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Editorial:

Writing the editorial for the First issue of any Journal is a formidable job; it makes you aware that you are penning a page in history, especially of a concept which has far reaching implications on surgical management in the country.

Day Surgery or Day Care Surgery, as it is known in our country, is a matter of conviction, the common factor for all the specialities is the desire to deliver affordable surgeries of high standards without compromising on patient care. Patient's convenience is the key word for a successful Day Surgery plan.

Anaesthesia plays a major role in a Day Surgery centre; an anaesthetist of high competence can make a difference between success and failure of a surgery centre. Apart from your interest in this concept, anaesthesia is the common link to all surgical specialities.

Dr. Vinod Joshi, Associate Director, Cleveland Clinic Foundation Day Surgery Center, USA and Dr. Ian Jackson, President Elect, British Association of Day Surgery, UK, are both anaesthetists, their contribution to this journal highlights the importance of Day Surgery anaesthesia in their respective countries.

Drs. Aniruddha & Anjali Malpani, have briefly and rightly pointed out the need to market the concept of Day surgery, as it is deemed to play an important role in the future of surgery.

The Editorial board for the inaugural issue of the Journal strives together for a good beginning and we hope to continue to bring you articles and information that will contribute towards continuing medical education (CME) which is being considered worldwide as a cornerstone for professional development and good clinical practice.

In this issue we are aiming to cover certain areas of concern in the evolving field of day-care surgery. Remember, that it is not minor anaesthesia, nor is it always a minor procedure hence due care and preparation are required for all cases. Practical guidelines for the doctors for preparing for day-care surgery have also been discussed in this issue. The Indian perspective has been brought out by Dr. Begani and me, in one of the articles, with an analysis of current scenario and future possibilities.

The sponsors of this Journal have to be commended in their vision to see this as a stepping stone for a better future. My special thanks to Dr. Reena Wani for her contribution to this issue.

Well begun is half done, they say, we hope this shall be the first step in a journey which will benefit all...the doctors, the healthcare and delivery system, our patients and most importantly, our Nation!!

Dr. T. Naresh Row

Joshi Vinod

Associate Director

Cleveland Clinic Foundation Day Surgery Center – Beachwood,

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The practice of Day Surgery has been around for some times but it has been sporadic, often times unsafe and not properly understood. Increasing healthcare costs have contributed to the development of Day Surgery. Advancement in anesthetic induction agents and airway management has contributed to their success. Advancements in endoscopic and other minimally invasive surgical procedures are contributing to the proliferation of better care for patient in these settings and offer a very bright future. Patient selection criteria are essential for their success and continue to be in future. This chapter explores the management of anesthesia in Ambulatory Surgery Centre (ASC), anesthetic pharmacology, pre operative selection criteria, postoperative discharge criteria and different modalities of anesthesia for Day Surgery patients.

Pre anaesthetic preparation:

There are some special considerations for anesthesia in Day Surgery. Selection of patients for Day Surgery essentially should fall between American Society of Anesthesiology (ASA) class I-II. In certain instances ASA class III patients can be entertained depending on the nature and brevity of procedure. Patients having uncontrolled hypertension, improperly managed diabetes, difficult airway and certain other systemic diseases make their management a little complicated. A complaint of random chest pain or on exertion must be properly investigated in middle-aged person and elderly. These patients require extensive monitoring and some times overnight observation and frequently untoward outcome. The cavalier attitude of “minor anesthesia for minor surgery” is prescription of trouble. Anesthesia department must therefore screen these patients carefully and refer them for proper preparation prior to putting them on operating room schedule. Proper pre operative evaluation avoids unnecessary cancellation, delays, and patient dissatisfaction and inconvenience to the patient’s family and waste of time of the surgery personnel.

Pre operative clearance must be done as soon as patient is scheduled for surgery. These patients should be called on to make sure that proper investigations are done. A guideline must be in place regarding the minimum level of investigations. Any patients presenting with a history of cardiac problem must have a baseline EKG. Patients presenting with any respiratory problem should have a chest X-Ray or result of Chest X-Ray available. If necessary pulmonary functions should be in place in order to decide the suitability of anesthesia. Patients having kidney diseases must have recent pertinent laboratory investigations. A recent consultation with the proper specialist should be on board, addressing the concerned problem and its implication to the impending procedures.

All patients must be asked about any adverse problems occurring during the surgeries in the past. Ambulatory personnel responsible for scheduling patients must give them clear instructions for the time they must report for surgery. Enough time must be given for a pre-anesthetic evaluation.

They must be instructed that provision be made for them to be picked up after the procedure and there must be some one to take care of them during the first 24 hours. Out of town patients must make proper arrangements to stay in town as per need basis.

Immediate Pre operative Review: A careful history should be reviewed to chart the allergies, systemic diseases requiring special consideration, medication and any adverse reaction to anesthesia. Uncontrolled hypertension, uncontrolled diabetes, abnormal cardiac rhythm, not compliant with NPO instructions are cause of great alarm and should be reasons for postponement of surgery until they are properly addressed. A careful airway assessment must be made to make sure that they do not present any intubation or airway problem. All patients should be asked for any adverse airway problem during past anesthetics. An algorithm should be followed for difficult intubation patients.

There are certain procedures that should not be done in ASC. Any procedure requiring blood or blood transfusion, procedures expected to require intensive postoperative monitoring. Uncontrollable pain, undue sedation is very important reasons for prolonged stay in ASC. Therefore care should be taken that proper analgesia is administered. Infiltration with a long acting local anesthetic such as Bupivacaine or one of its isomers at the incision site contributes to the comfort and reduction of pain medications.

Upset stomach leading to nausea and vomiting are the most important complaints after anesthesia and cause of prolonged stay for ambulatory patients. Smooth induction and proper timely administration of anti nausea medication are essential for their avoidance and good anesthetic management. This becomes even more essential, rather vital for patients presenting for Day Surgery. Special precaution should be taken to make sure a pertinent history is taken to see if some of the patients are more susceptible to nausea, vomiting, pain and apprehension for the procedure.

Guidelines that are set for inpatient anesthesia are applicable to all Day Surgery patients too. A clear policy must be implemented about “nothing by mouth” (NPO) several hours prior to surgery. Careful steps must be taken for those patients scheduled for surgery later in the afternoon that they are not starved for unduly long hours. This becomes even more important with diabetic and hypertensive patients needing their medication in the morning. Children can not be kept fasting for a long time and they should not be starved more than 4-6 hours, however their parents or guardian must be instructed against giving them anything solid. Nevertheless, nothing should be given within the NPO time guidelines if they cannot be scheduled early in the morning.

All patients having surgery in the morning should have nothing after midnight. Patients having surgery in the afternoon ideally should be fasting too but they could be allowed to have clear liquids (tea or coffee) prior to 7 AM and not more than a cup. Children have difficult time complying with NPO; their parents must understand the importance of fasting and must keep a watchful eye. Some mothers become very emotional seeing their small children fasting and may not realize the importance of fasting prior to surgery. Nothing by mouth literally must mean, “nothing by mouth”. A 4-6 hours fasting must follow. Diabetic patients should skip their oral diabetic medicine or take half the morning insulin. A fasting blood sugar by means of finger stick should be done for diabetic patients when they present for surgery. A careful watch should be kept for these patients to avoid any untoward symptoms of hypoglycemia. Breast-feeding prior to surgery should also be restricted to 4 hours for children below one years of age.

Anti-sialagogue medications: (*atropine, glycopyroate*) are good in drying up the oral secretions. This helps prevent laryngospasm and undue salivation. They further help in preventing cholinergic responses like bradycardia. Administrations of these agents cause photophobia, dry mouth, and can make them uncomfortable. These side effects must be considered in pre operative area on individual basis. Some anesthesiologists therefore avoid their use and administer them on need basis.

Anti nauseating medications: e.g. *metclopropamide (Reglan)* 10 mg could be administered in pre operative area for gastric emptying. This can be further combined with *Pepcid* in patients having problem with Gastro Esophageal Reflux Disease (GERD). Patients with advanced GERD problem should be asked to take their medication on scheduled time with a sip of water and preferably should be asked for a longer fasting time and a light meal prior to the night of surgery. These medications also help in preventing postoperative nausea and vomiting. Other anti nausea medication like *Ondesetron* and other medication in this class that are effective are used just prior to emergence from anesthesia and do not have a considerable value given in prior to anesthesia. Other anti nauseating medications can be substituted because the cost of *Ondesetron* and one of its category medications is rather high. *Dexamethasone* 4-8mg is effective in patients having severe problem with nausea. This is also given prior to emergence from anesthesia.

Sedation: Apprehension about anesthesia and surgery varies with every individual. Short acting, sedative or anti anxiety medication like *Midazolam* 1-2 mg I V should be considered for such individuals. Longer acting sedatives are not the drug of choice as they linger in the system causing excessive drowsiness and prolonged stay. Children could be given oral *Midazolam* 0.5 mg/Kg up to a max of 10 mg in a syrup base half hour prior to induction. This is very effective for a very apprehensive child. Other anti anxiety medication can be given to the patients at home night before surgery if needed.

General Anesthesia:

Monitoring during anesthesia: Different standards are perhaps followed around the world. In our institution and for that matter in North America all patients must have

1. EKG monitoring
2. Blood Pressure monitoring
3. Pre-cordial or esophageal respiration monitoring
4. Temperature
5. Pulse oximetry
6. End-expiratory Carbon Dioxide (capnogram)
7. Analysis of Inspiratory Oxygen, other gases, inhalational agents and their ratios.

The monitoring equipments are expensive lack of them require close observation. Unfortunately human errors can lead to severe consequences. However pulse oximetry must be available where patients' consciousness and airway is compromised. Pulse oximetry has been responsible for saving many lives and for early warning of impending hypoxia. It should be in every operating room and Post Anesthesia Care Unit (PACU or Recovery).

Anesthetic induction agents: *Pentothal Sodium* has been in use for several decades. After administration it is stored in the fat tissues for some time causing slow elimination and redistribution. This is often responsible for somnolence when combined with narcotic analgesics after discharge from PACU. The ideal anesthetic induction agents should be those that are metabolized rapidly and have no redistribution. *Propofol* (induction dose 3-5 mg/Kg) has replaced the *Pentothal Sodium* in this respect. Induction of anesthesia is rapid and short lasting. It has anti-nauseating property. It can be used as a sole anesthetic agent by intravenous infusion (75-150 mcg/Kg per minute). This can avoid use of Nitrous Oxide and other inhalational agents if anesthesiologist feels some patients present with a history of adverse experience with nausea and vomiting. Administration of *Propofol* can cause hypotension on rapid administration and especially if patient happens to be hypovolemic. It produces pain and burning on administration, which can be quite uncomfortable. Slow administration, combining with lidocaine, administration following lidocaine and some other technique some times help but problem remains. Administration in a bigger vein also help but that is not always possible since patients presenting for surgery are NPO and very apprehensive.

