. Medication Recall Procedure

Recall is a process for withdrawing or removing a pharmaceutical product from the wards / theatres / stores because of defects in the product, complaints of serious adverse reactions to the product and/or concerns as per reports of DTL Moreover, manufacturer can also recall the product after disclosing reasons of recall. The Drug Inspector of the Hospital will immediately inform to the authorities about the product under recall and after approval by the MS Mayo Hospital will circulate recall letter to all the concerned area. The components of the recall shall include product name (generic/brand), batch number, manufacturing date, expiration date, manufacturer name / address, reference supply order number and date, approved rate per unit and quantity included in recall.

All recalls other than DTL report based shall be subject to approval of phramcovigilance / Pharmacy and Therapeutic Committee

The pharmacist at receipt end will be responsible for conducting physical examinations of all medication to ensure their being intact and in date at the time of use. However Head Nurses will be responsible at Ward level. The DDC main Medicines Store will prepare and display SOPs in this regards focusing upon;

i. Internal orders to check the expiry dates on daily/monthly/quarterly/ yearly basis should exist.

ii. Once a drug is re-packaged in separate containers (i.e transferring reconstituted injectabeles from original vials into the disposable syringes) there is a reduction in the shelf life of the product, therefore, original expiry dates should not be used. Such practices are not allowed.

iii. Expired products are not allowed to be placed in the working shelves. These shall be separately and securely stored for further proceeding.

iv. The pharmacists and pharmacy technicians in the stores / dispensing areas are responsible for the inspection of all drugs products in the working stock. Each technician will have a portion of the stock from the main store assigned for inspection. A visual inspection for deterioration and expiry date shall be a normal part of the dispensing and checking procedure.

10. Labeling and Packing Rules

All the Health Care providers are requested to implement the following guidelines if and when required.

i. The Government of Pakistan Drugs (labeling and packing) rules of 1986 govern the manner of labeling of pharmaceutical products and the hospital pharmacist shall ensure compliance of these labeling requirements and conformance to the terms and conditions of the contract agreement before acceptance of received supplies.

ii. Heath Care Providers shall label all medications, medication containers (syringes, medicines cups) or other solutions. This ensures safe medication practices and addresses a recognized risk point in the safe administration of medications in pre-operative and other procedural settings. Errors, sometimes tragic, have resulted from medications and other solutions removed from their original containers and placed into unlabeled containers.

medication syringe/vial will be labeled with drug strength, date, time and secured in such a way that it can be readily determined that the contents are intact and have not expired. At a minimum, all medications are labeled with the following information;

a. **Medication Labeling Checklist**

- Patient's Name.
- Medication name, strength (concentration), and amount.
- Expiry date when not used within 24 hours.
- Expiry time when expiry occurs in less than 24 hours.
- The date prepared and the diluents, for all compounded IV admixtures and parenteral nutrition solutions.

b. **Bedside Medication Labeling Check List**

- Medication name.
- Medication strength (concentration).
- Medication amount (If not apparent from the container).
- Expiry date is required if the medication will not be used within 24 hours.
- Expiry time is required if the expiry will occur in less than 24 hours
- Date prepared and the preparer's initials.
- Any remaining medication must be discarded immediately after the case/procedure.

c. **Labeling requirements are documented and implemented by the organization.**

When preparing medications for multiple patients, or when the person preparing the medications is NOT THE PERSON administering the medication, the label must include the "Patient name".

In surgical or other procedural settings (radiology, other imaging services, endoscopy units, and patient care units) where "bedside" procedures are done, when medications are drawn up and put on the sterile field for use during that specific procedure, at a minimum, the label will include the following;

PREPARED MEDICATIONS ARE LABELED PRIOR TO PREPARATION OF A SECOND DRUG.

Prepared medications are labeled immediately upon preparation, including, at minimum:

1. Patient's full name and a second patient identifier (e.g., medical record number, DOB).
2. Full generic drug name.
3. Drug administration route.
4. Total dose to be given.
5. Total volume required to administer this dosage.
6. Date of administration.
7. Date and time of preparation.
8. Date and time of expiration when not for immediate use.

Immediate use must be defined by institutional policy (e.g. use within 2 hours).

Practitioners/institutions are not expected to be in full compliance with this standard if they currently have electronic systems that are unable to meet these labeling requirements. Appropriate changes should be implemented as soon as possible to ensure that electronic labels integrate all of these elements.

Practitioners/institutions that administer intrathecal medication maintain policies specifying that intrathecal medication will not be prepared during preparation of any other agents.

