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Oral and maxillofacial surgery

General standard operating protocol for NAB

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PREFACE

Oral and Maxillofacial Surgery is invasive surgical discipline and there are certain risks both for the patient, operator and surroundings. To provide quality OMFS services; needs standard operating protocol. There are various guidelines for quality control but there is no available guideline for NABH.

Here author formulates the general standard operating protocol for NABH accreditation.

The general standard operating protocol included here in these topics; infection prevention and control (IPC), handling of emergency situation and quality control

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Abbreviation

1. NABH: National Accreditation Board for Hospitals and Health Care Providers
2. OMFS: Oral and Maxillofacial Surgery
3. HOD: Head of Department
4. OPD: Out Patient Department
5. IPD: In Patient Department
6. OT: Operation Theatre
7. EBP: Evidence Based Practice
8. IPC: Infection Prevention and Control
9. RRT: Rapid Response Team
10. CME: Continuing Medical Education
11. PAC: Pre Anesthetic Check Up
12. GA: General Anesthesia
13. NPO: Nil Per Oral

Standard Operating Protocol (General)

1. Provide OMFS services across various hospital departments such as OPD, IPD, Emergency, OT, Critical Care, and day care.
2. Ensure accurate diagnosis by thorough history-taking, comprehensive clinical examinations, ordering and interpreting radiographs, conducting necessary laboratory tests, and seeking appropriate dental and medical consultations.
3. Develop treatment plans and make surgical decisions based on the diagnosis.
4. Document vital signs and conduct essential systemic examinations.
5. Adhere to pre-procedure checklists.

5a: Annexure: surgical check list

6. Thoroughly counsel patients on disease details, treatment choices, procedure specifics, anesthesia methods, potential complications, and prognosis, as an integral part of obtaining informed written consent, covering general, specific, and high-risk aspects

    6a: Annexure: informed/ written consent:

        i. 6a1: general consent

        ii. 6a2: Specific consent

        iii. 6a3: High risk consent

7. Perform procedures with defined surgical team under standard surgical protocol, utilizing quality instruments, equipment's and application of recent advances.

    a. 7a: Annexure: standard surgical protocol (EBP)

    b. 7b: surgical team

8. Gain hemostasis, give necessary instructions, and prescribe medicines.

    a. 8a:Annexure: general post-operative instructions

9. Monitor, admit, or discharge patients as needed for observation, recovery, and varying lengths of stay.

10. Arrange needful follow up

11. Follow the IPC protocol

    a. 11a: IPC protocol

12. Maintain patient records, with specific files for individual patients (particularly in minor OT), and follow central medical record department guidelines for major OT patients. Record patient assessments, vital signs, consent forms, checklists, OT notes, OT count records, treatment/instruction charts, and consumable usage records.

13. Active OMFS and central RRT in case of emergency. Apply OMFS RRT for other Dental Departmental Emergencies.

    a. 13a: annexure: RRT

14. Identify high risk category and manage according to guideline (EBP):

    a. 14a: Annexure: high risk category

15. Manage human organ, body parts properly (tooth, bone, soft tissues, etc).

16. Foster staff development by providing training, ensuring overlapping duties during contract transitions, involving the department HOD/In-charge in staff selection, conducting annual performance evaluations, and communicating results to HRD and administration.

17. Organize daily morning conferences, weekly clinical Continuing Medical Education (CME) sessions, monthly departmental meetings, quality control monitoring, and various academic and research activities.

18. Periodically expand the range of services offered.

19. Ensure the daily maintenance of the crash cart, including monitoring and maintaining oxygen and related equipment. Keep records of emergency, narcotic, and psychotropic drugs, noting their usage, quantity, and expiry dates. Return drugs to the institutional pharmacy three months prior to their expiry. Keep the crash cart operational and adhere to the crash cart checklist

    a. Annexure 19a: crash cart check list

20. Periodically update protocols, especially for more invasive procedures, by following evidence-based practices (EBP) and creating specific surgical checklists for each case.

