Standard Operating Procedures: Surgical/Medical Camps

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Introduction and the scope

Why is there a need for SOPs for surgical/medical camps in India? Inadequate institution based services are unable to meet the present need of Indian population because of a large patient load spread across a wide area. A camp based approach has the advantage and flexibility of delivering healthcare to the patients at their doorsteps, but quality of care often becomes an area of concern. Guidelines and operation protocols can help to minimize complications which are the prime concern in this model of health service delivery. Guidelines can provide direction to the health care provider in ensuring completeness and standardization of care. Adherence to standard operating procedures ensures that all components of health care are delivered in the correct order from counseling to follow up and audit. In the light of concerns about poor outcomes of procedures performed in the camps there is a need to direct providers to a systematic and universal approach in dealing with health care consumers.

Standardization and quality assurance guidelines regarding sterilization camps have been formulated by the government of India in conjunction with an expert committee (2006). The present document is an extension to the existing document and provides directives to all type of personnel involved in conducting any medical/surgical camp with regard to the above mentioned issues from planning and executing to monitoring surgical services. As is true for faithful reproduction and uniform delivery of health services, guidelines must be available and timely revised, they should be accessible and health providers must be aware of these guidelines and they should be implemented at every possible step. If possible feedback regarding problems in practical application of these guidelines must be sought and a working committee should find solutions to the problems in conjunction with local health providers and update the guidelines on a regular basis so that they reflect world standard healthcare. Quality assurance should thus be the prime concern for evolution and better health care delivery by the camps.
This document expands the existence, awareness and implementation aspect of guidelines to ABCDEFs of camp based health care delivery. These ABCs include:

· A: Awareness and Availability of 6S (Survey, Space, Sanitation, Services, Sterility, Staff)

· B: Basic Training – All staff must be trained and sensitized to deliver services in an effective way

· C: Checklist- A checklist of each station must be available and completely filled and implemented before the necessary action

· D: Delivery – Delivery of health care services must be done in a standardized fashion to bring uniformity in approach

· E: Emergency & Exit services – Emergency services must be readily available in case of referral. Counseling regarding dos and don'ts apart from danger signs must be done at exit.

· F: Feedback, Follow up and Future strategy- Exit client interview must be done for feedback and clients must be followed up on a regular basis by means of follow up clinics

Range of services in a camp

A surgical/medical camp is a temporary establishment that provides surgical facilities by a group of medical experts headed by a medical officer, which are routinely not available in that region or center. The camp must have the provision and manpower to provide counseling, surgical procedures that have been declared, post-operative care, follow up facilities and perform an audit with regards to the services provided. The services that are needed to provide integrated healthcare including facility for referral to a connected higher center in event of any inadvertent complication must be available. Camp must also function as a center for data collection regulated by the appointed nodal officer.

Counseling

The camp should have experience counselors who are engaged in the field of health care and are qualified to address all important issues with regard to counseling. They should be able to guide the patient regarding the need, alternatives and complications associated with the procedure in the language that the patient understands. Surgical procedures should be portrayed as irreversible and each step should be carefully

explained to the client. A written informed consent preferably in two languages should then be taken in front of a witness.

Clinical Services

The list of services that are within the scope of the camp should be clearly enlisted and presented. The number of procedures that can be offered should be announced at the beginning of the camp. Any additional services should be offered only if adequate manpower is available for the same.

Laboratory Testing

Basic investigations that are necessary before performing the procedure should be available at the camp. These include hemoglobin, bleeding and clotting time, urine sugar and albumin as a minimum.

Pre-requisites for sterilization camps

Site

Only established health care centers should be designated as centers for health camps. The centers should be sterilized before surgical procedures are initiated. There should be a designated theatre, pre-operative area, post-operative area and outpatient and counseling areas in each camp apart from an area to dispense drugs. Counseling area may be used for dispensing the drugs.