If, during the preoperative or pre-procedural process, a solution or medication is poured, drawn into a syringe, or otherwise used from its original container and immediately administered, or disposed of in some fashion, labeling is not required.

11. IND. 64- PATIENT IS INDENTIFIED PRIOR TO ADMINISTRATION.

Identification of patient being administered Medication.

In order to make sure that you are about to administer medication to the right individual you have to know the individual.

Even when you know the individual well, mistakes, can happen, Sometime when medication are being administered to more than one individual in a setting, or if you prepare medication for more than one individual at a time, you can be distracted and give the medication wrong

Accident & Emergency Department
King Edward Medical university
Mayo Hospital Lahore

BLOOD TRANSFUSION POLICY
ACCIDENT & EMERGENCY DEPARTMENT

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Approvals	Name	Date	Signatures
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Reviewed By	Prof. Dr. Yar Muhammad	10 November 2018	
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1		First Issue	Dr. Naeem

CONTENTS

1. INTRODUCTION

Appropriate transfusion is an essential support to many medical treatments and can be lifesaving. There are many risks to the patient, including acute haemolytic reactions and transfusion transmitted infections. Stringent procedures must be followed to ensure that the correct blood/blood component is always given and that any adverse reactions are dealt with promptly and efficiently.

SOPs for Rational Use of Blood and Blood Products policies should include:

i. Donor screening.
ii. Processing and storage of blood.
iii. Administration of blood.
iv. Identification and analysis of real or suspected transfusion reactions.

Accident & Emergency Department Blood Bank is responsible for donor screening and processing & storage of blood and has its own SOPs.
Procedures for requesting, writing up and the administration of blood and blood components, management of any complications, documentation of transfusions in nursing and medical have been provided, including the procedure for the reporting of any adverse reactions or events occurring in relation to transfusions.

This policy reflects the Minimum Service Delivery Standards of Punjab Healthcare Commission.

2. PURPOSE

The purpose of this policy is to:

- Provide a clear framework and guidance for safe transfusion practice in Accident & Emergency Department.
- Ensure a consistent approach to the requesting, writing up, handling and administration of blood and blood components in A&E
- Ensure that all members of staff involved at any stage of the process of transfusing blood and blood components are aware of their role and the legal aspects of this practice

Policy is aimed to achieve MSDS of PHC as stated in **STANDARD-4. COP-2: POLICIES AND PROCEDURES DEFINE**

RATIONAL USE OF BLOOD AND BLOOD PRODUCTS

3. SCOPE

This policy applies to all staff involved in the requesting, sampling, prescribing and administering of human blood and blood components, including.
Policy for Storing, collecting, transportation of blood is dealt by Blood Bank which is under Punjab Blood Transfusion Authority.

4. DEFINITIONS

Transfusion: blood or any of its components used to correct or treat a clinical abnormality

Blood component: red cells, platelet concentrate, fresh frozen plasma (FFP, and cryoprecipitate

Blood Product: any drug which is manufactured using human blood components

STANDARD-4. COP-2: POLICIES AND PROCEDURES DEFINE RATIONAL USE OF BLOOD AND BLOOD PRODUCTS

INDICATOR 21: DOCUMENTED POLICIES AND PROCEDURES ARE USED TO GUIDE RATIONAL USE OF BLOOD AND BLOOD PRODUCTS

5. General Guidelines:

- Blood and blood products shall be transfused in Emergency Department only as life saving measures.
- The decision to transfuse blood shall be on the basis of estimation of the risk of developing complications of inadequate tissue-oxygenation. Therefore, the decision to transfuse shall be based on BOTH the **hematologic** and the **clinical status** of the patient.
- Red blood cell transfusions should not be initiated in response to a hemoglobin determination alone.
- Whole blood shall only be transfused to patients who meet threshold and having active bleeding from any site.

5.1. Thresholds For Red Blood Cell Transfusion In Adults:

These thresholds are intended to be a reference for clinicians caring for patients and are not intended to replace providers' clinical judgment

Condition	Hemoglobin threshold for transfusion
Asymptomatic hemodynamically stable patient	7 g/dl
Symptomatic patient (e.g. active myocardial ischemia)	10 g/dL[1,2]
Preexisting coronary artery disease	8 g/dL[2]
Gastrointestinal bleeding (hemodynamically stable)	7 g/dL[6]
Non-cardiac surgery	8 g/dL[1]
Oncology patient in treatment	7 to 8 g/dL

References:

1. Carson JL, Terrin ML, Noveck H, et al. Liberal or restrictive transfusion in high-risk patients after hip surgery. N Engl J Med 2011; 365:2453.
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3. Cooper HA, Rao SV, Greenberg MD, et al. Conservative versus liberal red cell transfusion in acute myocardial infarction (the CRIT Randomized Pilot Study). Am J Cardiol 2011; 108:1108.
4. Hebert PC, Wells G, Blajchman MA, et al. A multicenter, randomized, controlled clinical trial of transfusion requirements in critical care. Transfusion Requirements in Critical Care Investigators, Canadian Critical Care Trials Group [see comments]. N Engl J Med 1999; 340:409.
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7. Hajjar LA, Vincent JL, Galas FR, et al. Transfusion requirements after cardiac surgery: the TRACS randomized controlled trial. JAMA 2010; 304:1559.
8. Mazer CD, Whitlock RP, Fergusson DA, et al. Restrictive or liberal red-cell transfusion for cardiac surgery. N Engl J Med 2017; 377:2133.

5.2. Management Initiation prior to availability of Blood:

In case of emergencies requiring blood transfusions, efforts shall be made to stabilize patients through prompt and appropriate supportive care, including intravenous fluid replacement with crystalloid or colloid solutions and oxygen inhalation without waiting for the blood to become available.

5.3. Re-evaluation immediately prior to Blood Transfusion:

The patient shall be clinically re-evaluated immediately prior to blood transfusion to ensure that the transfusion is still required. The patient may have stabilized with supportive measures and may no longer need transfusion. The patient should not be transfused merely because of availability of compatible blood.

5.4. Post-Transfusion Hemoglobin:

The post-transfusion haemoglobin level shall be checked as early as 15 minutes following transfusion[1] and compared with the pretransfusion value to assess the benefit of the transfusion.

5.5. Identification of Underlying Cause of Anemia:

Blood transfusion is not a cure for anemia and is a measure to relieve the clinical signs of cardiac or respiratory distress. The underlying cause of anemia still needs to be investigated and treated. Patients shall be directed to consult OPD and maintain workup to investigate and treat underlying cause of anemia.

6. SOPs for Blood Transfusion

6.1. Pre-Transfusion Procedures:

6.1.1. Authorized Staff to advise Blood Transfusion:

- Only Doctors who have certificate of FULL MEDICAL REGSITRATION with PMDC and have been authorized to perform duty in the Emergency Department can advise blood transfusion in emergency.
- If the treating doctor is not sure about decision about transfusion, he/she shall discuss the case with Emergency consultant in person after assessment of patient and vitals.
- If a patient comes with prescription of blood transfusion from outside emergency, then doctor on duty in emergency shall assess the need of transfusion as described above and not just merely transfuse blood because it has been advised.

6.1.2. Transfusion Written Instruction (Prescription):

Doctor shall write down blood transfusion in the patient medical record (emergency slip etc.) mentioning

i. Type of blood component,
ii. Quantity to be given
iii. Duration
iv. Rate of infusion
v. Signature of Clinician and Name (By Name Stamp)
vi. Time & Date

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[1] Elizalde JI, Clemente J, Marín JL, et al. Early changes in hemoglobin and hematocrit levels after packed red cell transfusion in patients with acute anemia. Transfusion 1997; 37:573.
Wiesen AR, Hospenthal DR, Byrd JC, et al. Equilibration of hemoglobin concentration after transfusion in medical inpatients not actively bleeding. Ann Intern Med 1994; 121:278.

6.1.3. Informed Consent:

Prior to requesting blood, informed consent shall be obtained as decribed in detail in section.9.0

6.1.4. Requesting Blood/Blood Component:

A doctor (including those with provisional PMDC registration) can prescribe the blood and blood components after written instruction by the authorized doctors. Following shall be mentioned on request form.

i. Full Patient Name
ii. Age/Date of Birth
iii. Gender
iv. Medical Record Number (MRN)
v. Indication for transfusion and haemoglobin level (if available).
vi. Type of blood component
vii. Quantity of blood components required
viii. Indicate modifications (irradiated, washed cells etc.)
ix. Signature of Clinician and Name (By Name Stamp)
x. Time & Date
xi. Location (ER ICU, ER Bay1 etc.)

Specimen Blood Requisition Form is attached (Annexure 2)

6.2. Sampling for Blood Transfusion:

After the request form has been completed, staff nurse shall collect following blood samples for Blood grouping AND Cross Matching

i. 1 cc sample in CBC Vial (or heparinized) ... required for blood grouping and cross matching both
ii. 2 cc sample in Serum vial (or clotted sample) .... Required for cross matching

6.3. Blood Screening, Processing, Storage and Collection:

Blood Bank shall be responsible for maintaining MSDS standards regarding these indicators and they shall have their own SOPs.

