

PATIENT SAFETY MANUAL

[PATIENT CARE]

Patient Rights and Responsibilities**Rights**

Patient has right to:

1. Narrate the problems & concerns, be heard to his or her satisfaction without doctor's interruption, their special needs be accommodated & respected and receive treatment for their primary as well as associated illness irrespective of their religion, caste, socio-economic status, age, gender, sexual orientation, cultural & spiritual preferences, linguistic & geographical origins or political affiliations.
2. Expect from the doctor to write the prescription legibly and explain it to the patient on the details on dosage, do's & don'ts & generic options for the medicines.
3. Be provided with information and access on whom to contact in case of an emergency.
4. Receive care without any form of stigma or discrimination and their confidentiality about their medical condition while being protected from physical abuse and neglect.
5. Receive complete information on the medical problem, prescription, treatment & procedure details provided to the patients should be in a language of the patient's preference and in a manner that is effortless to understand by the patient or their families
6. Get involved in the treatment planning and delivery process through signing an informed consent which will explain the risks, benefits, expected treatment outcomes, possible complications, other treatment options and an option to seek second opinion.
7. Access and receive a copy of their clinical records including complete information on the expected cost of treatment along with an itemized structure of the various expenses and charges.
8. Receive information on hospital rules, regulations and about organ donation.
9. Receive justice by lodging a complaint through an authority dedicated for this purpose by the healthcare provider organization or with government health authorities and expect a fair and prompt hearing of his/her concern.

Responsibilities

Patient should

1. Be honest with the doctor & disclose their family/ medical history.
2. Be punctual for their appointments
3. Do their best to comply with their doctor's treatment plan and should make a sincere effort to understand their therapies which include the medicines prescribed, their associated adverse effects and other compliances for effective treatment outcomes.
4. Have realistic expectations from their doctor and his treatment and if not satisfied should inform and discuss with their doctor.
5. Do everything in their capacity to maintain healthy habits & routines that contribute to good health, and take responsibility for their health.
6. Abide by the hospital / facility rules and respect the doctors and dental staff caring and treating them
7. Bear the agreed expenses of the treatment that is explained to them in advance and pay their bills on time and not ask for surreptitious bills and false certificates, and/or advocate forcefully by unlawful means to provide them with one.

1. Purpose:

To offer the basic tenets of the different sub specialties and patient management carried out at OPD, casualty, operation theatre and ward with a standard operating protocol (SOPs) in a simple, lucid and precise manner that will serve as a template for any employee to help them to understand and follow current management principles.

2. Scope:

Patients reporting to VYWS Dental College and Hospital, Amravati comprise of the major pool whereas other patients are referred from private & district hospitals and dental clinics for treatment if patient is economically not viable or for expert opinions or because in-house facilities provided under one roof in the college. Major trauma cases enroll via casualty emergency department of PDMMC, Irwin District hospital are also reported directly to the college.

3. Responsibilities will be shouldered by:

- Faculties
- Post graduate students
- Interns
- Under graduate students
- Paramedical staff
- Auxiliary staff

Sr. No.	Name of Department	Page number
1	Oral medicine, diagnosis and radiology	
2	Prosthodontics	
3	Oral Surgery	
4	Periodontology	
5	Oral Pathology	
6	Conservative Dentistry	
7	Pedodontics	
8	Orthodontics	

Oral medicine, diagnosis and radiology
OPD Management

- Patient enters the Main registration counter for issuing of the OPD card. Demographic details of the patients are recorded here and patient is then sent to OMDR department.

- Then patient enters the OPD section of the OMDR department where he submits the OPD card to the attendant.
- The attendant records all the details in the OPD register.
- Then the attendant calls the patients name according to the numbers.
- Then patient is taken on the chair for oral examination done by the interns posted in the department.
- The thorough case history is recorded which includes general, oral and extra-oral examination is done by the Interns, final year and third year. All cases are monitored and signed by the consultants present in the department.
- If the examined patient is suffering from oral premalignant lesions and other oral lesions then required chair side procedures are carried out and counseling related to disease is done and medicinal treatment is advised.
- Regular follow up is advised to the patient and the record is maintained in the long case register.
- All the oral health considerations of medically compromised patients are followed during the OPD.
- The patient is referred to the respective department according to the chief complaint of the patient.
- The required diagnostic procedures like chair side procedure are carried in the department and radiographs are advised accordingly.
- If the patient is addicted to adverse habits then counseling is done and TCC form is filled and regular follow up of the patient is done.
- All the records are maintained in Tobacco Cessation Centre. In this centre is in collaboration OMDR and PHD departments.
- All the short cases and long cases are attended and signed by the consultants present in the department.

Daily opening and closing of Radiology Section

- All the consultants and technician enters the department at 9.00 am.
- Then all the extra-oral and intra-oral machines are sanitized.
- All the switches of intra-oral and extra-oral machines are started.
- All the parts are cleaned properly and the disposable transparent sleeves are used for extra-oral machines.
- All the film holders are sterile properly.
- Patients enter the department and the entry is done in register.
- Then radiographs are taken as prescribed in patient's OPD card.
- For each radiographic view, the specific films are used for exposure.

