



ISA

Indian
Society of
Anaesthesiologists

GUIDELINES FOR PRACTICING ANAESTHESIOLOGISTS IN INDIA

ISA Guidelines for Anaesthesiologists in India

Indian Society of Anaesthesiologists, the largest representative body of Anaesthesiologists in India is issuing these guidelines for anaesthesiologists practicing in India. These guidelines are recommended to improve working conditions in operation room and perioperative zones, to increase patient safety. These guidelines becomes necessary in view of increasing litigation against anaesthesiologists and development of anaesthesiology as an independent and important speciality of medicine.

These guidelines contain 4 sections and 4 annexures.

Section 1- Minimum Mandatory Standards in Operation Room

Section 2- Functioning of City Branches

Section 3- Ethical Conduct of Anaesthesiologist

Section 4- Remuneration of Anaesthesiologist: The RVG System.

Section1- Minimum Mandatory Standards in Operation Room

The speciality of anaesthesiology requires a lot of vigil on part of anaesthesiologists. It includes presence of anaesthesiologist as well as lot of monitoring equipment. The Goal of these minimum monitoring standards is to improve safety of patient undergoing anaesthesia. The surgeon, anaesthesiologist, other physician and ancillary staff work as team to improve outcome of the procedure. The Goals includes

1. Presence of Anaesthesiologist- The operating surgeon & hospital must ensure presence of a qualified and registered Anaesthesiologist in the Operating Room where a patient is undergoing a procedure under anaesthesia.
2. Pre Anaesthetic Check-up(PAC) & Investigations – The surgeon should request the PAC of the patient from the anaesthesiologist before listing the patient for OR. The necessary investigations, references and optimisation of patient should be done in consultation with anaesthesiologist. The ISA recommend a patient questionnaire, PAC chart to be used by all anaesthesiologist. (Annexure 1)
3. Presence of Anaesthesia Machine/Workstation and Monitoring equipment- The OR should have a functioning anaesthesia machine/workstation, defibrillator, monitoring equipment in working condition, essential medicine and airway equipment. For detailed list of these, Refer to annexure 2).
4. Safety Checklist- The anaesthesiologist should ensure availability of checklist in the OR and perform it before giving anaesthesia to patient
5. Adequate facility to manage emergency & To transfer patient if required.

Section 2- Functioning of City Branches

Time has come for us to stand united and progress to take our speciality and its honour to new heights. Unitedly, we can bring a major shift in perioperative care. Today the only way to create a healthy working atmosphere in your city is to unite against all adversities faced by us. To achieve this, ISA recommends the following-

1. Regular monthly meetings is a must, even over a cup of tea is ok, Clinical topics, Difficulties in practice, setups, black sheep etc should always be discussed.
2. Public awareness is woefully lacking about our specialty & every member should take it on himself to promote this activity. Some suggestions are
 - a) Starting your own Pre Anaesthesia Clinic in each hospital or at least visiting the patient preoperatively & in postoperative period.
 - b) Anaesthesia specific consent forms with a preoperative questioner to be handed over to the patient once he has been posted for surgery (in local language)
 - c) Designing & pasting posters imparting knowledge about Anaesthesia with pictorial demonstration of modes & techniques of Anaesthesia.
 - d) Designing Anaesthesia related interactive websites with thorough knowledge about Anaesthesia, with experts replying to queries from the public.
 - e) Making a film about Anaesthesia techniques and showing it at public platform like cinema theatres.
 - f) Organize conferences on Anaesthesia, Analgesia, Pain management wherein all specialists exchange their thoughts & ideas in managing pain with public involvement.
 - g) Press releases for all events should be a routine so that local media always publish our events giving wide public knowledge.
 - h) Invite State /National Dignitaries to your city.
 - i) Teach CPR/Disaster management to all general public, media persons, paramedical staff & policemen.
 - j) World Anesthesia Day should always be celebrated in great pomp & ceremony on a public platform. Make a deal with the local radio/TV stations.
 - k) Wear color coded T-shirts with simulating captions such as "WE CARE WHEN YOU ARE NOT AWARE". The color of these T-shirts can be of our National ISA flag & wear them on a regular basis be it professional or social events, what better way to promote ourselves.
 - l) Anaesthesia card postop can be effective especially if pt has had some problem during anaesthesia.
 - m) Social communities like Rotary, Lions club can be used as interactive platforms.
3. Frequent non-academic meetings with family, ladies special, Picnics, treks should be encouraged.
4. Attend conferences /CME's as a group, so you spend more time with each other.
5. Organise conferences/ Workshops not only for Anaesthesia but also on Pain, Labour Analgesia bringing all specialists to a common platform.