6.4. Administration of Blood and Blood Products

6.4.1. Pre-transfusion Identity Check:

a. After the availability of blood, doctor (with full PMDC Registration) shall verify the identity next to the patient by matching the bag of blood or blood product with the patient's identity by checking the following on blood bag , **compatibility Card (Annexure. 3)** and patient record.

i. Patient Name
ii. Blood Bag Number
iii. Blood Group
iv. Type of Blood component
v. Expiry Date

After verification of identity, doctor shall then sign the blood bag and the compatibility form and by name stamp. **Doctor signing the compatibility card and checklist on form shall be the one supervising blood transfusion**.

b. In order to **double check** for any errors, staff Nurse administering the blood shall re-verify patient identity before initiating blood transfusion by checking the following on blood bag, compatibility form and patient record

i. Patient Name
ii. Blood Bag Number
iii. Blood Group
iv. Type of Blood component
v. Expiry Date

c. Doctor & Staff Nurse shall also check the blood bag for

i. Integrity of the bag
ii. Hemolysis or plasma interface
iii. Large clots
iv. Turbidity or discoloration
v. Special transfusion requirements being met

After verification of identity and checking blood bag, staff shall initiate blood transfusion as per orders in medical record and shall sign along with his/her by name stamp. **No blood transfusion shall be initiated without identity check and if there are no written orders in the record.** Blood transfusion shall be initiated only after pre-transfusion vitals have been documented.

6.4.2. Blood Bags cross matched outside Mayo Hospital:

If any patient bring blood bag which has been cross matched from any blood bank outside Mayo Hospital Lahore, they shall be referred to Blood Banks of Mayo Hospital Lahore for cross matching. **Any blood shall only be transfused if it has been cross matched by blood banks of mayo hospital and compatibility card has been issued by them.**

6.4.3. Pre- Transfusion Vitals:

After doctor has verified identity of patient, pre-transfusion vitals shall be documented including

i. Pulse
ii. Blood Pressure
iii. Respiratory Rate
iv. Temperature
v. Oxygen Saturation (SaO_2)

After vitals, staff nurse shall initiate blood transfusion. Staff nurse shall not initiate blood transfusion if pre-transfusion vitals are not documented.

6.4.4. Setting up Blood Transfusion:

6.4.4.1. All blood should be administered via an administration set containing a 200-micron filter, provided by the Hospital pharmacy.

6.4.4.2. No other medication shall be added to the blood or administered through the same cannula.

6.4.4.3. The red cell administration set shall be changed after two units, and must be changed if blood of a different group is to be transfused, i.e. homologous blood following the transfusion of emergency O Rh D negative blood.

6.4.4.4. The transfusion must be completed within four hours of blood leaving the refrigerator.

6.4.4.5. If the transfusion is not started within 30 minutes of leaving the refrigerator, it must be considered unsafe. It should be labelled as Dangerous to Patient" and returned to the blood bank for disposal and an Incident Report Form completed.

6.4.4.6. If the transfusion cannot start within 30 minutes the unit should be returned to the blood refrigerator before the 30 minutes is exceeded.

6.4.4.7. Transfusion of platelets should be commenced as soon as possible after it is received and in case of any delay in transfusion, platelets should be returned to blood bank. Platelet packs shall not be refrigerated.

6.4.4.8. If there are any discrepancies found in the checking procedure, the blood should not be transfused. The blood bank must be informed and the unit and the blood transfusion compatibility report form returned to the blood bank.

6.4.4.9. Empty bags must be plugged and will be collected from the blood refrigerators by the blood bank staff.

6.5. Analysis of real or suspected transfusion reactions

All adverse events are significant and shall be reported immediately to the Blood Bank on the transfusion reaction form , available from blood bank. A copy of report shall be kept in patient record. This form shall be accompanied by the blood bag along with remaining amount of blood AND blood sample of patient

Specimen Transfusion Reaction Form is attached (Annexure.5)

6.6. ESSENTIAL DOCUMENTATION

When the transfusion of blood or blood components becomes necessary, a permanent record of the transfusion of all blood and blood components shall be kept in the patient's medical notes in which must include the following;

i. The authorized doctor's prescription/instruction for transfusion in prescription log/ Treatment ticket.

ii. Record of 'Informed Consent for transfusion: The significant risks, benefits and alternatives to transfusion including the patient's right to refuse, should have been discussed.