- All the exposed intra-oral films are kept in the separate glasses to reduce the chances of contamination
- During processing all the waste is gathered in different containers.
- Patient is instructed the processing and reporting of radiographs will take 45 minutes.
- All the radiographic interpretations done by 3rd year, final year, interns and it is approved by the consultants posted in radiology section.
- After every radiograph the chairs are cleaned.
- All the infection control as well as the radiation safety principles are carried out during the procedure of x-ray taking and processing.
- During the closing of department all the record of films used and total number of patients reported to the department are calculated.
- All the instruments used are sent to sterilization CSD.
- All the extra-oral machines are closed properly by saving the data.
- After completing all the procedure the department is closed.

Maintenance of Dental Chairs and equipment

- In the department of oral medicine and radiology there are 12 chairs are present.
- 10 chairs are present in OPD section and 2 chairs are present in radiologic section.
- All the chairs are cleaned properly with savlon solution daily.
- All the maintenance of dental chairs regarding to working is checked monthly.
- The instruments used in OPD are kidney trays, mouth mirrors, strait probe, pulp tester and all the instruments required for the biopsy.
- All the instruments are sterile and maintained on regular basis

Processing of intraoral Radiographs

Dental X-ray film is processed in the darkroom using manual processing techniques or an automatic film processor. Special equipment is required for both.

Manual processing (also known as Hand or Tank processing). This is the simplest and most efficient Procedure for developing with accurate control. The processing tank contains two parts.

Master tank:

- Size 8"×10" This serves as a heater jacket to hold the insert tanks and is large enough to provide space between the two insert tanks for rinsing and washing of the films when necessary. It also helps to maintain the temperature of the developer and the fixer in the insert tanks. An over flow pipe is used to control the water level in the master tank.

Master tank should have a cover:

- To reduce oxidation of the processing solution.

- To protect the developing film from accidental exposure to light.
- To minimize evaporation of processing solution.
- To prevent contamination with dust.
- There should be running cold and hot water facility. The ideal temperature is recommended to be 70°F.

Insert tanks: Are removable containers for individual processing solutions. Developer is placed in the insert tank on the left side of the master tank and the fixer on the right side. Insert tank should have a capacity of to hold one gallon of developer or fixer.

All three tanks may be made of—

1. Stainless steel (ISI type 316 SS with 23% Molybdenum); is preferred material as:
 - It does not react with the processing solution.
 - It accommodates more rapidly to change in temperature of the water in the master tank.
 - It is easy to clean.
2. Enamel.
3. Earthenware.
4. Hard rubber.

Do not use tank or containers that have been soldered as reaction of the solution with the solder metals can cause chemical fogging.

Thermometer: A thermometer is required to check and maintain the temperature of the developing, fixing and washing solutions. It may be clipped on to the side of the tank or left free floating in the tank.

Timer: is required to control the time of development and fixation.

Drying racks: Wet films are subjected to damage from scratching and abrasion if not handled properly.

Films should be dried in a dust free environment, by:

- Merely hanging a rack above a drip tray to catch the run of excess water. Electric fan can be used to speed the drying of films.
- Cabinet dryer using moderately dry air.

Stirring rod or stirring paddle: This is necessary for manual processing. A stirring rod is used to agitate the developer and fixer solution prior to developing, so as to mix the chemicals and equalize the temperature of the solutions. It may be made of plastic or glass.

Plastic apron: Used to protect clothing during the processing of films and mixing chemicals.

Processing of extraoral radiographs

Digital Images may be processed by 2 systems:

1. CR system or Computed Radiography system
2. DR system or Digital Radiography system

CR system:

- In the CR system, instead of the cassette with an X-ray film, an IP cassette is used.
- After exposing the cassette it is loaded into a Reader Unit.
- The image is read off the cassette and the cassette is cleared.
- The captured image is transferred to a workstation, where the operator can view the same on the monitor.
- The image may be enhanced, restored, analyzed, compressed, or synthesized as per the requirement and then stored in the computer or an output may be given on the printer (paper).
- Dry Laser Image, Compact disc.
- The image may also be transferred to the other departments/hospitals etc. via LAN/WAN connections and e-mail.

DR system:

- Here the cassette is replaced by a sensor which is directly connected to the workstation, via cables or wireless devices.
- The image can be analyzed, interpreted, stored or sent to other departments in a manner similar to that used for the CR system.

Darkroom maintenance

- When the door of the darkroom is shut, there must not be any light coming into the darkroom.
- To check this, go into the darkroom, close the door, and stay inside without light for 10 minutes. (Set the processing timer to make sure you have really spent 10 minutes in the dark.)
- Then look around carefully for any light entering the room through holes or cracks; cover these holes, thus blocking out the light.
- If the darkroom has a "light trap" instead of a door, make sure that light does not leak in through the trap.
- Check the darkroom at different times of the day, to allow for changes in the angle of the sun's rays.

