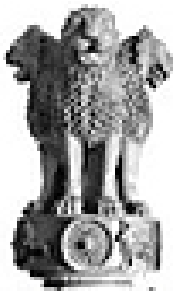


**STANDARD OPERATING
PROCEDURES
FOR
STERILIZATION SERVICES
IN
CAMPS**



सत्यमेव जयते

Family Planning Division
Ministry of Health and Family Welfare
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Abbreviations

NFHS-National Family Health survey

NRHM- National Rural Health Mission

RCH- Reproductive Child Health

OCP-Oral Contraceptive Pills

RTI-Reproductive Tract Infection

STI- Sexually Transmitted Infection

IUCD- Intrauterine Contraceptive Device

NSV- No scalpel Vasectomy

MO- Medical Officer

LHV-Lady Health Visitor

ANM- Auxillary Nurse Midwife

MPW-Multipurpose Worker

OT-Operation Theatre

IP-Infection Prevention

CHC-Community Health center

PHC-Primary health Center

FRU-First Referral Unit

CMO-Chief Medical officer

IEC-Information Education Communication

HLD- High Level Disinfection

BCC- Behavior Change Communication

QAC- Quality Assurance Committee

Section 1:

INTRODUCTION

The recent NFHS III (2005-2006) results show that the total unmet need in contraception for the country still remains high at 13%, out of which 6% is for permanent methods and 7% is for spacing methods. Traditionally the country has been adopting the camp approach in sterilization since the early '70s to address the issue of large need versus low service availability. Under the NRHM and RCH II programs of Government of India many strategies are being operationalized to reduce the unmet need in RCH services including contraception. However, we need to continue with the camp approach for some more years until adequate institutionalized services are made available as per the needs of the people at the most peripheral level. Though this approach has the advantage and flexibility of reaching the needy at their doorsteps, quality of care becomes an area of concern in such settings. Hence it becomes essential to have guidelines developed for ensuring quality care in camps, addressing to the large demand indifficult to reach/underserved areas which are not usually endowed with routine services.

Camps are a type of specialized operational strategy with a multi-pronged approach for:

- Increasing coverage of services within the available resources.
- Taking care of the quality of services by ensuring care provision by skilled personnel
- Providing an impetus for community participation
- Setting an example in team work between the district administration, health management team and the service providers (linking the micro and the macro level planning)

The formulation of Standard Operating Procedures (SOPs) for Sterilization Camps is an important step in ensuring provision of quality services to the growing number of clients coming for sterilization services in the out reach camps. It is envisaged that programme managers and service providers would be encouraged to take appropriate remedial measures for ensuring adherence to standards in the camps as laid down in the "Manual on Standards for male and female sterilization" by Government of India.

The scope of the manual

The *Standard Operating Procedures* would serve as a guide for planning, implementing and monitoring quality of services in sterilization in a camp setting. for rogramme Managers and service providers at all levels

Section 2:

TARGET AUDIENCE

The manual is meant for:

- Program managers at state/district/ tehsil / taluka and block level.
- Visiting team of service providers from higher level facilities.
- Camp Manager and service providers (Medical, nursing and paramedical personnel) at the campsite
- Non Government Organizations (NGOs), Community Based Organizations, Private Practitioners and other organized sectors interested in organizing Sterilization Camps.

Section 3:

A. OBJECTIVES

The objectives of the SOP for Sterilization services in Camps are:

1. To improve the availability & accessibility of sterilization Services
 - i. Female sterilization (minilaparotomy / and laparoscopy)
 - ii. Male sterilisation (No-Scalpel Vasectomy /and conventional)
2. To improve the quality of services by following established guidelines for the above procedures/services.
3. To establish a system of periodic review and quality improvement of services provided through camps.

B. STRATEGIES

- Planning and implementing Sterilization Camps for provision of sterilization services through a fixed day schedule in the districts.
- Ensuring logistics in terms of manpower, material and funds as also provision of payment of compensation as per GOI scheme.
- Ensuring delivery of quality services through “empanelled” service providers in Sterilization Camps.
- Generating community awareness about the services provided in the camp
- Making available back up methods like OCPs and condoms for the clients unfit for sterilization

Section 4:

RANGE OF SERVICES IN CAMP

The camp is focused on providing Sterilization services for men and women. However, provision of spacing methods for clients who are not eligible for sterilization as also management of RTI/STI for the clients, if necessary, is desirable and would lead to the optimal utilization of camp services.

1. COUNSELLING

Counselling is the process of helping clients make informed and voluntary decisions about their fertility. Method specific counselling should be done whenever a client is unable to take a decision or has a doubt regarding the type of contraceptive method to be used. In the case of clients found eligible for sterilisation the following steps should be taken before she/he signs the consent form for sterilization:

- Clients must be informed of all the available methods of family planning and should be made aware that for all practical purposes the sterilization operation is a permanent one.
- Clients must make an informed decision for sterilization voluntarily.
- Clients must be counseled in the language that they understand.
- Clients should be made to understand what will happen before, during, and after the surgery, its side effects, and potential complications.

The following features of the sterilization procedure must be explained to the client:

- It is a permanent procedure for preventing future pregnancies.
- It is a surgical procedure that has a possibility of complications, including failure, requiring further management.

In situations where the camp is providing other FP methods, method specific counseling should also be provided

2. CLINICAL SERVICES

(a) Permanent methods

- | | |
|-----------|--|
| Vasectomy | • Screening and clinical assessment |
| and / or | • Pre procedure instructions/ preparation |
| Tubectomy | • Procedure |
| | • - Postoperative examination & instructions |
| | • - Follow-up |

If a client is found unfit for sterilization she/he may be offered other services for contraception. However manpower and other resources may be made available in that camp setting.

Depending upon the availability of manpower and logistics, the district could

decide for the type of additional services to be offered in Sterilization Camps as given below.

(b) Spacing methods

- IUCD:
- Screening and clinical assessment
 - Insertion
 - Follow-up
 - Management of complications
 - Removal
- Combined Oral Pills:
- Eligibility assessment
 - Provision
- Condoms:
- Provision
 - Instructions for proper use

(c) Emergency Contraception

- Eligibility assessment
- Provision
- Follow up

(d) Screening and Management of RTIs / STIs

- Diagnosis and management wherever feasible
- Counseling for treatment of partner and prevention of re-infection

III. LAB TESTS as indicated:

- Hb
- Urine for sugar and albumin
- Urine for Pregnancy Test (as indicated in Standards of Male and Female Sterilization)

- In case of RTI/STI the lab tests needed is given in the box below

Laboratory service for RTI/STI to be provided wherever feasible⊕

- Wet mount microscopy of vaginal discharge - Trichomonas, BV (clue cells)
- Wet mount microscopy with KOH (10%) for Candida albicans
- Gram's staining of urethral discharge for pus cells and endocervical smear for N. gonorrhoeae

STI patients to be examined for RPR/VDRL and HIV tests after proper counseling if indicated.

SECTION 5:

Pre-requisites for Sterilization Camps

The camp should be organized exclusively for sterilization services. Additional services could be offered if indicated, provided sufficient manpower and resources are available.

1. SITE:

All Sterilization camps must be organized only at established health care facilities as laid down in the *Standards* by GOI.

For IUCD insertion, a clean separate room with adequate lighting arrangement and privacy will be sufficient.

Oral Pills, Emergency Contraceptive Pills and Condoms can be dispensed at the counseling area.

Under no circumstances should Sterilization camps be organized in a school building / Panchayat Bhavan or any other such set up.

2. SIZE:

Size of the Sterilization camp would depend on the number of teams available . For maintaining quality service, each surgeon should restrict to conducting a maximum of:

30 laparoscopic tubectomy (for 1 team with 3 laparoscopes) or
30 vasectomy (NSV or conventional) or
30 minilap tubectomy cases.

* With additional surgeons, supportive staff, instruments, equipments and supplies the number of procedures per team may increase proportionately. However, the maximum number of procedures that are performed by a team in a day should not exceed 50.

Depending upon the expected client load, requisite number of teams should be mobilized by the camp manager.

3. CAMP TIMINGS:

Camp timings should preferably be between 9 A.M. to 4 P.M.

