

Day Care Surgery

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In modern hospitals, sophisticated anesthetic techniques along with the principle of ambulating the patient early in the postoperative period, allowing early orals, adequate postoperative analgesia, no or early removal of drains and tubes are now being carried forward by discharging the operated patient as soon as the critical period, or immediate postoperative nursing needs have been met with, has laid the foundation of daycare surgery. The concept of daycare surgery goes back to 1909 when Dr. Nicoll, now considered as the founder of modern ambulatory surgery, in his landmark article on the surgery of infancy¹ described a 10-year surgical experience at the outpatient clinic in the Glasgow Pediatric Hospital in which 7392 surgeries including cleft lips, cleft palates, hernias and the like of these operations were performed on an outpatient basis¹. This approach rested on the philosophy of letting the operated child back to their nursing mothers as soon as possible and the constructive criticism of pediatric hospitalization. Currently, daycare surgery is a norm than an exception.

Daycare surgery has been defined by the Royal College of Surgeons as when the surgical patient is admitted for investigation or operation on a planned non-resident basis and who nonetheless requires facilities for recovery². Minor surgical procedures are routinely performed both on an emergency and OPD basis. However, it is pertinent to mention here that daycare surgery is different from outpatient surgery. The patients of daycare surgery need some degree of postoperative specialized nursing care

necessitating postoperative observation for a few hours. All daycare surgical patients essentially come early in the morning, and after the surgery is over and the postoperative observation is uneventful, the patient is discharged home the same day. Moreover, some hospitals have extended the duration of hospital stay to less than 24 hours (23 hours and 59 minutes). This is referred to as extended or 23-hour stay, which is determined by day unit staff on a patient need basis.³

Infrastructure:

A daycare facility can be established as part of an established organization or as a separate unit at a lesser distance from the main hospital. The area should be easily accessible and reachable with ample parking space and free from congestion and emergency area. There should be a round the clock transportation facility.

The daycare unit should have a separate registration counter, a waiting area, examination and pre-anesthetic assessment room, change room, operation theatre, recovery and post procedure ward and pharmacy.

Daycare staff should consist of consultants with specialized training in daycare surgery and anesthesia. The supporting staff consists of anesthetists, assisting surgeons, anesthesia assistants, scrub nurses, ward nurses and other ancillary

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workers.

Advanced instrument availability to make surgery and anesthesia safe is imperative for a successful outcome.

The table below considers some of the most commonly performed day care procedures⁴ (Trolley of procedures)

Herniotomy	Tonsillectomy
Orchidopexy	Sub Mucous Resection
Circumcision	Diagnostic Laparoscopy
Inguinal hernia repair	Trans-anal tumor excision.
Hemorrhoidectomy	Cataract surgery
Sphincterotomy for anal fissure	Pilonidal sinus surgery
Fistulectomy	Laparoscopic cholecystectomy/appendectomy
Surgery for varicose veins	Excision of Dupuytren's contracture
TURBT	Carpal tunnel decompression

Not every patient with the indications mentioned above can be done in daycare. Patients who are an anesthesiologically reasonable risk with (ASA 1 and II), younger age group, mentally sound without anxiety or psychiatric disorders are suited for daycare surgery. Prolonged surgery (more than an hour) and where blood loss is anticipated should be avoided. Likewise, old and frail patients, obese (BMI > 35), who live a long distance from the facility, patients who do not have a caretaker at home or patients who do not have quick means of transportation and communication be generally avoided for daycare surgery. Medical conditions like coronary artery disease, recent MI, uncontrolled hypertension (diastolic blood pressure > 105 mmHg), chronic bronchitis or asthma are contraindications for daycare surgery^{5,6}.

Initial contact and assessment by the surgeon is important as this is when a decision for a daycare surgery is taken. The patient should be seen by the daycare team well before the procedure date, preferably two weeks before the allotted date. The patient should be accompanied to the hospital by a well-organized caretaker. The patient is asked not to take solid foods after midnight; however, liquid sips can be taken up to two hours prior. Any medication that is necessary can be taken with a sip of clear fluid. Use of alcohol should be avoided 24 hours earlier. The patient should come without jewellery, makeovers and wearing loose fit clothing. Use of any medication or herbal agents that interfere with blood coagulation should be informed to the doctor before surgery.

Post-procedure, the patient should refrain from driving and consuming alcohol or take any important social and legal decisions. The patient should have the hospital contact number and should be free to call in case of any untoward incident related to surgery and anesthesia as previously counselled.

The patient should be discharged after proper assessment. The patient should be conscious, alert and oriented. He should be free of pain and should be able to tolerate orals. There should be no or minimal bleeding. The patient should be contacted telephonically to check for the status the following day. A checklist for discharge criteria, preferably a discharge scoring system (like PADSS), may be adopted for the safe discharge of the patient.

In the present society, especially in the developed world, daycare surgery is in increased demand due to its ease for the patient and their relatives and reduced cost for both patient and community. Pre-booked date with lesser chances of cancellation, shorter operating list and waiting time, more accessible transportation and family arrangements, minimal disturbance of personal and social life with earlier separation from the alien environment, early return to the desirable psychosocial environment with the slightest chance of insomnia and sleepless nights in hospital added with less loss of working hours and the slightest chance of cross-infection has certainly attracted patients for daycare surgery in developed countries^{7,8}.

Constant improvements in surgery have played a significant role in the exponential growth of ambulatory/ outpatient/ daycare surgery in the last few decades. Newer operative techniques such as endoscopic surgery and other types of minimally invasive surgery (laparoscopic procedures) have been developed, and surgeons have become increasingly aware of essential issues such as patient and procedure selection as well as proper peri-operative care. These procedures have become important in western and developed countries, and there is a need for adopting a policy by consensus here as well, where an initiative can be taken both by the professional bodies as well as by the governmental agencies. This may prove in improving the quality of healthcare and also help provide better surgical services to the patients.

Postoperative complications associated with daycare surgery, although minor in severity, but do come with

increased frequency primarily related to anesthesia like postoperative pain, vomiting and nausea and dizziness. Minor postoperative hemorrhage also occurs with increased frequency^{9,10}.

Extended daycare and hospital hotel concepts are evolving in the west. The hospital hotel provides care to patients who would have otherwise required a postoperative indoor admission. Because of the availability of the hospital, the hotel patient is prevented from travelling after discharge and is closer to a superior medical facility in terms of communication and time delay^{11,12}.

The factors that translate into reduced cost of daycare than inpatient surgery with an advantage to the treating hospital include the need for less working staff, no need for night shift staff and round the clock availability of the facility, sparing public holidays and weekend days translating into lesser wages, need of decreased administrative time and capital equipment like hospital beds and hospital space³.

In developing countries like Uganda, most of the surgeries what they called as daycare are done under local anesthesia in a minor OT. In India, as many cases are operated on an outpatient basis, roughly 15% can be classified as actual daycare. Most of these operations are contributed by gynecology, ophthalmology and general surgery. Other super specialties contribute relatively less^{3,13}.

In conclusion, daycare surgery, like various medical daycare interventions such as endoscopy, administration of cytotoxic therapy, angiography, is a well-accepted modality for delivering surgical care with multiple advantages to the patients, hospitals and the administration, especially in the face of resource scarcity and can prove fruitful in developing countries as well. Henceforth recommendation should be to establish and develop more daycare centers in the interest of better and advanced patient care in this part of the world as well.

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