- The darkroom should be clean at all times. Both the bench (or table) and the floor must be kept clean and dry.
- There should be no dust, dirt, or moisture in the area where the x-ray films and cassettes are handled.
- The floor should be wiped with a damp mop or cloth every week.
- The tanks containing the processing chemical should also be kept very clean, and should be covered when not actually in use.
- The covers must be put on the tanks whenever you leave the darkroom, even if only for a short time.
- Safelights the lights used in the darkroom may be green, orange, yellow, or brown.
- Check the box containing the x-ray film: the manufacturer prints on the box the details of the color filter needed for processing the film.
- If you receive a different make of film, you should immediately check which filter is needed and ensure that you are using the correct one.
- All safelights should be at least 1.3 m (4 ft.) above the working bench and should preferably be pointing upwards.
- The bulbs used in the safelights should never exceed 25 watts (25 W).
- Fogging of films in the darkroom If the processed films are hazy and you suspect that the fogging may be occurring in the darkroom, check that no light is entering the room from outside.
- If the room is lightproof, test the amount of light in the room itself in the following way: With the darkroom door closed and only the safelights on, place an x-ray film on the bench.
- Carefully place two or three metal objects (such as coins, keys, or a pair of scissors) on top of the film and leave the film there with only the safelights on for at least 5 minutes.
- Then process the film. If the film shows the shadows of the objects placed on it, there is too much light in the darkroom.

Prosthodontics

STANDARD OPERATING PROCEDURE FOR SCHEDULED ELECTIVE CASES

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NASC ID No. *123456789*
V.Y.W.S. Dental College & Hospital
Amravati
Annexure I

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V.Y.W.S. Dental College & Hospital
Amravati
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Date *10/10/2023*

1. Purpose

Managing the delivery of prosthodontic care for routine cases that present to the department seeking prostheses for oral and maxillofacial rehabilitation.

To address the needs and expectations of patients who seek prosthodontic care and to offer predictable rehabilitation for various maxillofacial defects.

2. Scope:

- a) Patients who report to the OPD seeking routine prosthodontic care.
- b) Patients needing procedures that are deemed necessary to correct functional prosthetic impairment.

3. Responsibility:

The nursing and clerical staff is responsible for making entries into the case papers and scheduling appointments and maintaining registers.

The nursing staff is responsible for chair preparation and assistance of consultants. They are also responsible for maintaining patient record and appointment scheduling.

The consultants and senior resident or the intern/junior resident/ post graduate student under the guidance of consultants or senior resident are responsible for evaluating the cases and administering emergency care.

4. Standard Procedure

Sl. No.	Activity	Responsibility	Reference Document/record
4.1	REMOVABLE PROSTHESES: REMOVABLE PARTIAL DENTURES/ COMPLETE DENTURES/ SPLINTS Patients who are advised removable prostheses have their appointments scheduled on the basis of their standing on the waiting list which works on a first come-first served basis. The procedure involves multiple appointments depending on number, position and arrangement of the teeth that are to be replaced.		1. Essentials of complete denture Prosthodontics, Sheldon Winkler. 2. Prosthodontic treatment for the edentulous patient, Zarband Bolender. 3. Textbook of complete dentures, Rahn and Heartwell. 4. McCracken's removable partial prosthodontics, Carrand Brown. 5. Stewart's clinical removable Partial prosthodontics, Phoenix, Cagna and Defreet. 6. Management of temp or omandibular Disorders and occlusion. Jeffery Okeson.


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Sl. No.	Activity	Responsibility	Reference Document/ record
	The first appointment is scheduled over the phone.	Laboratory assistant	Appointment register
	The patient's visit to the department is recorded.	Clerical/Nursing staff	OPD register
	The dental chair and operating table are cleaned using a surface disinfectant and the chair is readied before the patients are seated. The instruments required are readied and arranged.	Attendants/ Nursing Staff	
	The preliminary impression is made. A detailed case history is recorded by undergraduate and postgraduate students who are learning the procedure. They are supervised by consultants.	Undergraduate student/ Intern/ Post Graduate student/ Junior or Senior Resident/ Consultant	Case paper
	The case is then transferred to the laboratory and the impressions are poured to make models in the laboratory. Preparations are made for further impression procedure sort ore cord jaw relations.	Laboratory Technician (consultant only) cases	Laboratory Register
	The patient is recalled for the next appointment (duration varies depending on complexity of the case). In case of undergraduate and post	Undergraduate student/ Intern/ Postgraduate student/ Junior or	Case paper, Appointment register, OPD register, Delivery

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Sl. No.	Activity	Responsibility	Reference Document/ record
	The first appointment is scheduled over the phone.	Laboratory assistant	Appointment register
	The patient's visit to the department is recorded.	Clerical/Nursing staff	OPD register
	The dental chair and operating table are cleaned using a surface disinfectant and the chair is readied before the patient is seated. The instruments required are readied and arranged.	Attendants/ Nursing Staff	
	The preliminary impression is made. A detailed case history is recorded by undergraduate and postgraduate students who are learning the procedure. They are supervised by consultants.	Undergraduate student/ Intern/ Post Graduate student/ Junior or Senior Resident/Consultant	Case paper
	The case is then transferred to the laboratory and the impressions are poured to make models in the laboratory. Preparations are made for further impression procedure sort record jaw relations.	Laboratory Technician (consultant cases only)	Laboratory Register
	The patient is recalled for the next appointment (duration varies depending on complexity of the case). In case of undergraduate and post	Undergraduate student/ Intern/Post Graduate student/Junior or	Case paper, Appointment register, OPD register, Delivery