Analgesia: Short acting and intense analgesic is the drug of choice. A short acting analgesic like *fentanyl* could be combined to supplement anesthesia. *Propofol* and ultra short acting analgesic *Remifentanyl* is very effective in the surgery of head and neck where muscle relaxant is not recommended. Administration of *Remifentanyl* will require controlled ventilation, as it is a potent analgesic causing respiratory arrest. A combined infusion offers very effective anti-sympathetic response and rapid recovery. This is especially helpful where avoidance of postoperative gagging and coughing is important during emergence from anesthesia. Analgesic medications such as *fentanyl*, *Demerol*, *morphine* and other synthetic medications are good to supplement the analgesic component of the triad of anesthesia, analgesia and relaxation. The analgesic used during surgery decreases the sympatho-adrenaline response as well as supplement analgesia in immediate postoperative period. Non-steroidal anti-inflammatory (NSAID) agents like parenteral *Ketorlac* provide good postoperative analgesia by their anti-prostaglandin effect given at the end of the procedure. They are not effective for intra-operative analgesia.

Nitrous Oxide, Oxygen and inhalational agents remain for the most part mainstay for maintenance. Inhalational agents like *Sevoflurane* and *isoflurane* cause rapid induction and rapid elimination thus are the agents of choice. They do not require warming thus special complicated equipments as in case of *desflurane*. Some anesthesiologists feel that *Nitrous Oxide* causes nausea and therefore use a *Propofol* intra venous drip. In patients who have a strong tendency of upset stomach this is a reasonable alternative.

Airway Management:

Laryngeal Mask Airway (LMA) is now accepted and excellent method of airway management where muscle relaxation is not required and patient is not expected to have full stomach. It is placed in the oral cavity after patient is adequately anesthetized. Its cuff is inflated to achieve an airtight seal. LMAs are available in different sizes to fit all age groups. They are available in disposable and non-disposable forms. Flexible LMAs are suitable for certain procedures since they are less resistant to dislodge if the position of head is changed. Procedures that require muscle relaxation require endotracheal intubation. These patients should be properly assessed pre operatively for

any anticipated difficulty. A properly carried out laryngoscopic intubation should cause minimal or no problem to the patient. Flexible intubating laryngoscopes are great instruments for difficult airway patients. If budget permits they should be available in self-standing ambulatory care facilities but since their use is so seldom that patients requiring that expertise be done at a full care facility.

Muscle Relaxants: Non-depolarising muscle relaxants are the choice medication for ambulatory patients. *Rocuronium* is a short acting agent. It causes very minimal or no histamine release. Careful administration can avoid the use of reversal agents. Other agents like *atracurium* etc. can also be used.

Depolarising agents e.g; *succinyl choline* or *suxamethonium* do not need reversal and thus cause less of muscarinic side effects. However they can lead to prolonged paralysis if a larger quantity is used and a person with hidden or known deficiency of psuedocholinesterase. Depolarising agents can cause incapacitating muscle aches especially since most patients are going to be resuming work and ambulatory the following day. For these reasons non-depolarising muscle relaxants are the choice medications for ambulatory patients.

Monitored Anesthesia Care (MAC): This has grown to be very important aspect of Day Surgery. A great many procedures such as Breast biopsy, Hernia repair, Hemorrhoid surgery, Cataract and many Gynecological and plastic surgery procedures are safely carried out under MAC with rapid discharge. In this technique after monitoring is in place *Midazolam* and a sub anesthetic dose of *Propofol* (1-2 mg per Kg) is administered. A short acting analgesic (*fentanyl* 50-100 mcg) is also used to induce analgesia. While patient is relatively deep, local anesthetic infiltration is done at the site of surgery or a nerve block e.g; pudendal, ilio- hypogastric and or ilio-inguinal is used. In Cataract surgery retro-bulbar or other respective block is used. There after the anesthetic is adjusted to keep a comfortable level where the patient is awake or in a twilight zone while procedure is carried out. Supplemental oxygen is administered by means of a nasal cannula or facemask. Patient's vital signs pulse, blood pressure and Oxygen saturation is monitored in the similar fashion. Care should be taken that there is no compromise in patient's respiration and circulation. If necessary, MAC can be switched to general anesthesia if the nature of procedure becomes more elaborate than initially planned. The conversion from MAC to General Anesthesia can also be undertaken if patient becomes apprehensive and fails to cooperate for the procedure. Since 10-20 percent of MACs are converted to General anesthesia all patients must meet the criteria as if they are going to have general anesthesia. They must have complete preoperative evaluation and follow the guidelines of NPO etc.

Neuro- Axial blocks: Epidural and spinal anesthesia have an equally important role in Day Surgery. Orthopedic procedure on the lower limbs, urological procedures and some of the gynecological procedures can be carried out with as little 50-60 mg of spinal lidocaine. For longer procedures a longer acting local anesthetic should be used. Epidural anesthesia is another option for certain procedures. An indwelling epidural catheter placement is for procedures scheduled to last several hours. It is not unusual now a day for a procedure to last for several hours in Day Surgery and still recover in a short time and go home at the end of the day. A smaller gauge needle 25 or 27 G. is ideal for spinal anesthesia. Smaller needles have least association with post spinal puncture headache. Despite best efforts younger female patients could

suffer debilitating post spinal headache.

Nerve Blocks:

Nerve blocks are ideal for Day Surgery patients and they should be used more frequently. There is a perception that they take more time but if properly scheduled they take same amount of time.

Brachial Plexus Nerve Block:

Brachial plexus nerve blocks are ideal for surgery of shoulder and upper arm. *Inter scalene* nerve blocks offer ideal conditions for shoulder surgery. Since the whole shoulder area is completely anesthetized there is minimal sympathetic response to surgical stimulation. It avoids surges in blood pressure resulting in improper visualization in endoscopic procedures, further necessitating deeper level of anesthesia and subsequent longer stays. *Axillary route* of Brachial plexus block for elbow, forearm and hand with a longer acting local anesthetic e.g. *mepivacaine*, *bupivacaine* and its newer isomers is an excellent choice. It offers ideal surgical condition as well as a long lasting postoperative pain relief sometimes lasting until the next day. Some hand surgeon believe these nerve blocks help prevent Reflex Sympathetic Dystrophy (RSD) that some times can develop after such procedures. An inexpensive nerve stimulator monitor is a great asset in ascertaining the successfulness of these blocks. Meticulous care must be taken to make sure there is no intravascular injection in all peripheral nerve blocks. There have been incidents of intra-theal injections while performing *Inter scalene* nerve block leading to very unfortunate events. The anesthesiologist must be very aware of the anatomical landmarks, be very conversant and experienced undertaking these procedures. Supra clavicular or conventional infra clavicular nerve block should be avoided because of the high incidence of unrecognized pneumo-thorax, which can develop in life threatening situation while the patient is away from medical attention. A modified infra clavicular approach can be used with nerve stimulator. In this procedure the needle is inserted 2.5 cm below the mid point of clavicle with 45-degree angle to the skin advanced laterally to contact the brachial plexus completely avoiding the thoracic area. A nerve stimulator is an invaluable tool in successfulness of these procedures. Familiarity with the procedure must be established prior to attempting this technique.

Intra-venous Regional anesthesia is ideal for carpal tunnel release and other procedures of hand lasting less than 45 minutes. An I.V. cannula in the back of the hand is placed and securely taped. A rubber bandage (eshmark) is then wrapped around the forearm to drain the blood. A tourniquet is placed above the elbow inflated to the pressure above that of the systolic blood pressure. A double tourniquet is preferable. Lidocaine 40-50 ml of 0.5% is then injected. IV cannula is then withdrawn. Hand is prepped and surgery is accomplished.

Maintenance of a nerve block is equally important. Some people believe that maintenance of a nerve block is more challenging than performing the nerve block itself. This is because sometimes the block does not cover all the areas, it may take a little longer to set in, pressure from tourniquet becomes unbearable, patient has difficult time keeping still because of other conditions like arthritis or other aches and pains. These patients need careful sedation; often there is a very fine line between adequate sedation and complete loss of consciousness.

Post Anesthesia Care Unit (PACU):

The standards of care in Day Surgery are same as those in any full-fledged hospital facility. However a greater degree of emphasis is given here in getting them ready for discharge. The PACU units in free standing ambulatory centers are not usually equipped to take care of very sick patients requiring ventilatory and vaso- active medications interventions. Other than that all care are equally important for airway care and other vital signs.

PACU in ambulatory surgeries are split in to Phase I and II. Phase I is responsible for patients coming immediately after surgery. This requires monitoring of their vital signs, acute pain management, wound care, airway and other orders as ordered by the physician. In post operative area all patients recovering from general anesthesia must be administered supplementary oxygen to maintain normal oxygen saturation monitored by means of a pulse oximetry. Other vital signs must be charted at appropriate intervals. Once the patient is stabilized and awake enough to take care of himself and has been able to stand on his own and void, they are transferred to Phase II.

In Phase II patients are transferred to a place where they can sit with their family, allowed to have a light snack and a drink. Orthostatic hypotension is not uncommon initially because of the interaction of pain medication and anesthetics. Once the patient has been stable for a certain length of time about an hour or longer he is discharged in the care of his family and sent home.

Despite this, some times unpredictable outcome happens and provision must be made for certain instances for some patients to stay in the hospital. Patients who develop hypertension that is not satisfactory resolved. Unexpected cardiac rhythm disorders, respiratory problems, and unreasonable amount of discomfort etc. necessitate hospital admission and further care. Transferring of these patients is done by trained medical or paramedical personals. A qualified personnel and an ambulance is required where resuscitative equipments are available. It is a very risky proposition to transfer a patient on ventilator especially if it had to be far from the Center. This is therefore essential that selection criteria for Day Surgery are stringent. If transfer rate to the hospital is high then selection criteria should be revised so that they are very minimal.

23 hours observation:

Some times the nature of surgery is such that overnight observation is pre planned. This is for patients where surgical drains are placed or where more than usual amount of blood loss is expected in the postoperative period, or the nature of surgery is going to be uncomfortable. A hospital bed is a costly affair in United States. Some of the Centers and hospitals have devised a provision where these patients have been allocated a special overnight stay. It is known as "23 hours observation" as opposed to full day or 24 hours. It is only for those patients who in all likelihood will be discharged next day in the morning. A reduced amount of reimbursement is provisioned for this kind of stay. Most patients in our facility needing this kind of stay are those where an extensive procedure is planned e.g; extensive ligament reconstruction of knee, cosmetic procedures etc. This is ideal for young healthy patients needing extensive surgery. Patients requiring blood transfusion, systemic problems, respiratory and cardiac monitoring do not fall in this category, they need transfer to a hospital facility. If such patients are planned to stay in the center, a medical doctor with nurses should be available in the facility.

Mostly young doctors provide this type of service during their residency program trying to earn extra income moonlighting. These physicians should be certified for Advanced Cardiac Life support training and do not need to be from anesthesiology although they are preferable. Anesthesiologist must stay in the facility until such patient is present.