4. STAFF:

A. For Female Sterilization procedure

(a) Local Team

LOCAL TEAM	Camp Service site/ Counter	Total No. of Staff	Category and no. of staff
1.	Registration	1	Male worker/clerk -- 1
2.	History & Clinical Assessment	2	MO – 1 Staff Nurse/LHV/MPW (F) ANM -- 1
3.	Counselling Area	1	Health supervisor/MPW (M) - 1
4.	Laboratory Examination	2	Lab Technician – 1 Cleaner – 1
5.	Preoperative Preparation/Premedication preparation room	1	Staff Nurse/LHV/ ANM – 1
6.	Instrument & reusable items processing/sterilization area IP Room	2	OT Attendant – 1 Ward Boy/ Aya – 1
7.	Operation room	3	Staff Nurse/ANM – 1 (either from the site area or if not there at the site, then to come with the visiting team) OT Attendant -1 Cleaner – 1
8.	Post operative room	2	MO-1 Staff Nurse/MPW (F) ANM-1
9.	Office cum store	2	Accountant – 1 Compounder/Pharmacist - 1
10.	IUCD / Other procedure room	2	MPW(F) – 2

b) Visiting Team members

Serial No.	Staff Category	Tubectomy cases
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		Laparoscopy	Minilap
1.	Empanelled Tubectomy surgeon	1	1
2.	Anesthetist (preferable)	1	1
3.	OT Assistant	1	-
4.	Staff Nurse	1	1

B. For Male Sterilization:

(a) Local Team

	Camp Service site/ Counter	Total No. of Staff	Category and no. of staff
1.	Registration	1	MPW(M) / clerk – 1
2.	Clinical Assessment	2	MO – 1, Male worker – 1
3.	Counselling Area	1	Male Supervisor/ Male worker – 1
4.	Laboratory Examination	2	Lab Technician – 1 Cleaner – 1
5.	Preoperative Preparation Room	1	Health worker-male – 1
6.	Instrument & reusable items processing/ sterilization area	2	OT Attendant – 1 Ward Boy/ Aya – 1
7.	Operation room	2	Staff Nurse/ANM – 1 Cleaner – 1
8.	Post operative room	2	MO-1 Staff Nurse/ ANM-1

Comment [t1]:

9.	Office cum store	2	Accountant – 1 Pharmacist - 1
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b) Visiting Team members

Serial No.	Staff Category	Vasectomy cases
1.	Empanelled Surgeon	1

The responsibility of provision of the additional services is to be borne by the local team as per the laid down guidelines of GOI.

5. Equipments/Instruments and supplies

The Equipments/Instruments and supplies needed for ensuring quality services in sterilization camps, is given in Annexure 1.

In camps where other services are offered, additional supplies for those services also need to be made available.

SECTION 6:

ROLES and RESPONSIBILITIES OF PROGRAM MANAGERS and SERVICE PROVIDERS

All functionaries in a camp must work together as a team towards successful and smooth conduction of the camp. The roles and responsibilities given here are only suggestive and they can be interchanged as per need/requirement of a particular situation.

The organization of a camp has 2 stages-

1. Planning for the camp
2. Conduction of the camp

This chapter specifies the roles and responsibilities of officials for both the stages.

I. In Planning for the Camp

A. District Chief Medical Officer / Equivalent

- To estimate the sterilization needs of the district, block wise on an annual basis
- Develop an area wise annual camp calendar specifying date and site
- To fix at least one camp per month per CHC/PHC on a fixed day basis
- To decide on the venue and date in terms of the needs reported in consultation with site in-charge
- To arrange required funds for organizing the camps
- To ensure the availability of the visiting team for the camp and its mobility on the said date to the camp site
- To ensure that not more than requisite number of sterilization operations are done per team as specified under the prerequisites for the camp to assure quality of services.
- To ensure adequate advance publicity of the services to be provided at the camp using all possible channels of communication
- To identify a nodal person for the camp site
- To ensure training of service providers at the camp in emergency management

B. Medical Superintendent of Dist. Hosp. / Sub. District Hosp./FRU/ CHC and MO I/C of PHC (where the camp has been scheduled)

- To identify the need for the sterilization services in the block on an annual basis and communicate the same to the district
- To develop the annual camp calendar for his area, ensuring minimum 1 camp per month on a fixed day basis and submitting the same to the district for the eventual finalization of District Camp Calendar at the district level by the District CMO.
- To coordinate the team activities with the district coordinator/nodal officer
- To arrange for the required funds for organizing the camps with the help of District CMO and ensuring on the spot disbursement of compensation money as per GOI scheme
- To ensure availability of the visiting team and the local team members
- To ensure availability of equipments, instruments and other supplies for each camp
- To ensure intense IEC activities regarding the camp in his area in coordination with the District authorities.

II. In Delivery of Services

For the delivery of services in the camps two teams are required to work in close coordination i.e the local team at the camp site and the visiting team.

LOCAL TEAM

Medical Superintendent of Dist. Hosp./ Sub. District Hosp./FRU/ MO I/C of CHC / PHC, where the camp has been scheduled is the main organizer.. He / she could be called as the Camp Manager. The responsibilities of the Camp Manager are:

- To ensure necessary physical infrastructure and service environment at the venue of the camp
- To ensure earmarking duties of each member of site staff for the Camp.
- To ensure quality standards of services provided during the camp
- To ensure emergency services, if needed, during the camp
- To ensure proper maintenance of service activity record
- To arrange refreshments etc for all the team members

SITE MEDICAL OFFICER

- To ensure that all clients are counseled properly
- To conduct full clinical assessment of the clients and document the same as specified in the GOIs Standards manual.
- To provide pre procedure instructions to clients (Standards manual, pg 54-58)
- To provide post procedure check up and give instructions, both verbal and written before discharge for each operated client (Standards manual pg 62,63,69,70)
- To take care of post procedure follow-up of clients for any problem inclusive of stitch removal for sterilization clients.
- To provide other contraceptive services to clients found not eligible for sterilization.
- RTI/STI management, where ever feasible

STAFF NURSE / ANM

She will be over all in-charge of preparation and maintenance of operation theater complex and infection prevention measures.

- Must provide the counseling for all the clients coming for sterilization
- Provide other contraceptive services for clients found not eligible for sterilization.
- To assist MO in performing pre-procedure clinical assessment.
- To ensure documentation of written informed consent
- To work in coordination with the visiting team
- To ensure sufficient material including sterilized linen, instruments and other supplies.
- To ensure proper IP practices at all levels (as specified in Standards Manual ,pg 27-35) before and during all procedures
- To ensure that all the emergency equipments are in functional order and available
- To give pre procedure instructions to clients
- To confirm the pre procedure checkup of clients by empanelled surgeon/gynecologist and anaesthetist and ensure completion of records before the procedure.
- To assist empanelled surgeon/gynecologist and anaesthetist during procedures
To monitor the clients during the procedure as specified in the Standards (pg 62)

LABORATORY TECHNICIAN

- To ensure availability of all the equipments and reagents for laboratory for the camp
- To perform pre procedure investigations like Hb, urine etc
- To perform investigations related to RTIs/STIs.

- To document the findings of investigations on the client's chart
- To maintain the record of all investigations done
- To ensure quality of all laboratory investigations

PHARMACIST

- To ensure sufficient medicines and other supplies for all the clients
- To distribute medicines to the clients as per guidance of medical officers/surgical team
- To perform any other duty assigned by the camp manager

HEALTH SUPERVISOR / WORKER

- To do IEC for the camps as a pre camp activity in the area
- To provide counseling services to all clients
- To assist in filling up charts and consent forms of clients
- To give pre and post procedure instructions to clients/attendants
- To assist the MO during clinical assessment of the clients
- To guide the clients for different services
- In the absence of a Staff Nurse(SN) should perform her duties
- Be in charge of the registration counter
- To perform any other duty assigned by the camp manager

CLASS IV (OT attendant /Ward boy/ Ayah etc.)

- To prepare facility for the camp under guidance of supervisors.
- To shift clients to and from operation theater (OT)
- To carry equipments/articles from and to the vehicle
- To assist OT Assistant and staff nurse in OT
- To decontaminate articles
- To clean instruments and linen
- To perform any other job assigned by the camp manager

SAFAI KARMCHARI

- To clean the premises including lab, procedure room and OT
- To perform trimming of hair in vasectomy clients
- To disinfect procedure room and OT under guidance of OT Staff.
- To help the other Class IV workers to shift equipments & linen from one place to another and also in shifting the clients, if necessary
- To perform any other job assigned by the camp manager

VISITING TEAM

SURGEON / GYNECOLOGIST

- To ensure that each client has been adequately counseled and screened as per laid down Standards in the prescribed format including ensuring/confirming pre procedure fitness and informed consent of client for the procedure (pg 64 – Annexure 4).
- To fill the checklist before conducting the procedure as laid down in the Standards (pg 59)
- To ensure requisite equipment / instruments and supplies for the procedure as well as those needed for emergency preparedness are as per the Standards.
- To perform sterilizations of screened clients as per the laid down Standards(pg 10,11 for female and pg 21,22 for male)
- To ensure emergency and surgical procedure preparedness (pg 40,41 for female and pg 72,73 for male)
- To practice and ensure adherence to universal IP practices in all procedures
- To document procedural details and post-operative instructions on the records of all operated cases as given in the Standards (pg 58-69)
- To do postoperative check up wherever required as per Standards.
- To deal with emergencies and ensure appropriate referral to higher centre in case of complications

ANAESTHETIST

- To verify the availability and functionality of anesthetic instruments and drugs in the camp site
- To ensure pre operative check up and fitness for anaesthesia whenever required.
- To supervise local and administer regional or general anaesthesia according to the situation
- To deal with any emergency / complication related to procedures
- To document anesthesia notes in the chart of each client
- To do immediate post-operative follow up of operated cases done under anesthesia

STAFF NURSE

She will be over all in-charge of preparation and maintenance of operation theater complex and infection prevention measures

- To ensure proper IP practices of the procedures (as specified in Standards Manual, pg 27-35) before and during all procedures
- To ensure that all the emergency equipments are in functional order and available
- To give pre procedure instructions to clients
- To confirm the pre procedure checkup of clients by surgeon/gynecologist and anaesthetist and ensure completion of records before the procedure.