Sl. No.	Activity	Responsibility	Reference Document/record
	Graduate students, the laboratory work is carried out by the attending student and hence the case is not transferred to the laboratory technician. The further procedures are carried out and may involve multiple clinical appointments for various types of impression making, jaw relation recording, trials, and confirmation of trials and final delivery of the prosthesis. Every clinical step is followed by laboratory procedures, the duration of which may vary depending on complexity of the case. Every step throughout the procedure and its details are recorded. The patient is given personal, written instructions on denture use and care. Follow up appointments are scheduled and carried out at 24 hours and one week and one month intervals from the date of delivery.	Senior Resident/Consultant Under graduate student/ Intern/ Post Graduate student/ Junior or Senior Resident/ Consultant Clerical/Nursing staff Under graduate student/ Intern/ Post Graduate student/ Junior or Senior Resident/ Consultant	register, Work record register Case paper, Appointment register, OPD register, Delivery register, Work record register. Case paper/OPD register Case paper/appointment register
4.2	FIXED PROSTHESES; CROWNS/ BRIDGES. Patients who are advised fixed prostheses have their appointments		1. Contemporary fixed prosthodontics, Stephen Rosensteil.

Sl. No.	Activity	Responsibility	Reference Document/record
	scheduled on the basis of their standing on the waiting list which works on a first come- first served basis. The procedure involves multiple appointments depending on number, position and arrangement of the teeth that are to be replaced. All patients with missing teeth are not suitable candidates for fixed prostheses. Only cases that qualify for fixed prostheses are entered on the waiting list. The first appointment is scheduled over the phone. The patient's visit to the department is recorded. The dental chair and operating table are cleaned using a surface disinfectant and the chair is readied before the patient is seated. The instruments required are readied and arranged.	Laboratory assistant Clerical/Nursing staff Attendants/Nursing staff	2.Fundamentals of fixed Prosthodontics, Herbert Shilling burg, Appointment register OPD register
	The preliminary impression is made to generate study models to plan the case. A detailed case history is recorded by undergraduate and post graduate students who are learning	Intern/Post Graduate student/Junior or Senior resident/ Consultant	Case paper/student's case history book

Sl No	Activity	Responsibility	Reference Document/record
	scheduled on the basis of their standing on the waiting list which works on a first come-first served basis. The procedure involves multiple appointments depending on number, position and arrangement of the teeth that are to be replaced. All patients with missing teeth are not suitable candidates for – Fixed prostheses. Only cases that qualify for fixed prostheses are entered on the waiting list. The first appointment is scheduled over the phone. The patient's visit to the department is recorded. The dental chair and operating table are cleaned using a surface disinfectant and the chair is readied before the patient is seated. The instruments required are readied and arranged. The preliminary impression is made to generate study models to plan the case. A detailed case history is recorded by undergraduate and postgraduate students who are learning	Laboratory assistant Clerical/ Nursing staff Attendants/ Nursing staff Intern/Post Graduate student/Junior or Senior resident/ Consultant	2.Fundamental suffixed Prosthodontics. Herbert Shilling burg. Appointment register OPD register Case paper/student's case history book

Sl. No.	Activity	Responsibility	Reference Document/ record
	Scheduled on the basis of their standing on the waiting list which works on a first come- first served basis. The procedure involves multiple appointments depending on number, position and arrangement of the teeth that are to be replaced. All patients with missing teeth are not suitable candidates for fixed prostheses. Only cases that qualify for fixed prostheses are entered on the waiting list.		2.Fundamentals of fixed Prosthodontics. Herbert Shillingburg.
	The first appointment is scheduled over the phone.	Laboratory assistant	Appointment register
	The patient's visit to the department is recorded.	Clerical/ Nursing staff	OPD register
	The dental chair and operating table are cleaned using a surface disinfectant and the chair is readied before the patient is seated. The instruments required are readied and arranged.	Attendants/Nursing staff	
	The preliminary impression is made to generate study models to plan the case. A detailed case history is recorded by undergraduate and postgraduate students who are learning	Intern/Post Graduate student/Junior or Senior resident/ Consultant	Case paper/student's case history book

Sl. No.	Activity	Responsibility	Reference Document/record
	Scheduled on the basis of their standing on the waiting list which works on a first come-first served basis. The procedure involves multiple appointments depending on number, position and arrangement of the teeth that are to be replaced. All patients with missing teeth are not suitable candidates for fixed prostheses. Only cases that qualify for fixed prostheses are entered on the waiting list.		2.Fundamentals of fixed prosthodontics. Herbert Shillingburg.
	The first appointment is scheduled over the phone.	Laboratory assistant	Appointment register
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	The dental chair and operating table are cleaned using a surface disinfectant and the chair is readied before the patient is seated. The instruments required are readied and arranged.	Attendants/Nursing staff	
	The preliminary impression is made to generate study models to plan the case. A detailed case history is recorded by undergraduate and postgraduate students who are learning	Intern/Post Graduate student/ Junior or Senior resident/Consultant	Case paper/student's case history book

1. Records

Sl.	Name of Records	Record No.
1.	OPD Register	Vyws/GDC/2019-2020/01
2.	Waiting list Register	Vyws/GDC/2019-2020/02-05
3.	Appointment Registers	Vyws/GDC/2019-2020/06-11
4.	Delivery Registers	Vyws/GDC/2019-2020/12-15
5.	Work record registers	Student's Personal Registers
6.	Laboratory Register	Vyws/GDC/2019-2020/39-40