Probable Client Load

The number of operating teams should be the prime determinant of the number of cases that can be operated in one camp. With an estimated number of working hours in one camp being 8 hours for one operating team up to 30 sterilization procedures should be permitted. The number of teams required based on expected number of clients must be predefined.

Camp Timings

The timings of the camp should preferably be from 8 AM to 4 PM. The initial hour may be utilized in setting up the center and theatre, counseling, investigation and preparing lists. Surgeries may be initiated as soon as the checklist has been verified.

Staff

The recommended staff varies based on the surgical procedure planned during the camp. All activities of the camp are supervised by a nodal camp officer who may perform additional roles within the camp and a representative nodal officer form the local body (IMA) who shall assist the government appointed nodal officer at various stations. The minimal staffing required has been summarized as under:

- Registration (1 Staff/Male worker)
- History & Clinical Assessment (One Medical officer along with Staff Nurse)
- Counselor (One Health supervisor or ANM)
- Laboratory Examination(2 laboratory technicians)
- Cleaner (one cleaner)
- Pre-operative preparation/Premedication preparation room (one health worker)
- Instrument & reusable items processing/sterilization area (two OT attendants and one Ward Boy/Aya)
- Operation theatre Personnel (one Surgeon and one anesthesiologist along with one Staff Nurse/ANM , one OT Attendant and one Cleaner)
- Post-operative room (one medical officer along with one staff Nurse)
- Office and store (one Accountant and a pharmacist)

Equipment/Instruments and Supplies

Since the need of instruments varies based on procedure being done exhaustive list of instruments that should be available is out of scope of discussion. A number of Instrument sets must however be available and sterility must be strictly maintained.

Roles and responsibilities of programme managers and service providers

Service providers must be self-aware of the individual duties and responsibilities. Every individual should keep a check on personal actions and that of the immediate subordinate. The planning for camp related activity should begin well in advance and the chief medical officer is often the main person responsible for planning and execution.

Pre-camp Activities

Pre camp activities should be directed at:

· Information to and permission from a nodal officer who is in-charge of all camp related activities in the district

· Designate camp managers both locally and at the district level

· Establishing coalition with the operating team well in advance with the camp managers

· Allocation and Mobilization of the funds

· Assimilation of resources in terms of medical equipment and non-medical equipment including consumables and other staff

· Ensuring IEC in the target area and nearby areas

· Counseling of all members who are part of the camp regarding their definite role and expectations from them

· After camp activities that are required to minimize complications must be clearly defined in the plan submitted to the nodal officer.

During Camp

During the camp the camp manager/ nodal officer has to coordinate the activities during the camp including availability of equipment medicines and required personnel. Each member of the team should have clear understanding of what is expected from them. Maintenance of sterility and cleanliness should be the prime concern for the camp manager. Cleaning and draping should be given adequate time. Hair can be clipped but not shaved. Apply detergent based antiseptic solution to remove particulate matter. Use iodophors or chlorhexidine at least two times over the operative site in a circular motion from center to periphery and allow 1-2 minutes for iodophors to act. Excess antiseptic should not be allowed to pool beneath the patient. Apply a sterile drape. This process takes about 5 minutes and the procedure should be started only when adequate time has been given to cleaning and draping.
The operating surgeon should also be in charge of counseling and patient selection and must ensure that the surgery is indicated and the patient is prepared for possible complications. The operating surgeon before beginning the procedure must follow the checklist and establish preparedness for any emergency procedures if needed before referral. He must also ensure that the patient understands the course after surgery and what is expected out of the patient in terms of self-regulated care.

After Camp

Health care delivery must continue after the camp and adequately trained personnel should be appointed to take care of post-operative queries. A Helpline number must be available to direct patient to the appropriate level of healthcare. A follow up visit must be arranged and the date must be clearly mentioned in the discharge slip.

Conduction of camps

The conduct of surgical camps requires careful planning as discussed in an earlier section of these guidelines and thorough implementation of every step. These steps have been enumerated in the form of a check list below.