Home Going Instructions:

Prior to discharge anesthesiologist or one of the nurses in the PACU must give home going instructions. These home-going instructions must include the following:

1. These patients must have some responsible adult to take them home
2. They must not be left alone for overnight or for the first 24 hours.
3. They must not operate any machinery or drive a vehicle for the first 24 hours.
4. They must be instructed not to take any sedatives or any alcoholic beverages for the first 24 hours as it can cause depression of respiration and interaction with remnant anesthesia medications and prescribed pain medications
5. Clear instructions must be given to them as well as to the family members what to do in case of emergency and phone number of the person to contact.
PACU nurse or the surgeon or his assistant must explain the nature of surgery performed and what to expect until they come to see the surgeon on a follow up visit.

The whole affair is very pleasant for the patients where they do not unnecessarily have to go through the long line of processing, through the big corridors, and big bureaucracy of getting a bed assignment. Fortunately with the Day Surgery the bed assignments which used to be a gut wrenching experience has caused lots of hospitals to reduce the bed sizes and become much more responsive to the needs of consumers.

FUTURE OF DAY SURGERY

Procedures in not too distant past that needed a week or more of hospital stay and 7-8 inches incision now have become a thing of the past. Anesthetic management, which required quite a long recovery from the medication, has given ways to quick recovery. Better instrumentation, better video equipment has contributed to the development of minimally invasive surgery. There is going to be continuous development in the surgical skills in time to come. Cost effectiveness, improving surgical prowess and convenience for the consumers hold a better future for the Day Surgery. While this is for certain there are going to be new challenges ahead.

In order to do more there is going to be pressure on anesthesia department and nursing personals to manage the whole experience efficiently, smooth and for shorter stay. There is going to be a need for better communication and cooperation between different departments e.g; scheduling, reception, transportation, billing, coding etc. Anesthesiologists will have to play a major role in this process. Scheduling and assignment of anesthesiologist of different skills for differing procedures becomes even more essential. In the past hospitals were built by the community leaders, philanthropist, industrialists and corporations. These people had a great vision. They administered the hospital for its fiscal soundness but had little understanding of the need of physicians and patients. Free standing Day Surgery will need more input from the anesthesiologist, surgeons and nurses. This is true to a large extent, but one who foots the bill will also call the shots.

For this reason it is imperative that physicians who run such centers take a collective fiscal interest keeping the interest of their patients foremost to reap the rewards of professional and financial fulfillment. Financial fulfillment is a bad word but that is essential in order to keep the interest of their patients foremost.

In our free standing Center of the Cleveland Clinic foundation on an average 40-50 procedures are done everyday. It has seven operating rooms and 3 rooms for endoscopic procedures not requiring anesthesia care. There is pressure to make provision for more rooms and do even more extensive procedures. Anesthesiology department coordinates with all different surgeons to accommodate their request for the time.

Block assignments are developed for certain days for certain surgeons and difficulty remains. Special caution must be used to make sure that a true practical time interval is allocated in between the cases so as not to cause inconvenience to the surgeon following after one another. I suspect this problem has been with us and will continue to be there. But then what we had thought not possible in our lifetime has become a daily routine affair.

A well-managed Day Surgery facility deserves a good anesthesia department but a poorly run facility will need one to make it run well.

Ambulatory surgery: The Indian perspective.

Row T. Naresh
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Introduction:

Medical and health care in India have two parallel systems: the public sector and the private sector. The former caters to a larger population and is almost free, but proportionately lacks in funding and trained personnel. The private sector, which serves a small urban population, is at par with the best know-how and equipment available in the world, but is expensive. Only 17 per cent of all health care expenditure in India is borne by the government, making it one of the most privatised health care systems in the world. (1)

Of the total population of 1,073,000,000 (more than a billion!) in India, 73.87% live in the villages and smaller towns, some of which are accessible only by foot. The rest, 26.13%, only reside in the cities. (2)

A national census and detailed statistics of the surgical patients attending the OPDs and being operated upon has not yet been compiled by the government or any private agency.

The Western region of India, where the city of Mumbai is situated, drains a large number of patients from all over the country and abroad. Therefore, it has been taken as a 'Sample' for compilation and presentation of planned surgeries in this region.

In addition to its 20 million resident population and several million floating population, Mumbai caters to nearly 5 million patients annually. Some of the best equipped Public and Private Hospitals are situated in Mumbai.

History:

More than 2000 years ago, Shushrut, the great Ayurvedacharya of ancient India, has documented surgeries in his compilation, which were based on the concept of Ambulatory surgery. (3) Development of Hospitals were not seen till several centuries later, when Ashoka, described the medical ethics pertaining to surgical practice and set up 'Sanatoriums' for the care of the ill, which were managed by the Buddhist monks. The famous Ashoka rock in Girnar, bears testimony to the high standards of medical care and ethics expected from the physician and surgeons of those days. We have very little data or chronological details of the innovations of our ancient surgeons, but, whatever illustrations and instruments which have been preserved over the years show the brilliance of the designer who fashioned them to resemble the jaws of animals and fishes. These are very similar to the modern day instruments which were invented separately. (4) Modern medicine has rekindled the interest in Ambulatory surgery and the last century has seen a gradual rise in its development.

In 1908, James Nicoll (5) in one of the largest series to be published from the Royal Hospital for Sick Children in Glasgow, UK, reported the results of 7392 day care procedures in over 9 years. He stated that admitting children for certain operations “constitutes a waste of resources of a children’s hospital”. He recognized that results were comparable to those in admitted patients, with significant savings to the patient and to the hospital, and further stated that “with a mother of average intelligence, assisted by advice from the hospital sister, the child fares better than in the hospital”. Even then, he recognised and stressed on suitable home conditions, with proper co-operation of the General practitioners, and a promise of re-admission if needed (6). Much later, a study in the early 1950s revealed that there was a significant rate of hospital related infections in children admitted for elective surgery (7).

As the cost of surgical treatment increased, Palumbo et al (1952) (8), reported on early ambulation in a group of 2955 male patients who had undergone major surgery and noted that the economic advantage of outpatient surgery hastened its acceptance (9). It was soon realized that about 35% of all operations could be performed without the need for hospital admission and more patients were treated on the same number of hospital beds. In 1972 Cloud presented a large series of wide varieties of case performed under endo-tracheal anaesthesia, establishing its absolute safety. Outpatient surgery quickly gained momentum and surgical care acquired a new dimension (10, 11, 12).

Definition:

UK- The admission of selected patients to hospital for a planned surgical procedure, returning home on the same day. ‘True day surgery’ patients are day case patients who require full operating theatre facilities and / or a general anaesthetic, and any day cases not included as outpatient or endoscopy. (13)

USA- Minor Ambulatory surgery or out patient surgery, as that, where care is provided to non-hospitalised patients with immediate discharge. Local anaesthesia is almost invariably used.

Major Ambulatory Surgery is defined as surgery done under GA, Regional or LA, in which a period of post-operative recovery and / or observation is required before the patient is discharged home later the same day. (14)

Working definition:

We propose: Day care or ambulatory surgery is one wherein the patient is discharged on the same day of surgery or an invasive procedure. These patients require a fully equipped operation theater facility. Depending on the type of anaesthesia used, require a few hours of observation, thus, avoiding hospitalization. (15)

Nomenclature:

Day surgery is known by several names world over. The most commonly in use are: Day Case, Day Surgery, Major / Minor Ambulatory Surgery, 23-hours surgery, One-Day surgery, In & Out surgery, OPD procedures, etc. In our country, it is most prevalently known as Day Care surgery.

Statistics:

These have been taken from 3 leading Public hospitals and 2 Private Hospital, situated in the city of Mumbai. They are amongst the largest hospitals in the country. Their total bed strength is 5997 and they cater to approximately 1.5 million patients every year. Surgical OPD attendance is 258,889 patients, all surgical specialities combined. Of these patients, 80,991 underwent surgical procedures during the year 2003-2004.

The number of Day Surgery cases, including Minor and OPD procedures, was 36,239 surgeries. Out of which 27,138 would come under the category of Minor / OPD cases. Making True Day Surgery cases a mere 9,101, that is, 11.23% of the total number of cases being performed in this sample study. Most of the hospitals perform Day surgery as part of the regular surgical list.

Table I: Day Surgery in Nursing Homes (2003-2004):

	Cases	Beds	Cases/Bed
Gen. Surg.	853	7	121.85
Urology	928	25	37.12
ENT	300	5	60
Ophthalmology	1500	11	136.36
Gynac.	480	12	40
Plastic Surg.	400	6	66.66

Table I shows a one year (2003-2004) statistics of Day Surgery cases performed in Private Nursing Homes in the city of Mumbai. The proportion of beds to the number of cases performed clearly shows that Ophthalmology has taken the lead, performing 136.36 cases/bed/year. Urology being the lowest, that is, 37.12 cases/bed/year. These have been taken from centres run by leading surgeons with several years of practice; the given numbers are major cases, performed as true day care surgery. These are surgeons who are closely associated with the propagation of day surgery.

Discussion:

The criteria's for patient selection and preparation remain similar to those followed all over the world with a few variations to suit the local needs.

The sheer size of the population and lack of funds have made Health care more and more dependent on Private sector which is sometimes out of bounds to the poor patient.

In a recent study, the expenditure as percent of the GDP, from 175 countries shows: India to be spending 0.9% in the Public sector, 4.2% in the Private sector, totalling 5.1% of the GDP. Whereas, the USA spends 6.2% in the Public sector and 7.7% in the Private sector, totalling to 13.9% of its GDP. India stands 171st in expenditure on its Public health care system. In contrast with the rank of 18th in the world, in terms of expenditure in the Private Health Care sector. (16)

According to the latest government estimates, the doctor-patient ratio is 1:1800 and the hospital bed-patient ratio of 1:1259. There is an estimated shortage of 42,000 beds in just the government hospitals which cater to 60% of the population. (16)

The statistics show, that as compared to Western medical centres, where Day surgery is a well established modality of dispensing surgical care, we are lagging far behind. Amongst all the surgical specialities, less than 15% of cases operated upon are true Day Cases. The bulk of these patients come from the specialities of Ophthalmology and ENT, followed by Gynaecology and General surgery. The other super-specialities contribute only a small fraction.

In the USA, nearly 40 million cases were performed as Day surgery last year. In the UK, during the year 2003, 50% of the cases were performed as Day surgery, which has been projected to increase upto 75% in the year 2005. The NHS is overburdened by the sheer number of cases they have to operate, making a waiting period of more than 2 months for simple surgical cases. The cost cutting in the USA on healthcare spending, mostly by the medical insurance companies, has led to the development of Ambulatory surgery, which works out to be very economical.

In India, we are faced with the unique problem of over burdened Public hospitals, as well as, increasing cost of surgeries in the Private hospitals. Also, there is a fast emerging group of jet-setting executives and business men, who do not have the time to 'waste' in hospitals, and are looking for fast recovery, enabling them to get back to work as early as possible. The answer lies in the proper and complete utilization of Day Care surgery.

As far as National programme and policy making is concerned, the government agencies have been over-burdened by the epidemics and pandemics of AIDS, Malaria, Kala Azar, Polio and malnutrition. Consequently, the surgical speciality, especially, Day surgery, is not on their priority programme.

