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MINISTRY OF HEALTH - ETHIOPIA

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HEALTHIER CITIZENS FOR PROSPEROUS NATION!

FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA
MINISTRY OF HEALTH

DAY CARE SURGERY MANUAL



HSQD

2021

Forward

For the last five years the Federal Ministry of Health (FMOH) has been implementing Saving Lives through Safe Surgery (SaLTS) as a national flagship initiative designed to improve access to safe, essential and emergency surgical and anesthesia care across all levels of the healthcare system. The pillars of this initiatives are designed in a way to address surgical access and quality issues by implementing surgical efficiency projects and new innovative methods which can be implanted in our setup and can bring a more efficient and equitable surgical care system in to practice.

Ones of this kind established practice with a good record of both in improving efficiency, quality care and cost efficiency is Day care surgery.

Day surgery represents high-quality patient care with excellent patient satisfaction. Shorter hospital stays and early mobilization reduce rates of hospital-acquired infection and venous thromboembolism. Patients overwhelmingly endorse day surgery, with smaller waiting times, less risk of cancellation, lower rates of infection, and the preference of their own surroundings to convalesce. Despite the numerous advantages, Day care surgery practices vary enormously and our patients are still denied this excellent form of care.

Day surgery is best delivered by a specialized, dedicated, multi-disciplinary team, all team members have a major role to play in coordinating policies and providing leadership. Individual members of the surgical team should develop techniques that allow their patients to undergo day surgery with minimum stress, maximum comfort and the optimal chance of early discharge. Improving day surgery rates is a win-win situation, with both clinical and financial benefits.

I hope this Day care surgery manual will be used a common ground and a guiding principle in introducing and expanding this service across the surgical care system in our country. Here by I encourage Hospitals with the basic infrastructure and professional mix to consider and include Day care surgery in their surgical service portfolio and I will use this opportunity to confirm the Federal Ministry of Health's commitment in general and a Focused and targeted support of the Health service Quality Directorate with a close follow up throughout the implantation of this service. In a special Note I would like to extend my gratitude to those who participated in the preparation of this manual.



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Background

Around the same time the WHO passed the landmark resolution 68/15 which has placed essential and emergency surgical care as a crucial component of universal health care, the FMOH of Ethiopia, recognizing the fundamental importance of quality surgical care has launched the SaLTS initiative.

The initiative aims to make safe surgical care accessible to the population of the country. One of the pillars of SaLTS is innovation. Innovation is not only using new discoveries or methods but also using known methods to address challenges in a novel manner.

A long wait time for elective surgery has several negative consequences: a deleterious effect on the condition to be treated, poor patient satisfaction and poor quality of care. The quick win initiative to reduce the surgical backlog in AA hospitals has been going on for the last 40 weeks. Though the results have been encouraging so far, innovative approaches are required to maintain the momentum. Improving the OR efficiency is being pursued vigorously. Data on efficiency metrics are being collected and analyzed, QI projects are being developed and implemented at the various hospitals.

An approach that has not been used or used very little is day Care surgery. Experience in other countries, including developing countries, has shown day Care surgery to be feasible and effective in improving surgical care access and quality. In order to support the AA hospitals to start the service the FMOH is preparing a guide for day Care surgery.

1. Introduction

Day Care Surgery is defined in our context as “a patient being admitted to a hospital for a planned procedure and discharged home within 24 hours from the admission to the OR.” To be considered day Care surgery the patient has to be planned as a day Care from the beginning, that is, before admission. Patients admitted as inpatients but discharged early are not considered day Care as they are not planned as such before admission. Another important point is that day Care surgery entails some degree of postoperative care or postoperative observation. Hence outpatient surgery where a full day recovery facility is not required is not included as day Care.

1.1. History

Modern day Care surgery was first promoted by James Nicoll of Glasgow. His seminal paper on the subject was published in the British Medical Journal in 1909. Mr. Nicoll described close to 9000 operations such as hernias and cleft lips in 10 years. He personally performed 7392 of the operations. Nearly half of his patients were children less than 3 years of age. He observed “the results obtained in the outpatient department at a tenth of the cost are equally good” His main motivation was reducing the financial cost though he also earnestly believed the children are best nursed with their parents.

Despite this impressive demonstration there was very slow uptake of day Care surgery initially. The prevailing opinion in those days was an enforced prolonged bed rest was necessary for wound healing. Even after this assumption was challenged a cautious admission policy continued because of the high anesthetic and surgical complication rates, unavailable community care and suboptimal home care.

In the 1980's a shift to greater acceptance of day Care surgery was seen. In 1985 the Royal College of Surgeons published the ‘Guidelines for Day Care Surgery’. This was revised in 1992. Associations to promote day Care surgery such as the British Association of Day Care Surgery (BADs) in 1989 and the International Association for Ambulatory Surgery (IAAS) in 1995 were formed. Subsequently day Care surgery became widely accepted with increasingly complex surgeries being performed as day Care. Such was the greater acceptance that in 2004 day Care surgery was considered the number 1 “high impact change for service improvement and delivery”

by the Institute for Innovation and Improvement. Currently day Care is becoming the routine rather than the exception. Better anesthesia, minimally invasive techniques have increased the scope and acceptability of day Care surgery. The NHS now recommends 75% of elective surgical procedures to be day Cares.