References

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6. BAOMS. Quality outcome in Oral and Maxillofacial Surgery 2021. [LINK]
7. Dubai Health Authority. Health policy and standards department. Guideline for Oral and Maxillofacial Surgery 2021. [LINK]
8. ACLS. Crash cart supply and equipment checklist. [LINK]

Annexures

Annexure 5a: Annexure: surgical check list

1. Patient's particulars:
   Name, age/sex, Hospital numbers, Date
2. Diagnosis
3. Proposed Surgery
4. Department and unit
5. Surgeon and team
6. Prior list
    - Pre surgical assessment
    - Payment
    - PAC/GA clearance in case of sedation
    - NPO status: in case of sedation, meal intake history in case of procedures under local anesthesia
    - Relevant laboratory investigations
    - Band on patient

- Removal of dentures, glasses, jewelry, nail polish, hairpins, makeup
- Part preparation: if necessary
- Hospital gown
- Disposition of valuables
- Patient's attendee
- Urine passed before shifting
- Pharmacy supplies
- Known allergy
- Prepare for gowning and gloving area
- Arrangement of instruments, machine, accessories

Annexure 7b: Surgical team and human resources:

1. Chief Operating Surgeon
2. First Assistant: OMFS/PG/Dental Surgeon/Medical Officer
3. Second Assistant: OMFS/PG/DS/MO
4. Third Assistant: Nursing staffs/Dental Hygienist/DS/ Intern/ BDS student
5. Scrub Nurse/Dental Hygienist
6. Floor Nurse/Dental Hygienist
7. Nursing Staff
8. House Keeping
9. OT technician: case based
10. Dental Lab. Technician: case based
11. Departmental Human Resources (Hospital based): Faculty (03 or more), Dental Surgeon (03), Interns (04), Dental hygienist (01), Staff Nurse (01), Chair side assistant (01), House Keeping (01), Security Personal (01)

Eligibility of team members:

OMFS practitioners have received training in BLS, ACLS, and ATLS, as well as medical emergency training accredited by the Nepal Medical Council. They also have expertise in anesthesia and critical care and are experienced in managing disaster situations. They are capable of handling crash carts.

Dental Surgeons/Medical Officers have work experience in providing inpatient care and have received BLS training. They also have exposure to emergency department procedures. Other team members have prior exposure to the OMFS department and have received BLS (Basic Life Support) training

Annexure 8a: general post-operative OMF surgery instructions:

1. Bite the gauze/ cotton for at least 1 hour
2. Eat cold food items 1 hour post-surgery (E.g. Ice-cream,Youghurt, Juice)
3. Diet: take soft, cold (below room temperature not like freezing) for about 24 hours and as per instructions
4. Avoid use of straw while consuming any form of liquid intake for 24 hours
5. Do not spit, gargle till first 24 hours of surgery
6. Do cold compression with ice pack on the surgical site
7. Avoid hard and warm/hot food till first 24 hours of surgery
8. Avoid intake of any form of tobacco (smoking/ smokeless) until wound healing is complete
9. Avoid rigorous physical activities (weight lifting, running etc.) for about 1 week
10. Do not consume alcoholic beverages till the wound heals completely
11. Rinse the mouth with luke warm salt water after 24 hours of surgery thrice a daily for at least 7 days and do regular teeth brushing after 24 hours
12. Take medications on time as prescribed by the Surgeon
13. Do not touch, manipulate the surgical site
14. Avoid trauma to surgical site and maintain posture of semi supine position in first 24 hours
15. Follow the specific instructions as provided by the practicing Surgeon
16. Report immediately if bleeding, un-usual complications, drug allergy
17. Do the regular follow up as instructed by surgeon

Annexure 14a: risk category:

1. ASA class III-VI
2. Recent Myocardial Infraction, Stroke, Angina, recent coronary and other angioplasty, recent DSA cases, recent major surgeries
3. Rheumatic heart disease
4. Infective endocarditis
5. Known allergy
6. Organ Transplant
7. Under Radiotherapy, Chemotherapy, Bisphophonates, Anti-platelets, Anti-coagulants, long term steroids, Immunosuppressant's
8. Bleeding disorders, central vascular lesions
9. Uncontrolled medical comorbidities
10. IV drugs abusers, uncooperative patients
11. HIV/AIDS, Hepatitis, COVID-19, Active pulmonary TB and infectious diseases