iii. The compatibility form, signed and stamped by doctor after pre-transfusion identity check, affixed to notes. This shall ensure identity of the persons responsible for the performing the pre-transfusion checks.

iv. Indications for transfusion.

v. Medication(s) to be administered before or after transfusion clearly and

vi. appropriately transcribed in the medicines' order form and medical records.

vii. The date and time each unit was commenced and completed.

viii. Nursing Observations:

Nursing observations (Vitals, observation for reaction etc.) shall be recorded as follows

a. At the start of transfusion
b. 15 minutes after initiating transfusion then Hourly
c. At the completion of transfusion.

ii. Comments on whether the desired effect of the transfusion was achieved.

iii. Any undesirable effects and their management.

The "Transfusion Notes" Template is attached (Annexure. 4)

Indictor 22: The Transfusion Services Are Governed By The Applicable Laws And Regulations Compliance to Statutes

7. Registration of Blood Bank with PBTA:

Accident & Emergency Department Blood Bank is registered with Punjab Blood transfusion Authority (PBTA) and complies to statutes.

Indicator 23: Informed Consent Is Obtained For Donation And Transfusion Of Blood And Blood Products Informed Consent for Donation and Transfusion

8. Informed Consent

8.1. Types of Informed Consent:

Prior to blood transfusion, informed consent shall be obtained from the patient or guardian which can be either

i. Signed consent form
ii. Note by physician that patient's verbal consent was obtained in emergency which should be documented later

8.2. Process of Consent:

Informed consent for transfusion includes two main processes:

i. The medical officer communicates with the patient or guardian in terms they clearly understand about the transfusion of blood or blood components, necessity in the particular circumstance, probable complications, possible medical consequence of refusal, and available alternatives.
ii. The patient or guardian after expressing satisfaction with the information provided, asks pertinent questions with regards to the process, and **agrees or not (in writing)** to be transfused.

8.3. Inevitable Need Of Uncross-Matched Blood In Life Threatening Emergencies:

In life-threatening emergencies when uncross-matched blood may be necessary or in the absence of serologically compatible components, signed consent for their use must be obtained from the attending medical officer.
Signed Informed consent shall be affixed in patient medical record.
Specimen Consent Form for blood transfusion is attached (Annexure. 1)

Indicator 24: Staff Members Are Trained To Implement The Policies

All the doctors and nurses shall be oriented to the blood transfusion policy and lectures shall be arranged from time to time.

Indicator 25: Transfusion Reactions Are Analyzed For Preventive And Corrective Actions Transfusion Reaction Analysis

Blood Bank shall investigate all reported blood transfusion reaction under supervision of Hospital Transfusion committee and shall take preventive measures.

9. Location of Blood Transfusion:

- If patient is asymptomatic and has come to emergency ONLY FOR BLOOD TRANSFUSION (LEVEL-3) and there no other complaint (active bleeding from any site, no other emergency issue), and patient is hemodynamically stable, that patient shall be transfused blood in COD.
- If a patient has medical/surgical issue (LEVEL-1, LEVEL-2), that patient shall be transfused blood in concerned treatment area (Medical Bays, ICU, Surgical floor, Surgical Bays).
- If there is any confusion/ conflict about where patient should be transfused, consultant advice shall be sought and consultant decision shall be FINAL.
- Transfusion shall be advised on the emergency slip/ prescription slip by the doctor in the treatment area where transfusion shall take place. **No EMO/PGR is allowed to advice transfusion and send patient to another treatment area for transfusion.** (e.g. A doctor in Bay 4 CAN'T advise transfusion and send to COD or vice versa. Doctor who is going to supervise blood transfusion shall be the only one to complete blood requisition form and/or who has checked the compatibility card and signed it.
- Given the limited number of beds in COD, only two beds (One male, one female) at a time shall be allocated for blood transfusion of asymptomatic patients while other asymptomatic patients shall be asked to wait for their turn for elective transfusion.
- If all the beds are full in COD and beds are vacant in bays, patient can be referred to Bays for transfusion.

10. Conflict Resolution:

In case of any conflict regarding indication of blood transfusion, treatment area allocation for blood transfusion (COD or Bays) etc. the decision of on duty A&E Consultant shall be final.

Annexure 1: Specimen Informed Consent Form for Blood Transfusion

Accident & Emergency Department KEMU/Mayo Hospital Lahore **BLOOD OR BLOOD COMPONEENT TRANSFUSION CONSENT FORM**	**MR No.** **Patient Name:** **S/O,D/O,W/O/:** **Age/Sex: /** **Treatment Area:**

اجازت نامہ برائے انتقال خون

Name of Doctor Explaining the procedure to patient_____

- ڈاکٹروں نے مجھے میری / میرے مریض کی حالت اور بیماری کی نوعیت کے بارے میں تفصیل سے بتادیا ہے—ہمارے مریض کو خون/خون کے اجزاء لگانے کی ضرورت ہے— انتقال خون کے ممکنہ فوائد سے آگاہ کر دیا گیا ہے لیکن خون لگانے سے مریض کی حالت میں بہتری آنے یا نہ آنے کے بارے میں ہمیں کوئی گارنٹی نہیں دی گئی
- ہم اس بات کو اچھی طرح سمجھتے ہیں کہ انتقال خون کے عمل کے دوران خطرات لاحق ہو سکتے ہیں باوجود اس کے خون کو ٹیسٹ کیا گیا ہے اور اس عمل کے دوران کسی بھی ری ایکشن ہونے کی صورت میں اس سے نمٹنے کے لیے ڈاکٹرز اور متعلقہ عملہ موجود ہوگا—انتقال خون کے دوران ممکنہ خطرات یہ ہو سکتے ہیں (اگرچہ یہ کوئی مکمل فہرست نہیں ہے)- بخار (1:60)، الرجک ری ایکشن (خارش ،دھپڑ، متلی، سردی لگنا ،سر درد -1:250)، میرے اپنے خون کے خلیوں کو ضرر پہنچنا (1:12,000)، پھیپھڑوں کو نقصان پہنچنا/TRALI(1:12,000)، جان لیواری ایکشن (1:19,72,000)[1]، خون کے ذریعے جراثیم کا منتقل ہونا مثلاً ہیپاٹائٹس بی (1:220,000)، ایچ آئی وی (1:2,300,000)، ہیپاٹائٹس سی (1:1,800,000)، ملیریا (1:4,000,000) وغیرہ—
- مجھے انتقال خون کے بارے میں سوال پوچھنے کا پورا موقع دیا گیا ہے اور میں نے دستیاب معلومات سے اپنے آپ کو مکمل طور پر مطمئن کر لیا ہے
- ان تمام حقائق کو جان لینے اور اچھی طرح سمجھ لینے کے بعد میں اپنی رضامندی سے خون لگانے کی اجازت دیتا/دیتی ہوں—نیز یہ اجازت نامہ میرے اس داخلے کے دوران تمام دورانیہ کے لیے لاگو ہوگا الا یہ کہ میں تحریری طور پر اسے منسوخ کر دوں

Signatures of Doctor Name/Stamp: Date: Time:	مریض / مریض کے رشتہ دار کے دستخط/نشان انگوٹھا: _____ رشتہ دار کا نام: _____ مریض سے رشتہ: _____ شناختی کارڈ نمبر: _____

میں اس بات کی گواہی دیتا ہوں کہ میں اس وقت موقع پر موجود تھا جب مریض/لواحقین کو انتقال خون کے بارے میں تفصیلاً آگاہ کیا گیا اور میری رائے میں مریض/لواحقین نے تمام عمل، فوائد اور نقصانات کو اچھی طرح سمجھ لیا ہے، اپنی آزاد مرضی سے اس اجازت نامے پر دستخط کیے ہیں

گواہ کا نام _____ دستخط _____ گواہ کا شناختی کارڈ نمبر _____

[1] Carson JL, Guyatt G, Heddle NM, et al. Clinical Practice Guidelines From the AABBRed Blood Cell Transfusion Thresholds and Storage. JAMA. 2016;316(19):2025–2035. doi:10.1001/jama.2016.9185

Annexure 2: Blood Requisition Form

BLOOD REQUISITION FORM

BLOOD GROUP ☐

BLOOD TRANSFUSION SERVICE, PUNJAB

Rh FACTOR ☐

CENTER _____

SEND 2 c.c of clotted and 2 cc of EDTA Blood Sample of patient 2 hours prior to blood transfusion.

Patient's Name:_____ Father/Husband name:_____

Diagnosis_____Age/Sex_____Ward_____Bed No._____Hosp. Reg. No._____Hospital_____

Has the pt. had any previous transfusion? Yes/No If yes Source of blood donation voluntary/paid. Screened/Unscreened. And untoward reaction Yes/No	If the pt. is female, any pregnancy? Yes/ No if yes, No. of children_____H/O Still Birth_____Any baby Jaundiced at birth_____

Indication for blood / blood component transfusion_____

Units of blood / blood component required :

☐	Whole blood	☐	Plasma	☐	Platelet conc.	☐	Any other
☐	Red cells conc	☐	Fresh frozen plazma	☐	Cryo PPt		
☐	Washed Red cells Conc.	☐	Platelet rich plasma	☐	Buffy cost.		

Time & Date of sending the form: _____ Signature & Stamp designation of doctor requesting

TO BE FILLED BY BLOOD UNIT

Requisition No.....Received at.....Hours on.....20 .....

Donor's Name 1.....S/O, D/O, W/O_____Bag No._____Blood Group.....Rh. type .....

2..... ....

3..... ....

4..... ....

Signature of Technician

Signature of Blood Transfusion Officer

Received by Signature

Annexure 3: Compatibility Card

COMPATIBILITY CARD

INSTITUTE OF BLOOD TRANSFUSION SERVICE PUNJAB

CENTRE..... SR. No. 27001.....

DATE..... TIME ..... AM/PM

RECIPIENT

NAME .....

BLOOD GROUP .....

WARD.....

HOSPITAL.....

CROSS MATCH PERFORMED BY .....

BTO SIGNATURE

DONOR

DONOR NAME.....

BLOOD GROUP.....

BAG NO. .....

SUPPLY DATE .....

REDEPOSITED.....

NON REACTIVE FOR HBV,HCV,HIV, MALARIA, SYPHILIS

PLEASE RETURN THIS CARD ALONGWITH EMPTY BLOOD BAG IMMEDIATELY TO BLOOD BANK AFTER TRANSFUSION. IN CASE THIS CARD IS NOT RETURNED TO BLOOD BANK THE BLOOD WILL BE CONSIDERED AS NOT TRANSFUSED.

TRANSFUSION DATE AND TIME .....ANY REACTION REPORTED.....

SIGNATURE/STAMP OF REGISTRAR

I. Transfusion started at..... hours on 201
Completed at..... hours on 201

II. Please OBSERVE for the under mentioned reactions if any :

1. FEBRILE, during or within 3 hours of transfusion.
   (i) Rise of temperature upto 2°F (0.75°C Yes/No
   (ii) Rise of temperature more than 2°F (0.75°) and feeling of cold Yes/No
   (iii) Rise of temperature if more than 2°F (0.75°) alongwith rigors. Yes/No

Note: -Please observe any other signs or sympthoms during and after transfusion.

Date .....

Signature of Registrar

Annexure 4: Transfusion Notes Template

Transfusion Notes

Patient Name: _____ Blood Bag No. _____ Type of Blood Component: _____

Pre-Transfusion Check List

Sr.	Parameter	1st Check by Doctor	2nd Check by Staff Nurse
1	Informed Consent has been obtained	Yes □ No □	Yes □ No □
2	Patient Name is **SAME** on blood bag, compatibility card and medical record (registration slip)	Yes □ No □	Yes □ No □
3	Blood Bag Number is **SAME** on blood bag and compatibility card	Yes □ No □	Yes □ No □
4	Blood Group mentioned is **SAME** on blood bag and compatibility card	Yes □ No □	Yes □ No □
5	Type of Blood Component mentioned is **SAME** on blood bag and compatibility card	Yes □ No □	Yes □ No □
6	Blood Bag is **NOT EXPIRED** as checked by expiry date on blood bag	Yes □ No □	Yes □ No □
7	Blood Bag is intact with no discoloration or clots in it.	Yes □ No □	Yes □ No □
8	Pre- Transfusion Vitals have been documented below in observations	Yes □ No □	Yes □ No □
9	Blood Bag and compatibility form has been signed by Doctor	Yes □ No □	Yes □ No □
10	Copy of compatibility card has been attached in medical record	Yes □ No □	Yes □ No □
Sign & Stamp of Doctor and Nurse who have performed above checks		Dr. Sign	S/N Sign

Instructions by Doctor in case of Transfusion Reaction (Please tick)

☑ Stop the blood transfusion
☑ Inform to doctor immediately
☐ Inj. SOLU-CORTEF (Hydrocortisone) 250 mg IV STAT
☐ Inj. AVIL (Chlorphenamine) 10 mg IV STAT (Try to avoid in DCLD)
☐.....