6. Celebrate Festivals of all communities together.
7. Frequent meetings & interactions help in a cohesive stress free atmosphere.
8. New & junior colleagues should be warmly welcomed & seniors duly respected .Also opinions sought from seniors should be diligently managed.
9. A Grievance cell should be setup in each city as also a rescue team to help members in times of distress in OT/ ICU.
10. If possible having an office is very beneficial as we have in Nashik.
11. Set up Minimum monitoring standards, Uniform Charge structure in each city.
12. Use media to your advantage; actively involve your members for disaster management events such as Kumbh-Mela or such large public gatherings.
13. Increase your self-esteem by thinking of following-We should be non-exploitable& full of self-esteem. Anybody should think 100 times before labelling us guilty. We should be well focused in O.T. hours & should never feel insecure. We should strike a balance between family & profession life and should be eager to work unitedly. We should be full of energy & have command on our professional skills. Today's world is the world of sharing the responsibilities as *Nobody is going to give you any medal for the extra risk you are taking: but if anything goes wrong, you will be fired alone*, take calculated risks.

ISA recommends that we must unite against diversity, love our profession, make our life the best by changing our attitude, and surround ourselves with likeminded colleagues & surgeons. It is one life we have, so make the best of it.

ISA PPF IS HERE TO STAY & HOPE TOGETHER WE CAN IMPACT & CHANGE OUR TODAY, FOR A BETTER TOMORROW.

Section 3- Ethical Conduct of Anaesthesiologist

The ISA advises and expects thorough ethical conduct from its members at all times. The professional conduct helps in avoiding landing in unwanted situations, helps in overcoming adverse circumstances and also helps in case of litigations.

The ISA recommends following to its members.

- 1) Perform a Pre Anaesthetic Check-up(PAC) of the patient before taking the patient for surgery. Ask all your surgeons to send all patients of elective surgery for PAC. Use the ISA recommended Questionnaire & PAC format for documentation of PAC. Performing PAC helps in establishing a rapport with the patients and their family. Do not forget to Communicate, Document, Communication of documentation, & Documentation of Communication as this is the key to success in medicolegal cases.
- 2) Always optimise the patient before taking up for surgery. Get proper investigations & references done for the type of surgery & patient, and document it.

- 3) Consent- Always obtain a separate consent for anaesthesia from patient after explaining him the technique, alternatives and answering his queries. ISA recommends use of consent format as per Annexure 1.

Guide on how to use the ISA consent form:

Enter Patient's Demographic details: This can be entered by any hospital staff/ patient himself. After filling the patient details, date and time must be noted and the form handed over to the patient.

Questionnaire: This has to be filled by the patient in his own hand writing, with the help of relative/ guardian or any other well-wisher that he/ she relies on. This if filled will ensure that all significant history is brought to attention. There is also a tendency in some people to ignore certain medical history for various reasons. This will be difficult once we get the answers in written form from the patients. The patient is expected to take appointment of anaesthesiologist and report with completed questionnaire and all medical records present and past. Patient or relative is to sign the form after answering all the questions. In event of emergency where there is not enough time, the anaesthesiologist will include this in his pre anaesthetic check-up, and may have to rush through this to save on time.

Pre Anaesthetic Check-up: This needs to be done by a qualified anaesthesiologist.

History: write here whatever is significant. It is duty of the anaesthetic to ask for all related medical history irrespective of whether it was answered as negative in the questionnaire. For medical history written in adequate details by the patient, the anaesthesiologist may only mention that it was noted.

Examination: To be done in details and all the positive findings to be entered in details.

Anaesthesia Plan & Alerts: Write here the plan of anaesthesia best suited as per your judgement and patient counselling and also if there are any anticipated difficulties or special preparations to be done. Example: GA with TAP Block, Low Hb will need to arrange blood.