2. Reference Documents

1. Essentials of complete denture Prosthodontics, Sheldon Winkler.
2. Prosthodontic treatment for the edentulous patient, Zarband Bolender.
3. Text book of complete dentures, Rahnand Heartwell.
4. Contemporary fixed prosthodontics, Stephen Rosensteil.
5. Fundamentals of fixed prosthodontics. Herbert Shillingburg.
6. McCracken's removable partial prosthodontics, Carrand Brown.
7. Stewart's clinical removable partial prosthodontics, Phoenix, Cagnaand Defreet.
8. Dental implant Prosthetics, Misch.
9. Maxillofacial Rehabilitation, John Beumer IIIetal
10. Dental Laboratory Procedures, Complete and removable dentures, Robert Morrowetal

In cases where the tooth has to undergo open extraction or inability of the student to extract, the case is taken over by the senior colleagues without any further delay to minor OT section. Once the extraction is carried out, postoperative suturing and pressure dressing given if required. Post extraction instructions are given to the patient and a suitable prescription of antibiotics and/or analgesics is prescribed wherever deemed necessary which the patient is asked to buy. Details of procedure carried out is mentioned on the patients case paper for further reference. The patient is asked to follow up after 5 days or earlier in case of any post-operative complications. Each case is entered in work done register maintained in exodontia clinic by interns and undergraduates. All the used instruments are kept by the doctor in the sterilisation room. The cleaning and autoclaving is done by the attendant and supervised by nurse as per standard sterilization protocol Biomedical waste is disposed as per standard biomedical waste disposal protocol Consultant Minor OT Section Patient is greeted and made to sit on the dental chair for examination. An appropriate preoperative patient assessment being a critical component is carried out as it ensures accurate diagnosis and development of an effective treatment plan. Initial history is sought and physical evaluation carried out to determine the risk factors associated with management of each patient. GOALS FOR PATIENT ASSESSMENT: We perform a problem-focused, ageappropriate, ASA-appropriate medical history and physical examination based upon both the HPI (history of present illness) Establish an accurate diagnosis Determine the need for care or treatment Identify factors affecting risk to determine patient's ability to undergo safe treatment, surgery, and/or anaesthesia Identify new or previously unrecognized conditions		Dean
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and determine the need for further assessment (e.g., laboratory or radiographic) or consultation (e.g., with primary care physician or specialist), treatment, surgery, or procedure and perioperative management (e.g., autologous blood products) Document outcomes and recommendations for further care or treatment Confirm or refute an established diagnosis as a second opinion Confirm appropriateness of a planned operation or procedure Perform an informed consent discussion Psychologically prepare the patient for surgery by providing reassurance and review of perioperative expectations. Inform the patient of the findings, diagnosis, treatment options, and risks and benefits of surgery. Various Consent forms: -1. consent for surgery -2. high risk consent -3. neck dissection consent -4. reconstruction consent -5. tracheostomy consent -6. blood transfusion consent -7. Orthognathic surgery consent PATIENT REFERRAL: Patients reporting to VYWS comprise of the major pool of patients. Other patients are referred from private and district hospitals and dental clinics for expert opinions or treatment. Major trauma cases enrol directly or through casualty of PBMHC or District Hospital. PATIENT APPOINTMENT AND TREATMENT: Once thorough investigation and diagnosis is achieved, necessary clearance obtained where ever	UGs PGs Nurses Attendants BMW disposal Attendant Postgraduates Consultants	
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deemed necessary the patient is given appointment for the treatment procedure under local anaesthesia. Appointment register schedule is maintained at the reception counter and the 1st available appointment is given. In case of emergency like infection, pain ,or bleeding patient are relieved of their symptoms on priority on the same day provided they are deemed fit medically to undergo the procedure and are admitted in the OMFS ward, for observation and further management. On the day of said appointment the patient is taken up for surgery and necessary post operative instruction and prescription are given. Patient is asked to follow up to the OPD for the subsequent visits. However if the cases cannot be done under local anesthesia and the patient needs to be taken under general anesthesia are taken either on emergency or elective basis, based on surgical intervention needed. A file is maintained carrying patient details of the patients taken under general anesthesia.	Postgraduates Consultants	
PROCEDURES CARRIED OUT: Dento alveolar surgery comprises all surgical procedures that involve teeth and supporting structures associated with the oral cavity. These include a spectrum of conditions that include erupted unerupted and impacted teeth, third molars, trauma, odontogenic infections, periapical pathology, Cysts removal, (Enucleation or Curettage and Apicectomies), Pre-prosthetic surgery, Arthrocentesis of TMJ, Dental Implant Placement	Postgraduates Consultants	