- To assist surgeon/gynecologist and anaesthetist during procedures
To perform procedure monitoring of the clients as specified in the Standards (pg 62)
- To verify the availability of emergency drugs in the OT and recovery room

OPERATION THEATRE ASSISTANT (OTA)

- To work in coordination with staff nurse/ANM/LHV
- To verify the availability of all the equipments and instruments and ensure that they are in functional condition in the operation theater
- To ensure HLD/sterilization of equipments, instruments, linen etc
- To ensure cleanliness and disinfection of OT
- In case of female sterilization to make sure that the laparoscopes are processed after each procedure and at the end of the camp session as laid down in the Standards.
- To assist the empanelled surgeon and anaesthetist during procedures
- To ensure that all the emergency equipments are in functional order and available
- To perform any other job assigned by the visiting team

SECTION 7:

Conduction of CAMP

This involves 3 phases

1. Pre Camp
2. Camp
3. Post Camp

1. PRE-CAMP ACTIVITIES

1.1 INFORMATION, EDUCATION AND COMMUNICATION (IEC)/BCC

- i. Utilize all channels of communication to reach the target audiences, informing and educating them about the sterilization services and regarding the dates and venues
- ii. Obtain (another suitable word) from the District IEC unit
- iii. Distribute the appropriate IEC materials to the community.

1.2: PLANNING FOR THE CAMP

- Orientation of site staff
- Review of infrastructure and availability of equipment and supplies including case sheets, consent forms, follow up cards etc.
- Have an intensive IEC
- Mobilization of staff from periphery/additional PHC/ other sites if required
- Preparation of duty list and intimating the staff
- Ensuring electricity and running water supplies
- Ensure availability of compensation money
- Ensuring availability of surgical team
- Ensuring availability of transport facility for referrals
- Display boards shall be put up in health institutions, one month prior to the camp, which shall depict the date of camp with time and services to be provided on that day

2. CAMP ACTIVITIES

- Primary responsibility of organizing the camp lies on the staff at the **CONCERNED CAMP SITE**.
- The timings specified during the IEC should be strictly adhered to.
- The place should be clean.
- Adequate sitting and waiting arrangements should be made with protected space (from sun and rain) provided for both clients and attendants.
- There should be adequate arrangements for drinking water, sanitation and toilet facilities for the health personnel as well as the clients and their attendants. One toilet should be earmarked for women
- All instruments, drugs and supplies for the camps should be made available in advance and put in their right places.
- Site facility should ensure enough sterilized linen and other material including stationary and forms as per expected client load.
- Ensure that the visiting team arrive atleast 1 hour before the scheduled time of the camp.
- The normal functioning of the CHC/PHC is also to be ensured by the staff of the PHC by seeking help from the additional PHCs/ sub centers.
- Adequate safety arrangements in coordination with the local police authorities should also be provided for, to prevent any untoward incidents.
- There should be clear landmarks for the different service areas as specified below to facilitate the smooth flow of clients.

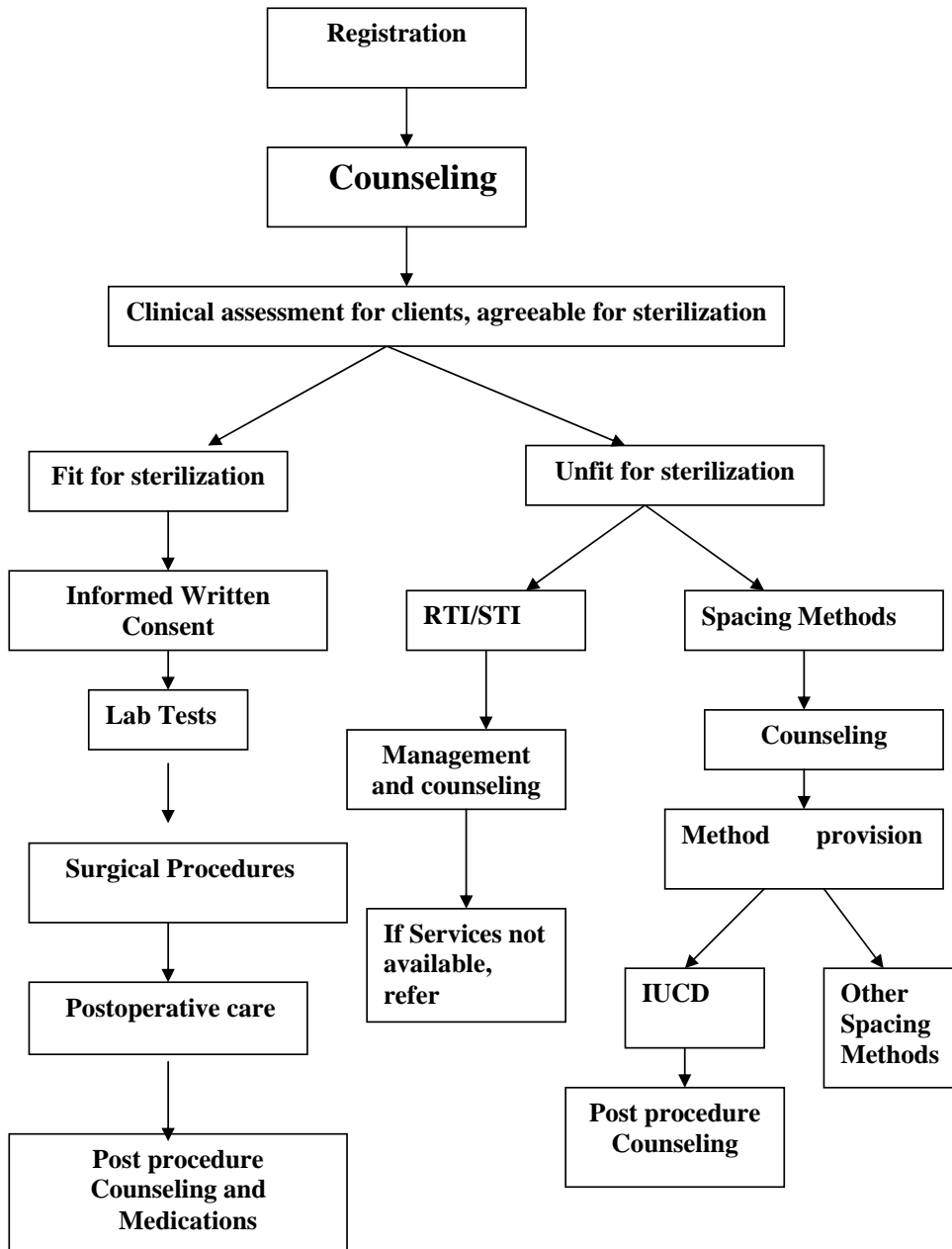
GENERAL AREAS:

- Waiting area
- Registration area
- Counselling Area
- Clinical Examination
- Laboratory Examination
- Office cum store

PROCEDURE AREAS

- Pre procedure preparation area
 - IUD / Other procedure area
 - Instrument processing area
 - Scrub area
 - Operation room-if both tubectomy and vasectomy services are provided, there should be separate operation rooms
 - Post operative or recovery room
- All staff should adhere to the standards and guidelines laid down by Government of India

FLOW CHART FOR CAMP SERVICES



3. POST CAMP ACTIVITIES

- Provide follow up care as laid down in the standards manual
- Attending to complications of procedures that were performed in the camp (ref from Standards for female and male sterilization)

All staff of the health care facility should preferably be trained in emergency management.

Guidelines for emergency management should be followed as given in Annexure 2

Section 8

Prevention of infection: Asepsis and Antisepsis

It is mandatory to practice appropriate infection-prevention procedures at all times with all clients to decrease the risk of transmission of infection, including the Human Immunodeficiency virus (HIV), Hepatitis C (HCV), and Hepatitis B (HBV). Standard universal precautions of infection prevention include:

- Washing hands
- Ensuring self-protection by wearing attires, gloves and employing other physical barriers
- Adopting safe work practices (to prevent injuries from sharp instruments)
- Maintaining proper methods of environmental cleanliness
- Ensuring the proper processing of instruments and other items
- Following proper waste-disposal practices and handling, transporting, and processing used and/or soiled linens in the recommended and prescribed manner.

Detailed guidelines for IP practices are given in the Standards for Male, Female sterilization. However, some of the important steps are highlighted in this chapter.