The utilization of day Care surgery in developing countries is not very high. It is nearly always hospital based. In India less than 15% of operated cases among all specialties are true day Cares with the bulk of patients coming from ophthalmology and ENT followed by Gynecology and general surgery. The challenges in developing countries include lack of awareness in the patient population, poor communication and transport, poor facilities and conflicting priorities in health care. With the multiple advantages of day Care being very clear, efforts should be made to increase its uptake in developing countries too. As Kakande et al pointed out in the East and Central African Journal of Surgery, conditions in Glasgow in 1900 when Nicoll performed his operations were also primitive.

1.2. Advantages of Day Care

One obvious advantage of day Care surgery is economic; i.e. it is less costly than in patient surgery. Increasing utilization of the day Care pathway will reduce the number required as well as the use of inpatient beds. More hospital beds will be available for conditions that require admission. This will contribute to reduction of wait lists. The reduction in cost will not be to the hospital alone but to the patient too.

There are advantages for the patients too. The incidence of hospital acquired infections and post op infections are lower. A shorter stay and earlier mobilization reduce the risk of cross infection and venous thromboembolism respectively. A shorter waiting list, a pre booked date & lower chances of cancellation are other benefits of day Care surgery. Patient satisfaction is higher as there is minimal disruption of the patients' personal life, earlier return to work. In children there is less psychological disturbance as they are recovering in familiar surroundings. Patients who are parents will be at home to oversee other responsibilities. It is also claimed that in a day Care unit patient receive more personalized care.

Staff also benefit by having a regular working hour. This is appreciated by those who do not want to work night shifts and weekends.

Disadvantages mentioned regarding day Care surgery include the need for a responsible person at home for day or two, the possibility of complications arising at home leading to increased litigation, the high initial cost of setting up the unit, increased complications from anesthesia and surgery and increased demand on ambulance services. However, day Care surgery is shown not to be associated with increased complications or readmission than if the procedures were done as inpatient surgery.

2. The Day Care Surgery Service

2.1. The Facility

The DSU organization may be a free-standing unit or part of a hospital with variable arrangement

Free Standing Unit - completely separate and not a part of any other health institution

Hospital Integrated Unit - the unit shares either the OR suite or recovery room with the inpatient surgical service. One room may be dedicated to day surgery. In advanced day surgery such as laparoscopic surgery a given day may be dedicated for day Cares. This avoids in duplicating expensive equipment. Mixing inpatients and day Cares in the same ward and/or mixing the OR lists is not recommended.

Hospital Autonomous Units - A self-sufficient unit within the hospital that has its own OR, recovery, ward, consultation room and administrative facilities. A dedicated day surgery unit like this is ideal but for advanced surgery the duplication of equipment may be prohibitively expensive.

Hospital Satellite Unit - this is a unit operated or run by a hospital but is situated away from the hospital compound. It could for example be in a health center affiliated with a teaching hospital or general hospital.

Most of Our hospitals may adopt an integrated unit or a hospital satellite unit depending on the availability of infrastructure, manpower and equipment.

Facilities should full fill the following before starting a day care surgery

- 24/7 working call center with trained staff
- Fast track discharge line
- Day Care surgery case team or coordinating office

Any integrated Hospital should dedicate

- A day Care surgery OR table or One dedicated full day OR schedule for specific specialty.
- PACU admission for phase one in regular inpatient PACU with dedicated bed and privacy then transfer to phase two recovery and discharge or Prepare a room for phase one and phase two with full necessity and separated sides of beds based on the capacity of the facility,

Hospital Satellite units are best run by teaching hospitals as they have greater number of staff that can run the unit in the health center and full fill the following

- Reception and discharge office
- Administrative office
- Dedicated OR Table
- Dedicated PACU
- Dedicated Phase two room

NB: if any complication happens to patient operated in the satellite unite the parent hospital should take the full responsibility in management of the patient, ensure the availability of ambulance.

- Whatever arrangement is chosen factors to be considered in designing the unit should also include patient privacy and dignity, ease of access, infection control and facility for staff day

2.2. Staffing

Day Care surgery requires to be led by a consultant. Consultant surgeons should perform the operations to achieve high quality care. Similarly, the anesthesia service should also aim to be a consultant led service. This does not exclude the training of residents under appropriate supervision of a senior.

- ✚ Those who prefer to dedicate OR table should assign dedicated OR staff team.
- ✚ Those who prefer dedicated OR day the OR team is assigned by the respective department.
- ✚ A full-time nurse coordinator is essential for the day to day management of the unit.
- ✚ The high turnover in day care units entails a lot of paper work. Staffing should also consider that and provide adequate clerical staff for proper and accurate documentation.
- ✚ Escorting and transporting patients can put extra burden on nurses especially if the theatre and the day Care ward are not adjacent. This has to be taken into consideration when assigning ancillary staff.

The day Care surgery case team is composed of: -

- √ TEAM MANAGER- CONSULTANT PHYSICIAN
- √ COORDINATOR- EXPERIENCED NURSE
- √ WARD NURSE AND PACU NURSE
- √ OR TEAM (OPTIONAL)
- √ ON CALL CENTER
- √ CLERKING STAFF-EXPERIENCED DATA CLERK
- √ SECRETARY
- √ RUNNER
- √ CLEANER

2.3. Scope and Patient Selection

Patient selection is crucial in order to run a safe and effective day surgery service. The current practice is tending to consider day Care surgery as the default choice with inpatient surgery

chosen by exclusion. The British NHS recommends 75% of all surgeries performed to be day Care surgeries.