Medical insurance covers a small fraction of population but most of these insurance companies still insist on a 24 hrs. admission. Hopefully, these policies will soon change, and would make it easy for all to get benefit from day surgery.

The problems we face are: lack of awareness in the patient population and poor facilities for training doctors in this specialty. The Medical education system has not incorporated day surgical training into their curriculum. These have to be acquired as part of your practical experience once you have completed your specialisation. Ambulatory surgery or Day surgery will have to be a super speciality, creating its own identity.

The Indian Association of Day Surgery was conceptualised in 2003 by a few like minded surgeons, who were interested in day surgery. They got together with the sole purpose of furthering the concept of day surgery in the country by increasing the awareness among the patients, creating training facilities for the surgeons and working with government agencies to help them make policies which will be beneficial to all.

The Association has to address these issues one by one and quickly, so that soon we will be in a position to contribute to the national economy by reducing costs and reducing the loss of time. This would minimise the financial losses faced by an individual and increase his work output, thereby helping in the national growth. Paucity of funds has been the main deterrent in achieving your goals, but it is hoped that the perseverance and devotion of a few dedicated surgeons will extensively establish Ambulatory surgery in India.

We have started by proposing protocols for patient selection and setting up of centres for the safe and successful delivery of surgical care to the patient. Help will be provided in the form of technical know-how in setting up and running of the centre to Govt., NGO or private agencies. More interaction is needed between the Association and the policy making agencies for devising ways and means to take day surgery to the rural India.

In addition to making Day surgery a part of regular CME programmes, we should also encourage other agencies to take up Lectures, workshops and seminars, targeting the young trainee surgeons by exposing them to day surgery in their medical institutions.

Indian Journal of Day Surgery will be published yearly, to begin with, giving day surgeons a platform to share their experiences and also learn from others, from India and abroad.

More information regarding the Association can be gathered from the recently launched website: www.daysurgeryindia.org

It seems that, a revolution of sorts would be required to bring about the betterment of Ambulatory or Day Care Surgery in India. This can only happen with a combined effort by the GP's, physicians, surgeons, hospital administrators and insurance companies.

Conclusion:

Keeping in mind the safety of the patient, with all due precautions and careful patient selection, meticulous preparation, day surgery has a wide safety margin and good success rates. It has economical benefits, which, developing nation like India, with 29% of its population living below the poverty line, cannot afford to ignore. Its 20% urban population with not enough time to spare would tremendously benefit by popularising the concept of Day surgery. There is little doubt that, like anywhere in the world, Day surgery will be the Future of Modern Surgery, in India too.

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Advances in Day Surgery

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Day surgery in the UK enjoyed a brief period of political support in the early 1990's with a National Task Force and the injection of money to develop new units. This did lead to an improvement in day surgery rates but the support was short lived and for many years we have experienced an attitude where managers and politicians believed that there was nothing further to do. In reality there remained a large variation in day surgery performance around the UK that could not be justified on clinical grounds. In 2001 the Audit Commission produced a report on day surgery and stated 'if all trusts could achieve the levels of the best performers 120,000 existing inpatients in England and Wales could be treated as day cases'. Given the problems we face due to having hospitals that are too small for the population we are trying to serve (otherwise known as the 'winter bed crisis') this was a waking up call for hospital managers and politicians.

Over the past 2 years there has been major political support for the development of day surgery within the UK. Indeed it is expected that 75% of the elective surgical workload will take place as a day case within the next few years. This is important as it will form the majority of the non emergency work for many anaesthetic and surgical departments. Obviously this has implications for training of both surgeons and anaesthetists. Anaesthetists in particular have much to offer this population of patients but in many departments it is not seen as an important area – lacking the drama of ITU, vascular and acute work. Indeed there is currently a lack of training in this area despite good guidance from the Royal College of Anaesthetists and this is something we are trying to address within the British Association of Day Surgery.

In this article however I will concentrate on the need for anaesthetists and surgeons to work together to revisit their day unit assessment criteria and how they provide post operative pain relief.

Assessment Criteria.

Historically in the UK these have been based on guidelines produced originally in 1985 (updated 1992) by the Royal college of Surgeons. (1) One of the first areas of contention in these is the use of a Body Mass Index (BMI) of 30 as the level where patients become unsuitable for day surgery. (BMI is the patients weight in kilograms divided by their height in metres squared i.e. kg/m^2) It is interesting that there are departments still using this level in the UK. For some time now publications have supported the provision of day surgery for obese patients (2-3). In York we have gradually increased this to a level where everyone looks after patients up to a BMI of 37 and those beyond this are looked after by myself and a small group of colleagues who have developed an interest in this area. The real limitation is the weight that our operating trolleys can take and this tends to be around a weight of 150kg.

Obesity is a growing problem across many countries and we are looking at new equipment to support our care of these patients e.g. patient hoists installed in our Post Operative Care Area.

Hypertension has always been an area of controversy in anaesthesia. However a recent meta-analysis (4) has provided good guidance about this issue. In any consideration of this subject it is important to separate out the long-term health issues from the perioperative period. Though this article does give us clear guidance about the safety of proceeding with surgery it should not stop us from ensuring that the patients are referred appropriately for long-term management of their blood pressure.

Age has been used as a limiting factor but I believe that most units have removed arbitrary limits now. There is evidence to support this view (5) and indeed recent work has shown a reduction in the risk of post operative cognitive dysfunction in those managed as day cases.

Epilepsy has been used as a contraindication in the past for day surgery. Many units now note the condition and its severity and allow the patient to have their surgery. Infectious problems and the possibility of being Australia Antigen positive were seen as contraindications in 1992. Nowadays we routinely manage the HIV populations that many of our cities have.

Diabetes was a major stumbling block for many years with units limiting themselves to managing only those who were diet or tablet controlled. There is no good reason to condemn insulin dependent diabetics to in-patient treatment. Indeed in our hospital we have set up a protocol for inpatient and day surgery patients that means if the patient is expected to eat within 4 hours of surgery then they do not receive a Glucose Potassium Insulin (GKI) infusion. Guidelines on this topic and a suitable management protocol can be found on the British Association of Day Surgery website www.bads.co.uk.

With modern anaesthesia the duration of anaesthetic should not be a limiting factor for day surgery. It is no longer necessary to limit procedures to under 60 minutes. However success with longer and larger procedures depends on meticulous attention to detail by the anaesthetist. I believe anaesthesia does need to decide whether it is going to proceed to sub-specialisation in day surgery or perhaps to the provision of protocol led anaesthesia. Another example of progress is the use of spinal anaesthesia. Modified techniques (mini-dose spinals) have been used successfully in day surgery in some countries (notably Sweden) for many years – again guidelines for the use of this technique are available on the BADS website. Typically this mini- dose technique involves the use of between 5 – 7.5 mg of bupivacaine mixed with fentanyl 10-25 micrograms. The lower doses appear to be suitable for arthroscopy and lower leg procedures while the larger doses are required for inguinal hernia repair. The use of this technique is associated with a low incidence of hypotension and allows mobilisation and discharge within a reasonable time. This is still longer than following General Anaesthesia but this technique does make spinal anaesthesia more acceptable for day surgery. Steroid or anticoagulation therapy was previously seen as a reason to deny day surgery; again many units have protocols in place to allow these patients to be managed. Finally a history or family history of Malignant Hyperpyrexia was seen as a contraindication to day surgery.

Recent reviews would support that dantrolene pre-treatment is not necessary in this group of patients (6) and as avoiding trigger factors should be relatively easy then these patients should not be denied day surgery. However they should be identified at pre-assessment and managed by someone who is happy to look after these patients.

Analgesia in day surgery:

We have learned many lessons about analgesia in day patients from Audits performed in York. The major factors to remember are:

- The need to educate the clinicians to prescribe analgesia.
- Educate the patient (and their carer) to actually take the analgesics provided.
- Provide the patient with details about what to do if they are still in pain.
- Furthermore after some operations advice about over the counter analgesics should be given for when they run out of the analgesia supplied.

Table 1 presents a summary of some of our data for patients who reported moderate or severe pain when they were contacted at 24 hours after discharge from hospital. In 1992 it can be seen that in this group only 67% had been given analgesia to take home. Clinicians felt that the procedures they were having were not painful and so we had to educate our colleagues that it is important to ensure that patients are given pain killers to take following discharge. This programme has been largely successful as you can see that 98% of our patients were prescribed analgesia to take home in 1994 and 2000.

When we asked this group of patients who are reporting moderate or severe pain did they take the tablets given to them we found that in 1992 9% reported not taking them and another 22% used tablets they already had at home. This problem was addressed by the nursing staff educating both patients and their carers on how and when to take their pain killers. We also reinforced this by providing written information to remind them. Further audits in 1994 and 2000 confirmed that this approach has improved this problem. It is interesting to note that despite patients reporting experiencing moderate or severe pain that large number report that they were able to control their pain using the tablets provided. This number has again improved with education since 1992. The results fit with the findings of Table 2 which looks at the reported degree of pain felt by our patients. This has shown improvement between 1992 and 2000 and this has been achieved despite a change in case mix to larger more painful procedures.

Supplied with tablets	1992	1994	2000
Yes	67%	98%	98%
Control with tablets			
Yes	53%	84%	80%
No	4%	4%	6%
Some of the time	12%	8%	9%
Used own	22%	3%	2%
Not taken	9%	1%	2%

Table 1. Results from patients reporting moderate or severe pain after discharge.

	1992	1994	2000
None	28	25	32
Mild	35	45	46
Moderate	25	24	15
Severe	12	6	3

Table 2. Reported degree of pain.

The secret of pain relief in day surgery is to use a multimodal approach to analgesia during their stay and in the postoperative period. This requires the use of NSAIDs, Paracetamol, Codeine, short acting opioids (fentanyl) and the liberal use of local anaesthetics.

However no one has all the answers to analgesia following day surgery and as we increase the complexity of procedures being performed then we have to look to new methods. One new technique being used around the world is the continuous or patient controlled infusion of local anaesthetic into the area that has been operated on. (7) This has been made possible by the development of reliable disposable pump systems that can be connected to fine catheters (often epidural catheters) which are left inside the patients wound. Indeed some authors are now leaving the catheter inside joints (8) for the first 24 hours after discharge. This technique is popular in some parts of Sweden and Australia but is also beginning to be used in the UK.

I would like this opportunity to repeat what I hope has been a theme in this article - success in day surgery is down to teamwork. The team includes the surgeon, the anaesthetist, the nursing staff and any support staff you may have. Time spent building a good team who understand the needs of the day surgery patient and their carers can pay large dividends in the long-term. Day surgery can only succeed if we provide a quality service for our patients. This is what our British Association of Day Surgery promotes – please take time to look at the website www.bads.co.uk. There you will find lots of useful information about day surgery and even a discussion area where you can ask questions. Don't be afraid to join in.

The Publications area allows you to download our booklets already mentioned in my article plus others on discharge criteria, day case laparoscopic cholecystectomy and skill mix and nursing establishment for day surgery units.

Finally I would like to thank the Editor for the kind invitation to contribute to the first issue of The Indian Journal of Day Surgery. I wish you success with this new venture and look forward to hearing how things progress.

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Promoting Day-care Surgery in India

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There is now a general consensus worldwide that daycare surgery offers many benefits for patients, doctors, insurance companies and employers. These include: reduced cost, increased convenience, increased safety and lower infection rates, providing a win – win situation for everyone. If this is true, then why hasn't day care surgery become more popular in India, and what can we do about this?

I feel the problem is simple. The fact remains that many people are sadly still unaware of the major benefits which day care surgery offers. This includes the following key players: insurance company executives and patients.

Insurance executives are playing an increasingly important role in healthcare delivery in India today, thanks to their financial clout. Because many insurance companies still refuse to reimburse for surgery unless patients are hospitalised overnight, many patients are being admitted to hospitals just so that they can claim reimbursement from their insurance company. This is truly tragic. Interestingly, the true push towards popularizing day-care surgery in the USA came only when insurance companies started refusing to pay for hospitalization for procedures which they felt could be safely done on a day care basis, because they refused to pay extra for unnecessary hospitalization! Once insurance companies stopped paying for hospitalization, doctors started performing many more of these procedures on a day-case basis; and even hospitals started opening up Day-Care surgery units, so that they did not lose this important source of revenue! In India, instead of providing the impetus to catalyse this change which would save them a lot of money, insurance companies persist in taking an old-fashioned attitude. We need to concentrate our efforts on educating them and help them to keep up with the times!

Some patients (and their family members) are also worried about undergoing surgery in an Ambulatory Surgery Center (ASC). Many of their fears are unexpressed, and they are worried about possible complications. Can the ASC deal with an emergency? Suppose a blood transfusion is needed or the patient needs to be transported to a hospital? What if there is a problem at home after discharge? Will the relatives be able to manage? Patients often feel more secure and comfortable in a hospital setting as they have been traditionally used to.

It is true that most patients are petrified at the very thought of having to undergo surgery, and one of the major worries is the fact that hospitalization is needed. After all, hospitals can be terrifying places for patients! We now need to explain to our patients that there is now a kinder option available for many patients who need to undergo surgery, which does not need spending time in hospital and this, is called day-care surgery (also known as ambulatory surgery or same-day surgery).

Day-care surgery has become increasingly popular all over the world for many reasons. First, thanks to tremendous advances in technology, many doctors have started performing minimally invasive surgical procedures.

These procedures use endoscopes, and require very small incisions, so that the risks involved in conventional major surgery can be avoided. Secondly, the newer drugs used for anesthesia allow patients to recover consciousness very quickly, so that they can go home soon after the surgery is over. Finally, modern painkillers are safer and more powerful, patients have much less pain after the operation and they themselves can take these medications at home.

Ambulatory surgery allows patients to recuperate where they are most comfortable—in their own home! This is now a global trend, and over 70% of elective surgery in the USA is now done on an ambulatory basis. This fact is not surprising; given the various benefits ambulatory surgery offers patients. Patients find day-care surgery much less stressful, as short recovery times allow anxious patients to be comforted soon after surgery by their relatives and they don't need to be isolated in a hospital room. Moreover, patients do not suffer from separation anxiety, as they do not need to be separated from their families overnight — something which is especially helpful for children. Ambulatory surgery means less time away from home, less time off from work, and less disruption of the patient's schedule. Patients are happier, because they remain in a single unit which has been planned, and is operated, solely for their safety and comfort. Patients prefer ambulatory surgery over hospital outpatient departments because the former involves less paperwork, little waiting and more organized and friendlier staff compared to crowded and uncomfortable hospital settings, where, day care surgery patients get low priority, because their surgery is usually scheduled last, after the major operations.

Studies worldwide have shown that ambulatory surgery delivers the same high-quality care as that given to hospital patients. The first ambulatory surgery center was setup in the USA in 1970. Today, almost seven million surgeries are performed each year in the more than 2,400 surgery centers across the United States. While day-care surgery is still a very new concept in India, it is heartening to observe that is becoming increasingly popular day-by-day.

Because the expenses incurred during a hospital stay are eliminated, ambulatory surgery usually costs less than the same type of surgery done for a hospital inpatient. This is a benefit that everyone — insurance companies, business organizations, surgeons and patients — greatly appreciate! Day-care surgery centers, provide high-quality health care at lower costs compared to hospitals because they maintain low overhead costs and also because they can focus only on aspect: treating ambulatory patients efficiently. On an average, procedures at ambulatory surgery centers cost 47 percent less than those at hospitals. (This figure is based on a study conducted by Blue Cross / Blue Shield of North Carolina).

Some patients still prefer undergoing surgery in a large hospital, because they feel it is safer in view of the backup facilities the hospital can provide in case of an emergency. Paradoxically, day care surgery centers are actually safer because they are dedicated to performing only ambulatory surgery, so that there are no “sick” patients; and there is no risk of acquiring hospital - generated infections. In a surgery center, patients receive more individual personal care as compared to the impersonality of a large hospital. Ambulatory surgical units have achieved an excellent record throughout the world, with a very low incidence of complications, because of careful patient selection; and adequate back-up facilities to meet any emergency. Of late, patients and surgeons alike are increasingly, learning the benefits of outpatient surgery centers. Healthy patients find such centers much more comfortable than hospitals, which are primarily designed for

the very ill. Family members also prefer day care surgery, because they can take care of the patients themselves, rather than leave them in an impersonal hospital room. Surgeons also find scheduling their outpatient activities much easier at an ambulatory surgery center, because problems with hospital waiting lists or booking a hospital room do not exist. They also find that since the cost of a hospital stay is eliminated, they can provide quality care to their patients at a lower rate.

Many factors, including medical advances, patient awareness and economics are the primary 'driving force' behind the growth in ambulatory surgery centers. All aspects considered, ambulatory surgery is likely to become an increasingly popular option in the future! We need to sell the idea – we need to market it!

Patient satisfaction is a hallmark of the day-care surgery industry. The U.S. Department of Health and Human Services Office of the Inspector General surveyed Medicare beneficiaries who had one of four procedures in a day-care surgery center. He found that 98% of the people were satisfied with their experience. One reason for high patient satisfaction is convenient scheduling. According to FASA's Outcomes Monitoring Survey, 75% of day care surgery centers started more than 80% of their cases on time. Patients also choose day care surgery centers for their high level of professionalism and safety.

Maintaining a competitive edge has become imperative in today's health care climate. Those striving to survive in this rapidly changing marketplace must be proactive to the changes that occur. The doctor owned Ambulatory Surgery Center (ASC) has proven itself as an efficient, productive and patient friendly means of performing common, low risk outpatient surgical procedures. Running an ASC can help doctors remain independent, profitable and contented.

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Respected Chief Guest Rear Adm. M.P. Taneja, Guest of honour Dr. Vijay Khole, Vice-chancellor, Mumbai university.

Chairman of the Organising Committee Dr. D. D. Gaur, Organising secretary Dr. Naresh Row, invited colleagues, friends, ladies and gentleman.

I welcome you all to the Inauguration of 1st National Conference and Installation of the Executive committee of Indian Association of Day Care Surgeons.

Historically, Sushurata, one of the oldest surgeon in the world, performed many surgeries, which were ambulatory.

Revival of day care surgery has taken 3 decades.

Friends, Day care surgery, Day surgery, Ambulatory surgery, Day care are the various terms used for the same system of health care delivery in different part of the world. Today day care surgery is the need of the hour and of the country. U.S.A., Canada and European countries want to cut costs of hospitalized treatment; our country can barely afford hospitalization.

In the USA, 60% to 65 % cases are being performed as Ambulatory surgery; U.K. has a target to reach 75% surgeries in Day Case. I had visited various centres in these countries in last 20 years. I had the opportunity to attend the British Association of Day Surgery Conference in Oct. 2003, held at York and exchanged our Indian Experience of Day care Surgery; we had earlier published our Indian experience of Day care surgery in their Journal.

Though Day Care surgery is being performed in India since many years, but, its potential has not been used to the fullest. To increase the awareness and to make it an established specialty, Dr. Naresh Row, came up with the idea of founding the Indian Association of Day Surgery, this is his brain child. He is dedicating whole hearted for this cause and has taken it as mission to propagate it across the country so that the common man in near future can get the benefit of this health care system.

Many of my colleagues ask us what is the need of separate day care association. Friends unless we have this association with the aims of promoting this concept we cannot think and act in that direction. In our country we are doing 10% cases as day care – i.e. we are in infancy.

In last 2 years we have done various activities in form of CME'S, Guest lectures in various specialty organization, posters, paper presentation, publications in national and international journals, distributing hand bills, news in paper and magazines. We had got the best poster award in Srinagar North chapter of ASI conference in June 2004.

Our efforts will be to educate: a) Medical fraternity; b) Govt. health policy maker; c) NGO's; d) Medical Insurance companies; e) Public at large, about day care surgery, its advantages and benefits, to all. It will be a great humanitarian service to the nation, if we can make available the benefits of day surgery to the common man. I appeal to each one of you, including media present here, to understand the benefits of day surgery and get involved in propagating this movement of health care delivery system to its (fullest) optimum capacity which is the need of the country today and the future.

A friend, a well motivated, well selected patient, undergoing surgery as day care, recovering in the comfort of his home, is a boon for the patient, especially to the children who are psychologically disturbed by hospitalization. It is beneficial to the patient, health care providers, insurance companied and to the nation. Once again thank you all for coming here and giving us the encouragement to propagate this movement in our country.

Thanks for patient hearing.

Jain hind!

WELCOME AND INTRODUCTION.

Row T. Naresh, Hon. Gen. Secretary, The Indian Association of Day Surgery, Mumbai, India. With a population of over a billion people. With an ever increasing cost of medical care, especially surgical care. With only 17 per cent of all health care expenditure in our country borne by the government, making it one of the most privatised health care systems in the world. With a spending of 0.9% in the Public sector, 4.2% in the Private sector, totaling 5.1% of the GDP. With our stand of 171st in expenditure on its Public health care system; contrasting with the rank of 18th in the world, in terms of expenditure in the Private Health Care sector. With a doctor-patient ratio of 1:1800 and the hospital bed-patient ratio of 1:1259. With an estimated shortage of 42,000 beds in just the government hospitals which cater to 60% of the population. With a mere 11.23% of True Day Surgery cases being performed from a sample study in Mumbai. Keeping in mind the safety of the patient, economical benefits, there is little doubt that, like anywhere in the world, Day surgery will be the Future of Modern Surgery, in India too. We welcome you and embark on this journey, in history, of Day Care Surgery.

INTRODUCTION TO DAY SURGERY.

Bapat RD, Consultant General Surgeon, KEM hospital, Mumbai, India.

“Surgery is the first and the highest division of the healing art, pure in itself, perpetual in its applicability, a working product of heaven and sure of fame on earth” - Sushruta (400 B.C.)

Indeed how prophetic these words of Sushruta are!

Surgery as we see today has evolved from Day Care surgery to begin with. However it over a period of time lost its place to the clerics of the church. The cottage hospital, soon took over which made way for the army hospital. The present form of public hospital was evolved in the early nineteenth century, and now what we see is monolithic five star hospital cultures. Modern medicine is becoming techno-intensive, hence cost intensive. The chariot of Surgical specialties is getting driven by techno industry and pushing the cost of therapy sky high.

Necessity is the mother of invention. Increasing cost due to increased overheads, shortage of the availability of beds led to resurgence of concept of Day Care Surgery. Thus Day Care Surgery has come a full circle. Day care surgery as many feel, is not a shortcut surgery, but instead is a natural progression of Routine safe surgery, to be practiced after having gained a certain degree of expertise. It should not only meet the necessary pre-operative, intra-operative and post-operative pre-requisites that are a must for Routine surgery, but also meet the infrastructure required of the operation theatre. It is very important to weigh the Risk Benefit Ratio prior to recruiting patient for Day Care Surgery. The benefit of Day Care Surgery far outweighs the risk involved, provided the patient selection is done properly. The Ultimate Success is Patients satisfaction.

SYMPOSIUM: ACROSS THE SPECIALITY – THE PRESENT SCENARIO:

1. ENT & DAY SURGERY: DOWN MEMORY LANE.

Bhatt Chaitan, Consultant ENT surgeon, N. K. Shah Nursing Home, Mumbai, India.

ENT as a specialty grew in our country in the middle of the 20th century. Until then, General Surgeons took care of most of the operations we associate with this specialty. On finding its own ground, ENT was among the first to adopt the daycare regime. It began with Tosillectomies being done on a daycare basis. Since that made up for the bulk of operations being done by the ENT Surgeons, daycare regimes were soon devised for the other surgeries being done by them. Progress in Anesthesiology was in tandem with developments in surgery and today an overwhelming proportion of ENT Operations are done on a daycare basis.

2. PROGRESS OF OPHTHALMOLOGY TO DAY SURGERY.

Shroff Ashok, Consultant Ophthalmologist, Shroff Eye Clinic, Mumbai, India.

3. DAY CASE GENERAL SURGERY.

Shah BR, Consultant General Surgeon, Ambulatory Surgery Clinic & Hernia Centre, Mumbai.

Ambulatory Surgery is now over 50 years old and over 50 % of elective general surgery is done as day care, all over the world. We are also almost on par. Social psychological, economic concerns and insufficient healthcare delivery system have been a major impetus for its growth in India. Fear factor is almost gone and it is accepted equally well by profession and people in urban or rural setting. With changing attitudes and advances in surgical and anaesthetic methods, medicines and materials, a lot of major surgery has come into the arena. From major hospitals to modest nursing homes, for adults as well as children, under local or general anaesthesia.

It has been one of the most significant advance in routine surgery in recent years. Even though it is largely chosen for non-emergent non-infected, surface operations, with increasing experience, a lot of infected emergent and intra-abdominal material can be comfortably managed. Our medical insurance companies still exhibit a primitive approach by compulsory demanding 24 hours hospitalization. They are doing now what U. S. A. did 20-30 years ago, we hope they get enlightened and learn from what U.S. Medclaim is doing now. They pay more to day care surgeons than to a surgeon who hospitalizes longer for a similar problem. There is a saving in hospital bills, cost of treating hospital acquired infections and a loss of manpower working days. It is in their business interest as well as a service to the nation. Don't worry. It is wisdom's nature to arrive; sooner or later.

4. RECENT ADVANCES IN PLASTIC SURGERY.

Gupta AK, Consultant Plastic Surgeon, Bombay Hospital, Mumbai, India.

5. ORTHOPEDICS AND DAY SURGERY.

Ghawale Sangeet, Asso. Prof., Dept. of Orthopedics, J.J Hospital, Mumbai, India.

Day Surgery in Orthopaedics, is steadily gaining popularity amongst orthopaedic surgeons, as the patient is discharged on the same day of the procedure from the hospital.

Changing practice patterns, including utilization of Day care centers, have resulted in improved efficiency and increased revenue. Required anesthesia may be regional, local or general.

Selection of a patient for day care surgery is as per the standard guide lines. Selection of Anesthesia is dependent on surgical requirements, patients considerations and facilities at the center. Surgeries suitable for day care surgeries should have minimal risk of post operative haemorrhage, recovery from anaesthesia should be smooth, post operative pain should be easily controlled and rapid return to normal fluid and food intake should be encouraged.

Patient should understand procedure properly and follow the discharge instructions. A responsible relative of the patient, who is also instructed should be with the patient for atleast 24hrs. Following Surgeries in orthopaedics are practiced as day Surgeries.

1. Minimally invasive and arthroscopy surgery for the spine, hip, knees, shoulders, ankles, elbows and wrists.
2. Kyphoplasty/vertebroplasty (cement injections) for osteopathic fractures – same-day procedure offering rapid relief for back pain.
3. Total and partial joint replacement.
4. Spine surgery instrumentation.
5. Hardware removal.
6. Ganglion/cyst/bursa excision.
7. Manipulation and plaster for deformity.
8. Close reduction and plaster for fractures.

The developments in Surgical and Anaesthesia equipments and its continuous upgradation has definitely reduced surgery time. Due the same one can safely practice minimal access Surgeries. Improved nursing care also plays a important role in quicker rehabilitation of patient.

Recent studies have confirmed that ambulatory orthopaedic surgery is safe, efficient, cost effective, leading to wider acceptance by orthopaedic surgeons.

6. DAY CASE GYNACOLOGY SURGERY.

Pai-Dhungat PB, Consultant Gynecologist, Bombay Hospital, Mumbai, India.

7. DAY SURGERY LAPAROSCOPY.

Surg. Com. Naidu CS, Consultant GI Surgeon, INHS Asivini, Mumbai.

8. PROGRESS OF UROLOGY IN DAY SURGERY.

Gaur D. D., Consultant Urologist, Bombay Hoapital Institute of Medical Sciences, Mumbai, India.

Most minor surgical procedures like vasectomy, hydrocelectomy, drainage of scrotal abscess, urethral calibration, cystoscopy with or without biopsy, cystolithotripsy, URS, ESWL etc are being performed for ages as day case procedures in the field of Urology. However, the possibility of the same being carried out for the major or the supra-major procedures became apparent mainly due to the development and refinement of the endourological and laparoscopic techniques. Nevertheless, there were some other factors as well, which made it possible for this to happen to patients undergoing major and supra-major procedures. Improved surgical techniques, use of robots in urology, better postoperative pain management, better patient information and escalating hospitalization costs were also responsible for evolution

of day case urological procedures.

9. ANESTHESIA FOR AMBULATORY SURGERY

Mangeshkar Tillotama, Consultant Anesthetist, Intensivist & Pain Physician

Bombay Hospital Institute of Health Sciences, Cumballa Hill Hospital, Breach Candy Hospital, Mumbai, India.

The choice of anesthetic for ambulatory surgery is based on considerations of safety, quality & cost efficacy.

Presently, the majority of all elective procedures are performed on an ambulatory basis. Therefore, a trend towards more extensive procedures in higher risk and elderly patients being treated in the ambulatory setting, is emerging. Despite this, in a recent survey of 18,500 Danish patients, there was no mortality caused by the anaesthetic procedure and no cases of permanent disability (Engbaek J).

The choice of anaesthetic technique should be based on demands for zero risk of mortality and permanent disability, with an emphasis on quality and cost efficacy.

Cost-efficacy conclusions are highly dependent on local issues: What are the drug and equipment acquisition costs? What are the costs of staffing? How is the unit built and organized? Further, a total economic setting should always be considered: Will savings in drug costs create more costs for staffing or patient surveillance? More costs for rescue drugs or extra measures? Especially important are extra costs relating to choice of anaesthetic and prolonged stay in the recovery unit, unanticipated hospital admission or re-admission after hospital discharge. These and many more issues have to be addressed and resolved for a smooth ambulatory anaesthesia.

10. PROVIDING INFERTILITY TREATMENT IN A DAY-CARE SETTING

Malpani Aniruddha, Infertility Specialist, Mumbai, India.

Given the fact that infertility affects 15% of all married couples, it is hardly surprising that there is a huge demand for providing medical care for infertile couples in India. Infertility treatment is a high-growth area all over the world, and the introduction of new technology allows us to ensure high pregnancy rates. There are now over 300 IVF clinics in India, with more opening daily in cities all over the country. Most IVF clinics worldwide are day-care clinics, since IVF is ideally suited to day-care surgery. There are practically no emergencies and few complications; patients are usually young and healthy; and the technology utilized is minimally invasive, being based primarily on ultrasound and does not require much in the form of medical support services. Providing dedicated IVF services in a self-contained day care clinic offers a number of benefits to doctors and patients. It's much more cost-effective; it's much more convenient for patients, since they don't need to run around from the sonographer to the laboratory to the doctor; and it's much less expensive than hospital-based programs, since there are no overheads and red-tape. It's also safer, since there is no risk of hospital-acquired infections. We describe our experience with providing IVF services on a day-care basis for the last 12 years.

11. RECENT ADVANCES IN DENTAL SURGERY.

Kankaria P., Consultant Dental Surgeon, Sion, Mumbai, India

12. CVTS AS DAY SURGERY.

Somaya Anand, Consultant Cardiovascular Surgeon, Bombay Hospital, Mumbai, India.

Lady Ratan Tata Medical Centre, Mumbai, India.

The recent advances in methodology and equipment have now made it possible to carry out various types of cardiac and vascular repairs and day care procedures where the patient can be discharged either the same day or the next morning. This has led to the obvious reduction in cost of the procedure, less exposure of the patient to hospital borne infections, quicker turnover of hospital beds, mental satisfaction of the patient and an early return to normal activities and work.

Besides numerous vascular procedures which can now be carried out in this manner, even coronary bypass surgery with robotic assistance can now be done as a Day Care procedure. With the advent of newer techniques and minimally invasive surgical methods, Day Care surgery has come into its own even in this major specialty and will continue to grow so that a time will come when all types of major surgery will be done through small incisions with extremely short hospital stay.

This conference is the perfect venue to disseminate the message of the advantages of Day Care Surgery and bring about an inter-disciplinary co-operation between various specialists so as to make "Day Care" the watch word for all types of cardiovascular surgeries.

13. DAY CARE IN NEUROSURGERY.

Deopujari CE, Consultant Neurosurgeon, Bombay Hospital, Mumbai, India.

Unlike other branches of surgery the concept of "Day Care Surgery" almost did not exist until a few years ago. Cranial and spinal surgeries are thought to entail a lot of pre operative work up and in-hospital post-operative care. However, with precise imaging, application of minimally invasive and non-invasive techniques, it is now possible to treat some neurosurgical disorders on a day care basis. Non invasive techniques in the form of stereotactic radiosurgery are very effective in treating small brain tumors in a well defined location, such as, acoustic neuromas. It is also successful in over 80% patients with deep arterio-venous malformations and has now become a standard of practice. Gamma knife and X-knife are the two varieties available in Mumbai, while Cyber knife and Protonbin therapy is available in few universities abroad for Steriotactic Radiosurgery (SRS).

Endovascular treatment by coils for certain intracranial aneurysms and embolisation of arterio-venous malformations is now being performed as a Day Care Procedure at many centers.

SRS for biopsies of intracranial lesions, drainage of a cyst can also be performed under LA as a Day care procedure if the patient is easily accessible to the doctor at home.

Peripheral nerve surgery such as ulnar or median nerve decompression is being performed as day care procedures satisfactorily for a long time. Microdiscectomy, endoscopic disc surgery or percutaneous discectomy, also require only one day hospitalisation as no bone removal is necessary in most patients. The post operative period is pain free and mobilization and physiotherapy can be started from the very next day at home.

14. RECENT ADVANCES IN DAY CASE ONCO-SURGERY.

Desai PB, Consultant Onco-Surgeon, Breach Candy Hospital, Mumbai, India.

15. DAY SURGERY A BOON TO PAEDITRIC SURGERY.

Adyanthaya Kishore, Consultant Paeditric surgeon, Bombay Hospital, Mumbai, India.

Ambulatory Surgery stands as one of the most important development in the evolution of surgical care in children. It is safe, efficient, and cost effective and offers unique clinical and psychological benefits to young patients. Organization of ambulatory surgical centers has become common place only in last 20 years, despite its advantage which has been mooted since early twentieth century. Scottish Surgeons to overcome the shortage of bed and long delay in admission started performing surgeries on children as out patients. But they soon realized the advantages but rest of the world was slow in realizing it. Finally the fear of cross infection and rising cost of medical treatment made ambulatory surgery popular.

Patient selection is the crux of successful ambulatory surgery and is done in the initial out patient visit. All children ASA I and ASA II can be done as Day Cases. Premature children under six months of age are usually contraindicated for day case because of post operative apneas. Comprehensive and well presented information using terminology that parents understand is essential for success of ambulatory surgery. Investigations, consent and clear written instructions about with holding of feeds should be given

Approximately 60% of surgeries performed by pediatric surgeons can be and should be performed on ambulatory basis. Common feature of all these operations is prolonged observation, parental medication is not needed.

When patient demonstrates stability in ambulation and orientation he can be discharged with clear written instructions of do's and don'ts, medications, what are the complications to expect and where to reach. They are also told about the follow up.

Right patient selection, quality patient care and patient education are fundamental to success all ambulatory surgical program.

ON THE FLIP SIDE: OPEN HOUSE DISCUSSION:

1. MEDICAO-LEGAL ASPECTS OF DAY SURGERY.

Kapoor Lalit, Consultant General Surgeon.

2. HOSPITAL ADMINISTRATOR & DAY SURGERY.

Matwankar (Col.) S.K.P. , Director Operations; Adaniya Atul, Assistant Medical Director, Sir H N Hospital & Research Centre

Philosophically, the Hospital should value the rights of all patients and individuals believing they should receive an optimal standard of health care and treatment with utmost dignity and respect.

A key objective for all is to continually look for ways to improve the experience and care of patients.

The aim of the ambulatory care service would be to provide patient focused care in a minimal number of visits and within the shortest possible time. The general trends of an increase in the number of admissions and a decrease in the number of occupied bed days has persisted and at the same time there is continuing a greater increase in the number of outpatient attendances, thus the emphasis has shifted in physical design and service delivery terms, from in-patient beds to ambulatory care facilities. These trends have important implications for health planners and hospital/healthcare facility designers. The concept of Ambulatory Care recognises the medical, social and financial influences being brought to bear on the delivery of health care.

The hospital gains by way of increased revenue generation, reduction in overheads and expenses by reducing bed stay, no need for dedicated beds/staff strength/investigatory support – thus effectively reducing costs and generating more income. This directly increases the bed utilization and patient turnover with increased utilization of OT thus contributing to increase in hospital yield by higher patient capacity and turnover. The patient gains by getting high quality care at lower cost with lower medical expense and early return of patient to family and community. On the flip side – this set-up requires specially trained personnel to handle unique needs, ideally requires dedicated OT/Day stay unit etc. although the patient returns to home same day, the responsibility for post-operative recovery still lies with hospital but control over situation is lost. Indian Perspective – Education/Awareness levels & hygiene standards of general public may be insufficient to allow adherence to recommendations/advice.

3. MY EXPERIENCE AS A PATIENT.

Banik G.C., Chief General Manager (P.R.), VSNL, Mumbai, India.

Technology is changing very fast, whether it is telecom technology of Medical Science. And, in this changing trends of technological innovations, the fittest would be those who adopt the latest and most modern and convenient technology.

In the present complexity of modern life-style, people want to get the best service within the shortest possible time and that too in the most economical manner. Here, I have full praise for the state-of-the-art Centre for AMBULATORY SURGERY, instituted by Dr. M. M. Begani and Dr. T. Naresh Row, setting an example of DAY CARE SURGERY Centre.

I am not a Doctor by profession but a Doctarate (Ph. D) in Sociology. I have been in the profession of Public Relation for over three decades now, presently serving as Chief General Manager (Public Relation) & Head, Corporate Social Responsibility in Videsh Sanchar Nigam Limited (VSNL) dealing with the people and the Human Behavior and also Community Development Initiatives.

Recently, I was suffering and got treatment in the Day Care Centre. Initially I was worried, firstly for Hospitalization, which means some days absence from my work place, secondly, the complexity of Hospitalization and treatment. But all these hassles were avoided by getting my treatment in this Day Care Centre. What I understood as Day Care Surgery Unit after my treatment in this Centre is the discharge of Patient on the same day of Surgery, which means that the patient is operated as an "OUT PATIENT" and is not admitted over night. The patient walks in and walks out on the same day of his or her operation. The normal lifestyle functioning of a patient in his or her business or professional life is not affected as most surgeries and other procedures are done under local Anaesthesia and mild sedation. Here, the Patient avoids Hospitalization and its associated problems, like hassle of the Admission and Discharge procedures in the Hospital, avoids Hospital acquired infection and can recover in the Familiar and comfortable surroundings of the Patient's home and family, without inconveniencing anymore. Finally, the DAY CARE SURGERY procedure significantly cuts down the cost the whole treatment. Based on my practical experiences and associated advantages of my above treatment in the Day Care Centre, I wish we should have more and more such DAY CARE CENTRES in India.

4. SURGEONS POINT OF VIEW ON DAY SURGERY.

Row T. R., Consultant Plastic Surgeon, Nagpur.

Senior Advisor, The Indian Association of Day Surgery.

Surgical practice in a smaller city has its own charm as well as draw backs. The concept of day surgery has to be established in the metropolitan and bigger cities, before it percolates down to the smaller cities. Most of the patients who travel to the surrounding cities do not qualify for day surgery for several reasons. Whereas, in the larger cities, the requirement for Day Surgery centers and patients qualifying for Day surgery are more. The benefits of day surgery are tremendous, when we see that the insurance companies in the USA forcing the hospitals and surgeons to adapt to ambulatory surgery, in comparison, insurance for medical care in India is still in infancy. They both will grow together.

5. NURSING IN DAY CARE SURGERY

Matron Veronica D'Souza, Bombay Hospital Institute of Medical Sciences

A patient needs nursing during his hospital stay in the hospital. The role of the nurse is to understand the process of illness and contribute skillfully towards the patient's recovery. A systematic approach to the planning and delivery of nursing care in the operation theatre ensures continuation of care to the patient.

1. Assessment.
2. Implementation.
3. Evaluation.

When the patient visits the doctor again, with no queries and discomfort, you have achieved your goal of a good nurse.

6. INSURANCE FOR DAY CARE SURGERY.

Suri. RC, Manager, The Oriental Insurance Company Ltd., Mumbai, India.

The insurance policies are very clear on two points pertaining to Day Care surgery. The hospital or nursing home has to be registered with the local municipal body, should have a fully equipped facilities with an operation theater equipped to tackle major cases and emergencies. Cases which are being done in accordance with the advanced technologies can be discharged within 24 hours.

SEMINAR: TEAM APPROACH: ESSENCE OF A SAFE & SUCCESSFUL SURGERY.

1. HEALTH CARE MANAGERS.

Rear Admiral Singh VK, Commanding Officer, INHS Asivini, Mumbai, India.

2. PHYSICIANS ROLE IN AMBULATORY SURGERY.

Sorabjee Jahangir, Consultant Physician, Bombay Hospital, Mumbai, India.

3. THE SURGEONS ROLE.

Sheikh Parvez, Consultant Surgeon, Charak Clinic Nursing Home, Mumbai, India.

The surgeon's role in the team of performing & looking after ambulatory surgery, is that of a captain in the ship. The whole team performs on the orders of the surgeon & in turn the surgeon has to bear responsibility for his entire team. The patient's contact with the team is through the surgeon & he expects the surgeon to provide all the answers besides curing his disease.

The surgeon has the following responsibilities:

1. He should ensure that the patient has been explained about the surgery & its complications & also the limitations about day care surgery
2. He should be sure that the particular surgery can be done as day care & also be prepared to manage complications, if any.
3. He should ensure that the day care centre is properly equipped for the surgery to be performed.
4. He should ensure that the patient is fit for surgery. There are no shortcuts to pre-op fitness.
5. There must be a good understanding & co-operation between the team members; namely anaesthetist, theatre staff, etc. to ensure a good working environment.
6. He must ensure personally that the patient is fit to go home on discharge.

The credit for a successful surgery is always attributed to the surgeon, but a surgery gone wrong – even if it is due to an anaesthesia complication – can bring discredit to the surgeon.

4. MAINTAINING STANDARDS.

Gangwal Sanjay, Consultant Onco-Surgeon, Bombay Hospital, Mumbai, India.

Delivering of surgical care is as important as to provide and maintain high standards. The safety and success of your surgery and thus, your patient, is safeguarded by following simple criteria's and protocols, devised for the purpose. Patient selection, fully equipped operation facilities, etc. are the mainstay for maintaining high standards.

5. MARKETING.

Bansal Manish, Managing Director, R.G. Stone Clinic, Mumbai, India.

The "A" word - Advertising for many years has been frowned upon by the medical community.

Every member of a practice is a *marketing specialist* every day, whether consciously or unconsciously. If your focus is on THE PATIENT and the PATIENTS NEEDS, you are practicing the MARKETING CONCEPT.

In short Medical marketing is: "Every business decision you make, and every action you take, to attract patients to your services, and keep them there." What we have to do is determine what the needs and wants of our patients are, and do our best to satisfy them. This has to be done by putting yourself in the patient's place, remembering that, "the quality of the feast is not judged by the chef." The majority of your patients are (or will be) sophisticated, comparison-shopping *consumers* of health care, who are armed with facts, from various sources who will assess your medical practice and compare it to other practices where they have previously been and will evaluate your practice against standards THEY consider important.

Thus we have to remember and accept that a patient's good perception of your practice cannot be bought with all the advertising dollars possible.