After the patient is seen and counselled by the anaesthesiologist, the anaesthetist will sign the form and give it back to the patient. The patient will read it at his leisure and if willing for surgery, sign it and come for admission on appointed time. The consent will be signed by the patient, if he is adult and capable of giving consent. In cases of minors and people not fit to give consent, the consent will be signed by guardians/parents. If the patient is not fit to sign consent, in cases of emergency where no known relative is present, it will be signed by competent hospital authority as prescribed by law.

- 4) The ISA recommends that members should always perform the pre anaesthetic checklist before inducing the patient, and document it in ISA recommended Intra operative Record keeping chart (Appendix 3).

GUIDELINES TO USE ANAESTHESIA RECORD

- Demographic details to be filled by anaesthesiologist or anaesthesia technician after the patient is taken in OT. To be verified by anaesthesiologist if filled by anyone else.
- PAC Findings: Fill here any alerting point noted during PAC. E.g. HT/DM/ anticipated difficult airway/ allergy to penicillin etc. All findings noted in PAC to be rechecked here. Significant Investigations: write here only those investigations which are significant to present anaesthetic, e.g. Hb 6 g%, EF 30%, HIV positive, etc.
- Mark all the monitors used. It is highly recommended to use all monitors available in OT and as per minimum standards prescribed.
- Anaesthesia Checklist: It is to be performed before each anaesthetic and marked here after completion of each check.
- Position of patient: enter the position of patient to be given during surgery.
- Regional/ Block: write here the name of the regional (epidural/ subarachnoid) or block used. Enter the concentration and volume of local anaesthetic agent along with any adjuvant used. Induction agent: write here the name and dose of induction agents used along with muscle relaxants if any.
- Airway management: if any airway device is used write here, e.g. endotracheal tube no7.0, LMA No.4, I gel, etc.
- Maintenance of anaesthesia: write here the names and concentration of agents used to maintain anaesthesia, e.g. N₂O 60%, O₂ 40%, Iso 1%
- Ventilation: write here the mode of ventilation used during the anaesthetic along with tidal volume and respiratory rate if applicable
- Intraoperative monitoring chart: Symbol for various hemodynamic & respiratory parameters are given. It is to be entered in a line form to show the vitals value during the anaesthetic. Different colours can be used for differentiation. The timeline has been left empty so that the anaesthesiologist can enter as per the duration of surgery and according to the changes in vitals. IV Fluids, here the Fluids given can be written along the time line. Drugs given during the conduct of anaesthetic can also be entered along the timeline. Remarks column here is to make any additional note as may be felt necessary. Post op Condition of patient and orders are self-explanatory and need to be filled. Here whether patient was shifted to ward/ Recovery Room and the monitoring required there has to be clearly mentioned.
- Inform SOS: it is strongly advised to enter the mobile phone of anaesthesiologist here so that he can be reached with ease in event of any incident.

- 5) The anaesthesiologist is guardian of patient during anaesthesia. The anaesthesiologist should be present throughout the surgical procedure, and be vigilant. The vitals should be recorded in intraoperative chart every 5 minutes. Complication/adverse event, if any should also be documented in the chart.
- 6) The Anaesthesiologist should ensure safe transport of patient from Operation Room to Post Anaesthesia Care Unit/ICU/Ward etc. He should communicate with patient & his attendants at the end of surgery.

Section 4- Remuneration of Anaesthesiologist: The RVG System

One of the greatest inventions for humanity since the printing press, Anaesthesiology has come a long way since October 1846. Newer techniques have improved outcomes to such a stage that high risk patients earlier considered inoperable can be saved today, and surgeries earlier assumed impossible can be done with ease. As peri-operative physicians we are handling trauma, ICU, airway, and pain management, apart from administering very high tech and sophisticated anaesthesia and monitoring. Today, our working environment looks almost like the cockpit of an aircraft and demands an even more in-depth and vast knowledge, experience, and vigilance.

Sadly, our recognition and our remunerations are still disgracefully low.

The government hospital salaries are equal for all specialties, but the discrimination is all pervasive in private sector. In the last 20 years or so, the number of Anaesthesiologists in private practice has increased substantially due to growth of Nursing Homes and Corporate hospitals. But the psychological insecurity, combined with a lack of confidence in our own value and worth, prevents many of us from taking firm steps to negotiate a more dignified and independent payment policy for our invaluable work. The situation is not very different in the rest of the developing world.