Biopsy: (Punch, incisional, excisional, shave): the biopsy should be done such that the best diagnostic material is obtained i.e. it must be representative of the lesion and include both superficial and deep tissue. The biopsy is sent along with a brief biopsy requisition form to Department of Oral Pathology for histopathological examination. Details of the biopsies are maintained in Biopsy sample register which bears the sign of the department receiving the specimen. Trauma: Closed reduction along with MMF, placement of arch bar, is usually carried out under local anaesthesia. Re-suturing of extensive facial injuries are done under local anaesthesia whenever necessary. TMJ : Procedures like arthrocentesis of the TMJ is carried out as one of the conservative line of treatment which is followed by giving occlusal splints to the patients. Preprosthetic : Various treatment listed under the spectrum of preprosthetic surgery is carried out under local or general anaesthesia as deemed necessary. Trauma cases referred to OPD from casualties are examined and necessary intervention is done. A detailed case history is taken and radiographic investigations are advised as and when required. IMPLANT Placement Patient is greeted and made to sit on the dental chair for examination. An appropriate preoperative patient assessment being a critical component is carried out as it ensures accurate diagnosis and development of an effective treatment plan. Initial history is taken and physical evaluation carried out to determine the risk factors associated with management of each patient. GOALS FOR PATIENT ASSESSMENT: Rehabilitate edentulous or partially edentulous jaws. Restore form, function and aesthetics	Postgraduates	0
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	All the procedures carried out are entered in the Implant register maintained separately for PG section by Postgraduates and residents. PATIENT REFERRAL: Patients reporting to VYWS DCH comprise of the major pool of patients. Other patients are referred from private and district hospitals and dental clinics PATIENT APPOINTMENT AND TREATMENT: Once thorough investigation and diagnosis is achieved, necessary clearance obtained where ever deemed necessary the patient is given appointment for the treatment procedure under local anaesthesia. Appointment register schedule is maintained at the reception counter and the 1st available appointment is given. PROCEDURES CARRIED OUT Dental implant surgery encompasses the use of implants to rehabilitate and restore form and function to the edentulous or partially edentulous jaws of patients using fixed and removable prosthesis. Implant rehabilitation enables patients to regain normal mastication, speech and resolves pain, gagging and dysfunction from conventional removable prostheses. Thus, it promotes self esteem and restores both masticatory function and a sense of well-being in patients. Imaging modalities may include panoramic radiograph, peri-apical and/or occlusal radiographs, maxillary and/or mandibular radiographs, computed tomography, cone beam computed tomography. Patients are referred for CBCT to other facilities within the state of their choice as this facilities are not available in dental	Nurses	
		Nurses	

college.		
The Choice of different implant company and the cost is explained to patient and cost is bore by the patient. College store posses two to three different company implant. Patient is free to choose the company according to cost and the receipt is made as per.		
The surgical phase of the implant placement is carried out in the department of OMFS in Minor OT section after obtaining informed consent for the same. The prosthetic phase is carried out in department of prosthodontics as deemed necessary.	Postgraduates Consultants	
Details of patient information and type of implant are recorded in implant register.		
Post-operative care and appointments are made accordingly		
POST- PROCEDURAL CARE:		
All the patients undergoing any of the above procedures are given verbal post-operative instruction along with necessary prescription to be taken when treated as on OPD basis or day care surgery.	Postgraduates Consultants	
Patient is called for follow up as per standard protocol at the OPD level on working days.		
All the used instruments are given in the sterilisation room for cleaning and autoclaving.		
Biomedical waste is disposed as per standard protocol		

as it is separated in colour coded bins.		
Linen used during OPD procedures are washed twice a week and autoclaved prior to every use. They are then kept in sterilization drums for use.	Postgraduates	
	Consultants	
	Postgraduates	
	Consultants	
	Postgraduates	
	Consultants	
	Postgraduates	
	Postgraduates	
	Consultants	
	Postgraduates	
	Consultants	
	Nurses	
	Postgraduates	
	Consultants	

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		Postgraduates Nurses	
		Postgraduates Nurse	
		Postgraduates Consultants	
		Postgraduates Attendants Nurse BMW Disposal Attendant Attendant Nurse	

References:

1. Minor oral surgery by Geoffrey. L. Howe, 2nd Edition.
2. Handbook of Local Anesthesia by Stanley F. Malamed, 5th Edition
3. Medical emergencies in the dental office by Stanley F. Malamed, 7th Edition
4. Oral & Maxillofacial Surgery by Daniel Laskin Volume 1 & Volume 2
5. Oral & Maxillofacial Surgery by Raymond J Fonseca 3rd edition

Department of Oral and Maxillofacial Surgery V.Y.W.S. Dental College and Hospital, Amravati	STANDARD OPERATING PROCEDURES		
	SOP No.	Issue Date	
	Title : In-Patient Department (Day Care VYWS DCH)	Effective Date	
		Review Due Date	

IN PATIENT DEPARTMENT/ WARD (Day Care VYWS DCH)**1. Purpose:**

To have established procedures for smooth functioning of IPD patient with a standard operating protocol (SOPs) in a simple, lucid and precise manner that will serve as a template for any employee to help them to understand and follow current management principles.

2. Scope:

Patients admitted from OPD, Elective surgical cases, observation post surgical interventions, emergency trauma cases.