Pre-camp Activities

· Sensitization and mobilization of all health care workers concerned to promote information, education and counseling.

· Use of mass media in creating awareness amongst masses including advertisements, hoarding and banners

· Allocation of staff for conduction of the camp and designation of members of the operating team

· Meeting of the staff and operating team regarding division of duties and summarizing the expectations

· Inspection of facility and making arrangements for/ repair of basic amenities for smooth running of the camp including electricity, water supply, sanitation, and allocation of space for waiting, store, counseling and operating rooms.

· Procurements of instruments and sterilization facilities

Camp Activities

· Opening of camp facility on time followed by cleaning of the camp

· Division of camp facilities into waiting, registration, counseling, clinical assessment, laboratory, store, office and operating areas

· Division of operating facility into pre-operative area, operating area, post-operative recovery room, sterilization area, scrub area and changing room such that the operating area is in the center/apex of the sterile zone.

· Rechecking or procuring medicines, equipment, sterilized consumables and linen and placing them at the appropriate places

· Rechecking functioning of equipment and managing health care professionals

· Ensuring normal function of the healthcare facility alongside the camp

Post-camp Activities

· Organizing case files and checklists and rechecking all records for completeness

· Organizing follow up activity as per date mentioned on the discharge slip

· Attend to the complication of procedures if any, performed during the camp

· Audit of camp related activities

Prevention of infection: asepsis and antisepsis

Camp based surgical healthcare requires high attention to sterility and antisepsis as it is an important reason why camp based health delivery is considered inferior to fixed facility based delivery. Not only communicable fomite borne infections need to be prevented but serious blood borne infections must also be taken care of. The basic and mandatory steps to prevent infection include:

· Hand washing after every contact in running water with soap or bactericidal solution

· Cleanliness around and within the facility

· Use of gloves and physical barriers and universal precautions

· Adequate sterilization of instruments as advised depending upon the medium of sterilization used in the facility after decontamination

· Cleaning all surfaces that come in contact with the patient with freshly prepared 0.5% chlorine solution (prepared by mixing 15gm of bleaching powder in a liter of water.)

· Entry in the operating premises including recovery should be minimized and only healthy authorized personnel should be allowed to enter.

Processing of Equipment, Instruments and other Reusable Items

· Decontamination must be done before disposal of all consumables and instruments and they must be placed in 0.5% chlorine for at least 10 minutes

· Reusable items must be subsequently cleaned with detergent using a brush and subsequently air dried

Sterilization or High-Level Disinfections (HLD)

· Disinfection can be done using steam, boiling or chemical means depending upon the kind of instrument.

· Instruments must be exposed for at least 20 minutes and all surfaces of the instrument must be exposed to the sterilizing agent.

· Instruments which are not in use should be stored in a dry container

· If preferable steam sterilization should be used and instruments should be wrapped in linen prior to sterilization

· Decontaminated, cleaned, and dried items that are suitable only for chemical sterilization are put in 2% glutaraldehyde solution for at least 8-10 hours after disassembling.

· For use in between cases high level disinfection can be performed by completely immersing the instruments in 2% glutaraldehyde for 20 minutes and rinsing thrice with sterile water.

Disposal of Waste, Needles, and Other Materials

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Waste generated in camps should be managed on the same lines as Biomedical waste for hospitals

Assurance of quality in camp setting

Quality assurance is an important aspect in a camp setting to keep the services at par with fixed facilities. It is a continuous process involving delivery followed by assessment and measurement of improvement.
Like any health system, the camp system of health delivery should seek to make improvements in six areas or dimensions of quality as defined by WHO in 2006, which are named and described below. These dimensions require that health care be:

1. Effective, delivering health care that is adherent to an evidence base and results in improved health outcomes for individuals and communities, based on need.

2. Efficient, delivering health care in a manner which maximizes resource use and avoids waste; the camp based approach is a more efficient form of health delivery

3. Accessible, delivering health care that is timely, geographically reasonable, and provided in a setting where skills and resources are appropriate to medical need; this is one of the prime benefits of health camps

4. Acceptable/patient-centered, delivering health care which takes into account the preferences and aspirations of individual service users and the cultures of their communities; camps reflect this need aptly to the service providers

5. Equitable, delivering health care which does not vary in quality because of personal characteristics such as gender, race, ethnicity, geographical location, or socioeconomic status;

6. Safe, delivering health care which minimizes risks and harm to service users.

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

· Facility inputs

· Credibility of the personnel including Physician/Surgeon

· Procedures adopted

· Maintenance of records and registers

· Client care and satisfaction

The District Quality Assurance Committee (DQAC) as well as the Quality Improvement Committee (QIC) along with the nodal officers appointed by IMA and the government must monitor the quality of the camp. The committee should monitor at least 10% of the camps held in the district to ensure quality of care as per the checklists for Client case record, Facility Audit, Observation of Asepsis and surgical procedure, and Client Exit interview laid down in the “Quality Assurance Manual for Sterilization Services“ by Government of India.

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 QIC at District Hospitals/Civil Hospitals/Sub-divisions/Referral Hospitals is as follows:

· I/C Hospital/Medical Superintendent: Chairperson

· Government Appointed Nodal Official

· IMA appointed Nodal Official

· I/C Operation Theatre/Anesthesia

· I/C Surgeon/Physician

· 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 Surgeon/Physician, IMA appointed nodal officer, 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, analyze 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.
Monitoring of quality of health care being provided in camps should be done at all levels starting from the district level to the national level. Indian medical association should be well knit in this structure at every level. At every level the composition of quality assessment committee must be laid out.

Quality assessment at each level

At the facility level the in-charge of the camp assisted by the IMA appointed nodal officer should supervise the activities of the camp. All case files must be checked and registers must be reviewed for completeness. A client case audit and facility audit

must be performed in a prescribed format. Procedures must be observed with regards to the surgical technique and asepsis by the visiting team and this team should submit an individual report based on their observation of the procedure, facility and client exit review. The nodal officer appointed by the IMA must prepare the camp report and update it on an online register. The IMA facility at the district level must be notified about the camp and volunteers should be selected to help in adverse events. Any mishap during the camp or related to the camp must be notified to the appointed and the IMA nodal officer for necessary action.
At the state level monitoring on the same lines is to be performed and 10% of the records should be randomly selected for review. Audit must be conducted at the state level as well by the quality improvement committee. Death audit report must be separately prepared and analyzed at all levels. State QAC is composed of:

- Secretary, Medical and Health (Chairperson)
- Director, Family Welfare (Convener)
- Director, Medical Education
- One Empanelled Gynaecologist
- One Empanelled Surgeon
- One Empanelled Physician
- One Anaesthetist
- State Nursing Adviser
- Joint Director, (FW)/Deputy Director (FW) or any other as determined by the
- Department of Health and Family Welfare
- One member from an accredited private sector
- One representative from the legal cell

At the central level updating of standardization and quality assurance guidelines must be done by a dedicated committee that conducts timely audits and randomly visits health camps across the country. Such assessments may be performed 1-2 times each month. Any necessary action pertaining to medical negligence in a camp must be addressed first in a joint committee of the central agency, Medical council of India and the Indian Medical Association before any action is taken.

Annexure:

Role of the Nodal officer appointed by the IMA:
IMA has over 1700 branches across the country and a nodal officer appointed from each branch can play an important role in execution and audit of camp related activities. The role of the IMA nodal officer can be summarized as under:

· Assisting the Nodal Camp officer in various phases of execution of the camp

· Collection of data during the camp and online reporting of the activity

· Performing audit at the level of facility and the district

· Integrating healthcare facility at the higher level in case of referral

· Part of the quality assurance committee

· First referral person along with camp officer in cases of medical mishap/negligence

· Participation in various health programs as a nodal community health representative to generate epidemiological data.