But in United States, Australia, NZ, and South Africa, the Anaesthesia payment is based upon a logical and consistent system. It's called Relative Value Guide (RVG). This system allocates Units to an anaesthesia service, based on complexity of the surgery (e.g., a laminectomy earning more units than an appendectomy), the time taken (e.g., every 15 minutes get counted as one unit), and the Modifiers (e.g., age and ASA status) that increase the risk profile of the patient.

These COMPLEXITY, TIME, and RISK units are added and then the total is multiplied by the pre-decided \$ value to arrive at the total anaesthesia fee for the said procedure. Each anaesthetist individually, or as a group, decides the \$ value of his unit. This \$ value is revised yearly, taking inflation and cost of living into consideration. The average per unit fee in US is between 140 to 90 dollars per unit at present.

Through consistent and tireless efforts of their respective Anaesthesia associations since 1990, the practicing anaesthesiologists of UK, Ireland and Malaysia have also succeeded in arriving at a decent and respectable payment system, same as RVG.

An app will be developed for calculating RVG & keeping other records.

In India also, the ISA is trying to bring the remuneration of our anaesthesiologists colleagues to a more dignified and decent level. The ISA endorses the Relative Value Guide, an independent & transparent system to arrive at anaesthesia remuneration. The ISA will work towards implementation of RVG by talking to various stake holders including Insurance, Corporates, CGHS & others.

The resultant transparency would eradicate rampant exploitation of our privately practicing colleagues in the hands of private hospitals, who arbitrarily keep anaesthesia fee for such cases at very low levels.

For Calculation of RVG, Refer to Annexure 4

NOTE: *ISA city branches will suggest a range (e.g., from Rs.300 to Rs.600) as rupee value of ONE UNIT for their city. This would be done yearly, or every two years. Practice groups and free-lancers will be guided by this range while choosing the value of ONE UNIT for their fee calculations.*

Annexure 1

Patient's Name: _____ Age: _____ years Sex: M/F

Address: _____

_____ Phone No: _____

OPD Reg No: _____ Surgery proposed: _____

Surgeon: Dr _____ Anaesthesiologist: Dr _____

General anaesthesia involves rendering a patient unconscious before an operation. This is to ensure that the patient is not aware of events and does not feel pain during the operation. Drugs are given through vein and/or inhaled from gases delivered by anaesthesia machine. Regional anaesthesia involves using a local anaesthetic to numb a specific part of the body for surgery or pain relief. Prolonged pain relief without numbness can be achieved by infusing appropriate concentrations of local anaesthetics with adjuvants in the regional blocks during the anaesthetic for surgery or after injury. The following questionnaire will help to assess you during the Pre Anaesthetic Check performed by the anaesthesiologist.

1. Do you have any chronic medical condition for which you need to visit a doctor regularly? If yes give details.

2. Do you take any medicines other than those stated in answer to Q 1? If yes give details

3. Do you have any of the following: Heart Disease/ Blood pressure/ Diabetes/ Kidney Disease/ Liver Disease/ Tuberculosis/ Asthma/Bronchitis/ Thyroid. If yes give details

4. Do you feel breathless on walking? How much can you walk without stopping? How many floors can you climb at normal pace without stopping?

5. Have you undergone any surgery in the past? If yes give details

Did you need anaesthesia for it? If yes give details.

6. Do you have any known allergy? If yes give details.

7. Have you been admitted to hospital or received any prolonged treatment for any medical condition? If yes give details

8. Do you smoke, consume alcohol, tobacco, pan, gutka, supari etc.? If yes give details & duration

9. Have you received blood transfusion in the past? Y/N

10. Have you tested positive for HIV/HBsAg/ other viral infections? Y/N

11. Do you have loose teeth, removable denture? Y/N 12. Do you use hearing aid? Y/N Do you have any concerns? If yes give details

Patient's Signature

Pre anaesthetic check-up: (to be performed by qualified Anaesthesiologist)

History:

General Examination:

PR BP RR Spine

Airway Assesment:

MO NM MP Grade Dentition/Loose tooth

Systemic Examination:

RS:

CVS:

P/A:

CNS:

ASA Grade: I/II/III/IV/V Emergency

Anaesthesia Plan & alerts:

Pre Op Orders:

Investigations

Hb

TLC/DLC

RBS

Urea/creatinine

Na/K

Sign

(Dr. _____)

Important Do's & Don'ts Before & After Anaesthesia

- 1) Please be 'Nil by mouth' ie Do not eat/ drink anything 6 hours before surgery
- 2) Know your Anaesthetist & Anaesthesia before the surgery.
- 3) Remove all lipstick, nail polish, ornaments before surgery.
- 4) Keep mobiles, keys, valuables with responsible relatives.
- 5) Do not consume alcohol, tobacco & do not smoke before or after the surgery.
- 6) Do not take anything by mouth without doctor's permission after surgery.
- 7) Do not go home alone after surgery.
- 8) Do not drive vehicle, do cooking or use equipment on day of surgery.
- 9) Please contact the doctor for any problem.

COMPLICATIONS AND PROVISION OF CARE Anaesthesia Care: Your anaesthetist is a qualified post graduate & is well versed with dealing with all types of situations that can occur during any life threatening situation one may see in the ICU.

Complications: Anaesthesia has become safer and safer; however, there remains the risk of complications with any anaesthetic rendered. There remains a risk of death or organ injury; however, this risk is extremely low for the vast majority of patients.

Below we list some of the more common side effects or complications of specific anaesthetic techniques. It is always possible that a general anaesthetic may be employed if another technique is not satisfactory.

Spinal or epidural block

1. Headache: if your headache is severe, contact your anaesthesia team for further evaluation
2. Pain in one or both legs: this is usually self-limited, improving within 1-2 days; contact your anaesthesia team for concerns
3. Temporary difficulty with emptying your bladder
4. Nausea and/or itching when opioids are added for postoperative pain relief
5. Complications such as neurologic injury or complications secondary to bleeding or infections are very rare. It is important for your anaesthesia team to be aware of any coexisting infections or the use of any blood thinners, including aspirin, Coumadin (Warfarin), Plavix (Clopidogrel), and related drugs.
6. Occasionally self-limiting Backache may occur both in spinal & General anaesthesia.

General Anaesthesia

1. Nausea: your anaesthesia team tries to recognize those at highest risk for nausea in order to minimize this risk. Alert us if you have a history of postoperative nausea.
2. Dental trauma: teeth, especially when in poor repair or when there is dental work or dental prostheses, can be injured during or after anaesthesia. A sore throat is common after general anaesthesia because of placement of a breathing tube.
3. Nerve injury: we make every effort to prevent injury to nerves while in the operating room; however, there remains a small risk of nerve injury with surgery and anaesthesia, though most of these injuries improve within days. Incidence of nerve injury may be increased with certain surgical positions, duration of procedure, and body habitus.

Consent for Anaesthesia:

I, _____, for as Parent,/Guardian/ Representative acting on his/her or my behalf, am seeking to receive anaesthesia during his/her or my pending procedure/operation/treatment. I want to have anaesthesia in order to lessen the pain I would otherwise experience.

I have been explained the following in terms and language that I understand. I have been explained the following in _____ (name of the language or dialect) that is spoken and understood by me. I have been explained; I have been provided with the requisite information; I have understood; and thereafter I consent, authorize and direct the above named anaesthesiologist and his / her team with associates or assistants of his / her choice to induce anaesthesia mentioned hereinabove during the course of the proposed intervention / procedure / surgery and also to administer the requisite drugs and medications. I understand that regardless of the type of anaesthesia used there may be some unforeseen risks and consequences which may occur. The following are some but not all of the common foreseeable risks and consequences which I have been told can occur: sore throat and hoarseness, nausea and vomiting, muscle soreness. Further, I understand instrumentation in the mouth to maintain an open airway during anaesthesia might unavoidably result in dental damage including fracture or loss of teeth, bridgework, dentures, crowns and fillings, laceration of the gums or lips.

I understand that medications that I am taking may cause complications with anaesthesia or surgery. I understand that it is in my best interest to inform my doctors about the nature of any medications Allopathic / Homoeopathic / Ayurvedic / Unani I am taking including but not limited to aspirin, cold remedies, narcotics, marijuana, and cocaine.

I have been explained and have understood that inducing anaesthesia has certain material risks / complications and I have been provided with the requisite information about the same. I have also been explained and have understood that there are other undefined, unanticipated, unexplainable risks / complications that may occur during or after inducing anaesthesia. I understand the more serious risks and consequences of anaesthesia include but are not limited to changes in blood pressure, allergic/drug reaction, awareness of the surgery, injury to my baby if pregnant, excessive bleeding, cardiac arrest, brain damage, embolism, paralysis or death.

I have been explained and have understood that despite all precautions complications may occur that may even result in death or serious disability. I acknowledge that Dr. _____ has told me that in his/her medical judgment the type(s) of anaesthesia I could receive is/are General Anaesthesia /Spinal / Epidural Anaesthesia /MAC (Monitored Anaesthesia Care) / Sedation / Regional anaesthetic block. I have listened to the doctor's explanation of the type(s) of anaesthesia I may receive, its benefits and common foreseeable risks and consequences as well as those of its alternatives and now accept his/her recommendation . I have been explained and understood that though the plan of anaesthesia has been explained to me, there is a possibility that a different plan may be adopted due to various unseen circumstances that may arise during the anaesthetic. I understand that during my procedure/operation/treatment invasive monitoring may be necessary. I understand the risks and benefits associated with this type of monitoring which have been fully explained to me. I understand that while I am receiving anaesthesia, conditions may develop which require modifying or extending this consent. I therefore authorize modifications or extension of this consent that professional judgment indicates to be necessary under the circumstances. I understand that I must not eat or drink anything 6 hours prior to surgery unless directly permitted by the anaesthesia-staff. I have been explained and have understood the importance of preoperative fasting and the risks of consuming solids/liquids prior to the induction of anaesthesia

I consent to appropriate tests and treatments which may better evaluate my risk and prepare me for surgery as part of my medical care associated with this procedure/operation/treatment.

I, the undersigned patient, give my consent to discuss my personal health information with any person that accompanies me or is present with me that I have identified in advance of any procedure as active in my mental, physical, emotional, or spiritual care, including, but not limited to family, close personal friends, and patient advocates. I also authorize Mr/Ms. _____ accompanying me to give consent on my behalf with regards to any anaesthetic, surgical or other medical intervention required when I am undergoing an anaesthetic.

I am aware of the facilities which are available and not available in the hospital. I may have to be shifted to another hospital for treatment of complications and I am bound to pay the bill of that hospital.

PATIENT AFFIRMATION By signing this document, I am indicating that I understand the contents of this document and its attachments, agree to its provisions and consent to the administration of anaesthesia during my procedure/operation/treatment. I know that if I have concerns or would like more detailed information, I can ask more questions and get more information from my attending anaesthetist. I am also acknowledging that I know that the practice of anaesthesiology, medicine and surgery is not an exact science and that no one has given me any promises or guarantees about the administration of anaesthesia or its results.

I have read all above points and my all queries have been answered satisfactorily by doctor in my own language. I voluntarily consent for the anaesthesia for proposed surgery (To be written by patient in blank space below)

.....
.....

Patient's Signature

Witness Signature

Doctor's Signature

Date & Time

Witness Name:

Doctor's Name

Annexure 2

List of Minimum Mandatory Equipment in Operation Room

- Continuous supply of oxygen cylinders/ Gas Pipeline
- Anaesthesia machine/workstation with two oxygen cylinder and a nitrous oxide cylinder.
- One emergency oxygen cylinder mounted on Anesthesia machine with spanner.
- Anesthesia machine with *hypoxic guard safety system*
- Working suction machine with all connectors, suction tubing's, and suction catheters of appropriate size
- Multi-parameter monitors including pulseoxymeter, ECG, NIBP, EtCO₂(Mandatory for all Laparoscopic surgeries and use of closed circuit, Desirable in all cases of General Anaesthesia), thermo probe for temperature monitoring.
- Defibrillator
- Adequate no of protective lead aprons (If X ray/C-arm is used)
- Protective glasses (with laser)
- Ambu bag with all size of masks
- Working laryngoscope with all sizes of blades, Miller blades for pediatric patient
- Oral & Nasal airway- All sizes
- Intubating Stylet- All Sizes
- Magill' s forceps,
- Endotracheal tubes- All sizes
- Peripheral venous cannula size 14,16,18, 20, 22, 24, 26
- Spinal needles size 23, 24, 25, 26, 27,
- Epidural set size 16,18,
- 3 way connectors & extension tubing.
- I.V. sets, micro drip sets, blood transfusion set
- Scissors, ampoule cutter, torch,thermometer
- Syringe Pumps, Infusion Pumps
- Nebulization Machine

- **For difficult airways-**
 - Mandatory: Intubating Bougie, LMA , Mc Coy Blade, Crico-thyroidotomy set, 14,16 gauge needle
 - Desirable: Intubating LMA, Video Laryngoscope, Fiberoptic Intubating Scope
- Tilting OT table
- Radiant warmer/ blanket(Optional), Heating mattress , fluid warmer (Optional)
- Postoperative recovery room with oxygen supply and monitors

Recommended Drug List to be available in all OT

- **PREMEDICATION** – Glycopyrolate, Atropine, Ranitidine, Ondansetron, Pantoprazole, Midazolam
- **IV ANAESTHETIC DRUGS** - Thiopentone, Propofol, Ketamine, Etomidate
- **INHALATION AGENTS** – Halothane, Isoflurane, Sevoflurane
- **MUSCLE RELAXANTS** – Succinylcholine, Vecuronium, Atracurium, Rocuronium, Cis-atracurium
- **Reversal Agent** – Neostigmine, Myopyrolate
- **ANALGESICS** – Diclofenac, Tramadol, Paracetamol, Fentanyl, Fortwin , Buprenorphine, Butorphanol.
- **LOCAL ANAESTHETICS** – Xylocaine, Xylocaine with Adr, Xylocaine Heavy, Bupivacaine, Bupivacaine heavy, Ropivacaine, Chloroprocaine, Levobupivacaine
- **IV fluids-** NS, RL, DNS, D5, Colloids, D25
- **OTHER DRUGS** –
 - Clonidine, Dexmedetomidine,
 - Adrenaline, Atropine
 - Mephenteramine, Ephedrine, Phenylephrine,
 - Dopamine, Dobutamine, Noradrenaline, Nitroglycerine, SNP
 - Amiodarone, Adenosine, Metoprolol, Esmolol
 - Sodabcarb 8.4%, Calcium Gluconate, KCL
 - Hydrocortisone ,Dexamethasone, Chlorpheniramine, Furosemide
 - Deriphylline , Aminophylline ,
 - Syntocinon, Ethylergometrin
 - Xylocard 2% ,Dexamethasone,
 - Tranexamic Acid ,Magsulph 25% & 50%
 - Salbutamol, Duolin, Budecort Solution for nebulisation
 - Salbutamol/Levosaltbutamol Inhaler with Connecting Device
 - 3% Saline
 - Intralipid 20%

**Indian Society Of Anesthesiologists
Anaesthesia Record**

Date OP/IP No Hospital Sex: M/F
 Name Age PAC: Y/N
 Anesthesiologist:
 Surgeon:

Surgery Done:

Checklist

Patient Identified Consent PAC Reviewed Antibiotic
 NPO Since Anaes Machine Suction Defibrillator
 Premedication MP Score Airway Equipment ASA Grade

Wt

Preop Baseline Parameters

PR /min BP mmHg SpO2 % RR /min Temp °F

Anticipated Problems	IV Fluids		Losses & Output	
	Type	Amount	Type	Amount
	RL		Blood-Suction	
	NS		Blood-Drapes	
	Colloid		GIT/Peritoneal	
	Blood		Urine	
	Total (A)		Total (B)	
Balance (A - B) =				

RecoveryNotes

Consciousness- Awake/Drowsy/Sleeping Reflexes- Good/ Satisfactory/Poor
 Respiration- Spontaneous/ IPPV Regular/Irregular TV Adequate/Inadequate

Vitals at Shifting

PR /min BP mmHg RR /min SpO2

Post Op Orders

Position: Recovery/ Propped Up/ Supine NPO Till:
 I/O Charting: q..... min Xhr Vitals Charting: q..... min Xhr
 Oxygen:L/min
 Analgesic
 IV Fluids Signature & Name

POST OP PROGRESS

Date/Time	HR	BP	SPO2	Intake	Urine	Drains	Remarks

Signature of S/N

Relative Value Guide (RVG) for INDIA

*Based on a simple formula of DIFFICULTY level, and TIME taken
Logical, consistent, transparent calculation; coupled with flexible reimbursement*

How to derive TOTAL ANESTHESIA FEE of any procedure?

*FEE = (Number of **Base Units** + Number of **Time Units** + Number of **Modifying Units**)
Multiplied by **Rupee value** of the UNIT*

METHOD OF CALCULATING TOTAL UNITS WILL REMAIN SAME ALL OVER INDIA.

1. **BASE UNITS:** Based on simplicity or complexity of procedure – Pre-assigned and published on ISA website.
2. **TIME UNIT:** 15 minute length of time of anesthesia service will be equal to ONE time unit. (1hr = 4 units; 40 min=15+15+10=3 units)
3. **MODIFYING UNITS:**
 - a. **ADD-ON :**Age: less than 1 or more than 70 – 3 units;
Obesity: BMI 35-40 –2 extra unit, more than 40 –3 extra units;
Arterial/Central line: – 4 extra units;
Post op visits: (in ward) 2 units per visit, (in ICU) 4 units;
 - b. **MULTIPLIERS:**High Risk: ASA 3 (+25%), ASA 4 (+50%), Other Risk Factors (+50%);
Emergencies: in day time (+25%), Odd hour (10 pm to 7 am) (+50%);
Mahura
t (fixed time by Astrologer) cases at any time(+ 50%);
Seniority and experience: add 25 to 50% depending upon yrs of experience

NOTE:

1. ***Time UNIT count will begin from Induction and will end at Extubation/ stabilization, or end of surgery for Regional blocks.***
2. ***PAC to be charged as per the prevailing visit/consultation fee.***

BASE UNITS: List is only representative. Similar surgeries may be given same number of units.

- **4 units :** Minor procedures, D&C, LN biopsy, Cystoscopy;
- **5 units :** Diagnostic Radiology, ERCP;
- **6 units :** Lap Chole, LSCS, Lap Ectopic , Lap Ovarian, TURP, TURBT,URS, MRM, DHS, PFN;

- **7 units** : Lumber Decompression, PCNL;
- **8 units** : TLH, Liposuction, Ant Cervical Spine, THR, TKR;
- **10 units** : Major Head & Neck, Commando;
- **12 units** : TOF, Diaphragmatic Hernia, Meningomyelocele, Rectal Pull through;
- 14 units : Cystic Hygroma, ICSOL;
- **16 units** : CABG, Whipples;
- **20 units** : Intracranial Vascular

Examples of applying RVG to derive Anesthesia fee: (If 1unit=300)

- 31 F for MTP, time 15 minutes
 BASE UNITS 4
 TIME UNITS 1
 TOTAL UNITS 5 (**300*5=1500**)
- 28 F for LSCS, ASA 2, time 1 hour, Mahurat –fixed time by Astrologer
 BASE UNITS 6
 TIME UNITS 4
 MODIFIER -Mahurat (50% more)
TOTAL UNITS 10 + 50% = 15
(If Rupee value of a UNIT is 300, the Anesth Fee = 4500)
- 45 F, ASA 2, BMI 37, TLH done in 120 minutes
 BASE UNITS 8
 TIME UNITS 8
 MODIFIER 2 (for BMI)
TOTAL UNITS 18
(If Rupee value of a UNIT is 300, the Anesth Fee = 5400)

For salary based hospitals, the minimum salary for a FULL TIMER ANESTHETIST

- **Up to 5 yrs experience- 1.35 to 2 lac**
- **5 to 10 yrs experience- 1.75 to 2.75 lac**
- **Above 10 years- 2.5 to as per responsibility**
- **PDCC or Super specialty experience- 25% more**

Insurance payments-

- ISA national to correspond with IRDA to ask all TPAs to separately mention Anesthesia fee in their package payments,
- To keep ISA informed through the process,
- To decide it's quantum in consultation with ISA national,
- To upgrade it at regular intervals.