3. Responsibility:

- Consultant
- Senior Resident
- Post graduate student
- Junior Resident
- Interns
- Ward Nurse

4. Standard Procedure

Sr. No.	Activity	Responsibility	Reference document/ record
	Admission From the OPD From the casualty of PDMMC/District Hospital Referred by private clinics and hospitals		
	PATIENT CARE All the patients needing Emergency care, Postoperative care for Major or minor surgeries and those planned for Major surgeries are kept in the ward basically for	Postgraduates Consultants	

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Amravati

monitoring The ward maintains a separate admission register to document admission of every patient. Documentation is done by the staff nurse on duty. Patient is changed to ward clothes and a bed is allotted. Prior to any Operative procedure, routine blood investigations are advised for which patient is sent to PDMMC Or the patient is first admitted to patient and investigations are done as In-patient procedure. Following procedures are usually advised or as per required Routine blood investigations TFT, emergency investigation Complete hemogram, AFB, FNAC radiology forms, 24 Hour urine test Patient Case history, BP, pulse, HbsAg, RV, RBSL, weight is checked. Orders for Medications and patient care are advised by the resident on duty based on the severity of the condition of the patient which are administered and followed respectively by the staff nurse on duty. Rounds are taken by the HOD and	Staff Nurse Staff Nurse Attendant/Nurse Postgraduates	
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received by the OT nurse. Once the operative procedure is completed, the patient is shifted to the ward/ ICU based on the patient condition decided by the anesthetist. The patient is then shifted post operatively to the ward/ ICU by the attendant. Where the ward/staff nurse receives the patient and records it in the handover register maintained by staff nurse. Post operative investigations are sent by the resident on ward duty. Post operative rounds are conducted immediately by the resident doctor on call and vitals are recorded. Once the recovery of the patient is assessed by the consultant and confirmed by the same the patient is either Discharged and follow up is done in the respective OPDs. <u>or</u> transferred to PDMMC Hospital for Postoperative care (SOP-IPD - PDMMC) In Case the Patient is shifted to PDMMC for postoperative care, he/she is transferred in an Ambulance In case a patient absconds in between the CMO is informed of the same and information is sent to the police station by	Postgraduates Physician Anaesthetist Attendant/Nurse	
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the resident doctor on duty for further necessary action and notes are recorded on the case paper. (SOP IPD - PDMMC) After proper recovery time If deemed fit by the consultant doctor in Cases where only sedation was induced in minor surgeries and in uncomplicated cases, The patient is directly discharged and discharge notes are handed over to the patient and reviewed on subsequent visits. Discharge details are maintained by the staff nurse on duty	Postgraduates Attendant/Nurse Nurse Postgraduates Consultants Postgraduates Consultants Postgraduates Attendants	
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		Postgraduates Consultants	
		Postgraduates Consultants Nurse Staff Nurse	

References:

1. Minor oral surgery by Geoffrey L. Howe, 2nd Edition.
2. Handbook of Local Anesthesia by Stanley F. Malamed, 5th Edition
3. Medical emergencies in the dental office by Stanley F. Malamed, 7th Edition
4. Oral & Maxillofacial Surgery by Daniel Laskin Volume 1 & Volume 2
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Department of Oral and Maxillofacial Surgery V.Y.W.S. Dental College and Hospital, Amravati	STANDARD OPERATING PROCEDURES		
	SOP No.	Issue Date	
	Title : OPERATION TEHEATER	Effective Date	
		Review Due Date	

OPERATION THEATRE

1. Purpose:

To have established procedures for smooth functioning of patients posted for surgery under General anaesthesia (OT) with a standard operating protocol (SOPs) in a simple, lucid and precise manner that will serve as a template for any employee to help them to understand and follow current management principles.

2. Scope:

Patients admitted from casualty, OPD, Elective surgical cases, emergency trauma cases.

3. Responsibility:

- Consultant
- Post graduate student
- Anesthetist
- Operation Theatre Staff Nurse
- Attendant

4. Standard Procedure :

Sr.No.	Activity	Responsibility	Reference document/ Record
	OT nurse receives the patient from ward as per OT list prepared.	OT Nurse	OT List
	Patient preparation for surgery by Residents and nurses in the operation theatre.	OT Postgraduates Nurse	
	General protocol:		
	The patient is shifted at 8.00 am from the	Attendant	

ward to OT after carrying out pre operative orders.	Nurse	
Pre-anaesthetic clearance to be granted by anaesthetist if deemed fit for surgery/availability of ICU bed.	Anesthetist	
The resident shifts the patient to the operation theatre for surgical intervention.	Postgraduates	
General anesthesia induced prior to commencement of surgery.	Anesthetist	
OT Staff nurse sets the instrument trolley. Operating surgeons is assisted by OT staff nurse for surgical intervention.	Consultants	
	Postgraduates	
	Nurse	
Resident shifts patient to recovery/ICU for observation during post-operative period.	Postgraduates	
	Nurse	
The anaesthetist takes a call to shift patient from recovery to ward when the patient parameters are stabilized post surgery.	Anesthetist	
The ward attendant shifts the patient from OT to ward.	Attendant/Nurse	

Sterilization and disinfection of the OT is done by the nurse/attendant as per protocol. Instruments to be used are sterilized by the CSSD and specific instruments required for elective cases are sterilized in the OPD. Washing of the used instruments is done by the OT attendant. OT attendant helps the staff nurse scrubbed to arrange and assemble the OT equipments and procure materials needed during the procedure	Nurse Attendant Attendant Nurse Attendant	
The registers maintained in the OT are as follows: • Patient transfer in register • Patient transfer out register • Operated patients register • Instrument register • Postponed cases register • Emergency OT cases register	Nurse	

5. References:

- Minor oral surgery by Geoffrey. L. Howe, 2nd Edition.
- Handbook of Local Anesthesia by Stanley F. Malamed, 5th Edition
- Medical emergencies in the dental office by Stanley F. Malamed, 7th Edition
- Oral & Maxillofacial Surgery by Daniel Laskin Volume 1 & Volume 2
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Department of Oral and Maxillofacial Surgery V.Y.W.S. Dental College and Hospital, Amravati	STANDARD OPERATING PROCEDURES		
	SOP No.	Issue Date	
	Title : In-Patient Department (PDMMC Hospital)	Effective Date	
		Review Due Date	

IN PATIENT DEPARTMENT/ WARD (PDMMC Hospital))**1. Purpose:**

To have established procedures for smooth functioning of IPD patient with a standard operating protocol (SOPs) in a simple, lucid and precise manner that will serve as a template for any employee to help them to understand and follow current management principles.