6. NATIONAL PROGRAMS.

Gill GS, IAS, Principle Secretary, Medical Education & Drug Dept., Maha. State.

7. TRAINING: PATIENT, SURGEON, ANAESTHETIST, STAFF.

Begani M. M., Consultant Surgeon, President, The Indian Association of Day Surgery, Mumbai.

The biggest obstacle to the future growth of Day Surgery is a failure to recognize its benefits.

The training of surgeon starts from his undergraduate level, when they are exposed to the magic of surgery. Once they are into their post graduate training, they are ready and more open to accept and adapt to the concept of day surgery. The day is not far, like everywhere else in the world, we too will have Degrees and Diplomas or Certificate courses in Day surgery. The anaesthetists are traditionally trained to follow the all-or-none law, but adoption to TIVA along with local, makes a very comfortable and safe combination, is something they will have to be taught. Nursing care during the training increases the efficiency of the staff nurse in preparing the patient and completing all the formality for discharge. Therefore, making it easy to train the patient and encourage them by the reassurance of a safe and successful day surgery.

8. FAMILY PHYSICIAN IN DAY SURGERY PATIENTS CARE.

Kshirsagar Sunita, Hon. Secretary, Indian Medical Association, Mumbai. India.

Day Care Surgery concept, which is newly introduced by the surgeons in the Health Care of the patients, is a concept, which goes perfectly with the pace of the world today.

In today's fast moving world when time is a premium-but-Health cannot be ignored the Day Care Surgery Concept comes as a boon for patients - as patients are given maximum health care in minimum time without compromise on quality and with minimum economic burden.

Patients always attached lot of fear and apprehension to the word "Surgery"- as surgery involved - stay in the hospital with added botheration to the family members and the increased financial involvement. With the introduction of Day Care Surgery all the above factors are taken care of, and hence the patients are more amenable to their surgical treatment.

As this seminar focuses on team approach - let us realize that the word 'TEAM' stands for "Together Everyone Achieves More".

Our team here comprises of The Surgeon, The Anesthetist, The Nursing Staff, The Physio Therapist and The Family Physician.

Family Physician's role hence is of paramount importance as - even in this era of super specialization patients' repose tremendous faiths in their family physician and feel more closeness with them - because of which the family physicians acquire a vital position in this team approach.

MY EXPERIENCES:

1. A-V FISTULA: DAY CARE SURGERY FOR HEMODIALYSIS IN CHRONIC RENAL FAILURE PATIENTS.

Singh Devender, Pinjala R K, Reddy LRC, Vani, Department of Vascular and Endovascular surgery, Nizam's Institute of medical sciences, Hyderabad, India.

Aim: Vascular access for chronic hemodialysis is a life line and an Achilles's heel. Prompt availability of a well functioning and a stable vascular access remains a disturbing problem due to socioeconomic reasons especially in our population. Day care surgery for these patients is a new modality in the armamentarium of renal replacement therapy. We report this study to highlight the necessity and importance of Day care surgery for chronic renal failure patients.

Key word: vascular access, A-V fistula, Day Care surgery.

Material and Methods: this study consists of 130 patients between January 2004 and December 2004.

All the patients were first seen by the nephrologists. Males dominated the study and most of the patient belonged to the fifth and sixth decade. Majority were hypertensive, whereas 35% were diabetic and 14% had coronary artery disease.

Results: Radio-cephalic fistula in a non-dominating limb was the preferred option (68%), whereas brachio-cephalic fistulas were also considered for diabetic patients. All the operations were done as a day care procedure. There were no complications requiring admission after the procedure.

Conclusion: Renal replacement therapy, in a renal failure patient remains a frustrating affair due to financial reasons. Carefully planned access, as a day care surgery seems to be the novel approach particularly in our type of set up. Pre-admission screening, instruction about post surgery care at home and follow up to monitor recovery remains the key to success.

2. DAY CARE SURGERY FOR BRAIN TUMOURS

Bhattacharjee Suchanda, Panigrahi Manas, Purohit A K, Dept of Neurosurgery, Nizam's Institute of Medical Sciences, Hyderabad, India

Aim: Brain tumors are puzzling till date in many aspects, but, the diagnosis and treatment are continuously improving in this era of advancing technology. Stereotaxy or stereotactic procedure is one modality of minimally invasive neurosurgery, where brain tumors can be diagnosed or even treated in certain cases on a day care basis.

Key Words: Brain tumors, stereotactic, Day Care surgery.

Material and Methods: We report our experience of utilizing stereotactic procedures to manage brain tumors in our institution on a day care basis without any in hospital admissions. We did one hundred and ten cases of stereotactic procedures for brain tumors from January 2002 to November 2004, of which fifty cases were done on a day care basis. These cases were screened on OPD basis and minimally investigated.

Results: We did diagnostic biopsies in thirty cases with a diagnostic yield of 88.88%, cystic aspiration in ten cases with complete aspiration in 60% and partial decompression in 40%, and abscess tapping in another eight cases with partial decompression in all of them. All except for two cases were discharged the same evening after the procedure was over. The two cases required admission as they deteriorated post procedure.

Conclusion: Stereotactic procedure is a simple, minimally invasive, time effective technique where diagnosis or even treatment of the brain tumors can be done. It is also cost-effective by cutting down the hospital in-admission expense. It is indeed, one of the finest advances in neurosurgery.

3. ENHANCING SAFETY FOR LASIK IN INDIAN EYES USING THE 400HZ WAVEFRONT TECHNOLOGY

Shroff Anand, Perfect Wave LASIK centre, Shroff Eye Surgery, Mumbai, India.

Aim: To give an overview of the recent advances in Laser Vision correction (wavefront or custom LASIK) and the advantage of the same over conventional or standard LASIK.

LASIK is a method of reshaping the external surface of the eye (cornea) to correct low, moderate and high degree of nearsightedness, astigmatism and far sightedness. The coupling of third generation excimer laser hardware and software with modern surgical techniques that use the most advanced instrumentation; have made LASIK a safe and consistent procedure, resulting in its widespread acceptance as an alternative to spectacles and contact lenses. In this paper, we also counteract myths regarding safety of recent LASIK procedures with scientific basis.

Material and Methods: A study group of 240 eyes. The patient ranges from 21 – 56 years (mean 29.2 yrs.). The refractive errors ranged from -1 D sph to -9.5 D sph (mean -4.72 D). Wavelight Allegretto Wave Eye Q 400 Hz Laser with Moria M2 microkeratome used.

Discussion: Highlighting the key points in the difference between WaveFront-Guided (custom) LASIK vs Classic (Conventional / standard) LASIK and their results. Classic LASIK corrects lower order errors such as spherical and cylindrical refractive errors.

However, higher order errors affecting the quality of vision and may not significantly affect the Snellen visual acuity. It is the subtle deviations from the ideal optical system, which can be corrected with wavefront procedures. Furthermore, in certain cases Standard LASIK treatments could lead to an increase in the magnitude of higher order errors, unpredictable results may occur.

Conclusion: Results with wavefront procedures are superior to Classic LASIK. Wavefront guided procedures help avoid a number of side effects like glare and poor night vision since they remove higher-order errors of the eye (aberrations) that regular LASIK (based solely on the glass prescription) often misses. Wavefront-guided treatment also helps retreat patients suffering from complications of or unhappy with earlier refractive surgery (RK, PRK, LASIK). With this paper, we hope to increase the awareness of the newest advances in LASIK amongst all doctors.

4. DAY SURGERY & FREE DAY SURGICAL CAMPS IN RURAL AREAS

Tongaonkar RR, Tongaonkar Rajesh R, Dr Tongaonkar Hospital, Dondaicha, Dhule, Maharashtra, India.

Aims: 1. To discuss problems of Day Surgery in Rural Areas.

2. To narrate the 25 years of experience in arranging Free Day Care Surgical Camps in Rural areas.

Discussion: Even though the rural surgeon can do "Day Surgery" there are problems in the rural areas which prohibit him to do it. They are mainly transport facilities, economic conditions, availability of medical help in rural areas, etc. These are discussed here. The author has conducted "Free Day Care surgical camps" in rural areas for 25 years. His experience of 22 such camps is given. Few video clips have been shown. Economics of the camps have also been given.

Conclusion: This will appraise the audience about the conditions of Day surgery in rural areas and will motivate many more surgeons to conduct such camps either in rural areas or in slums in big cities to help poor people.

5. DESIGN AND WORKING OF A SMALL BUSY DAY CARE UROLOGY CENTRE

Lalmalani J G, Lalmalani Rekha, Yadhav Devidas, Mumbai, India.

Aims: To explain the design and working of a small urology day care centre in downtown, Mumbai.

Material and Methods: We set up a full fledged urology centre in South Bombay, in 1998. The entire setup is housed in a 680 sq. feet office block in a commercial building in Tardeo, and houses a 300 sq ft. Operation theater with Lithotripsy machine, Image intensifier, Boyel's apparatus, endocamera. A small recovery room with 3 beds; an autoclave room, doctor's consulting room and waiting area. The staff consists of the Urologist, an anesthesiologist, a resident doctor, 2 OT boys, a nurse cum receptionist.

Results: In the last 6 years we have performed 1200 new lithotripsy cases, over 900 cystoscopies, 650 ureterorenoscopies, and many other cases including Visual Optical urethrotomy, retrograde pyelography, D-J Stenting, AV fistula, urethral dilatation, testicular biopsies, vasectomy, percutaneous nephrostomy. The clinic is opened at 8:30 am and closed by 5:30 pm, and the patients are discharged by then.

Discussion: South Mumbai is an expensive area with real estate values of Rs 10,000/- plus, per sq ft. OT facilities in major hospitals cost a lot and the surgeon receives 15% of the total bill. Insurance companies have accepted that many cases can be done as Day care and have established a clause no.2.3, which allows lithotripsy to be done on a day care with full benefits. This paper aims to show that a small centre could be extremely cost effective and profitable.

Conclusion: A Daycare Urology Centre is certainly feasible and will benefit the patient, doctor and society by giving useful services on day care at low costs.

6. DAY CARE IN VITREORETINAL SURGERY.

Dudani Ajay J, Consulting Eye Surgeon, Vitreoretinal surgery & Laser Specialist.

Aims: To study the effectivity of Day Care in vitreoretinal surgery in modern Ophthalmology.

Material and Methods: To retrospectively review study of over 1000 cases of complex vitreoretinal surgery including scleral buckling plus vitrectomy treated in a day care set up with LA-Peribulbar block and SOS sedation. Pediatric cases were also treated using ketamine and local blocks for ocular anaesthesia.

Discussion: All of the 1000 patients fared very well during the intra-op. and post-op. period. Pain during surgery was nil or minimal.

Hardly 5 to 10 % of patients needed sedation with Fulsed / Fortwin and were discharged within an hour.

Conclusion: Day Care Surgery has become the norm even in vitreoretinal surgery - as in cataract surgery. This in effect is comfortable for the patient as well as the surgeon.

VOTE OF THANKS.

Agarwal Niranjana, Treasurer, The Indian Association of Day Surgery.