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RMO is responsible for issuing the amended copies to the copyholders, the copyholder should acknowledge the same and she should return the obsolete copies to the RMO.
The amendment sheet, to be updated (as and when amendments received) and referred for details of amendments issued.

The manual is reviewed once a year and is updated as relevant to the hospital policies and procedures. Review and amendment can happen also as corrective actions to the non-conformities raised during the self-assessment or assessment audits by NABH.

The authority over control of this manual is as follows:

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<td>RMO</td>
<td>Managing Director, Sigma Hospital</td>
<td>Accreditation coordinator</td>
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COP 1 - POLICY ON UNIFORM CARE OF PATIENTS

1.0 PURPOSE
To delineate policy for the planning and providing of uniform patient care, for following clinical practice guidelines in line with the laws and regulations prevailing in India.

2.0 SCOPE
To ensure uniform care to all patients using the services of the hospital. The scope includes policies and procedures for:

- The care of Emergency Patients (COP.2)
- Use of Blood and Blood Products (COP.3)
- Care of ICU & High Dependency Unit patients (COP.4)
- Care of Obstetric patients (COP.5)
- Care of Pediatric Patients (COP.6)
- Care of patients requiring anesthesia (COP.7)
- Care of patients undergoing surgical procedures (COP.8)

3.0 POLICY
Uniform Care of Patients

3.1 The planning and provision of care shall be based on individual patient assessment and shall focus on the patient's response to actual or potential alterations to health.

3.2 All patients are treated alike irrespective of their religion, cast, social status, financial ability etc. The safety of all patients seeking health care at this hospital is the prime responsibility of this hospital. A uniform patient care system is laid down in all areas so as to provide excellent service.

3.3 Similar care is given in different settings which are guided by applicable laws and regulations; care delivery shall be uniform in emergency and ambulance services, Cardio Pulmonary Resuscitation, while using blood and blood products, during care of patients in the ICUs, and other high dependency areas, Post-surgical recovery rooms, etc.

3.4 SGH has the policy for delivering uniform care to all patients irrespective of the care setting right from the admission to discharge for IPD cases, in OPD services and emergency services.
3.5 Laboratory facilities, OT facility, Diagnostics, Nursing Care are uniformly provided to all patients irrespective of category of patients.

3.6 All protocols are uniformly given in the same manner to all patients irrespective of the category status.

3.7 Uniform care is guided by all laws & regulations.

3.8 It is further ensured that the care and treatment orders are legibly signed, named, timed and dated by the concerned doctors and nurses, the main idea being that the authors of these orders are identifiable by all and the chronology of care process is maintained.

3.9 Clinical practice guidelines are adopted to guide patient care whenever possible.

4.0 REFERENCE:

NABH: Pre Accreditation Entry Level Standards for Hospitals, 4th Edition December 2015
COP 2 – POLICIES & PROCEDURES ON EMERGENCY SERVICES

1.0 PURPOSE
Policies and procedures guide the admission of patients coming to the emergency department of Sigma Hospital.

2.0 SCOPE
All patients coming to the emergency department for care.

3.0 PROCEDURE

3.4.1 To aid clinical diagnosis, samples are collected and sent to lab for analysis and reporting. Reports shall be sent back to the Emergency department on a priority basis.

3.4.2 Screening and diagnostic tests shall be recommended and carried out as and when required in the Triage, keeping in mind the patient’s immediate medical needs; for example, in the case of a head injury, the RMO shall have to make a quick appraisal of the criticality of the case and recommend an X-Ray or a CT Scan if he so decides. Tests are also carried out in concurrence with the consultant for arriving at the clinical diagnosis.

3.4.3 Patients are not transferred or admitted or discharged without the RMO reading the reports of all tests recommended by him or the consultant in the Emergency, unless the critical nature of a patient’s condition warrants immediate transfer to the operating theater or a critical care unit.

3.1 Reception of patient

3.1.1 Emergency staff shall ensure availability of wheelchairs and stretcher trolleys at the Emergency room (ER) main door.

3.1.2 In cases where the patient is unaccompanied / unconscious, life, sight and limb saving measures shall be instituted.

3.1.3 After examining the patient and immediate resuscitative and stabilization care, the residential medical officer (RMO) shall contact the Consultant on-call in the relevant specialty by means of the telephone. RMO shall apprise the Consultant of the patient’s condition and take instructions regarding investigations and treatment.

3.1.4 RMO advises admission if required and the front office staff shall fill the Admission Request Form if the patient requires admission. A patient is to be admitted only when the Consultant advises admission.

3.1.5 Under the guidance of the treating doctor the concerned nursing staff with the help of the Front office staff shall call the external blood bank and arrange the required quantity.

3.1.6 Patients shall be discharged or transferred to the allocated bed at the earliest after screening diagnostic test results are available or earlier if the patient condition so requires.
3.2 Handling Medico legal Cases

3.2.1 All cases of accidents, burns, assaults, alleged suicide or homicide, poisoning, road traffic accident, rape, drowning, etc shall be registered as medico legal cases (MLC).

3.2.2 All cases registered as medico legal in hospitals where he/she reported first must also be registered as Medico legal and the outside MLC number recorded on the case file.

3.2.3 Any case of a cognizable offense as mentioned above even if brought at a later date by the police must be informed and the case registered as medico legal.

3.2.4 When a case identified as medico legal is brought to Emergency Dept. RMO shall provide medical care as required.

3.2.5 Emergency staff shall inform the Front office staff who will intimate the police. The time of call and the police personnel spoken to shall also be documented in the front office register.

3.2.6 MLC Form shall be filled by RMO in duplicate (one copy for Medical Records Dept. and one for the Police) MLC report shall be completed and signed as soon as possible after the patient arrives in Emergency and in all cases before the RMO goes off duty. RMO shall not be relieved until MLC reports for patients managed in the tenure of duty are completed.

3.2.7 An entry must be made in MLC intimation report in case the patient is already registered as Medico legal in another hospital.

3.3 Triaging

3.3.1 Through regular modules, held for both Doctors and nursing staff, the staff shall be trained in the technique of Triaging.

3.3.2 The policy of prioritizing patients is based on the urgency of their individual need for medical care.

3.3.3 Under normal working conditions, patients shall be triaged and allotted beds in the ER as per the urgency of their medical needs.

3.3.4 During external disasters (Code Red) patients shall be triaged as Red, Yellow, Green and Black according to the following criteria:

Red
First Priority, Most urgent, Life-threatening shock or hypoxia is present or imminent, but patient can be stabilized and, if given immediate care, shall probably survive.

Examples Red:

• Compromised airway
• Respiratory arrest or severe respiratory distress or SpO2 < 90
• Cardiac arrest
• Hypotension (BP < 90 mm Hg)
• Trauma patient who is unresponsive or requires immediate fluid resuscitation
• Overdose with a respiratory rate of 6.
• Severe bradycardia or tachycardia with signs of hypo-perfusion.
• Chest pain, pale, diaphoretic, blood pressure 70/palp.
• Anaphylactic reaction.
• Baby that is flaccid.
• Hypoglycemia with a change in mental status.

**Yellow**
Second Priority, Urgent, Injuries have systemic implications or effects, but patient is not yet in life threatening shock or hypoxia; although systemic decline shall ensue and given appropriate care, patient seems able to withstand a 45 to 60 minute wait without immediate risk.

**Examples of Yellow:** Following diagnosis with stable blood pressure. Tachycardia / dyspnea may or may not be present

- Acute abdominal pain
- Gastro-intestinal bleeding
- Acute arterial occlusion
- Fever in immuno-compromised patients
- Testicular torsion
- Acute renal failure
- Ectopic pregnancy
- Spontaneous abortion
- Rule out meningitis
- Acute Cerebro-vascular accident
- Vomiting / diarrhea in children
Acute asthmatic attack
Pleural effusion
Spontaneous pneumothorax
Road traffic accident with transient loss of consciousness.

Green
Third Priority, Non-urgent, Injuries are localized and without immediate systemic implications; with a minimum of care, patient generally does not deteriorate for upto several hours.

Black
Dead, No distinction can be made between clinical and biologic death in a mass casualty incident, and any unresponsive patient who has no spontaneous ventilation or circulation is classified as dead.

The above color coded ID Bands shall be used during a Code Red.

3.4 Transfer of patients for Diagnostic tests / other hospitals.

1) To aid clinical diagnosis, samples are collected and sent to various labs for analysis and reporting. Reports shall be sent back to the emergency on a priority basis.
2) Screening and diagnostic tests shall be recommended and carried out as and when required in the Triage, keeping in mind the patient’s immediate medical needs, for example, in the case of a head injury, the RMO shall have to make a quick appraisal of the criticality of the case and recommend an X-Ray or a CT Scan if he so decides. Tests are also carried out in concurrence with the consultant for arriving at the clinical diagnosis.
3) Patients are not to be transferred or admitted or discharged without the RMO reading the reports of all tests recommended by him or the consultant in the Triage, unless the critical nature of a patient’s condition warrants immediate transfer to the operating theater or a critical care unit.
4) Patient information is transferred between RMOs, nurses and other staff – whether concerning transfer, transport or medical condition- from one shift to the next through detailed handovers, which include written or verbal communication.
5) The information includes medical status of the patient, the treating doctor’s comments, the RMO’s notes, and special information like transport and transfer information, discharge information, etc.
6) When a transfer within the hospital is done, the patient’s condition is communicated to the consultant/duty doctor (Including floor doctor) of the area where the patient is being transferred to. The medical
condition of the patient, his medical care requirements and the reason for his transfer is communicated to the concerned person by the RMO.

3.5 Ambulance Services

The hospital shall provide a well-equipped ambulance with emergency medicines and basic life support equipments to facilitate efficient and timely transportation of a patient to and from the hospital under the care of trained nursing staff / doctors.

The ambulance is designed and is appropriately equipped to respond to medical emergencies.

Checklists of all equipments and emergency medication shall be checked on a daily basis.

The hospital shall ensure that the ambulance is manned by trained personnel.

3.5.1 Procedure:

3.5.1.1 Procedure on Ambulance services

1) Hospital’s ambulance is equipped to ensure smooth, safe and efficient transfer of patient to and from a Health Care Facility.

2) Hospital’s ambulance shall be available at the hospital for meeting any emergencies. An alternate ambulance shall be made available on call from outside agency.

3) The ambulance drivers and the drivers on call are provided with cell phones. Drivers shall promptly respond when called upon from the hospital or from the emergency site.

4) If there is any delay in reaching the site, the reason shall be mentioned in “Ambulance register”.

5) In the event of these ambulances being busy, the drivers, front office staff, security staff on duty must call for help from other private ambulance services.

6) Before transporting the patient, hospital shall ensure that appropriate communication regarding the referral of patient is given to the receiving hospital.

7) The complete address regarding the location of referring HCF (health care facility), demographic data of patient, his/her illness and the complete address of referral HCF must be properly communicated to the staff of that ambulance service.
8) A transport ventilator shall be made available for use in special situations. Intubated patients connected to ventilator must be transported accompanied by a doctor and/or trained staff nurse.

9) Designated clinical staff if required shall accompany the patient during the transfer and record in the patient file all care and treatment administered during transfer.

10) Names of staff accompanying the patient shall be recorded in the patient file.

11) Emergency drugs shall be available in the ambulance and ensured that no expired drugs are found available.

12) There shall be a checklist for emergency medicines and equipment that need to be checked in every shift by a staff nurse; in case of any equipment repairs, the same is brought to the notice of relevant bio-medical engineer for rectification. (Ref: Checklist for ambulance).

13) The emergency drugs shall be replenished from time to time.

14) Adequate consumables and drinking water shall be made available in the ambulance.

15) Availability of adequate number of medical gases cylinder (oxygen cylinder with regulator) shall be ensured.

16) The treating doctor shall also ensure that the ambulance is equipped to respond to medical emergencies as per the need of the patient.

17) While transporting a patient to another destination, if the medical condition of that patient becomes very serious, the driver shall take the ambulance to the nearest Hospital for immediate medical attention to that patient. This shall also be informed to the hospital and concerned doctors.

18) The hospital shall ensure that a designated person from the facility will coordinate this service effectively and ensure the timely transportation of the patients by ambulance in case of emergency.

19) The ambulance service contact numbers shall be displayed in front of the reception counter as well as other appropriate locations in the facility.

20) Treatment given to the patient from the referring/transporting HCF (health care facility) including demographic data of patient, diagnosis, reason for referral, medications administered, diagnostic test results, and all available procedural and therapeutic interventions must accompany with patient/guardian/relative/paramedic staff while transporting the patient through an ambulance.
21) Qualified clinical / paramedical staff must accompany the patient in an ambulance while transportation to the receiving facility.

22) It is the responsibility of management and staff of the referring / transporting hospital to check that the ambulance is well equipped and all equipments are functional to respond to medical emergencies during the patient transportation in a stipulated time frequency.

23) The referring hospital management will be responsible for any delay (if happened) in transporting the patient to the referred health care facility.

24) After each patient transfer by ambulance, it is the responsibility of the driver/In Charge Nurse to dispose of all used disposable and contaminated items and replaces them with new.

25) All other items including emergency medicines should also be replaced.

26) The treating doctor shall stabilize the patient and ensure that the treatment given to the patient at the facility is documented and duly named, signed, dated and timed.

27) The necessary document shall be sent along with the patient at the time of transportation to the referred facility.

3.5.1.2 List of equipments available in the ambulance:

1) O₂ filled cylinder (small) with flow meter.
2) Stethoscope.
3) Ambu bag with mask
4) Suction apparatus
5) Suction catheter.
6) Laryngoscope with blade
7) Glucometer
8) BP (Blood Pressure) apparatus
9) ET (Endotracheal tube) Stilet
10) IV Fluids with stand
11) Portable stretcher  
12) Torch  
13) Scissors  
14) Cardiac Monitor  
15) Dressing Materials  
16) Bandage  
17) Pads & Bandage  
18) Sterile Dressing Tray  
19) Emergency medicines  
20) Sterile Scissors.  
21) Thermometer.  
22) Bed pan & urine pot  
23) Disposable sanitary bag.  
24) Syringes and needles  
25) Mackintosh and extra linens  
26) IV tubings  
27) Foley’s catheter and  
28) Nasogastric tube.

REFERENCE:

NABH: Pre Accreditation Entry Level Standards for Hospitals, 4th Edition December 2015
COP 3 – POLICIES & PROCEDURES ON RATIONAL USE OF BLOOD & BLOOD PRODUCTS

1.0 PURPOSE:
To define policies for rational use of blood and blood products.

2.0 SCOPE:
All the blood and blood products transfusion services.

3.0 RESPONSIBILITY:
Doctors,
Nursing staff
Blood transfusion committee

4.0 ABBREVIATION:
NABH : National Accreditation Board for Hospitals and Healthcare providers
COP : Care of Patients
ACLS : Advanced cardiac life support
BLS : Basic life support
NACO : National Aids Control Organization
NOK : Next Of Kin
UHID : Unique identification
WHO : World Health Organization

5.0 REFERENCE:
6.0 POLICY:

6.1 All activities related to the transfusion of blood should be in accordance with the Drugs and Cosmetics Act, 1945 issued by the Government of India., and NACO guide lines.

6.2 A blood transfusion has the potential to be a hazardous and hence a transfusion should only be given if the potential clinical benefits outweigh the potential risks to the patients.

6.3 The blood and blood components that are processed and issued only in the licensed blood bank and by trained and authorized personnel. The process and monitoring of the transfusion reaction process will be done only by nursing staff and medical officers authorized and suitably trained.

6.4 Without any requisition from medical staff, blood bag or any type of component shall not be issued to the recipient.

6.5 At the time of transfusion consent for transfusion shall be obtained by the staff nurse after explaining the benefits and the risks involved in transfusion.

6.6 All transfusion processes will be monitored for adverse reactions, both hemolytic and non-hemolytic and all adverse outcomes are suitably documented and appropriately treated. All blood bags issued by the blood bank are traceable and such records are maintained by blood bank medical officer.

6.7 Any type of blood bag once issued will not be accepted if returned to the Blood Bank.

6.8 On emergency blood will be issued after cross matching.

6.9 All HIV, Hepatitis positive samples of blood shall be discarded as per Biomedical waste handling rules.

6.10 Applicable Laws And Regulations:

- Drugs and Cosmetics Rules, 1945 Part X B and XII B.

6.11 TRAINING OF STAFF:

- Hospital transfusion committee in coordination with HR department is responsible for training the staff on the policies of blood transfusion.
6.12 **Mode of Training:**
This policy document is available with all the nursing stations, critical care units, operation theaters, nursing superintendent for the staff to be aware of.

6.13 **Analyzing Transfusion Reactions:**
The policy documents details the management of transfusion reactions, the data is compiled by the Blood Bank Officer and is analyzed during transfusion committee meeting conducted quarterly. The committee has the authority to initiate the corrective and preventive actions along with the responsible person.

### 7.0 PROCEDURE:

7.1 Blood and blood products used are as follows:

a) Fresh blood products: refers to red cell products (including autologous and directed donations), platelet products, fresh frozen plasma (FFP) and cryoprecipitate.

b) Processed blood products: refers to products such as red blood cells, plasma, prothrombin, and coagulation factors.

7.2 Treating doctors shall be responsible for ensuring the appropriateness of each blood / blood product they prescribe for an individual patient.

7.3 Treating doctors shall document the indication and outcome of transfusion in the patient's medical record.

7.4 Qualified and experienced staff nurse shall administer blood and blood products in accordance with the policy.

7.5 All blood and blood products must be checked by assigned staff prior to administration.

7.6 Before procurement the patient’s blood group shall be checked in the hospital.
7.7 On receipt of the blood in the hospital (OT, ICU, Ward etc.) it shall be verified with labels and double checked by the duty nursing staff to ensure that correct blood with the correct group is used for the specific patient.

7.8 Test results are also checked.

7.9 Blood transfusion procedure shall be started only by a trained staff nurse in accordance the principles of right medications

7.10 Patient shall be constantly monitored by the staff nurses.

7.11 Staff administering blood and blood products shall have the responsibility to observe and treat adverse reactions to blood products. All errors, 'near misses' and suspected adverse reactions shall be documented in the patient medical record and reported.

7.12 In case any adverse reaction is noticed the procedure shall be stopped and the treating doctor shall be informed immediately.

7.13 The patient is reassured and made comfortable during this period.

7.14 The treatment may be resumed after receiving further instructions from the doctor or when no further reactions are noticed.

7.15 The reason for transfusion should be explained to the patient or his relatives.

7.16 **Nursing staff shall** check the blood and blood products and blood transfusion set attached to the patient under the direct supervision of the Nurse In Charge.

7.17 **Nurses shall be** responsible for the correct and safe administration of blood and blood products in accordance with policy.

7.18 **Medical staff shall be** responsible for the monitoring of the patient during blood transfusion.

7.19 The blood transfusion committee shall be intimated in case of any serious reaction taking place which results in stopping or postponing the transfusion.

7.20 Leftover blood if any or the empty plastic blood container needle and tubing shall be treated as biomedical waste and disposed of according to BMW management rules, 1998 and as per the Infection Control Policy of the organization.

7.21 The department staff is educated through frequent training programmes and is strictly monitored on the adherence to best clinical practices and compliance to the operating procedures.
COP 4 - POLICIES & PROCEDURES ON CARE OF PATIENTS IN ICU / HDU

1.0 PURPOSE:
To define policies guiding care of patient in the Intensive Care Unit and High Dependency units.

2.0 SCOPE:
For all patient availing intensive and high dependency units services.

3.0 RESPONSIBILITY:
All medical and paramedical staff at critical care units,
Infection control team,
Biomedical engineer,
Housekeeping staff

4.0 ABBREVIATION:
NABH : National Accreditation Board For Hospitals and Healthcare providers
COP : Care of Patients
ACLS : Advanced cardiac life support
BLS : Basic life support
NOK : Next Of Kin
UHID : Unique identification
WHO : World Health Organization

5.0 REFERENCE:
6.0 POLICY:

1) Intensive care admission and / or discharge shall be decided by treating doctor. Each patient shall be under the care of a nurse, always maintaining the patient to nurse ratio of 2:1. Intensive care areas shall follow infection control practices as per procedure. (Ref: Infection control manual). Intensive care units shall follow the quality assurance programme.

2) Visitors shall not be allowed in high dependency areas, except in special situations wherein restricted entry of one or two close relatives shall be permitted during visiting hours only.

3) As and when there is a shortage of beds, patients those who are normal will be shifted to the wards and priority will be given to the emergency patients.

4) One empty bed shall be kept reserved for all the time for receiving emergency patients who need ICU admission.

5) Quality assurance system is implemented and followed in ICU’s.

7.0 PROCEDURE:

7.1 Patients needed emergency care is shifted to Intensive Care Unit depending up on the cases.

7.2 Admission Criteria in ICU: Admission criteria are used to select patients who are likely to benefit from care in ICUs. Patients who meet any of the following criteria shall be admitted to the ICUs at the request of the consultant. While we make every effort to strictly adhere to admission criteria, we accommodate requests from consultants who clinically feel that a patient would benefit from close monitoring in the critical care unit even through not strictly meeting the criteria stated below:

1) **Respiratory:**

   1. Acute respiratory failure (PaO2 < 60 mm Hg).
   2. Respiratory rate > 30 breaths/minute and <8 breath/mt.
   3. Patients requiring ventilatory support (invasive or non-invasive).
   4. Pulmonary emboli with haemodynamic instability.
   5. Massive Haemoptysis
2) **Surgical:**

   7.2.2.1 Post-operative patients requiring haemodynamic monitoring, ventilator support or extensive nursing care.
   7.2.2.2 Patients with surgical abdomen requiring preoperative fluid and/or electrolyte resuscitation.
   7.2.2.3 Polytrauma with significant injury to thoracic / abdominal organs requiring Surgical intervention.

3) **Renal:**

   7.2.3.1 Patient who has acute renal failure with accompanying respiratory or hemodynamic components require close monitoring & respiratory/ hemodynamic support.
   7.2.3.2 Significant acidosis or alkalosis.
   7.2.3.3 Hypo or hyperkalemia with dysrhythmias or muscular weakness.
   7.2.3.4 Hypo or hypernatremia with seizures, altered mental status.
   7.2.3.5 Severe hypercalcemia with altered mental status, requiring close neurological monitoring.
   7.2.3.6 Hypo or hypermagnesemia with haemodynamic compromise or dysrhythmias or muscular weakness

4) **Drug Ingestion and overdose:**

   7.2.4.1 Drug ingestion with significantly altered mental status & inadequate airway protection / hemodynamic instability.
   7.2.4.2 Seizures following drug ingestion

5) **Endocrine:**

   7.2.5.1 Diabetic ketoacidosis complicated by hemodynamic instability, altered mental status, respiratory insufficiency, or severe acidosis.
   7.2.5.2 Thyroid storm or myxedema coma with hemodynamic instability.
   7.2.5.3 Other endocrine problems such as adrenal crisis with hemodynamic instability
6) **Miscellaneous:**

- 7.2.6.1 Environmental injuries (lighting, near drowning, hyperthermia or hypothermia).
- 7.2.6.2 Any other clinical conditions requiring ICU level nursing care.
- 7.2.6.3 Suicidal gestures including partial hanging, drug overdoses and other self-inflicted injuries.

7.3 **Discharge Criteria:**

1) Written discharge order by the attending physician.
2) Substantial resolution of the problems responsible for admission.
3) Anticipation of prolonged medical stability.
4) Elimination of need for mechanical ventilation/airway protection.

7.4 The admission of a patient to these units shall be done by the RMO who in turn shall inform the specialists/doctors who are trained to handle emergency care in Intensive Care Units.

7.5 The specialist shall give written instructions to trained nursing staff for the management and treatment of a particular patient in such units.

7.6 Each patient shall be under the care of a nurse, always maintaining the patient to nurse ratio of 2:1 as advised by ICU doctor in-charge.

7.7 Emergency medicines with resuscitative equipments shall always be kept ready for use. (Ref: Checklist for emergency medicines and equipments).

7.8 Specialized life support equipments like, ventilators, defibrillators, infusion pumps, Central oxygen supply and suction, etc., are readily available.

7.9 The staff on duty is trained to handle and use this highly technical equipment properly and at the right time.

7.10 All staff shall be trained periodically on how to handle critical care equipments so as to minimize break down and loss.

7.11 Staff in charge of these units shall check that these equipments are kept in proper working condition at all times.

7.12 Bio medical engineer shall on a daily basis check the equipments of the intensive care units.
7.13 Bio medical engineer shall also take care of the maintenance and calibration of equipments of the intensive care units.
7.14 This shall be reviewed by the head nurse of the intensive care units.
7.15 In the event of a large number of patients arriving to these units which exceed the capacity of the established beds, the nursing superintendent shall be contacted and she shall arrange for extra beds to be placed in the areas and provide more staff to meet the demand.
7.16 Sterility of these units shall be strictly maintained.
7.17 Restricted entry of one or two close relatives shall be permitted during visiting hours only. Whenever such visitors are allowed inside, measures shall be taken to maintain the sterility of the area. Foot wear shall not be allowed, and they shall wear only the foot wears provided for exclusive use inside the area. Cap, masks, shoe covers are also to be worn by the visitor/relative.
7.18 Transfer of the patients to the normal ward or the patient’s home is done after the treating doctor gives specific orders for the same.
7.19 Proper instructions on further treatment, advice on preventive aspects and follow up are given to the patient / attendee by the doctor or senior staff nurse.
7.20 In order to maintain the quality of care in these departments, the recipients of these services are interviewed from time to time and their satisfaction in the treatment provided is assessed.
7.21 When a patient is discharged, details about the investigation, treatment given, condition on discharge, advice on discharge, medications, diet, exercise, follow up, when and how to seek care in case of emergency and details visit schedule shall be written in the discharge card duly named, signed, dated and time by the treating doctor.
7.22 A copy of all reports shall be given to the patient along with the discharge summary.
7.23 Infectious cases need isolation.
7.24 **Handling shortage of beds:**
   1) In case of bed shortages, this information is given to the Chief Medical Officer immediately.
   2) All stable patients will be transferred out to other wards with their or the attend consent and the same will be intimated to the patient attendant.
3) On arrival the patient /attendant will be informed about the non-availability of beds, if the patient is stable he will be transferred to other hospital of patient choices.

4) In case of minor injury or unstable will be stabilized and transferred with the help of hospital ambulance to a hospital of patient choice.

5) At the time of transfer, transfer protocol is followed.

7.25 Quality Assurance Programme in ICU:

<table>
<thead>
<tr>
<th>S.No</th>
<th>Quality objective</th>
<th>Performance indicator</th>
<th>Responsibility</th>
<th>Measurement criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Staff availability - doctors ,nurses and support staff nurses patient ratio 2:1</td>
<td>ICU incharge staff</td>
<td>Duty Roster / Attendance Record</td>
</tr>
<tr>
<td></td>
<td>Service Quality</td>
<td>Bed Availability and turnaround time for making bed</td>
<td>ICU incharge staff</td>
<td>Ward census book ,front office</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reporting time of investigations</td>
<td>ICU incharge staff</td>
<td>HMS / investigations register</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Medication administration (route, dose and frequency)</td>
<td>ICU incharge staff</td>
<td>Drug chart</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Coordination between staff in ICU</td>
<td>ICU incharge staff</td>
<td>Feedback form</td>
</tr>
<tr>
<td>1.</td>
<td></td>
<td>Infection rates</td>
<td>Hospital infection control committee</td>
<td>UTI, Intra vascular device related infection, Respiratory tract infections, surgical site infections , VAP</td>
</tr>
<tr>
<td>2.</td>
<td>Hospital Infection Control</td>
<td>Infection rates</td>
<td>Hospital infection control committee</td>
<td>UTI, Intra vascular device related infection, Respiratory tract infections, surgical site infections , VAP</td>
</tr>
</tbody>
</table>
COP 5 - POLICIES & PROCEDURES ON CARE OF OBSTETRIC PATIENTS

1.0 PURPOSE:
To define policies guiding the care of Obstetric patients.

2.0 SCOPE:
All obstetric patients, including high risk cases, undergoing treatment.

3.0 RESPONSIBILITY:
Anesthesiologist,
Gynecologist,
Pediatrician,
Labour Room staff
NICU staff,
Nursing Superintendent,
Dietitian

4.0 ABBREVIATION:
NABH : National Accreditation Board for Hospitals and Healthcare providers
COP : Care of Patients

5.0 REFERENCE:

6.0 POLICY:
6.1 Gynecologist shall train medical officers and staff nurses in care of obstetric cases.
6.2 The assessment of obstetric cases shall include maternal nutrition, immunizations and education.
6.3 High risk obstetrical care shall be provided to required cases by Gynecologist and Trained Medical Officers and nurses.

6.4 **Definition and Display of obstetrical cases:**

1) The hospital has defined and displayed the services it can provide for high risk obstetrics cases.

2) High risk obstetric cases includes emergencies like Shock, PIH (pregnancy induced hypertension), Fetal distress, PET (pre eclamptic toxemia), APH (ante partum hemorrhage), PPH (post-partum hemorrhage), Meconium aspiration, Ectopic pregnancy, Eclampsia, Inevitable abortion, Amniotic embolism etc.

6.5 **Assessment for Maternal nutrition:**

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Assessment criteria</th>
<th>Diet prescribed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elderly primi / Grand Multi</td>
<td>30 yrs, screen for down’s syndrome, PIH more, GDM</td>
<td>Normal diet / Diabetic diet</td>
</tr>
<tr>
<td>Habitual/Missed Abortion/ Threatened Labour</td>
<td>Previous history of habitual / missed abortion and threatened labor</td>
<td>Normal diet</td>
</tr>
<tr>
<td>PIH or eclampsia Anaemia</td>
<td>PIH</td>
<td>Salt restricted diet</td>
</tr>
<tr>
<td></td>
<td>History, weakness, breathlessness, fatigue, pallor, puffiness of face, hemogram, stool examination, urine examination</td>
<td>Normal diet</td>
</tr>
<tr>
<td>Cardiac problems and DVT (Deep venous thrombosis) with or without Respiratory Distress.</td>
<td>History of breathlessness, fever, palpitation, on prophylaxis, confirmation by ECHO DVT – clinical suspicion, color Doppler confirmation</td>
<td>Low salt diet</td>
</tr>
<tr>
<td>Previous LSCS. (Lower segment caesarian section)</td>
<td>History</td>
<td>Normal diet</td>
</tr>
<tr>
<td>GDM (Gestational diabetic mellitus)</td>
<td>Family history of diabetes, previous history still born, pre mature labor, congenital anomalies</td>
<td>Diabetic diet</td>
</tr>
<tr>
<td>Preterm labour with or without PROM. (Premature rupture of membrane).</td>
<td>Pain, rashes on examination, cervical or not dilation, NST</td>
<td>Normal diet</td>
</tr>
</tbody>
</table>
6.6 **Facilities For Neonates:** Sigma Hospital has NICU (Neonatal intensive care unit) to take care of such neonates and is equipped and staffed adequately.

6.7 **Initial Assessment of patient:** All patients attending the obstetrics and gynecology OPD after obtaining a detailed History undergoes routine obstetric gynecology examination which includes: General examination for pallor icterus; Thyroid swelling; Pedaloe dema followed by examination of breasts, abdomen. This is followed by speculum examination and pervaginal examination.

6.8 **List of High Risk Obstetric cases cared for:** All kind of **High Risk Obstetric** cases like pregnancy complicated by: Hypertension /PIH; Diabetes/ GDM; Cardiac diseases complicating pregnancy; Renal Diseases with pregnancy; Neurological problems complicating pregnancy; Respiratory problems with pregnancy; Orthopaedic problem with pregnancy; Rheumatic problem; Age of mother; Liver disorders, Infections disease.

**7.0 PROCEDURE:**

7.1 In a high risk pregnancy the fetus or neonate is at increased risk of morbidity or mortality before or after delivery.

7.2 Some of the risk factors for high risk pregnancy are hypertension, diabetes, sexually transmitted diseases, pyelonephritis, acute surgical problems, genital tract abnormalities, high or low maternal age, High maternal obesity, Exposure to teratogens (smoking, drugs, etc), prior still birth, prior preterm delivery, Hydramnios, Multiple pregnancy, prior birth injury and maternal nutrition.

7.3 Risk assessment is a part of prenatal care in this hospital. Risk is also assessed during or shortly after labour and at any time these events may modify the risk status.

7.4 High risk obstetrics care is provided by competent senior gynaecologist assisted by assistants and an experienced Neonatologist.

7.5 Hospital is well equipped and manned by competent doctors, nurses and para-medical staff to deal with any type of high risk cases.
7.6 High risk obstetrics patient’s assessments shall include maternal nutrition. Maternal nutritional deficiencies are identified and the hospital dietician shall be consulted.

7.7 The dietitian counsels the patient about her dietary needs and the importance of a healthy diet in the long term health of the mother and child.

7.8 Dietary changes and diet substitutes, special care to be given for correction of maternal anemia are advised.

7.9 The hospital has a well-equipped NICU with Baby ventilators, warmers, incubators, phototherapy machines, facilities for continuous monitoring and exchange transfusion etc. and it is manned by a well-qualified and trained Neonatologist and a group of trained nurses.
COP 6 - POLICIES & PROCEDURES ON CARE OF PEDIATRIC PATIENTS

1.0 PURPOSE:

To define policies guiding the care of Pediatric patients.

2.0 SCOPE:

All the paediatric patients undergoing treatment in hospital.

3.0 RESPONSIBILITY:

Pediatrician,
Nursing Superintendent,
Medical staff
Paramedical staff,
Security staff

4.0 ABBREVIATION:

NABH : National Accreditation Board For Hospitals and Healthcare providers
COP : Care Of Patients

5.0 REFERENCE:


6.0 POLICY:

6.1 The hospital has defined and displayed the services it can provide for pediatrics by competent medical staff trained in paediatrics.

6.2 All clinical staff working in the pediatric department shall receive special training in the care of the new born and pediatrics.
6.3 Care of neonatal patients shall be provided in accordance to IAP / WHO guidelines. Pediatric and Neonatal patient’s assessments shall include detailed nutritional growth, psychosocial and immunization assessment.

6.4 Parents / Guardians shall be educated at the time of admission that protection and security of pediatric patients rest with the parents / guardians who stay with the patient. Security of Neonates shall rest with the NICU staff as long as they remain in the NICU and with the ICU in Charge for Pediatric patients during their stay at that unit.

6.5 Children’s family members are educated about the importance of breast feeding, weaning, rooming-in, nutrition, immunization, and safe parenting and this shall be documented in the medical record of the patient.

7.0 PROCEDURE:

7.1 Clinical Staff at paediatrics department shall ensure that they maintain paediatric assessment, diagnosis and treatment skills (as appropriate) in accordance with their training.

7.2 Staff shall manage paediatric patient appropriate to their skills, training and scope of practice. If the management of pain for a particular paediatric patient is beyond them, they should promptly consider seeking advice or the attendance of a clinician with more advanced skills.

7.3 General Instructions: Recognition of the seriously ill or injured child involves the identification of a number of key signs affecting the child’s airway, breathing, circulatory or neurological systems. If these signs are present, the child must be regarded as critical. Then the staff will follow the assessment, diagnosis and treatment regimens as per procedures:

1) Medical Emergencies in Children
2) High Risk New born babies
3) Trauma Emergencies in Children
4) Anaphylaxis and Allergic reactions in Children
5) Asthma in Children
6) Convulsions in Children
7) Hyperbilirubinemia & Glycaemia Emergencies in Children
8) Overdose and Poisoning in Children
9) Child Basic/advanced Life Support
10) New born Life Support
11) Foreign Body Airway Obstruction
12) Dealing with the Death of Children including sudden infant death syndrome

7.4 Management of Pain in Children:

1) Analgesia shall be normally introduced in an incremental way, considering timeliness, effectiveness and potential adverse events.

2) Pain management should always include the non-pharmacological methods of treatment as a starting point and may be administered by all attending staff.

3) However it may be apparent from the assessment that a stronger analgesia is necessary from the outset and, therefore the appropriately trained staff would need to administer it.

4) Non pharmacological methods include psychological, dressings and splintage. (Necessary restraints without any harm).

5) Pharmacological methods include topical analgesia, oral analgesia, and inhalational analgesia, parenteral and enteral analgesia. These methods are administered by appropriately trained staff.
COP 7 - POLICIES & PROCEDURES ON CARE OF PATIENTS REQUIRING ANESTHESIA

1.0 PURPOSE:
To provide guidelines on administration of anesthesia.

2.0 SCOPE:
All patients undergoing administration of anaesthesia at this hospital.

3.0 RESPONSIBILITY:
Anesthesiologist,
Medical Staff
Nursing staff and
Para medical staff

4.0 ABBREVIATION:
NABH : National Accreditation Board For Hospitals and Healthcare providers
COP : Care Of Patients

5.0 REFERENCE:
5.2 COP 7: Documented policies and procedures guide the administration of anaesthesia.

6.0 POLICY:
6.1 Administration of Anesthesia: In order to achieve patient safety, the Anesthesia Care Team is responsible for the following:

1) Pre-anesthetic evaluation of the patient: A pre-anesthesia evaluation allows for the development of an anesthesia plan that considers all conditions and diseases of the patient that may influence the safe outcome of the anesthesia. Although non-physicians may
contribute to the preoperative collection and documentation of patient data, the anesthesiologist is responsible for the overall evaluation of each patient, and needs to document if in written.

2) **Prescribing of anesthesia plan:** The anesthesiologist is responsible for prescribing an anesthesia plan aimed at safety of each patient. The anesthesiologist discusses with the patient (when appropriate), the anesthesia risks, benefits and alternatives, and obtains **informed consent**.

3) **Management of the anesthesia:** The management of an anesthesia is dependent on many factors including the unique medical conditions of individual patients and the procedures being performed. The anesthesiologist will delegate specific tasks to qualified anesthesiologist to provide quality of care and patient safety. In critical parts of the anesthesia the Head of the Department anesthesia immediately informed for management of emergencies regardless of the type of anesthesia.

4) **Post-anesthesia care:** Routine post-anesthesia care is delegated to nurses. The evaluation and treatment of post-anesthesia complications are the responsibility of the anesthesiologist. Whether the need is preoperative medical clearance or intra-operative resuscitation from an unexpected complication, the surgeon, both ethically and according to training and ability, should be expected to provide medical oversight or supervision of all peri-operative health care provided.

6.2 **Check list for Administration of Anesthesia:** All patients for anesthesia have a pre-anesthesia assessment by a qualified anesthesiologist. There is a pre anesthesia assessment which results in formulation of an anesthesia plan which is documented. There is an immediate pre-operative reevaluation and it is documented. Informed consent for administration of anesthesia is obtained by the Anesthetist. During anesthesia there is regular and periodic monitoring and recording (documentation) of heart rate, cardiac rhythm, respiratory rate, blood pressure, oxygen saturation, airway security and patency and level of anesthesia. Each patient’s post anesthesia status is
monitored and documented. The anesthesiologist applies defined criteria to transfer the patient from the recovery area. All adverse anesthesia events are recorded and monitored.

6.3 **Pre Anesthesia evaluation:** An Anesthesiologist shall be responsible for determining the medical status of the patient and developing a plan of anesthesia care. The Anesthesiologist is responsible for: Reviewing the available medical record; Interviewing and performing a focused examination of the patient to: Discuss the medical history, including previous anesthetic experiences and medical therapy; Assess those aspects of the patient’s physical condition that might affect decisions regarding pre-operative risk and management; Prescribing and reviewing of available tests and consultations as necessary for administration of anesthesia care; Prescribing appropriate preoperative medications; Ensuring that consent has been obtained for the anesthesia care; Documenting in the patient case sheet that the above has been performed.

6.4 **Routine Pre-operative Laboratory and Diagnostic Screening:** Discovery or identification of a disease or disorder which may affect pre-operative anesthetic care; Verification or assessment of an already known disease, disorder, medical or alternative therapy which may affect pre-operative anesthetic care, and; Formulation of specific plans and alternatives for pre-operative anesthetic care; Routinely Hb%, TLC, DLC, ESR, Blood Sugar, Blood Urea, Urine analysis, CXR, ECG before any anesthesia exposure. Appropriate indications for ordering tests include the identification of specific clinical indicators or risk factors (e.g., age, pre-existing disease, magnitude of the surgical procedure).

6.5 **Intra Procedural Monitoring:** Immediate review prior to initiation of anesthetic procedures: Patient re-evaluation; Check of equipment, drugs and gas supply; Monitoring of the patient (e.g., recording of vital signs); Amounts of drugs and agents used, and times of administration; The type and amounts of intravenous fluids used, including blood and blood products, and times of administration; The technique(s) used; Unusual events during the administration of anesthesia; The status of the patient at the conclusion of anesthesia.

6.6 **Post Anesthesia Care:** Patient evaluation on admission and discharge from the recovery area. A time-based record of vital signs and level of consciousness. A time-based record of drugs
administered their dosage and route of administration. Type and amounts of intravenous fluids administered, including blood and blood products. Any unusual events including post-anesthesia or post-procedural complications. Post-anesthesia visits.

6.7 Regional Anesthesia:

1) Phase I Recovery to Phase II Recovery Discharge Criteria following Regional/Neuraxial Anesthesia: The patient is suitable for transfer from Phase I Recovery when your institution's discharge criteria following General Anesthesia are met (see Tables one and two below) and the Motor and Sensory Assessments as outlined below in Table Three have been met:

2) Modified Aldrete Scoring System:

<table>
<thead>
<tr>
<th>Category</th>
<th>Description of Status</th>
<th>Aldrete Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respirations</td>
<td>Breaths, coughs freely</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Dyspnea</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Apnea</td>
<td>0</td>
</tr>
<tr>
<td>O2 Saturation</td>
<td>O2 Saturation &gt; 92% on Room Air</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Supplemental oxygen</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>O2 Saturation &lt; 92% on O2</td>
<td>0</td>
</tr>
<tr>
<td>Circulation</td>
<td>BP +/- 20 mmHg pre-op value</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>BP +/- 20 - 50 mmHg pre-op value</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>BP +/- 50 mmHg pre-op value</td>
<td>0</td>
</tr>
<tr>
<td>LOC</td>
<td>Awake &amp; oriented</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Wakens with stimulation</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Not responding</td>
<td>0</td>
</tr>
<tr>
<td>Movement</td>
<td>Moves 4 limbs on own</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Moves 2 limbs on own</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Moves 0 limbs on own</td>
<td>0</td>
</tr>
</tbody>
</table>
6.8 **General Anesthesia : Modified Aldrete Scoring System:** A minimum score of 9/10 (and/or return to similar pre-op status) is achieved prior to transferring the patient to a Phase II recovery area.

<table>
<thead>
<tr>
<th>Category</th>
<th>Score = 2</th>
<th>Score = 1</th>
<th>Score = 0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respirations</td>
<td>Breathes, coughs freely</td>
<td>Dyspnea</td>
<td>Apnea</td>
</tr>
<tr>
<td>O2 Saturation</td>
<td>SpO2 &gt; 92% on R/A</td>
<td>Supplemental O2</td>
<td>SpO2 &lt; 92% on O2</td>
</tr>
<tr>
<td>Circulation</td>
<td>BP +/- 20 mmHg pre-op value</td>
<td>BP +/- 20-50 mmHg pre-op value</td>
<td>BP +/- 50 mmHg pre-op value</td>
</tr>
<tr>
<td>LOC</td>
<td>Awake and oriented</td>
<td>Wakens with stimulation</td>
<td>Non-responsive</td>
</tr>
<tr>
<td>Movement</td>
<td>Moves 4 limbs spontaneously</td>
<td>Moves 2 limbs spontaneously</td>
<td>Moves 0 limbs spontaneously</td>
</tr>
</tbody>
</table>

6.9 **Infection Control Protocols:**

1) A specified consultant in each department of anaesthesia should liaise with the Hospital Infection Control Teams to ensure that relevant specialist standards are established and monitored in all areas of anaesthetic practice.

2) Precautions against the transmission of infection between patient and anaesthetist or between patients should be a routine part of anaesthetic practice.

3) In particular, anaesthetists must ensure that hand hygiene becomes an indispensable part of their clinical culture.

4) Anaesthetists must comply with local theatre infection control policies including the safe use and disposal of sharps.

5) Anaesthetic equipment is a potential vector for transmission of disease.

6) Policies should be documented to ensure that nationally recommended decontamination practices are followed and audited for all reusable anaesthetic equipment.

7) Single use equipment should be utilised where appropriate but a central sterile supplies department (CSSD) should process reusable items.
8) It is recommended that anaesthetic departments should consider changing anaesthetic circuits on a daily basis in line with daily cleaning protocols.

9) Appropriate infection control precautions should be established for each anaesthetic procedure, to include maximal barrier precautions for the insertion of central venous catheters, spinal and epidural procedures and any invasive procedures in high risk patients.

6.10 **Adverse Anaesthesia Events:**

1) All post-operative patients shall be monitored for any adverse anaesthesia event.

2) The patients shall be shifted from the recovery area as per the Scoring by the Anesthetiologist.

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**7.0 PROCEDURE:**

7.1 **Preliminary preparation** should be made before conscious sedation. Services are provided in a particular clinic:

1) **Administrative:** If the provision of conscious sedation services is being considered in a clinic, the department Chair should review the policy for Conscious Sedation and make a decision regarding the clinic’s ability to meet staffing, educational and equipment requirements.

2) **Medical Staff:** The physician supervising the administration of conscious sedation should be qualified to rescue patients from deep sedation and must obtain specific privileges from the Core Committee through the Medical Staff Office credentialing procedure. As per Department of Anesthesiarecommendations, the following general anesthetic agents are not considered appropriate for IV conscious sedation. These agents include, but are not limited to: Thiopental (Pentothal); Methohexital (Brevital); Ketamine; Propofol (Diprivan); and anesthetic gases (Isoflurane, Halothane, Nitrous Oxide). The physician will direct the administration of conscious sedation to achieve the desired level of sedation and have available the necessary equipment and trained staff required in the event of an adverse reaction to the medication or procedure.
3) Assisting Staff: Health care providers assisting and monitoring the patient before, during, and after a procedure should have specific training in conscious sedation and have no other duties assigned until the patient is ready for discharge (usually a minimum of one hour post-procedure monitoring).

### 7.2 Planning for Care:

1) Pre –anaesthesia assessment: All the anaesthesia has a pre –anaesthesia assessment by the qualified individual. The pre anaesthesia assessment results in formulation of an anaesthesia plan which is documented.

2) Pre-operative re-evaluation: An immediate pre-operative re-evaluation is documented. The physician will determine the appropriateness of performing the procedure(s) requiring conscious sedation based upon:

   - 7.2.2.1 The patient’s medical, anaesthetic, and medication history.
   - 7.2.2.2 The patient’s current medical condition.
   - 7.2.2.3 Available diagnostic data.
   - 7.2.2.4 Risks, benefits and alternatives of the procedure

### 7.3 Consent: The physician will discuss the purpose, options, and risks for conscious sedation with the patient and family prior to the procedure; and will obtain and document informed consent. The informed consent for the administration of anaesthesia is obtained by the anaesthetist.

### 7.4 Pre-anesthesia assessment: All patients posted for elective surgery should be admitted one day prior to surgery so that the anesthesiologist can do pre-anesthesia assessment and plan anesthesia procedures accordingly. During the anesthesia monitoring includes regular and periodic recording of the heart rate, cardiac rhythm, respiratory rate, blood pressure, oxygen saturation, airway security and the patency and the level of anesthesia.

1) History:

   - 7.4.1.1 History of previous illness (Diabetes, HT, renal or liver disease, bronchial asthma, epilepsy etc) and history of drug intake for the same should be taken. History of allergy to any drug should be elicited. History must be taken of any previous
surgery and any adverse effect after anesthesia such as delayed recovery from anesthesia or severe bronchospasm after anaesthesia. A family history of somebody having problems with anaesthesia should be taken. History of blood disorders, prolonged bleeding and clotting time should be taken. History should be taken of cardiac disease, chest infection, jaundice, alcoholism, smoking and urinary problem. History of having any pacemakers implanted inside the body should be elicited. History should be taken on the hours of starvation.

2) Examinations:

7.4.2.1 Detailed examinations of all systems are necessary to assess the pre-operative physical status of the patient. Pulse, BP, RR and temperature must be taken. Cardiovascular and respiratory system must be extensively examined. Airway examination includes mouth, protruding tooth, and shaky tooth, uvula and opening of mouth. History of the use of artificial dentures should be elicited and it has to be removed before the anaesthesia procedure. Along with the assessment of the physical status of the patient, the anesthesiologist has to assess the mental status of the patient. The anesthesiologist has to explain in a reassuring manner how the anaesthesia procedure is planned, the approximate duration of surgery, how long the patient will be inside the post op ICU, when he can take food or water. When a patient is thus educated he can be mentally and psychologically prepared to tolerate better the stress and strain of an anaesthesia and surgery.

3) Investigations: Routine blood investigations such as Hb, TC, DC, ESR, Blood sugar, blood urea, S. Creatinine, CT, BT, PCV, HIV, HBS Ag. Urine routine are done. In indicated patients, LFT, PT, PTT, and S. electrolytes are also done. Pulmonary function tests are done preoperatively in COPD patients to assess respiratory status and improve functional vital capacity before being taken up for surgery. ABG analysis in indicated patients, chest X-ray and ECG are also done. If ECG changes are seen, detailed cardiac evaluation by a cardiologist including echocardiography, TMT etc. Patients are routinely examined by
physicians to assess all systems. The concerned super-specialists such neurologists, nephrologists, cardiologists etc. are consulted as the case may arise. All the relevant details of the patient are documented in the case sheet during this pre anesthesia visit.

7.5 **Premedication:** Reasons for premedication: Patient’s comfort for analgesia, sedation Drugs used are Diazepam, Alprazolam, Midazolam, etc. Decrease in gastric volume and increase in PH. Drugs used are antacids, Ranitidine, Omeprazole, Pantoprazole, Rabeprazole etc. Decrease in airway secretion, e.g. Glycopyrrolate, Atropine. Decrease in autonomic response e.g. Atropine. Prophylaxis against allergic reactions e.g. Dexona, Betnesol etc. Continue therapy for concurrent disease. Decrease in incidence of nausea and vomiting e.g. Ondansetron, metoclopramide, Phenergan etc.

7.6 **Restriction of Oral Intake before Surgery:** Vomiting and aspiration of gastric contents during induction of anaesthesia can cause pulmonary damage, if volume of aspirate reaches 25ml/Kg and smaller volume can also produce damage. Patients who are pregnant, obese, smokers and Patients who have hiatus hernia are at a greater risk of aspiration. Usually the patients are instructed to take nothing orally for 6 to 8 hours before surgery to reduce the risk of aspiration of gastric contents. Children and new born are advised only 4 hours of starvation.

7.7 **Documentation:** All the relevant history, investigation reports and examination findings are documented by the anesthesiologist which including an immediate pre operative re-evaluation. In addition to this, the pre anesthesia assessment results in formulation of an anesthesia plan, Pre-medication and pre-op. orders should also be documented.

7.8 **Informed Consent:** Written informed consent should be obtained from the patient before any surgery and anaesthesia. In the case of a child aged less than 16 years or unconscious/ mentally retarded patient, the parent’s guardian signs the form. Explanation of the hazards of surgery and anaesthesia should be given to the patients and bystanders.

7.9 **Anaesthesia Procedure:** During anaesthesia induction and maintenance, regular and periodic recordings of heart rate, temperature, Respiratory rate, and Oxygen saturation should be done. Urine output and CVP should be recorded for prolonged cases.
7.10 **Post Anaesthesia Care**: Patient is shifted to the recovery room and the patient’s vitals should be monitored. ECG monitor, Pulse oxymeter, central oxygen supply, intubation equipment, airway maintenance equipments, and emergency drugs should be always kept ready in the recovery room. After the patient has sufficiently recovered from anaesthesia, the patient is shown to the bystanders and shifted to the post OP / ICU, where the patient is usually kept for 24 hours. In the post OP/ICU the patient’s vitals are regularly monitored and recorded. The patient is shifted to the ward according to the surgeon’s discretion. All the drug anesthesia events are recorded and monitored.

7.11 **Post-Operative Pain Management**: Post-operative pain is mainly managed by epidural analgesia, NSAIDS. Epidural analgesia for labour pain is also done. Opioids commonly used are Fortwin, Pethidine, Morphine, and fentanyl. For epidural analgesia drugs used are Sensorcaine (0.25%), Fentanyl, and Tramodol. All adverse anaesthesia events are recorded and analysed by the Pharmacy and therapeutic committee for taking preventive actions in the future.
COP 8 - POLICIES & PROCEDURES ON SURGICAL CARE OF PATIENTS

1.0 PURPOSE

To guide the uniformity of care for patients undergoing surgical procedures.

2.0 SCOPE

The operative procedure is only one part of the total surgical care of the patient. Total surgical care includes establishing or confirming the diagnosis, preoperative preparation, the operative procedure, and postoperative care.

3.0 RESPONSIBILITY:

3.1 Surgeons
3.2 Anaesthesiologist
3.3 Nursing Staff
3.4 Paramedical staffs

4.0 ABBREVIATION:

4.1 NABH : National Accreditation Board For Hospitals and Healthcare providers
4.2 COP : Care Of Patients
4.3 OT : Operation Theatre

5.0 REFERENCE:


6.0 POLICY:

6.1 Surgical procedures and competency levels:
All surgical procedures shall be undertaken by the surgeons as per the list of surgical procedures prepared by the OT in-charge in consultation with the surgeons and based on the list received from the concerned wards.

6.2 **Pre-operative assessment and provisional diagnosis:**

All patients undergoing surgical procedure (either routine or emergency) shall have an assessment done preoperatively and a provisional diagnosis and that should be documented.

The pre-operative assessment shall be done by the surgeon performing the surgery or a credentialed doctor from the team.

All patients planned for routine surgical procedure are to get admitted at least 24 hours in advance to monitor their vitals, medical fitness and preparation for procedure by the ward staff. This period is considered as necessary to make available the OT and required staff assisting the surgery.

6.3 **Informed consent:**

The concerned surgeon or a doctor member of his team shall obtain an informed consent for surgery from the patient/relative prior to the procedure.

The consent shall be sought after proper explanation of the benefits, risks and complications involved performing the said procedure.

In case, the operative plan is changed intra-operatively, a fresh consent shall be sought from the patient/relative.

6.4 **Prevention of adverse events:**

All patients undergoing surgical procedure shall be properly identified through MRD number and name and preoperative checklist should be verified by the Pre-OP in charge / OT in-charge.

Site of surgery on patient shall be marked by surgeon prior to surgery.
Preoperative note shall explain the procedure to be performed and should be documented prior to surgery.

6.5 **Qualification of performing surgeons:**

Doctors qualified by law shall be permitted to perform the procedures.

Such doctors shall be credentialed and given privileges to conduct the said procedures in this hospital.

The HR, Credentialing and Privileging Committee shall do the needful.

6.6 **Documentation of procedure – operative note and post-operative plan of care:**

Post-operative notes shall be prepared by the surgeon who includes procedure performed, post-operative diagnosis, plan of care and status of the patients and documented prior to transfer out of patient from recovery area.

The post-operative care plan shall be prepared by the operating surgeon in collaboration with the anaesthesiologist and shall include advice on:

1.1.1 I.V. Fluids
1.1.2 Medications
1.1.3 Care of wound
1.1.4 Nursing care
1.1.5 Monitoring of patient vitals
1.1.6 Observation for any complications

6.7 **Infection control protocols:**

The theatre layout shall minimise the mix of sterile and unsterile patients.

The OTs shall be cleaned and carbolised after every case.

All OT staff shall adhere to standard precautions, handwashing, PPEs and safe handling of the patients.

6.8 **Equipped Operation Theatre:**
The Operation Theatre complex shall have the necessary facilities for conducting the said procedures, changing rooms, equipments, appliances and instrumentation.

7.0 PROCEDURE

7.1. All the patients who are to undergo surgery have full details of their medical condition in their case records.

7.2. Depending on his medical condition the patient may need either elective or emergency surgical procedures.

7.3. The elective procedure could either be minor in nature or major. Emergency surgical procedures though usually major, could also be minor in nature.

7.4. Surgical patients have the preoperative assessment and the provisional diagnosis documented prior to the surgery.

7.5. Before either elective or emergency procedures, the surgeon examines the patients and makes an assessment of his/her condition based on the clinical presentation of the case, signs and symptoms, and results of the investigations.

7.6. A provisional diagnosis is made and this is documented in the patient’s case notes before he is taken up for surgery. This is done mainly to avoid adverse events like wrong site, wrong patient and wrong surgery etc

7.7. All patients admitted for elective major surgery should undergo the following tests: Blood Hb., blood grouping & Rh typing, Random blood sugar estimation, blood urea, serum creatinine, HIV, HbsAg. They should also have ECG and chest X-ray taken.(Optional)

7.8. Elective minor cases need to have the following tests done: Hb, Random blood sugar, HIV and HbsAg. They should also have their ECG and chest X-ray taken.

7.9. Preoperative initial assessment has to be done for all patients undergoing elective major and emergency operations.

7.10. If the surgeon comes across any abnormal findings in the pre operative tests, it has to be documented in the patient’s records and this has also to be informed to the patient’s relatives.
7.11. Patients with obvious ECG changes or patients with history of cardiac problems should be seen by the cardiologist before being taken up for surgery. The patient should be informed by the cardiologist of the potential cardiac risks during or after surgery.

7.12. Patients with poor renal function or chronic renal disease should have consultation with the nephrologists. The bystanders or relatives must be informed by the nephrologists about the possible postoperative or intra operative complications.

7.13. Apart from the general consent which is obtained routinely from all in-patients, patients undergoing surgery should be informed about the procedure, its probable outcome, and its possible outcome and its probable rare complications. Following this informed consent from the patient is taken. The name of the surgical procedure, site of surgery and complications of surgery should be written in capital letters.

7.14. Patients with cardiac or renal problems should be given their informed consent in his/her handwriting and signed with a witness other than a hospital staff. One of the witnesses should be the ward nurse in charge.

7.15. The patient is prepared for surgery as follows:

- The patient should not take anything orally at least 6 to 8 hours before the actual surgery.
- The patient’s weight is recorded.
- The skin of the operation site is prepared by shaving the hair and cleaning with antiseptic.
- Bowel preparation is done by giving enema.
- Artificial dentures and jewellery are removed (and receipt given or handed over to authorized people), Nail polish is cleaned.
- The patients dress is changed to a clean one.
- Patients ID tag is kept in place.
- The patients depending on their physical condition are shifted to the OT by wheel chair or trolleys.
A Staff nurse from the ward accompanies the patient with the case sheet to the OT. The OT nurse takes over the patient after checking the case sheet and making identification and documents.
Here after the OT staff is responsible to take care of the patient till he/she leaves the recovery room.
Once the patient has been received at the OT, his/her dress is changed to sterile OT gown/dress supplied by the CSSD.

7.16. All type of surgeries performed in this hospital are by well qualified, experienced surgeons who have had extensive training and expertise in their particular fields. Complex surgeries are sometimes performed by a team of doctors, each dealing with his/her specialty.

7.17. Prior to surgery the case file shall be reviewed, the condition of the patient shall be checked and surgical safety checklist before induction of anaesthesia, before skin Incision and before the patient leaves the operating room shall be completed by the surgeon and anesthesiologist.

7.18. After the surgery is completed, before the patient is transferred back to the ward, the surgeon writes down and documents a brief operative note and post operative plan of care. The anesthesiologist on his/her part also notes down the details of the anaesthesia procedure starting with the pre-medication, induction till the end of anaesthesia, extubation etc.

7.19. All the events during the stages of anaesthesia are recorded and documented. The anesthesiologist will follow the patient in the recovery room and the surgical ICU/ward till the patient fully recovers from anaesthesia.

7.20. As a quality assurance programme, the OT and its surrounding areas like the recovery room, CSSD etc are under the strict supervision by the infection control nurse and the hospital infection surveillance team who ensures absolute sterility of the operation areas so as to avoid the risk of transmission of infection.

7.21. The plan also includes monitoring of surgical site infection rates. All the post operative patients shall be screened for the same.
7.22. The hospital infection control team conducts regular documented surveillance which includes monitoring of surgical site infection sites. Culture swabs are taken from infected or suspected wound sites to analyze them with the aim to prevent or reduce the risk of hospital associated infections.

7.23. **Surveillance of Operation Theatres:**

Each health care establishment undertaking surgery must have a specific protocol for operating room procedures, including specific requirements for surgical hand washing routines and handling of sharps.

When individuals are being admitted to hospital or presenting at an emergency unit, a detailed medical and surgical history should be collected from them or their careers to identify conditions that may require additional precautions.

All articles used in an operation must be sterile. The principles of sterile aseptic technique must be applied to all operating room procedures. The principle of ‘confine and contain’ must be applied at all times for all patients.

Sterile drapes must be used for the patient; staff must wear full sterile operating room personal protective clothing.

Patients should inform their doctor of their infectious status. Preoperative testing of patients should be on clinical indication.

All staff in the surgical team should be vaccinated against hepatitis B. Surgical staff should not perform exposure-prone procedures if they are considered actively infectious with human immunodeficiency virus, hepatitis B virus or hepatitis C virus. Staff with dermatitis or skin wounds should be excluded from the operating team.

Operating lists should allow sufficient time for adequate infection control activities, including routine cleaning and the appropriate disposal of clinical waste.

The operating room should be cleaned as soon as practicable after surgery, including the correct disposal of sharps and clinical waste and cleaning of all surfaces.
Reusable instruments should be immersed in warm water and detergent as soon as possible after use and must then be thoroughly cleaned in a designated clean-up area before sterilization.

**ANNEXURE A: SURGICAL SAFETY CHECKLIST**

<table>
<thead>
<tr>
<th>SIGN IN</th>
<th>TIME OUT</th>
<th>SIGN OUT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BEFORE INDUCTION OF ANAESTHESIA</strong></td>
<td><strong>BEFORE SKIN INCISION</strong></td>
<td><strong>BEFORE PATIENT LEAVES OPERATION THEATRE</strong></td>
</tr>
</tbody>
</table>

### SIGN IN
- Patients has confirmed
  - Identity
  - Site
  - Procedure
  - Consent
- Site marked/not applicable
- Anaesthesia safety check completed
- Pulse oximeter on patient and functioning

### TIME OUT
- Confirm all team members have introduced themselves by name and role
- Surgeon, anaesthesia professional and nurse verbally confirm
  - Patient
  - Site
  - Procedure
- Anticipated critical events
  - Surgeon reviews: what are the critical or unexpected steps, operative duration, anticipated blood loss?
  - Anaesthesia team reviews: are there any patient-specific concerns?
  - Nursing team reviews: has sterility (including indicator results) been confirmed? are there equipment issues or any concerns?

### SIGN OUT
- Nurse verbally confirms with the team:
  - The name of the procedure recorded
  - That instrument, sponge and needle counts are correct (or not applicable)
  - How the specimen is labeled (including patient name)
  - Whether there are any equipment problems to be addressed
- Surgeon, anaesthesia professional and nurse review the key concerns for recovery and management of this patient.

- Has antibiotic prophylaxis been given within the last 60 minutes
  - Yes
  - Not applicable
- Is essential imaging displayed?
  - Yes
  - Not applicable