Nursing Observations: **Time Blood Transfusion was initiated:** _____

- Blood transfusion should be completed within 4 hours after blood bag was handed over by Blood Bank
- If blood transfusion cannot be initiated within 30 minutes of blood bag taken out from refrigerator, Blood bag must be returned within 30 minutes to blood bank
- Nursing observations: Pre-transfusion, 15 min after initiation then hourly then post transfusion

	Pre-Transfusion						
Pulse (bpm)							
BP(mmHg)							
RR(/min)							
Temp(F°)							
SaO2(%)							
Any other							

Post Transfusion:

- Date & Time of Completion/End of Transfusion: _____ & _____
- Transfusion Completed Uneventful Yes □ No □ Reason if No: _____
- If transfusion has been completed, return empty blood bag and compatibility card to blood bank.
- In case of transfusion reaction, get the "Transfusion Reaction Form" from blood bank, fill an deposit to blood bank and keep photocopy in patient record

Annexure 5 (a) : Adverse Transfusion Reaction Reporting Form – Page 1

BLOOD BANK (MAIN/EMERGENCY) MAYO HOSPITAL LAHORE
ADVERSE TRANSFUSION REACTION REPORT FORM

Please complete form and forward with appropriate specimens and used blood bag to the Hospital Blood Bank for advice, diagnosis, management and investigation of suspected transfusion reaction.

Patient Name: _____ S/O,D/O,W/O: _____ Ward/Unit: _____

M.R./Reg. No. _____ Bag Number: _____ Blood Group: _____

Clinical Diagnosis: _____

Product being transfused: _____

Commenced Time & Date: _____ Volume Transfused (ml) : _____

Clerical Check (Please circle)

Patient ID Correct (i.e. Blood was not transfused to wrong patient) Yes / No

Blood Pack correct (Same number on blood bag and compatibility card) Yes / No

Blood Transfusion Record Correct Yes / No

Temperature in the 24 Hours prior to transfusion: Febrile / Afebrile

Vital Signs	Time	Pulse (bpm)	B.P. (mmHg)	R.R. (/min)	Temperature (F°)
Pre-Reaction					
At the time of Reaction					

Signs & Symptoms (Please tick ✓ all those which are present)

Fever		Low Back Pain		Skin Pallor	
Chills		Chest Pain		Dark Urine	
Nausea/Vomiting		Anxiety		Dyspnea	
Hives/Itching		Headache		Bleeding from Wound or IV Site	

Please document any blood products given in previous 12 hours

Donor Unit No.	Product Type (FFP, PCV, etc.)	Date	Time Unit		Volume Given (ml)	Reaction	
			Started	Stopped		Yes	No

In case of reaction, which of the following were done (Please tick ✓)

i. Blood Transfusion was stopped ☐
ii. Doctor on duty was informed ☐
iii. Inj. AVIL(Chlorphenamine) given ☐
iv. Inj. SOLUCORTEF (Hydrocortisone) Given ☐
v. Inj. ADRENALINE (IM) Given ☐
vi. Any Other: _____

Doctor Reporting Reaction:

Name _____ Signatures & Stamp _____

Date: _____ Time: _____ Mobile Number/ Hospital Ext. No. to contact _____

1. Send original report form to blood bank with compatibility card and used blood bag
2. Keep a copy of **report form** and compatibility **card in patient** record

Annexure 5 (b) : Adverse Transfusion Reaction Reporting Form – Page 2

ACTION TAKEN BY BLOOD BANK

Patient Name: _____ S/O,D/O,W/O: _____

M.R./Reg. No. _____ Bag Number: _____ Blood Group: _____

Date: _____ Time of Issuance from Blood Bank: _____

Time of commencement of Transfusion: _____

Any Other Comments:

_____

_____

_____

_____

_____

ANY RECOMMENDATION TO PREVENT ANY SUCH REACTION IN FUTURE

_____

_____

_____

_____

_____

_____

_____

Lab. Tech

Copy Forwarded to:

1. Concerned Doctor/Ward/Unit
2. Hospital Transfusion Committee

Date: **Incharge Blood Bank**

PROF. DR. SYED ASGHAR NAQI
Chairman Dept. of Surgery
(Member)

PROF. DR. MUHAMMAD HAROON HAMID
Chairman Department of Paediatric Medicine
(Member)

PROFESSOR DR. MUHAMMAD SHARIF
Chairman Dept. of Pediatric Surgery
(Member)

PROF. DR . YAR MUHAMMAD
Chairman Dept. of Accident & Emergency
(Member)

DR. MUHAMMAD ADIL
Director A&E
(Member)

PROF. DR. IRSHAD HUSSAIN QURESHI
Dean Faculty of Medicine & Allied Specialties,
Registrar, KEMU,
Chairman Department of Medicine
Chairman A&E Polices & Procedures Committee