1. Maintenance of Asepsis in OT

Before Surgery

- Clean the floor with a mop soaked in 0.5% chlorine solution.
- Clean the table/counter top with a cloth soaked in 0.5% chlorine solution

After Surgery

- Decontaminate all operating room surfaces that come into contact with the patient (such as table) between procedures by scrubbing and wiping them with 0.5% chlorine solution.
- The operating table, counters/table tops, and light handles should be wiped with a detergent and 0.5% chlorine solution.
- *Chlorine solution should be prepared fresh daily.*

When Not in Use

- The OT should be locked when not in use.

- Daily cleaning: Scrub and wipe the room with the recommended disinfectant i.e. 0.5% Chlorine solution.

Movement In and Around the OT

- The entry of people and their movement inside the OT should be minimal as the introduction of a number of micro-organisms is related directly to the number of people and their movement.
- During surgery, the door of the OT should be kept closed.
- Only the personnel performing or assisting should enter the OT.
- Personnel who have any infection should not enter the OT at all.

Recovery Room (RR)

- The entry of people and their movement inside the RR should be minimal as the introduction of a number of microorganisms is related directly to the number of people and their movement.
- During post op surgery, the door of the RR should be kept closed.
- Only the personnel involved in post op care like the attending surgeon/ anesthetist should enter.
- Personnel who have any infection should not enter the RR at all.
- Only one relative should be allowed

2. Processing of Equipment, Instruments, and Other Reusable Items

Steps involved are:

1. Decontamination of equipment, instruments, and other reusable items

- Surgical instruments, reusable gloves, and other items that have been in contact with blood or other body fluids should be decontaminated prior to cleaning.
- Immediately after use, these items should be placed in a plastic bucket containing a solution of 0.5% chlorine for 10 minutes.
- After 10 minutes, the items should be removed from the chlorine solution and rinsed with water or cleaned immediately.
- Utility gloves and clothes should be worn during this and subsequent steps.
- A new chlorine solution should be prepared at the beginning of each day.

2. *Cleaning* of equipment, instruments, and other reusable items

- Cleaning reduces the number of micro-organisms and endospores on instruments and equipment.

- The instruments and other items should be scrubbed vigorously with a brush (a tooth brush is a good option) in lukewarm water with detergent to remove all blood, tissue, and other residue.
- **Detergent** should be used as water alone will not remove proteins or oil.
- Soap is not recommended as it can leave a residue.
- Hot water should not be used because it can coagulate protein such as blood, making it harder to remove.
- The items should then be rinsed thoroughly with water and allowed to air-dry. Items that require HLD by boiling can be placed directly in a pot of water after cleaning.

Preparation of 0.5% Chlorine Solution

Mix 150 gm of commercially available bleaching powder (about 10 tablespoonful/30 teaspoonful) in ten litre of tap water. Before mixing make a paste in small quantity of pre measured water and mix to the remaining measured water. The prepared chlorine solution can be used for 24 hours. Prepare fresh chlorine solution at the beginning of camp.

3. Sterilization or high-level disinfections (HLD?)

HLD by Boiling

- Instruments for (HLD must be decontaminated and cleaned with detergent and water prior to boiling.
- Once the water starts boiling, boil for 20 minutes in a pot with a lid. Articles must be completely immersed in the water.
- Do not add anything to the pot after boiling begins.
- After boiling, remove objects with a sterile or previously HID forceps.
- Use objects immediately or store them in a covered, airtight, dry HID container for up to seven days.
- If stored in an ordinary covered container, the objects can be used for up to 24 hours.

Sterilization by Chemical Method

- After decontaminating, cleaning, and drying the used objects, soak for 20 minutes in a solution containing 2% glutaraldehyde.
- Thoroughly rinse the objects with water boiled for 20 minutes before use.
- Use objects immediately or place them in a covered, dry HID container.
- Items should never be kept soaked in water or solutions such as Cetavalone, spirit, carbolic acid, glutaredehyde, etc. Always store HLD items dry.

Steam Sterilization (Autoclaving)

- Always consult the specific operating instructions supplied by the manufacturer.
- Decontaminate, clean, and dry all instruments that are allowed to be autoclaved.
- Wrap cleaned instruments in cloth or newspaper, or place unwrapped instruments in a metal container.
- Arrange wrapped packs in the chamber or drum to allow free circulation of heat or steam among the surfaces of all items.
- Items such as scissors and forceps should be sterilized in an open position.
- Sterilize instruments for the recommended time as shown below:

Sterilization by Chemical Method

- Decontaminated, cleaned, and dried items are put in 2% glutaraldehyde solution for at least 8 to 10 hours.
- Items such as scissors and forceps should be put into the solution in an open position.
- Do not add or remove any items once the timer starts.
- Items should be rinsed well with sterile water** (not boiled water), air-dried, and stored in a covered sterile container for up to 7 days.
- This method is most suitable for endoscopes and plastic cannulae.
- This method is most suitable for endoscopes and plastic cannulae.

**Sterile water can be prepared by autoclaving at 15 lbs. pressure. Time necessary to autoclave liquids like water depends on many factors and the most important of which is the volume of water being autoclaved. In general timings are:

- 75 – 100 ml – 20 minutes
- 100 – 500 ml - 25 ml
- 500 – 1000 ml – 30 minutes
- 1000 – 1500 ml – 35 minutes
- 1500 – 2000 ml – 40 minutes

Processing Laparoscopes

- Laparoscopes and accessories should be sterilized or should undergo HLD using the chemical method by soaking in 2% glutaraldehyde solution. All steps of the decontamination and cleaning process must be followed before the laparoscopes and accessories are put in the chemical solution.
- **Decontamination:** Immediately after use, gently wipe the laparoscope, fiberoptic light source, and cable and plastic tubing with luer lock using a cloth soaked in 60–90% ethyl or isopropyl alcohol to remove all blood and organic material.
- **Cleaning:** Place the disassembled parts of the laparoscope in a basin of clean water. Wash all outer surfaces using a soft cloth. Clean the inner channels with a clean brush supplied with the laparoscopic kit. Dry with clean soft cloth.
- **High-level disinfection:** Put clean and dried disassembled equipment in a basin containing 2% glutaraldehyde solution for 20 minutes. For the disinfection to be effective, all parts of the laparoscope must be fully immersed and the disinfectant must touch all the surfaces of the instrument. Rinse twice with HLD water (water boiled for 20 minutes and cooled) to remove all traces of the disinfectant.
- **Sterilization:** To sterilize, soak the clean and dried disassembled laparoscope in 2% glutaraldehyde solution for 8 to 10 hours. Rinse at least three times with sterile water to completely remove all traces of the disinfectant and store in a sterile covered container.

3. Disposal of Waste, Needles, and Other Materials

- Contaminated waste is a potential source of infection for the staff as well as the local community. Therefore, waste should be disposed of properly.
- Waste should be buried or burnt. Burning should preferably be done in an incinerator or steel drum as opposed to open burning.
- If burning is not possible, then the waste should be put in a pit and buried, but it should never be thrown outside or left in open pits.
- For waste that is to be picked by the municipal authorities, these should be placed in closed dumpsters prior to removal.
- Solid waste, including dressings and other items contaminated with blood and organic material, should be disposed of in leak-proof washable containers conveniently located in the OT/procedure house.
- Liquid waste should be poured down a utility drain or into a toilet or latrine with a flush; or else it should be buried. Avoid splashing when disposing of liquid waste.
- Sharp objects (hypodermic needles, scalpel blades, suture needles) should be disposed of in a puncture-resistant container with a lid made of either metal or heavy rigid plastic or cardboard.
- Containers with needles and sharp objects should be disposed of by burning or burying on site.

Summary of methods of Sterilization and high level disinfection for various reusable materials

Materials	Method	
	HLD	Sterilization
Linen (Drapes, sponges, scrub suits, operating packs etc.)	Not recommended	Autoclaving: 121° C at 15 lb / sq. inch pressure for 30 minutes. Should be used within one week. If drum is opened, then use only within 24 hours.
Rubber goods (gloves, catheters, and rubber tubing) And Surgical Instruments	By boiling – 20 minutes	By autoclaving – At 15 lb / sq. inch pressure for 30 minutes Always wrap items in paper / new paper before autoclaving. Gloves should always be sterilized for 30 minutes at 15 lb / sq inch pressure by wrapping in paper / news paper and should be used 24 – 48 hours after sterilization so that they regain their elasticity

	By immersing in chemical: a. Gluteraldehyde – 20 minutes or b. Paracetic acid – 10 minutes	By immersing in chemical: a. Gluteraldehyde – 10 hours or b. Paracetic acid – 30 minutes
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SECTION 9

ASSURANCE OF QUALITY IN CAMP SETTING

The following needs to be monitored for assuring quality care in a camp:

- Facility inputs
- Procedures adopted
- Maintenance of records and registers
- Client care and satisfaction

The District QAC (DQAC) as well as the Quality Improvement Committee (QIC) at the facility level are responsible for monitoring the quality.