ASA Classification	Definitions	Examples
ASA I	A normal healthy patient	Healthy, non-smoking, no or minimal alcohol use
ASA II	A patient with mild systemic disease	Mild diseases only without substantive functional limitations. Current smoker, social alcohol drinker, pregnancy, obesity (30<BMI<40), well-controlled DM/HTN, mild lung disease
ASA III	A patient with severe systemic disease	Substantive functional limitations; one or more moderate to severe diseases. Poorly controlled DM or HTN, COPD, morbid obesity (BMI ≥40), active hepatitis, alcohol dependence or abuse, Implanted pacemaker, moderate reduction of ejection fraction, ESRD undergoing regularly scheduled dialysis, history (>3 months) of MI, CVA, TIA or CAD/stents.
ASA IV	A patient with severe systemic disease that is a constant threat to life	Recent(<3 months) MI,CVA,TIA or CAD/stents, ongoing cardiac ischemia or severe valve dysfunction, severe reduction of ejection fraction, shock, sepsis, DIC, ARD or ESRD not undergoing regularly scheduled dialysis

ASA V	A moribund patient who is not expected to survive without operation	Ruptured abdominal/ thoracic aneurysm, massive trauma, intracranial bleed with mass effect, ischemic bowel in the face of significant cardiac pathology or multiple organ/system dysfunction
ASA VI	A declared brain dead patient whose organs are being removed for donor purpose	

Annexure 15a: minor OT protocol:

1. Allocate surgical cases for minor OT
2. Keep minor OT in operable state
3. Maintain crash cart
4. Follow the surgical check list
5. Take informed and written consent and take high risk consent based on case
6. Follow OMFS IPC protocol
7. Follow the preventive biomedical maintenance
8. Prepare pre op OT list and circulate
9. Prepare patient and shift accordingly
10. Follow the pre-operative instructions
11. Arrange gloving and gowning area
12. Arrange the surgical instruments and accessories
13. Restrict the unnecessary entry and keep barriers outside the operation theatre
14. Arrange wheel chair, transport trolley and needful accessories
15. Activate surgical team
16. Activate OMFS and central RRT accordingly
17. Follow the post-operative instructions and follow up protocol

Annexure 19a: crash cart check list:

Crash Cart Top
Defibrillator with leads disposable gloves, sharps container (1), package of defibrillator pads, oxygen cylinder

Drawer 1 – drugs
Amiodorone 150 mg (1), Atropine 1 mg (2), Vasopressin (2), Calcium gluconate (1), Dextrose 50% 5ml (2), Dextrose 25 % (2), Isoprenaline (4), Epinephrine 1 mg (3), Lidocaine 100mg (2), Sodium Bacarbonate 50 meq (3), Dopamine (2), Lasix (2), Dobutamine (2), Tridil (nitroglycerin 0.4 mg) (2), Pronestyl (procainamide) (2), Nipride (sodium nitroprusside) (2), Verapamil (1), Magnesium sulfate, Diazepam, Hydrocortisone, Dexamethasone, Avil, Rota inhaler, Tramadol, Aspirin, Aromatic ammonia, Pantoprazole, Ondansetron

Drawer 2 – Airway Management Drawer. Airways-oral, assorted sizes airways, nasal trumpet, assorted sizes, intubation tray – laryngoscopes, non-disposable and disposable with blades, K-Y jelly (2), viscous xylocaine (1), 10 cc syringes, stylet tape (1), batteries, ET tubes – sizes 3.0, 6.5, 7.0, 7.5, Yankauer suction, suction tubing, suction catheter, oxygen mask with tubing nasal cannula (2), ABG kit, spo2 probe

Drawer 3 – Venipuncture tubes and equipment (1), 20 ml syringe (4), 3 ml syringes (1), Tuberculin syringe, IV Start Equipment (4), 18 gauge angiocaths (4), 20 gauge angiocaths (1), 22 gauge angiocath, tourniquet, assorted butterflies, 3 way stopcock, assorted needles, band-aids, betadine swabs, alcohol swabs, saline locks, lidocaine topical solution, radial artery catheterization set, tape

Drawer 4 – Electrodes, B/P cuff with stethoscope, assorted sterile gloves (2), packages of defibrillator pads, NG tube (1), 60 ml syringe locks

Drawer 5 – IV solutions: D5W, RL, NS 500 ml, 100 ml, 500 ml Lidocaine 2 grams (1), Dobutamine, Dopamine, Amiodarone, Intravenous piggyback tubing, (2), microdrips (60 drops/ml) (2), macrodrips (15 drops/ml) (2), extension sets, medication additive labels