The procedures considered ideally suitable for day Care surgery have been expanding continually. In 1990 some 25 cases were in the “basket”. The BADS “Directory of Procedures” now has 200 procedures in various surgical specialties.

The scope of day Care surgery is not expected to be the same in developing and developed countries. This is mainly due to technological gap in minimal access surgery, interventional radiology and modern developments in anesthesia. In a developing country, there is considerable difference in capacity among hospitals that are nominally at the same level.

Therefore, for the present, it is recommended that each hospital bring together its seniors and make a list of procedures that can safely be undertaken as a day Care in that institution. With experience and proper review, a national recommended list will be produced in the future.

Patient selection is not only picking patients with the surgical condition suitable for day Care. It should also identify patients unsuitable due to medical or social factors. The criteria for patient selection can be divided into the following categories:

2.3.1. Surgical

- ✚ The procedure should not have significant risk of major post op complications requiring immediate intervention, e.g., catastrophic hemorrhage, cardiovascular instability
- ✚ Hospital should have a list of surgical procedures approved by the senior management. (See **Annex-1**)
- ✚ Abdominal and thoracic cavities should only be opened with minimally invasive techniques except ventral and Inguinal Hernias
- ✚ Post op pain be controllable with oral analgesia +/- regional anesthesia techniques
- ✚ Patient should be able to rapidly resume normal functions (oral nutrition and safe mobilization)

2.3.2. Medical factors

- ✚ Patients with stable chronic medical conditions are not automatically excluded. Full term infants over one month are not excluded.
- ✚ Day surgery is particularly appropriate for children as it is less disruptive to family life.
- ✚ There is no upper age limit for day Care surgery as there was no adverse outcome with increasing age
- ✚ The elderly may have less post-operative cognitive dysfunction when in their familiar home surrounding.
- ✚ Fitness for a procedure should relate to the patient's functional status and stability of medical conditions.

2.3.3. Social Factors

The patient must understand, engage with and consent to the procedure. It is recommended that after surgery and anesthesia, patients have a responsible adult to accompany them home and remain with them for 24 hours after surgery. Access to a telephone is required Geographic proximity and transportation access to a hospital should be reviewed.

3. Preoperative preparation

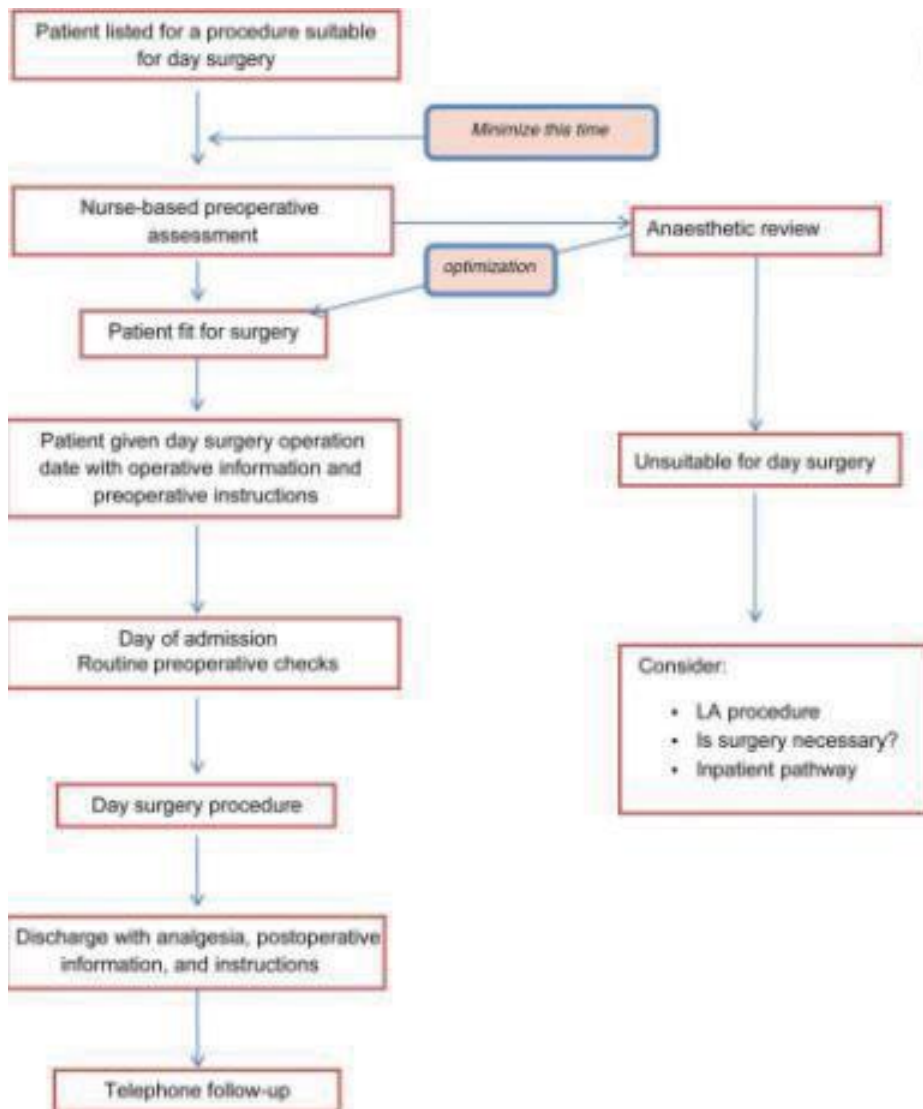
The preoperative preparation has the following components;

- ✚ Educate patient and care giver about the day surgery pathway
- ✚ Ensure the patient is fully informed by providing verbal and written information regarding the planned procedure (**See Annex 2**)
- ✚ Identify and optimize medical conditions before surgery.
- ✚ Patients who refuse to sign day Care surgery has to be shifted to the normal inpatient care.

The preoperative assessment should be done as early as possible after the decision to operate in order to get adequate time to optimize any chronic medical condition. It is recommended that the

surgeon and anesthetist/ anesthesiologist should do the preoperative assessment. (See **Annex 3 and annex 4**)

Fig 1 an ideal day surgery pathway



4. Anesthetic Management

The recognized aim of day Care surgery being rapid return of normal functions of oral nutrition, mobilization and full cognitive function, the anesthetic technique is required to have:

- ✚ Smooth induction of and recovery from anesthesia
- ✚ Effective intra and postoperative analgesia
- ✚ Prevention of postoperative nausea and vomiting.

Short acting agents, supplemented by local anesthetic techniques and oral analgesia, protocol-driven use of anti-emetic medication when required, minimal starvation times and judicious use of IV fluids are the key to success such as propofol, fentanyl sevoflurane ondansetron dexamethasone

Little difference was seen between inhalational and intravenous general anesthesia with regard to most criteria except post-operative nausea and vomiting which is lower with total intravenous anesthesia.

Regional anesthesia in the form of peripheral nerve block is also used frequently. It can provide excellent post op analgesia. Spinal and caudal are also feasible in day Care surgery. Concerns in spinal anesthesia include risk of hypotension, urinary retention and post Dural puncture headaches.

5. Post op Nausea and Vomiting (PONV)

This deserves mention as it is very distressing to the patient and can prevent discharge home. Assessment to identify those at risk and to provide anti emetic prophylactic drugs (preferably protocol based) should be practiced. The use of regional anesthesia or total intravenous anesthesia and avoiding dehydration by routine iv fluids in NPO patients are useful in those with risk factors. If PONV occurs it should be treated promptly.

6. Analgesia

A multimodal analgesic approach is recommended for day Care surgery. Key factors to consider are: -

- ✚ Regular oral analgesia with paracetamol combined with NSAID
- ✚ Local or Regional anesthesia supplementation if possible
- ✚ Avoiding any long-acting opiate and careful use of short acting opiates for acute pain when necessary.
- ✚ Indiscriminate use of opioids should be avoided as they cause nausea, sedation and constipation. **See Annex 5 (WHO acute pain management guideline)**

7. Post op Recovery and Discharge

7.1. Recovery

Two phases are recognized in Recovery in day Care surgery:

Phase I Early recovery: from end of anesthesia until the return of protective reflexes and motor function. Patients remain in phase 1 until they are fully conscious and pain is controlled.

Stay in this phase may be as short as 5 to 10 minutes. Some patients may go directly to Phase 2 if they meet the criteria, i.e. fully conscious with protective reflexes. **See Annex 6 (modified Alert criteria9)**

Phase II Late Recovery: Patients stay until they meet the discharge criteria. This ward should be separate from inpatient activity in order to ensure the necessary attention is given to the day Care patients who will be discharged home.

Expert day surgery nursing staffs are required to ensure proper follow up of the patients in the recovery phases and successful discharge on same day.

7.2. Discharge

The usual stay in phase II before discharge is 4 to 6 hours. Some patients are discharged much earlier and a few may stay longer. Safety is ensured when discharge is based on criteria rather than length of stay. The patient should be seen by the surgeon and anesthetist before discharge. Nurse led discharge is widely used in developed countries. When discharge criteria are met, the following should be checked:

Information to the patient and the care taker is given regarding responsibilities and what to expect

Appropriate analgesia with written instruction is given to the patient (Procedure specific analgesia protocols are recommended)

A telephone number where patients can call for advice is given. The person responding to these calls should be qualified to give advice relating to complications.

A discharge summary is completed.

Discharge Criteria for Day care Unit

- ✚ Alert and oriented to time and place
- ✚ Stable vital signs at least for one hour
- ✚ Pain controlled by oral analgesics
- ✚ Nausea or emesis controlled
- ✚ Able to walk without dizziness
- ✚ Regional anesthesia: block appropriately resolved
- ✚ Noun expected bleeding from operative site
- ✚ Given discharge instructions from surgeon and anesthetist, and prescriptions
- ✚ Patient accepts readiness for discharge
- ✚ Responsible adult present to accompany patient home
- ✚ Patients and their cares should be provided with written information that includes warning signs of possible complications and where to seek help.
- ✚ Discharge process should be started as soon as the patient is transferred to phase two.
- ✚ Oral analgesics should be initiated before ware out of regional anesthesia.
- ✚ Patient should be given copy of discharge summary which includes type of anesthetic given, surgical procedures and post op orders. **See Annex 7 discharges summary**

8. Follow up

Follow up with a telephone call 24 hours after discharge by the on call managers is highly recommended. It provides immediate advice on complications. It is also highly appreciated by the patients. A structured questionnaire is used, it will be an excellent audit tool for patient satisfaction and post-operative symptom.

If any complication happens the duty team should manage the case with the consultation of the primary surgeon. **See Annex 8 Document for on call checklist**

9. Audit

A regular evaluation of day Care unit performance is mandatory to ensure standards are maintained and safety is not compromised. The following measures have been used to audit day Care surgery:

1. Overall day Care rates and rates for specific challenging procedures
2. Day Care cancellation rate
3. Unplanned admission rates (Conversion rate)
4. Re- admission within 30 days after discharge as a day Care
5. Patient satisfaction

Annex 2 Day Surgery Unit

Patient Information Leaflet for _____

Welcome to the _____ Hospital where you will be coming for surgery on _____, at _____

This is a general information leaflet to help you through your surgical experience

- You must not eat any **solid food** after midnight
- You **should** carry on drinking **water only** up to 2 hours before (depends on the type of surgery) to prevent you becoming dehydrated.
- For hygiene reasons patients are encouraged to have a shower at home just before admission.
- Should you be taking any regular prescribed medication please bring them with you or a list of what you normally take; and be sure to hand it to one of the team on the unit.
- We advise you to wear something loose and comfortable with appropriate footwear, please bring with you a dressing gown and slippers.
- All patients are advised not to bring any unnecessary valuables into hospital, as we are unable to provide secure lockup facilities. We remind you that you will be completely responsible for the safe keeping of any valuables you choose to bring with you.
- Should you wear contact lenses please be aware that you will need to remove them before having a general anesthetic, therefore please bring any appropriate solutions and containers for their safe- keeping.
- If you wear dentures you may wish to bring a pot for their safe- keeping even though your ward may be able to provide one for you.
- We advise you not to wear makeup on the day of surgery. It is also important to avoid nail vanish and acrylic/false nails.
- _____ Hospital operates a non-smoking policy therefore you are not permitted to smoke anywhere within the hospital premises. It is mandatory that you stop smocking minimum of two weeks before the surgery.

- As you are only in hospital for the day, visitors should not normally be necessary apart from the person you have chosen to take you home after your operation.
- You are not allowed to drive after surgery
- Should be aware of the surgical procedure to be done for you.
- If at any time during your hospital stay you have any questions or concerns please feel free to ask anyone of the team looking after you. We will all be happy to assist you.
- Should you have any queries prior to coming to hospital for your surgery, you may contact the day care helpline telephone center. Tel Number _____

Your Journey - From Start to Finish

1. Upon your arrival on the day Care coordinating office, you will be greeted by a member of the team and shown to the waiting area. Your details will be checked and you will be prepared for theatre.
2. At the appropriate time, you will be transferred to the operating theatre escorted by your nurse. When you arrive in the theatre suite, a member of the theatre team will receive you, and once again check your details before taking you through your operation.
3. The operation will be performed under general or regional anesthesia.
4. After your operation you will wake up in the recovery room where a trained person will be closely looking after you, helping you achieve a safe and speedy recovery.
5. Once you have fully recovered the staff will contact the person designated to take you home and you will be able to go home if the staff are happy that you are well enough. The typical hospital stay will be 4-6 hours.
6. On discharge you will be given discharge summary paper (with discharge instructions and medications) and contact telephone number in case you want to ask questions concerning your surgery.
7. Make sure you have received the helpline contact telephone number and don't hesitate to call if you have any concern. Our staff will be happy to help at any time.
8. Our center may call you to check on your condition therefore make sure that you have given your or your career's contact telephone number (working phone number).

Annex 3 Pre-operative Patient Assessment Checklist

(for use by surgeons and residents only)

Full Name _____ Age: _____ Sex: _____

Hospital No: _____ Date _____

Ward _____ Bed Number: _____

List of Serious illnesses

Cardiovascular _____

Respiratory system: Cough Yes No Dyspnea Yes No

Wheeze Yes No Sputum Yes No

Gastro-intestinal _____

Nervous system _____

Other systemic _____

Diabetes Yes No If yes, medication dose and type _____

Hypertension Yes No If yes, medication dose and type _____

Current/ Recent Drugs over the past 6 months, (Type and dose)

Corticosteroids _____

Anti-coagulants _____

Diuretics _____

Anti-hypertensive _____

Anti-diabetics _____

Aspirin and NSAIDS _____

Known allergies _____

Previous adverse reaction to anesthetic drugs

Recent Fluid Losses

Bleeding Yes No

Vomiting Yes No

Diarrhea Yes No

Other _____

Recent nutrition Food: Normal/ abnormal

Fluids: Normal/abnormal

Date of last menstrual period _____

Physical Examination

BP: _____ PR: _____ Rhythm: _____ RR: _____

Anemia: Yes No Dehydration: Yes No Cyanosis: Yes No

Lost teeth: Yes No Ears discharge Yes No

Upper airways Obstruction: Likely unlikely

Intubation : Probably simple Difficult

Chest findings _____

Precordial findings: _____

Abdomen: Hepatomegally Yes No Splenomegaly Yes No Ascitis: Yes No

GUT _____

CNS: _____

Lab results (include date test done):

HCT _____ WBC count _____ Platelets count _____ Blood group _____ BUN _____

Creatinine _____ PT/PTT _____, AP _____ Bilirubin T _____ D _____, Na _____ K

_____ Cl _____ FBS _____

Urine analysis _____

Thyroid function tests (if relevant): TSH _____ FT3 _____ FT4 _____

Imaging: CXR _____

CT _____

Pathology: FNAC _____

Histopathology _____

Diagnosis (severity, stage) _____

Co-morbid conditions _____

Planned procedure _____

Specific preparation (if any) _____

Annex 4 Anesthesia Record

Date of Surgery _____ Patient Name _____
 Surgical Procedure _____ Age _____
 Surgeons _____ Father/Husband's Name _____
 Anesthesia Provider _____ City/Village _____
 Height _____ Ward/Bed _____
 Weight _____
 Pre-op Vital Signs: BP _____ HR _____ RR _____

ANESTHESIA RECORD

PRE ANESTHESIA EVALUATION

NONE

Cardiovascular ECG _____ Heart Sounds _____
 Chest Pain Hypertension Rheumatic Fever
 Heart Disease Heart Murmur Coronary Artery Disease
 Congestive Heart Failure Valvular Disease
 Other _____

Respiration CXR _____ Lung Sounds _____
 Asthma COPD Pneumonia
 Bronchitis Shortness of Breath Productive Cough
 Tuberculosis Recent Upper Airway Infection
 Other _____

Endocrine _____
 Diabetes Thyroid Disease
 Other _____

Urinary / Renal _____
 Renal Failure Patient Dehydrated
 Urinary Tract Infection
 Other _____

Gastrointestinal _____
 Diarrhea Reflux Disease Bowel Obstruction
 Nausea & Vomiting Hepatitis/Cirrhosis
 Other _____

Neurological Level of Consciousness _____
 Dizziness/Fainting Stroke
 Neuromuscular Disease Seizures
 Paralysis Muscle Weakness
 Other _____

Allergies _____
Current Medications _____

Airway _____
 Teeth _____ With mouth opening able to visualize:
 Cervical Spine Mobility _____ Hard Palate
 Temporomandibular Movement _____ Soft Palate
 Uvula Base
 Uvula

Previous Anesthesia Problems _____

LABORATORY VALUES

BBC
 Hb _____ Hct _____
 WBC _____ Plts _____
 Other _____

Electrolytes/Kidney Function
 Na⁺ _____ K⁺ _____ Mg⁺ _____
 BUN _____ Creatinine _____
 Other _____

Coagulation
 Bleeding time _____ Coagulation time _____
 Petechia _____ Bruising _____

Urinalysis:

Other Lab:

ASA Classification

- ASA Class I: Normal Healthy Patient
- ASA Class II: Mild Systematic Disease
- ASA Class III: Moderate to Severe Disease
- ASA Class IV: Severe Systemic Disease
- ASA Class V: Moribund Patient Not Expected to Survive

Mallampati/Samsoon-Young Classification

- Class I: Uvula, faucial pillars, and soft palate
- Class II: Faucial pillars and soft palate
- Class III: Soft and hard palate
- Class IV: Hard palate

Anesthetic options, with risks and benefits, have been discussed with the patient and/or legal guardian.

Anesthetic apparatus checked, airway equipment checked, medications assembled and prepared for anesthetic case.

Anesthetic Plan _____
 _____ DATE AND TIME _____ SIGNATURE OF EVALUATING ANESTHESIA PROVIDER _____

ANESTHESIA RECORD

Annex 5 Post-Operative Pain-- Relief

- ✚ Pain is often the patient's presenting symptom. It can provide useful clinical information and it is your responsibility to use this information to help the patient and alleviate suffering.
- ✚ Manage pain wherever you see patients (emergency, operating room and on the ward) and anticipate their needs for pain management after surgery and discharge.
- ✚ Do not unnecessarily delay the treatment of pain; for example, do not transport a patient without analgesia simply so that the next practitioner can appreciate how much pain the person is experiencing.
- ✚ ***Pain management is our job.***

Pain Management and Techniques

- ✚ Effective analgesia is an essential part of postoperative management.
- ✚ Important injectable drugs for pain are the opiate analgesics. Nonsteroidal anti-inflammatory drugs (NSAIDs), such as diclofenac (1 mg/kg) and ibuprofen can also be given orally and rectally, as can paracetamol (15 mg/kg).
- ✚ There are three situations where an opiate might be given: preoperatively, intra-operatively, post-operatively.
- ✚ Opiate premedication is rarely indicated, although an injured patient in pain may have been given an opiate before coming to the operating room.
- ✚ Opiates given pre- or intraoperatively have important effects in the postoperative period since there may be delayed recovery and respiratory depression, even necessitating mechanical ventilation. (continued to next page) Short acting opiate fentanyl is used intra-operatively to avoid this prolonged effect.
- ✚ Naloxone antagonizes (reverses) all opiates, but its effect quickly wears off.
- ✚ Commonly available inexpensive opiates are pethidine and morphine.
- ✚ Morphine has about ten times the potency and a longer duration of action than pethidine. (continued next page)
- ✚ Ideal way to give analgesia postoperatively is to:
 - Give a small intravenous bolus of about a quarter or a third of the maximum dose (e.g.

25 mg pethidine or 2.5 mg morphine for an average adult)

- Wait for 5-10 minutes to observe the effect: the desired effect is analgesia, but retained consciousness

- Estimate the correct total dose (e.g. 75 mg pethidine or 7.5 mg morphine) and give the balance intramuscularly.

- With this method, the patient receives analgesia quickly and the correct dose is given

✚ If opiate analgesia is needed on the ward, it is most usual to give an intramuscular regimen: $\frac{3}{4}$ Morphine:

- Age 1 year to adult: 0.1-0.2 mg/kg

- Age 3 months to 1 year: 0.05-0.1 mg/kg $\frac{3}{4}$ Pethidine: give 7-10 times the above doses if using pethidine.

✚ **Opiate analgesics should be given cautiously if the age is less than 1 year. They are not recommended for babies aged less than 3 months unless very close monitoring in a neonatal intensive care unit is available. (Anesthesia & Pain Control in Children)**

✚ Ketamine anesthesia is widely used for children in rural centers (see pages 14-14 to 14-21), but is also good for pain control.

✚ Children suffer from pain as much as adults, but may show it in different ways.

✚ Make surgical procedures as painless as possible:

- Oral paracetamol can be given several hours prior to operation

- Local anesthetics (bupivacaine 0.25%, not to exceed 1 ml/kg) administered in the operating room can decrease incisional pain

- Paracetamol (10-15 mg/kg every 4-6 hours) administered by mouth or rectally is a safe and effective method for controlling postoperative pain

- For more severe pain, use intravenous narcotics (morphine sulfate 0.05-0.1 mg/kg IV) every 2-4 hours

- Ibuprofen 10 mg/kg can be administered by mouth every 6-8 hours

- Codeine suspension 0.5-1 mg/kg can be administered by mouth every 6 hours, as needed.

Annex 6 Modified Alert criteria

Criteria	Point value
Oxygenation	
SpO ₂ > 92% on room air	2
SpO ₂ > 90% on oxygen	1
SpO ₂ < 90% on oxygen	0
Respiration	
Breathes deeply and coughs freely	2
Dyspnoeic, shallow or limited breathing	1
Apnoea	0
Circulation	
Blood pressure ± 20 mmHg of normal	2
Blood pressure ± 20–50 mmHg of normal	1
Blood pressure more than ± 50 mmHg of normal	0
Consciousness	
Fully awake	2
Arousable on calling	1
Not responsive	0
Activity	
Moves all extremities	2
Moves two extremities	1
No movement	0

Annex 7 Discharge Summary Sheet

Name _____ Age _____ Sex _____ Date _____

Admission Time _____ Discharge Time _____

Diagnosis on Admission _____

Procedure done _____

Type of Anesthesia _____

Medication given _____

Status on discharges (Vital signs, ambulation, consciousness, pain, wound site status etc.)

Discharge instruction (diet, activity, surgery specific instruction)

Treatment prescribed

Appointment Date _____

Call center contact _____ Patient / attendant contact number _____

Discharging Physician _____ Signature _____

Annex 8 Check List for Post Discharge Telephone Call

The call center should ask the following to the patients the next immediate morning after discharge We have to ask the general condition of the patient like: general feeling of well-being, sleeping difficulty, able to ambulate comfortably and tolerance of feeding.

1. Pain:

- Do you have pain? Yes _____ No _____
- If yes, is the pain controlled with Anti pain? Yes _____ No _____
- If no assess with numerical pain scaling: 1 up to 10
- If the pain scale is < 3: reassure, tell to continue analgesics
- 4 to 7: Increase dose or frequency of Anti pain (combing drugs, considering the maximum frequency and dosage)
- 8 to 10: Inform responsible surgeon or anthropologist

2. Nausea and vomiting

- If yes advice to take prescribed anti-emetic and encourage fluid intake
- If persisted, inform responsible surgeon

3. Bleeding

- Do you have surgical site bleeding? Yes _____ No _____
If yes, quantify
- Staining of dressing: reassure
- Soaking the dressing and oozing out of the dressing: Advice to apply pressure and to come to the hospital and inform responsible surgeon

4. Urinary retention

- Do you have urinary retention? Yes _____ No _____
- If yes, tell to take analgesics, to try to voiding with running water and tell we will call back
- On second call, if urinary retention persisted, tell to come to hospital.

5. Fever

- Do you have fever? Yes _____ No _____
- If yes, is it relieved with anti-pyretic? Yes _____ No _____
- If no: reassure
- If yes, inform responsible surgeon

6. Head ache: For those who received spinal anesthesia

- Do you have head ache? Yes _____ No _____
- If yes: encourage high fluid intake, analgesics and to lie down flat, consider taking coffee
- If persisted, inform the responsible anesthesiologist/anesthetist

7. Dizziness

- Do you have dizziness? Yes _____ No _____
- If yes, do you have feeling of losing consciousness? Yes _____ No _____
- If no: reassure and call back
- If yes: Inform responsible surgeon