2. Scope:

Patients admitted from OPD of VYWS DCH or PDMMC OPD or Casualty, Elective surgical cases, observation post surgical interventions, emergency trauma cases, Post surgical patients shifted from VYWS DCH after OT or from PDMMC OT, Patients planned for Major operative procedure under general anaesthesia or LA with Sedation.

3. Responsibility:

- Consultant
- Senior Resident
- Post graduate student
- Junior Resident
- Interns
- Ward Nurse
- Attendants

Sr. No.	Activity	Responsibility	Reference document/ record
	Admission From the OPD From the casualty of PDMMC/District Hospital Patient from the OPD of VYWS Dental College requiring postoperative care in major/supra-major surgeries Referred by private clinics and		

hospitals		
PATIENT CARE All the patients needing Emergency care, Postoperative care for Major or minor surgeries and those planned for Major surgeries are kept in the ward The ward maintains a separate admission register to document admission of every patient, Documentation is done by the staff nurse on duty. Patient is changed to ward clothes and a bed is allotted. Prior to any Operative procedure, routine blood investigations are advised for which patient is sent to PDMMC Or the patient is first admitted to patient and investigations are done as In-patient procedure. Following procedures are usually advised or as per required Routine blood investigations TFT, emergency investigation Complete haemogram, AFB, ENAC, radiology forms,	Postgraduates Consultants Staff Nurse Staff Nurse Attendant/Nurse Postgraduates	

	24 Hour urine test Patient Case history, BP, pulse, Hbs Ag, RV, RBSL, weight is checked. Orders for Medications and patient care are advised by the resident on duty based on the severity of the condition of the patient which are administered and followed respectively by the staff nurse on duty. Rounds are taken by the HOD and Consultants along with PGs. Incase patient in the ward has any other complaints other than OMFS related a reference / transfer is sent to the respective department. Regular dressing changes, cleaning, assessment of the patient is done by the resident on duty. Incase patient has to undergo an operative procedure under general anesthesia, necessary consent forms are filled and patient is prepared for the same in a standard manner. Every planned operative surgical	Postgraduates HOD Postgraduates Consultants Postgraduates	
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patient is first consulted to a physician and a medical fitness is confirmed. OT list is prepared one day prior in the OPD and sent to OT, Ward, Anesthesia for review which carries details of patients to be taken up under LA / GA. Pre-anaesthetic checkup is done by the anaesthetist one day prior to surgery in the ward or in case of elective surgery the patient is sent to the anesthesia OPD. On the day of surgery patient is shifted to the operation theatre by the attendant and received by the OT nurse. Once the operative procedure is completed the patient is shifted to the ward/ ICU based on the patient condition decided by the anesthetist. In case the patient has to be operated in VYWS DCH, the patient is brought to VYWS DCH and Operative protocols of VYWS DCH are followed. After the case has been operated, the patient is brought back to Ward/ICU of PDMMC when deemed fit by the consultant fit to shift, by an Ambulance	Postgraduates Postgraduates Physician	
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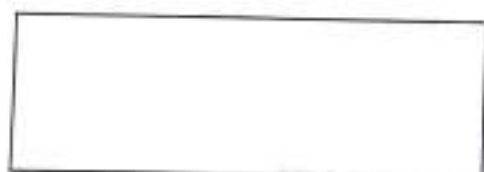
	Here the ward/staff nurse receives the patient and records it in the handover register maintained by staff nurse. Post operative investigations are sent by the resident on ward duty. Post operative rounds are conducted immediately by the resident doctor on call and vitals are recorded. After proper recovery time If deemed fit by the consultant doctor in Cases where only sedation was induced in minor surgeries and in uncomplicated cases, The patient is directly discharged and discharge notes are handed over to the patient and reviewed on subsequent visits. In Case the Patient needs a longer duration postoperative care , he/she kept in WARD/ICU In case a patient absconds in between the CMO is informed of the same and information is sent to the police station by the resident doctor on duty for further necessary action and notes are recorded on the case paper. (SOP	Anaesthetist Attendant/Nurse Postgraduates Attendant/Nurse Nurse Postgraduates Consultants	
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	IPD – PDMMC) Discharge details are maintained by the staff nurse on duty	Postgraduates Consultants Postgraduates Attendants Postgraduates Consultants Postgraduates Consultants Nurse Postgraduates Staff Nurse Staff Nurse	
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5. References:

- Minor oral surgery by Geoffrey. L. Howe, 2nd Edition.
- Handbook of Local Anesthesia by Stanley F. Malamed, 5th Edition
- Medical emergencies in the dental office by Stanley F. Malamed, 7th Edition
- Oral & Maxillofacial Surgery by Daniel Laskin Volume 1 & