DEPARTMENT ANESTHESIA & INTENSIVE CARE

LOK NAYAK HOSPITAL, NEW DELHI

STANDARD OPERATING PROCEDURE (SOP)

FOR OPERATION THEATRE

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OPERATION THEATRE SOPS

(A) Purpose: To ensure the optimal preparation of the patient for surgery and safe conduct of anaesthesia/surgery and optimal recovery in the postoperative period.

(B) Scope: Preoperative optimization of patient's condition, transfer from ward to OT, informed consent, pre-operative preparation and safe administration of anesthesia, safe conduct of surgical procedure and evaluation of patients' general condition following reversal of anaesthesia.

(C) Policy for OT

i. **Consent-** Prior to the administration of anesthesia, the patients/ relative is informed about the planned anesthesia procedure, risk & benefits involved etc. Informed consent is prescribed format is obtained from the patients by the concerned anesthetist. In case the patients is incapable, minor then consent is obtained from patients relatives/ guardians as specified by the hospital.

ii. **Preoperative preparation-** Pre-anesthesia assessment to guide anesthesia plan and same is documented after taking relevant consent

iii. **Intraoperative care for GA/RA-** for elective and emergency surgeries, type of anesthesia with drugs, procedure & monitoring to be recorded.

iv. **Intraoperative care for MAC-** For elective/ emergency procedures under sedation /MAC monitoring & drugs to be recorded.

v. **PACU-** shifting of patients from the OT to post anesthesia care unit depending on types surgery anesthesia and to determine if patients needs ICU

vi. **PAIN MANAGEMENT-** preoperative & post operative pain management according to VAS scoring to improve peri operative outcomes & subsequent recoding to be done.

(D) Procedure & Responsibility at each Step

I) Preoperative Preparation

Sr. No.	Activity Description: Preoperative Preparation	Responsibility	Ref. Doc/Record
1.	A tentative OT list should be sent to the department of Anaesthesia, OT and the post-operative ward.	Nursing In-charge of surgical Ward	

2.	For patients with co-morbidities, a consultant Anaesthesiologist referral must be sent at least 3 days prior to the surgery (PAC). However, keeping in mind that the elective cases can be deferred till the patients' general condition is optimized.	Consultant Anaesthesiologist	
3.	A bedside pre-Anaesthesiologist check-up must be done by an Anaesthesiologist a day prior to surgery. Any investigation or inter-departmental referrals or opinions may be sought, if deemed necessary	Anaesthesiologist (Senior Resident). Not below the rank of senior resident.	
4.	The informed consent shall be taken by the operating surgeon and anaesthesiologist in separate from explaining the consequences of anaesthesia and surgery, respectively. The informed consent for surgery may be signed a day prior; whereas, the consent for anaesthesia should preferably be signed on the day of surgery considering the deterioration in case of any pre-existing ailment, which may be best evaluated in terms of perioperative risk on the day of surgery itself. The written, informed consent must explain both surgical and anaesthesia risk and should be duly signed by the patient or his/her immediate relative. Common complications should also be mentioned in the informed consent. The consent should be in form of "Informed consent" with patient and the relative in counselling. In case the patient refuses surgery this should also be put in writing and should again be signed by the patient or his/her relatives and doctor.	Anaesthesiologist /Surgeon.	
5.	The site to be operated should be marked and prepared i.e. shaved, nail paints & mehandi to be removed, jewellery & dentures removed and handed over to the relatives. The list of the valuable s should be clearly mentioned.	Ward nurse	

	ASA guideline on "Nil per oral" (NPO) must be followed and documented. * Patients' identity and type of surgery must be marked on the patient.		
6.	The patients should be shifted to OT according to his/her turn in the OT list.	Ward nurse	
7.	All pre medications & investigations shall be positively done and affirmation must be sent along with the patients.	Ward nurse	
8.	The patient shall be dropped from the list if the pre-anaesthetic order could not be followed e.g. patient had not received medicines or the advised investigation has not been done. Compliance with above will prevent unnecessary delays, wastage of time and resentment on part of the patient for having the surgery deferred.	Surgeon / Anaesthesiologists	
9.	Containers for specimens shall be available with patients and shall be properly marked beforehand showing the name, bed number, ward and specimen name.	Ward nurse	

* ASA Protocol for Pre-operative NPO status

Types of food	Minimum fasting period
Clear fluids/water	2 hours
Pulpy fruit juice/breast milk	6 hours
Infant formula milk	6 hours
Non human milk	6 hours
Light meal	8 hours
Fatty meal	8 hours

II. PATIENT CARE IN THE OPERATION THEATRE (do not apply to cases under local anaesthesia)

Sr. No.	Activity/ Description	Responsibility	Ref. Doc/ Record
1.	In the pre-operative room, all patients must be evaluated again for their readiness for surgery. A documented policy and procedure shall exist for administration of anaesthesia. The pre-anaesthesia assessment results in formulation of an anaesthesia plan which is documented.	Anaesthesiologists	
2.	The identification of the patient and the site of surgery should be confirmed. Informed consent explaining the risks associated with the surgical procedure as well as anaesthesia must be rechecked and reinforced in high risk patients.	Surgeon /Anaesthesiologists Surgeon /Anaesthesiologists	
3.	The anaesthesia machine along with the availability of emergency resuscitation devices, suction machine, breathing circuits, oxygen supply, defibrillator and all emergency medicines should be checked. A qualified anaesthesia personnel must check the aforementioned items. Only qualified surgeons are permitted to perform the procedures they are entitled to. Estimated time for the surgical procedure is to be documented. Surgeons along with the Anaesthesiologist will also reaffirm the patients' identity, operation site and procedure. Time of entry and time of exit from the operation theatre (OT) must be documented.	Anaesthesiologists Surgeon /Anaesthesiologists OT Staff nurse Anaesthesiologists	

	Nurse shall prepare operation trolley beforehand All team members should have introduced themselves to the patient by their names and their roles. During anaesthesia, American Society of Anaesthesiologists (ASA) recommended minimal mandatory monitoring must be instituted. It includes continuous ECG, oxygen saturation, end-tidal CO2 and intermittent NIBP. Temperature monitoring where needed. Invasive monitoring like intra-arterial blood pressure and central venous pressure (CVP) monitoring where deemed necessary.		
4.	Details of Anaesthesia GA/RA/MAC with drugs & procedure and any adverse event must be recorded. Patient's condition following reversal of anaesthesia and before shifting to PACU must be documented. In case, the procedure is changed intra-op (and was not planned or an explicit consent taken for the same) a fresh consent needs to be taken.	Anaesthesiologists Surgeon	
5.	Patients with HIV, Hepatitis B & C, Tetanus, gas, gangrene, shall be operated according to set protocol as per the local policies and infection control committee of the hospital.	Anaesthesiologists Sister in charge of OT	
6.	OT Staff assisting for the surgery must keep a count of instruments, sponges and gauzes and must match with the preoperative count before closure. She should also give sponges and gauzes and in fixed aliquots. The abdominal sponges must have a radio opaque line. In case of missed gauze or sponge, all possible efforts must be	Sister in charge of OT Sister in charge of OT / Surgeon	

	maintained to match the preoperative count and C-arm/X - ray evaluation must be done before shifting the patient.		
7.	Prior to transfer of the patient to PACU/Post-operative recovery ward, a brief operative note should be documented on the case file. The note should provide information about the name of the surgeons /anaesthesiologists, procedure performed, salient steps of the procedure or any key intraoperative observations, post-operative diagnosis and the status of the patient immediately before shifting to the recovery area. It must be signed by the operating surgeon and concerned anaestheologist.	Surgeon /Anaesthesiologists	
8.	In addition to the surgical notes, the operating surgeon must document the post-operative plan of care e.g. IV fluid therapy, medications including antibiotics, wound and nursing care etc. In patients with preoperative co-morbidities, requiring special postoperative care, this plan could be written in collaboration with the anaesthesiologist.	Surgeon /Anaesthesiologists	
9.	Maintenance of records: Details of Anaesthesia should be recorded 1. In the PAC chart in the patients' case sheet. 2. In the Anaesthesia OT register Details of surgical procedure should be recorded 1. In the patients' case sheet (details aforementioned) 2. In the Surgery OT register Details of specimen should also be recorded in a separate register	Anaesthesiologist Surgeon Staff Nurse	

	Patient's condition following reversal of anaesthesia and before shifting to PACU must be documented	Anaesthesiologist	
10.	Surgeons and Anaesthesiologist shall be jointly satisfied about the recovery of the patient before shifting to PACU/ICU/ or postoperative ward.	Surgeon/ Anaesthesiologists	
11.	The infection control in OT must comply as per the local policies or Infection control committee of the hospital.	Sister in charge OT	

III. Patients care under short procedures requiring administration of moderate sedation or monitored anaesthesia care (MAC)

Sr. No.	Procedure	Responsibility	Reference
1.	Informed consent for the surgery as well as anaesthesia in the form of moderate sedation must be obtained by the surgeon/ anaesthesiologist, respectively.	Surgeon/ Anaesthesiologists	
2.	If, parenteral route is used to administer sedation for a surgical procedure, this shall be carried out by a trained and competent doctor. Nurse or technician should not administer sedation here.	Surgeon/ Anaesthesiologists	
3.	The administration /monitoring of sedation and performance of surgery must be carried out by different persons. By no mean, patients' monitoring under anaesthesia should be compromised	Surgeon/ Anaesthesiologists	
4.	Intra-procedure monitoring includes at a minimum the heart rate, ECG, respiratory rate, blood pressure, oxygen saturation, and level of sedation. Other parameters may be	Surgeon/ Anaesthesiologists	

	monitored as deemed essential depending upon the case.		
5.	Patients must be shifted from the OT to recovery area once the patient is conscious and responding to verbal commands and have stable vitals. Patient's vitals after sedation shall be monitored at regular intervals (as decided by the organisation) till he/she recovers completely from the sedation.	Surgeon/ Anaesthesiologists Doctor/ nurse	
6.	Equipment and manpower to handle any complication intra operatively under sedation must be available. It includes emergency resuscitation drugs, equipment and also an anaesthesiologist.	Nurse/ Surgeon/ Anaesthesiologists	

IV. POST ANAESTHESIA CARE UNIT (PACU)

PURPOSE

To ensure patient safety in the immediate postoperative period in the **Post- Anaesthesia Surgical Recovery Unit / Post Anaesthesia Care Unit (PACU)**

SCOPE

Transfer of patient from OT to PACU, efficient monitoring and pain management in the PACU, followed by safe transfer to the postoperative/recovery ward or general ward. In case of ambulatory surgery, patient may be shifted to the lower level of recovery i.e. postoperative ward/recovery ward without being shifted to the PACU.

RESPONSIBILITY

Described along with the procedure at each step

PROCEDURES

Sr. No.	Procedure	Responsibility	Reference
1.	**The transfer of patients from the operating theatre to the PACU** The patient should have patent airway and be physiologically stable on departure from the OT table and must be accompanied by the Anaesthesiologist to the PACU along with the oxygen by face mask.	Anaesthesiologists	
2.	The extent of mobile monitoring during transfer will depend upon the proximity of PACU from OT and patients' clinical status. If PACU is at a distance, a minimum of pulse oximetry, ECG and non-invasive blood pressure monitoring is must	Anaesthesiologists	