Annex 9 Medical Consent

የህክምና ስምምነት

- እኔ..... በካርድ ቁጥር ለተመዘገበ ለራሴ/ለልጄ/ለሌላ(ግንኙነቱን ይግለጹ)..... የህክምና ስምምነት ስለመስጠቴ በ..... የህክምና ፕሮሲጅር እንዲያልፍና ለዚህም የማደንዘዣ(ሠመመን) መድሀኒት እንዲወስድ መፍቀዴን ለዚህም ስለሚሰጠው ማደንዘዣ ጥቅም፣ የጎንዮሽ ጉዳት ከመድሃኒቱ ጋር የተያያዙ አስቸጋሪ ሁኔታዎች በበቂ ሁኔታ የተገለጹልኝ መሆኑን እና ሌሎች ያሉና የሌሉ አማራጮችን ተመልክቻለሁ። ከዚህ ጋር ተያይዞም ያነሳሁዎቸው ጥያቄዎች በአግባቡ ተመልሰውልኛል።
- ህክምናው የሚካሄደው ታማሚው በማደንዘዣው ተፅዕኖ ስር ሆኖ እስካለ ድረስ በመሆኑ ምናልባት ያልተገመተ ወይም ቀድሞ ያልታየ ሊስተካከል የሚችል የጤና ችግር በህክምናው ሰዓት ካጋጠመ ታካሚው ስለዚህ ነገር ቀድሞ ያለው ስለሆነ ህክምናውን ለሚሰጠው ዶክተር ሀላፊነቱን የሰጠሁ ሲሆን ዶክተሩ እንደአስፈላጊነቱ ተጨማሪ ማሻሻያዎችን፣ ለውጦችንና ተጨማሪ ትሪትመንቶችን እንደህክምና ስነምግባሩና እውቀቱ ሊያደርግ ይችላል።
- የቀዶ ህክምና ሂደት ለማንም ባለሞያ በእርግጠኝነት መተንበይ ስለሚያዳግት የትኛውም የህክምና ባለሞያ ለውጤቱ ዋስትና ሊሰጥ አይቻለውም። በመሆኑም ቀድመው ያልተገመቱ ነገር ግን በቀዶ ህክምናው ሰዓት የሚከሰቱ ከቀዶ ሕክምናው ፣ ከማንደንዘዣው ወይም ደግሞ ከታካሚው የጤና ሁኔታ ጋር በተያያዘ ለህይወት የሚያሰጉ ሊሆኑ ስለሚችሉ፤ አንዳንድ ጊዜ እነዚህ ሁኔታዎች ከባለሙያዎች አቅም እና በላይ መፍትሄ የሌላቸው ሊሆኑ ይችላሉ ።
- በቀዶ ህክምና ለምርመራ ከሰውነት የሚወጡ የአካል ክፍሎች እንደሁኔታው በላቦራቶሪ ከተመረመሩ በኋላ ሆስፒታሉ እንዲወገዱ ያደርጋል። አስፈላጊ ሲሆን ማንነታቸው በስም ሳይገለጹ ለሌላ ጊዜ ምርመራ፣ ለምርመራና ለማስተማሪያነት ሊቀመጡ እንደሚችሉ እና ይህም በታካሚው ላይ የሚያመጣው ምንም አይነት ጉዳት እንደሌለው ተገልጾልኝ ተቀብዬአለሁ።

ደምና የደም ውጤቶችን በተመለከተ

- በአፕራሲዮኑ ጊዜ ከፍተኛ የደም መፍሰስ ቢያጋጥም ደምና የደም ውጤቶችን መውሰድ ያለውን ጥቅምና ጉዳት ተነገሮኝ ሊሰጠኝ የሚገባ መሆኑን ባለሞያው ካመነበት ሊሰጠኝ እንደሚችል (ይከበብ) ተስማምቻለሁ (ይከበብ) አልተስማማሁም / ውሉ አይመለከተውም።

- አጥንትና አካልን ቆርጦ ማስወገድ የሚያስፈልግ ሕክምናን በተመለከተ

- በሚደረግልኝ የሕክምና ዓይነት አካልን ቆርጦ ማስወገድ እንደሚያስፈልግ በሐኪሜ በተገለጸልኝ መሰረት (ይሰመር) (የግራ/የቀኝ) (እጅ/ እግር)ሌላ (ይገለፅ)

_____ (ይከበብ) ተስማምቻለሁ (ይከበብ) አልተስማማሁም / ውሉ
አይመለከተውም::

የታካሚው ወይም የቤተሰብ
ስም _____
የምስክሮች
ስም _____
ስም _____

ቀን _____ / _____ / _____
ፊርማ _____
ፊርማ _____
ፊርማ _____

Medical Consent

- Icard number here by gave my consent for myself/ my child/ other (specify the relation) to undergo _____ procedures and to receive the necessary anesthesia. I am also well informed about the benefits, side effects, complications and the presence or absence of other treatment alternatives. Besides, all the questions I raised are answered promptly.
- Since the procedure is carried out while the patient is under the influence of anesthesia, if any unpredicted or undiagnosed but correctable health problem is encountered during the procedure, the physician cannot omit to correct for the reason that the patient is not pre informed, therefore, I here grant the responsibility up on my physician to make the necessary improvements, changes or additional treatments based on the medical profession ethics and his professional knowledge and skill.
- Since there is no one capable of predicting for sure about the outcome of the operation, no one guarantees the result. Therefore, although very rare, I have been informed about the possibility of the occurrence of unexpected crisis that are associated with the surgery, anesthesia or the patient health situation. Sometimes these situations may go beyond the limit of the professionals.
- I am well informed that the hospital disposes properly all body parts that are isolated during the procedure. Sometimes these body parts may be photographed or preserved indefinitely

without the patient name label for the sake of further investigation, teaching or research purposes.

- **Blood and blood products**

- I am informed about the advantages and disadvantages of receiving blood and blood products and I hereby gave my consent to receive , not to receive blood and blood products whenever necessity arises.

- **Orthopedic and other procedures demanding body part removal** (*Applicable* *Not applicabl*)

- I am informed that the operation demands removing part of the body Hand / Leg (Right/Left)or other(specify the body part) and I agreed with the procedure.

Date ____/____/____

The patient or guardian name _____

signature _____

Witnesses

Name _____

Sign _____

Name _____

Sign _____