Role of DQAC

The DQAC should monitor at least 10% of the camps held in the district to ensure quality of care as per the checklist at Annexure 5 and also refer to the guidelines of GOI laid down in the Quality Assurance manual.

Role of Quality Improvement Committee

At each service delivery site sterilization service needs to be monitored and reviewed. This task can be performed by service providers from the facility itself through a process of self-assessment that will identify issues related to quality improvement, help in resolving the identified problems, recommend solutions, and ensure that high-quality services are provided.

The suggested composition of the Quality Improvement Committee at District Hospitals/Civil Hospitals/Sub-divisions/Referral Hospitals is as follows:

- I/C Hospital/Medical Superintendent: Chairperson
- I/C Operation Theatre/Anaesthesia I/C, Surgeon
- I/C Obstetrics and Gynaecology
- I/C Nursing
- I/C Ancillary Services (ward boys)
- I/C Transport
- I/C Stores
- I/C Records

At the level of CHC, a smaller committee of 4 to 5 members comprising the Medical Superintendent, I/C Surgery, I/C Obstetrics and Gynaecology, I/C OT, Nursing I/C and other key members of staff should be constituted.

The scope of work of this QIC will include all the processes involved in the sterilization services being provided at the camp.

The responsibilities of the QIC will be as follows:

- Identifying critical quality processes in light of the standards for sterilization;
- Reviewing the processes with the help of the checklists on client case audit / facility
- Audit/observation of sepsis and surgical procedure
- Developing a work plan listing activities for improvement and putting this into action.

The QIC should meet once a month to review, analyse and recommend solutions to the problems experienced in holding FW Camps and assess the quality of care. This is essential for taking remedial actions for future camps, as camps are to be organized as a regular, fixed day monthly activity at facilities like CHCs and PHCs where regular weekly services are not being provided.

Refer to Annexure 3 for the Monitoring Checklist of the sterilization services in the camp settings

Annexure 1:

EQUIPMENTS FOR MALE/FEMALE STERILIZATION:

Equipment/instruments and supplies are given for a client load of 30 for one surgical Team

A. STERILIZATION EQUIPMENT FOR MALE/FEMALE STERILISATION

S.No.	Item	No reqd	
		Female Sterilization	Male sterilization
1	Laprocator/laparoscope sets	3	-
3	Minilap sets	5	-
4	NSV Kits		5
5	Conventional Vas Kit	-	5
7	Voltage stabilizer	1	
8	Falope-rings	40 pairs	-
9	CO2 cylinder (if available)	2	-
10.	Insufflator	1	-

B. ANAESTHESIA EQUIPMENTS:

S.No.	Item	No reqd
1	Portable Boyle's apparatus*	1
2	Oxygen cylinders with mask (adult) and wrench	2
3	Nitrous oxide cylinders*	2
4	Laryngoscope	1
5	Ambu bag adult size	1
6	Endotracheal tubes	1 of each size

* If anaesthetist available

C. ANAESTHESIA DRUGS

S. No.	Name	No. Required	
		Tubectomy	Vasectomy
1.	Inj Diazepam	30 amps	5
2.	Inj Promethazine	30 amps	5
3.	Inj Pentazocine	30 amps	5
4.	Inj Atropine	30 amps	5
5.	Inj Pethidine	30 amps	-
6.	Inj Xylocaine 2%	25 vials	15 vials
7.	Inj Ketamine 50mg/ml*	1 vial	-
8.	Inj Scoline*	1 vial	-
9.	Inj Pentothal 1 gm vial*	1 vial	-

(*as per requirement, if anaesthetist is available)

D. EMERGENCY DRUGS; * FOR BOTH – TUBECTOMY AND VASECTOMY CAMPS

S. No.	Name	No. Required
1.	Inj Adrenalin	10 amps
2.	Inj Hydrocortisone 100 mg	10 vials of 100 ml each
3.	Inj. Chlorpheniramine Maleate	10 amps
4.	Inj Lasix	5 amps
5.	Inj. Atropine	10 amps
6.	Inj Mephentine	2 vial
7.	Inj Aminophylline	5 amps
8.	Inj Deriphylline	5 amps
9.	Inj Soda Bicarb	12 amps
10.	Inj. Diazepam	5 amps
11.	I/V fluids 5% dextrose	5 vacs
12.	12. Normal Saline	5 vacs
13.	Ringer Lactate	5 vacs

***Anaphylaxis trays and emergency trays should be maintained and both trays should be readily available in operation room and injection room**

E. POST OPERATIVE DRUGS

S. No.	Name	No. Required	
		Tubectomy	Vasectomy
1.	Cap Amoxicillin-cloxacillin 500 mg	500 capsules	600 capsules
2.	Tab Ciprofloxacin	500 capsules	600 capsules
3.	Tab Ibuprofen 400 mgs	500 tablets	600 tablets
4.	Tab B Complex	200 tablets	200 tablets
5.	Tab Iron	200 tablets	---

F. DISINFECTANTS/ ANTISEPTICS ETC.

S. No.	Name	No. Required	
		Tubectomy	Vasectomy
1.	Cidex*	10 lit	5 liters
2.	Povidine Iodine 5%	1.5 liter	1.5 liters
3.	Spirit	2 Liter	1 liter
4.	Bleaching Powder 150 gms packets	15 packets	15 packets
5.	Surgical Hand scrub	500 ml	500 ml
6.	Detergent powder	250 gms	250 gms

* Should be available with the team, if site does not provide regular sterilization services.

G. DRESSING MATERIAL

S. No.	Name	No. Required	
			Vasectomy
1.	Medicated tape large size		50
2.	Adhesive plaster-10 cm wide	2 rolls	-
3.	Bandages 6 "	3 dozen	4 dozen
4.	Cotton ½ kg roll	2	2
5.	Gauze Thin	4	4

OTHER EQUIPMENT AND ARTICLES

S. No.	Name	No. Required		
		Tubectomy	Vasectomy	
1.	Cidex tray	3	2	
2.	Female Urethral Catheter	2 (metal)	--	
3.	Enema cans	2	--	
4.	Sponge holding forceps	6	6	
5.	Vaginal Speculum (Sims)	3	--	
6.	Voisellum	3	--	
7.	Sterilized surgical gloves	6.5 Nos	40 pairs	30 pairs
		7, & 7.5 Nos	40 pairs	30 pairs
			40 pairs	40 pairs
8.	Utility Gloves	7, 8 and 9 no.	6 pairs	6 pairs
9.	BP apparatus	3	2	
10.	Stethoscope	3	2	
11.	Torch 4 cell	1	1	
12.	Heat convectors	2	2	
13.	Sterilization drums	12	6	
14.	Autoclave	2	2	
15.	Boilers for HLD	3	2	
16.	Steel bowls	6	6	
17.	Chittle's forceps	3	2	
18.	Sharp scissors for gauze cutting	1	1	
19.	Sterilized Syringes	10 ml	40	20
		5 ml	40	20
		2 ml	40	5
20.	Surgical blades No. 11, 15	10 pieces each	10 pieces each *	
21.	Catgut chromic 1-0	15 foils	25	

22.	Silk thread 2-0	2 roll	2 rolls	
23.	4 burner stove	2	2	
24.	Anterior vaginal wall retractor	2	--	
25.	Uterine sound	2	--	
26.	Powder for gloves **	500 gms	500 gms	

27.	Wash basin	2	2
28.	Kidney trays stainless steel	3	3
29.	Hypodermic needles numbers 23,24,26	4 dozen each	4 dozen each
30.	I/V Sets	5	5
31.	Scalp vein sets size 21	35	5
32.	Venflon 20G	5	5
33.	Plastic Containers for decontamination	2	2
34.	Plastic tubs for cleaning instruments	2	2
35.	Plastic linen container (for used linen), with cover	2	2
36.	Waste containers	4	4
37.	wall clock	1	1

*if conventional vasectomy done

** If autoclaved gloves are used

J. LINEN

S. No.	Name	No. Required	
		Tubectomy	Vasectomy
1.	Surgical Gowns	20	10
2.	Plastic aprons	6	6
3.	Caps	20	10
4.	Masks	20	10
5.	Eye cover / shield *	12	6
6.	Covered plastic shoes sizes 8 & 9 or shoe cover	12 pairs	12 pairs
7.	Sterilized surgical sheets (Cut sheets)	40	40
8.	Mackintosh sheet	15 meters	15 meters
9.	Surgeon suits	12	--
10.	Patient suits	30	

- If service provider uses own power glasses, then not required, other wise plain glasses/eye shield required

Annexure 2: MANAGEMENT OF EMERGENCIES IN STERILIZATION SERVICES

INTRODUCTION:

It is essential that when an emergency occurs the doctors, nurses and other staff should respond competently in order to save the life of the client. Members of the staff must be trained to handle specific complications. The person monitoring the client in the operating room and in the recovery room must be aware of early signs of complications, and be able to take initial emergency action. At least one member of the team must know how to administer cardiopulmonary resuscitation.

Knowing what to do in an emergency requires knowledge of:

- Clinical situations, their diagnosis and the treatment.
- Drugs, their use, administration and side effects
- Emergency equipment and how it functions and
- The role of each team member in an emergency

A. APPROACH TO AN EMERGENCY:

When some one collapses or become suddenly ill:

- Try to keep calm and think logically: you probably do know what to do.
- Make sure that some one with medical knowledge stays with the client
- Call for help. Delegate someone to call other assistants and get the oxygen cylinder, Ambu bag and emergency drugs.
- Talk to the client, ask questions.
- Stop any procedures that are in progress on the client and
- Proceed with the following -
 - Lower the head of the table
 - Give oxygen
 - Start an IV if not in place
 - Note the time
 - Continue to monitor vital signs
 - Assess the client's ABC : Air ways, Breathing and Circulation

B. ASSESS THE CLIENT'S ABCs

AIR WAY:

Is there anything blocking the mouth or throat? Has the tongue fallen back? Try to extend the neck and pull the jaw forward.

BREATHING:

Is the client breathing? Put your cheek down to the client's mouth to look, listen and feel for the passage of air.

CIRCULATION:

Check for pulse, preferably carotid. Use 5 seconds to check the pulse in the neck.

C. CARDIO-PULMONARY RECUSSITATION (CPR)**STEP A: AIRWAYS**

1. Open air ways, use head tilt – chin lift position to correct obstruction by tongue.
2. Look, listen and feel for breathing for 3-5 seconds
3. Keep air way open
4. Clear air way by suctioning any secretions or vomitus

Head Tilt – Chin Lift**IF CLIENT IS NOT BREATHING, FOLLOW STEP B****STEP B: BREATHING**

1. Insert oral airway. Insert airway up side down (curved tip pointing to roof of the mouth) and rotate the air way 180 degrees during insertion until the flange is against teeth.
If oral air way can not be passed, insert a nasopharyngeal air way.
2. Ventilate patient using either an Ambu bag with 100% oxygen or manual resuscitator with room air Place mask over mouth and nose. Apply pressure to keep seal. Compress bag to deliver air.
If the above is not available – perform Mouth to Mouth resuscitation.
2. Give two slow breaths.
 - Maintain head tilt – chin lift position

- Ensure breaths go in by watching chest rise and by listening for breath sounds with stethoscope on side of patient's chest
 - If breaths do not go in, reposition head and try again to give breaths.
 - Allow all air to escape between breaths
 - Avoid overly large volumes of breaths
3. Check carotid pulse. If patient has no pulse follow Step C
 4. Continue breathing at the rate of 10-12 breaths per minutes until the patient breaths spontaneously. Avoid more rapid breaths.
 5. Place Endo-tracheal tube (if trained and skilled personnel available)

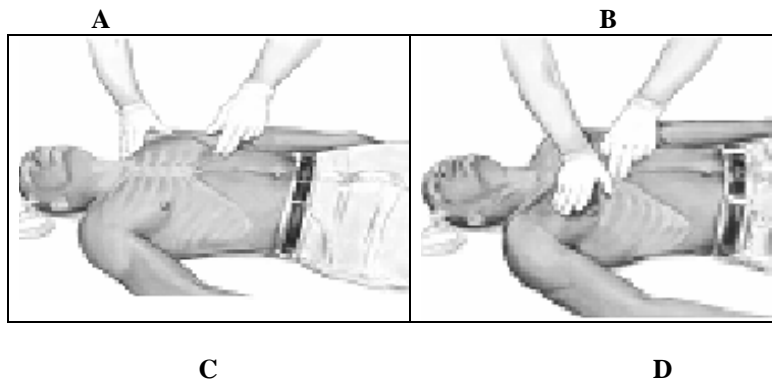
STEP C: CIRCULATION

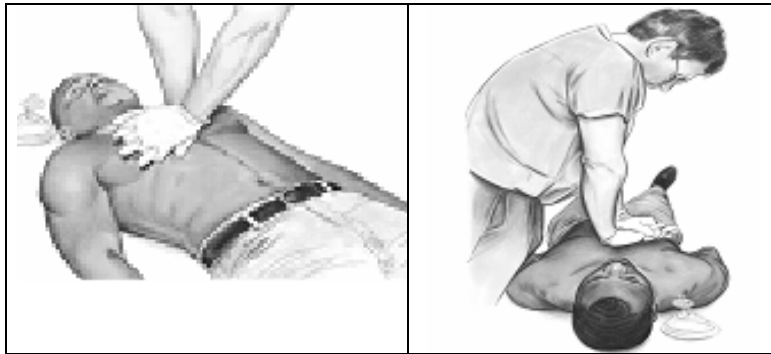
PERFORM EXTERNAL CARDIAC COMPRESSION

(1) Chest Compression Technique

1. Place your fingers on the lower margin of the client's rib cage on the side nearer you (Shown in Figure)
2. Slide your fingers up the rib cage to the notch where the ribs meet the lower sternum in the center of the lower part of the chest.
3. Place the base of one hand on the lower half of the sternum (Shown in Figure) and the other hand on top of the first, so that the hands are parallel (shown in Figure).
4. Keep hands in contact with the chest at all times
5. Compress sternum down 4 to 5 cm. smoothly

Position the rescuer's hand on the lower half of the sternum





TWO PERSON RESCUE:

- Give 5 compressions in approximately 3 seconds
- Give 1 full breath. After every 5 compressions pause to allow second medical attendant to give 1 breath. Give breath as in Step B.

ONE PERSON RESCUE:

- Give 15 compressions in approximately 10 seconds
- Give 2 full breaths. After every 15 compressions give two breaths. Give breaths as in Step B.

- (2) Stop CPR after one minute and every 1 - 2 minutes to determine if the patient has resumed spontaneously breathing or circulation, otherwise do not stop CPR for more than 5 second, except to place endo-tracheal tube to defibrillate the patient.
- (3) Continue CPR until client responds or for a minimum of 30 minutes
- (4) If available apply ECG leads. Continue CPR.

MANAGEMENT OF EMERGENCIES IN THE CAMPS

- Think A, B, C, D. - A: Assess/airways, B: breathing, C: circulation, D: drugs
- Get help from other staff, immediately call doctor, stay with patient
- Always keep Emergency kit, drugs and equipment available

Observation - What you see	Reason - What is the cause	Action - What to do
(1) Fainting	Vaso - vagal reaction	1. Assess: Airway-

<ul style="list-style-type: none"> -Loss of consciousness -Vital signs present -Lungs clear and responsive 	<p>Caused by severe pain or fear</p> <p>Rule out other reasons for loss of consciousness such as cardiac arrest or blood loss.</p>	<ul style="list-style-type: none"> - Lie client down <u>2. Breathing-</u> -Assess lungs <u>3. Circulation-</u> -Take vital signs - Asses for blood loss and treat* <u>4. Drugs:</u> -If fainting continues give Atropine 0.4 mg. IM.
<p>(2) Unconscious with twitching and involuntary movements</p>	<p>Seizures caused by</p> <ul style="list-style-type: none"> -Seizure disorder -Drug induces 	<ul style="list-style-type: none"> <u>1. Assess: Airway-</u> - Maintain airways. Lie on side and /or turn head to side – clear mouth of vomitus -Do not restrain but clear areas to prevent self injury <u>2. Breathing-</u> -Give oxygen by mask , ready Ambu bag <u>3. Circulation-</u> --Start IV and if seizure continues for more then few minutes <u>4. Drugs:</u> -If last for more then 4 minutes, give Diazepalm 5 mgs IV slowly. May repeat every 5 minutes to total of 20 mgs
<p>(3) -Pale, clammy</p> <ul style="list-style-type: none"> -Cyanosis -Anxiety -Restlessness -Unconsciousness (late sign) 	<p>Shock - due to:</p> <ul style="list-style-type: none"> -Blood loss -Cardiac or respiratory difficulty 	<ul style="list-style-type: none"> <u>1. Assess: Airway-</u> - Lie client down, raise legs, 6-12 inches -Reassure <u>2. Breathing-</u> -Give oxygen by mask, ready Ambu Bag <u>3. Circulation-</u> -Start IV and give 1-2 liters RL or NS IV fluids quickly (each liter in 15 minutes) -Monitor vital signs - Asses for blood loss and treat*
<p>(4) Very slow Respiration(<8 per minute)</p> <ul style="list-style-type: none"> -Drowsy -Lethargic -Cyanotic (bluish discoloration of lips and nail beds) -Less responsive 	<p>-Over sedation from opiates such as pethidine / pentozocine or other drugs e.g. diazepam</p> <p style="text-align: center;">Or</p> <ul style="list-style-type: none"> -Anaphylaxis / severe asthma -Severe blood loss 	<ul style="list-style-type: none"> <u>1. Assess: Airway-</u> -Talk with client, stimulate <u>2. Breathing-</u> -Give oxygen by mask-ready Ambu bag Assess lungs, if wheezing and stridor, follow anaphylactic guidelines <u>3. Circulation-</u> -Assess for blood loss and manage* -Take vital signs -Start IV

to stimuli		<p>4. Drugs: In case of respiratory depression due to opiates give Naloxone 0.4mgs. SC / IM/IV and may repeat every 2 minutes to maximum of 10 mgs.</p>
<p>(5) Fast Respirations: (>25 per minute) Early stage -Anxiety, Fear -Lungs clear</p>	<p>Hyperventilation due to fear / anxiety</p>	<p>Assess: Airway- -Reassure, talk with patient, comfort breathing -Assess lungs – clear airway if there is any obstruction -See anaphylaxis below -Observe vital signs</p>
<p>Advanced stage -Hives, rash -Skin itching -Anxiety -Fast shallow respiration -Wheezing -Strider -Weakness -Cyanosis</p>	<p>Allergy – early signs of rash and hives Or Anaphylaxis or severe bronchospasm, including symptoms of respiratory distress</p>	<p>1.Assess Airway 2..Breathing- -Give oxygen by mask - ready Ambu bag -Assess lungs - wheezing, constriction and strider, shallow fast respiration 3..Circulation- -Start IV fluids , observe vital signs 4..Drugs: 1. If early signs give Pheneramine - 25 mgs and observe. If symptoms worsen go to #2. 2. Give Adrenaline 1:1000, 0.5 ml SC/IM. May repeat adrenaline every 10 minutes for a maximum of 3 doses. Give Pheneramine 25 mgs IM/IV and observe. If symptoms worsen go to #3 3. Give Dexamathasone 0.8mgs IM/IV or hydrocortisone 200 mgs IM/IV</p>
<p>(6) No respirations and No heart beat -No pulse or very weak pulse -No breathing -Unable to obtain BP -Cyanotic -Unresponsive</p>	<p><u>Cardiac or respiratory arrest</u></p>	<p>1. Assess: Airway- - Position head: head tilt-chin thrust -Insert oral ways 2. Breathing- -Resuscitate with Ambu bag -If connector available, attach Ambu bag to oxygen. 3. Circulation- -Take carotid pulse -If no pulse, start chest compressions -Start IV and run in 1-2 liters RL or NS quickly 4. Drugs: -Atropine 1 mg. IV. May repeat upto 3 mgs total -Adrenaline 1:1000 – 0.5 ml. diluted in 10-20 ml of IV fluid. Repeat adrenaline after 5 minutes.</p>

**** Stop bleeding with pressure and/or prepare to assist physician with surgical intervention to stop bleeding i.e. laparotomy. Give 1-2 liters of NS or RL IV solution quickly (1 liter over 15-20 minutes)in order to increase blood volume and prevent hemorrhagic shock.***

DRUGS AND SUPPLIES

Every clinic / facility should be equipped with basic drugs and supplies and certain drugs and supplies for dealing with an emergency. Because emergency drugs are not used routinely it is easy to be overlooked or out of stock or out of date (expired date).

An emergency kit should be developed for all sites. This kit should contain all the essential drugs and supplies so that it can be quickly taken to the site where emergency has occurred (Pre procedure Room, post procedure room, resting room etc) Oxygen cylinders should be on stand with wheel or easily movable. Every one at the facility should know the location of the emergency kit and other equipment and these should never be kept locked.

Emergency drugs and equipments should be checked daily. The senior member of staff should take the responsibility for the task. S/he should ensure that:

- The required drugs and supplies as per standard list are present.
- The drugs are not expired.
- Sterile items are periodically reprocessed and returned to the kit.
- Equipments are kept clean and in good working order.
- Used or broken items are replaced and
- Battery operated items are working.

Check the following are available / working:

- Oxygen is available and working
- Standby oxygen cylinder available
- Make sure that the oxygen cylinder key is with cylinder.
- Ensure that the suction machine and Ambu bag is available and working
- Ensure that emergency/anaphylaxis medicine tray is available.

COMMON EMERGENCY DRUGS

Drug	Situation	Dose	Precautions /Comments	Effects
Pheneramine Maleate 25 mg tabs 2cc amp-25 mg /cc	Allergic reactions or anaphylactic reaction	With early symptoms (rash, hives, rhinitis) give 25 mg Orally. If symptoms of respiratory difficulty give 50 mg SC/IM or IV and follow with adrenaline	Causes drowsiness. Do not exceed 75 mgs. If anaphylaxis worsen, give adrenaline	Allergic reactions and anaphylaxis: It is antihistaminic and will reduce the rash, hives, congestion and inflammation caused by the allergic reaction (histamine release). It is the first drug given if allergic symptoms are first observed.
Adrenaline (Epinephrine) 1:1000	-Severe asthma or - anaphylactic reaction	0.5 mg. SC or IM (Massage injection site) May repeat every 10 minutes until symptoms improve	1:1000 is not the concentration for IV use. 1:1000 must be diluted in 10-20 cc IV Fluids to give by IV route. If symptoms progress give Dexamethasone	-Asthma and anaphylaxis: Adrenaline produces bronchodilation, which relieves breathing during bronchospasm. In small doses it produces vaso dilation which can correct lung congestion wheezing. Giving adrenaline during an anaphylactic reaction or acute asthma may save the client's life. -Anaphylactic Shock: In large doses, adrenaline is a vaso-constrictor that will raise blood pressure. Thus adrenaline is a life saving drug in anaphylactic shock. - Cardiac arrest: Adrenaline produces central nervous system stimulation. When there is no breathing and no or faint pulse, giving adrenaline is an attempt to stimulate the heart to begin beating.
	-Cardiac arrest or no pulse -no breathing	.05 mg of 1:1000 diluted in 10 – 20 ml IV fluids or 0.5 mg of 1: 10000 IV. May repeat every 3 minute	Do not give adrenaline 1:1000 IV undiluted or quickly. Adrenaline will precipitate if mixed with other IV drugs	
Atropine 0.6 mg/ml 1 cc Vial	Vaso-vagal reaction / syncope (fainting)	0.6 mg / ml	Side effects of dry mouth and tachycardia (fast heart rate)	-Vaso-vagal syncope (fainting from severe pain): Atropine increases the heart rate and cardiac output. Atropine is effective in faintness associated with a procedure (minilap, IUD insertion) -Cardiac arrest: Atropine increases heart pumping and may correct dysrhythmias caused by vagal stimulation. -Pre surgery: Atropine is used as a premedication before surgery, as it decreases secretions (respiratory secretions) and may prevent a slow heart rate which is the side effect of some pain medication (pentazocine) used during tubectomy.
	Cardiac arrest	0.6 mg / ml	1 mg IV may repeat every 5 minutes to total of 3 mgs	
Dexamethason e vial – 4mg / cc	Anaphylaxis or severe asthma	8 mg IV	Hydrocortisone 200 mgs if dexamethasone is not available	-Anaphylaxis or severe asthma: During an attack or severe allergic reaction the body produces inflammation/swelling. Dexamethasone and hydrocortisone are corticosteroids that decrease inflammation and increase the capillary permeability. In asthma or anaphylactic reaction a steroid

				the breathing difficulties. Steroids also an cerebral edema and septic shock
Diazepam 2cc vial – 5 mgs /cc	Seizure	5 mgs IV may repeat every 10 minutes to maximum of 20 mgs.	Give slowly over 2 minutes. Side effect of respiratory depression	- Seizure: Diazepam causes skeletal muscle relaxation and is used to stop status-epilepticus and muscle spasm. - Pre-surgery: Reduces feeling of anxiety; helps clients be calm and co-operative during procedures
Naloxone 1cc vial - 5 mgs/1cc	Narcotic drug overdose	0.4 mg SC/IM/IV and may repeat every 2 minutes to maximum of 10 mgs	Reverse respiratory depression from narcotic medications. Client's pain will re-appear.	- Opiate overdose: Naloxone reverses the effects of narcotic medications (pethidine, pentazocine, morphine) in case of a narcotic overdose. Naloxone will reverse respiratory depression and thus is a life saving medication
Promethazine 2cc vial – 25 mgs / cc	Nausea and vomiting	25 mgs IM/IV/PO		-Nausea/vomiting: Promethazine is an anti-emetic that produces sedation and reduces nausea. A sedated patient has potential risk of aspiration. Promethazine is also used as an adjunct drug to reduce nausea from pre-surgical medications (premedication)

QUALITY ASSURANCE GROUP VISIT

FORM 3: RCH/STERILIZATION CAMP QUALITY ASSESSMENT CHECKLIST

IDENTIFICATION

State: ----- District: _____ Taluka: _____

Type of camp: 1. Sterilization Camp 2. RCH Camp

Venue of RCH/Sterilization Camp: Block: _____

Type of Facility: ___ PHC _____ CHC _____ Other (specify) _____

Distance (Kms.) from District Head Quarter _____

Name & Address of Facility _____

CHC/PHC Staff / Surgical Team members respondents

Name

Designation

1	_____	_____
2	_____	_____
3	_____	_____
4	_____	_____

DQAG Members

Name

Designation

1.	_____	_____
2.	_____	_____
3.	_____	_____
4.	_____	_____

Time started assessment: _____ Time ended assessment: _____

Date of Assessment: _____

Signature of Team Leader DQAG

A. PROVIDERS AVAILABILITY

Q. No.	Sub-elements Instructions: On day of visit ask MO I/C and identified staff and fill the Personnel Assessment section	Response Score	
		YES	NO
QA.1	Surgical team (Empanelled Surgeon, OT nurse and OT Attendant) available	3	0
QA.2	Availability of trained provider in RTI/STI management	3	0
QA.3	Anaesthetist/ any other provider trained in cardio-pulmonary resuscitation available	3	0
QA.4	Surgical team reached camp site as per scheduled time	2	0
Score Obtained =			

B. INFRASTRUCTURE

Q. No.	Sub-elements Instructions: Walk around the RCH Camp area and check the following	Response Score	
		YES	NO
ESSENTIAL ARRANGEMENTS FOR THE CAMP Specified counters / rooms for:			
QB.1	Site staff duties assigned and communicated	2	0
QB.2	Registration / reception	1	0
QB.3	Separate counselling area	1	0
QB.4	Preoperative preparation area	1	0
QB.5	OT prepared for the procedures	2	0
QB.6	Alternate electricity supply available during camp hours and connected to OT	3	0
QB.7	Availability of water (through tap or bucket with tap) in procedure rooms	2	0
QB.7	Functional vehicle with driver and POL available for emergency referral	3	0
ESSENTIAL AMENITIES FOR CLIENTS' COMFORT			
QB.8	Drinking water available for clients	1	0
QB.9	Recovery area with mattresses, blankets and clean bed cover	1	0
QB.10	Functional toilets for clients with water	1	0
INFORMATION AND COMMUNICATION SERVICES AT FACILITY			
QB.11	IEC material / teaching aids available for FP counselling	1	0
QB.12	<u>ONLY FOR RCH CAMPS:</u> IEC material / teaching aids available for MCH counselling	1	0
QB.13	IEC material / teaching aids available for RTI/STI counselling	1	0
QB.14	Information about services in Camp displayed	1	0
QB.15	Information about next camp date displayed	1	0
Score Obtained =			

C. ESSENTIAL FORMATS

Q. No.	Sub-elements Instructions: Ask the providers to show you the forms.	Response Score	
		YES	NO
QC.1	Camp service record register available and being filled for		
	a. Sterilization	1	0
	b. Other FP services	1	0
	c. RTI/STI services	1	0
	d. <u>FOR RCH CAMP ONLY:</u> Maternal Health	1	0
	e. <u>FOR RCH CAMP ONLY:</u> Child health	1	0
QC.2	Last 3 months' camp records show compensation money paid to sterilization clients	1	0
Score Obtained =			

D. INFECTION PREVENTION AND SURGICAL PRACTICES

Q. No.	Sub-elements	Response Score
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		YES	NO
QD.1	Surgical team do surgical scrub and alcohol scrub as per guidelines	3	0
QD.2	Laparoscope is decontaminated with alcohol swab after each procedure and cleaned	3	0
QD.3	Laparoscope is high level disinfected between procedures for 20 minutes with glutaraldehyde or 10 minutes with paracetic acid and washed / cleaned with HLD (boiled for 20 mins.) water	3	0
QD.4	<u>Sterilized surgical cut sheet used for each client</u>	1	0
QD.5	<u>Gloves being changed by service provider in between procedures</u>	1	0
QD.6	<u>Waste disposed as per guidelines</u>	1	0
QD.7	OT table and floor wiped with 0.5% chlorine solution in between procedure	1	0
Score Obtained =			

E. AVAILABILITY OF EQUIPMENT AND SUPPLIES

Q. No.	Sub-elements Instructions: Go to respective rooms/lab and physically verify the availability/ functionality	Response Score	
		YES	NO
QE.1	BP apparatus and stethoscope in working order	1	0
QE.2	Weighing scales in working order (a) Adult (b) FOR RCH CAMP ONLY: Infant	1	0
		1	0
QE.3	Autoclave and boiler in working order and being used (check log book)	2	0
QE.4	Suction Machine in working order	2	0
QE.5	Adult Ambu Bag in working order	2	0
QE.6	Oxygen cylinder with tubing, wrench and disposable masks in working order.	2	0
QE.7	Sufficient number of sterilized syringes and needles with needle cutter/puncture proof boxes for disposing sharps	1	0
QE.8	Insufflator available in working order for Pneumo-peritoneum (ONLY FOR LAP)	2	0
QE.9	A minimum of three laparoscopes available (if laparoscopic sterilization services offered)	2	0
QE.10	At least 5 NSV sets available	1	0
QE.11	At least 5 sets of AT / ML sets available	1	0
QE.12	At least one set of laparotomy available	1	0
QE.13	At least three IUD insertion/removal sets available	1	0
QE.14	Anaesthesia equipment set available		
Lab equipments and supplies			
QE.15	Sahli's Haemoglobinometer in working condition to be used for measuring Hb with fresh N/10 HCL solution	2	0
QE.16	Gram staining (crystal violet, iodine solution, acetone-ethanol and safranin stain) available	2	0
QE.17	Urine albumin (Acetic acid and lamp for heat test or uristix) available	1	0
QE.18	Sugar uristix available or Benedict's solution and lamp for heat test	1	0
Essential Drugs and Consumables: Do not stock check. Please check the availability for at least 20 clients.			
QE.19	Post-operative medicines for sterilization clients	1	0
QE.20	Emergency drugs as per the standard list		
QE.21	Medicines for RTI/STI	1	0
Score Obtained =			

FORM 3- F: FAMILY PLANNING QUALITY ASSESSMENT

Q. No.	Sub-elements Instructions: Confirm by observing / seeing the relevant documents	Response Score	
		YES	NO

QF.1	Standard guidelines used for pre-operative clinical screening for all sterilization clients (a) Medical eligibility ensured (b) Laboratory examination for Hb, sugar, albumin done (c) Informed consent taken (d) Case record written (e) medical record checklist filled	2 2 2 2 2	0 0 0 0 0
QF.2	Pneumo-peritoneum (Using air) done as per guidelines	2	0
QF.3	Client monitored during operation process	1	0
QF.4	Tubectomy Clients transported to recovery area on a trolley/stretcher	1	0
QF.5	IUD inserted by no touch and with-drawl technique	1	0
QF.6	Clients counselled about FP methods	2	0
FP Methods Supply			
QF.7	OCP – at least 20 cycles available	2	0
QF.8	IUDs – At least 20 packets available	2	0
QF.9	ECP – at least 20 packets available	2	0
Score Obtained =			

FORM 3- G: MATERNAL HEALTH QUALITY ASSESSMENT (APPLICABLE ONLY IN RCH CAMPS)

Q. No.	Sub-elements	Response Score	
		YES	NO
	Screening of ANC clients: Observe at least one ANC client for screening		
QG.1	Detection of pregnancy and screening (Physical, per abdomen, foetal assessment by history and calculation of due date)	3	0
QG.2	Screened for signs of anaemia (pallor on tongue, conjunctiva, nails) and measurement of Blood Pressure and weight	3	0
QG.3	Lab tests for Hb, Urine for albumin and sugar done	3	0
	ANC Counselling: Observe at least one ANC client for counselling.		
QG.4	Counselling of ANC women on nutrition and rest	2	0
QG.5	Counselling on the recognition of danger signs during pregnancy and actions to be taken	2	0
QG.6	Counselling on breastfeeding and Lactational Amenorrhea Method	2	0
Score Obtained =			

FORM 3- H: CHILD HEALTH / IMMUNIZATION QUALITY ASSESSMENT (APPLICABLE ONLY FOR RCH CAMP)

Q. No.	Sub-elements	Response Score	
		YES	NO
	Immunization Service Delivery: Observe the immunization session		
QH.1	Immunization sessions conducted at the RCH camp	1	0
QH.2	Sterile needle not touched by hand or swab during injection process	3	0
QH.3	Needle cutters/puncture proof boxes used for disposing used syringes	3	0
QH.4	Post Immunization counselling regarding side-effects and follow-up visits	3	0
QH.5	Immunization card updated/completed for each child after vaccination	3	0
	Vaccine Supplies and Cold Chain Management: Please physically verify vaccine carrier. Check availability for at least 20 clients. Conduct spot shake test for frozen vaccines		
QH.6	Measles vaccine	1	0
QH.7	A.D. syringes	1	0
QH.8	No frozen T series vaccine in the carrier	1	0
Score Obtained =			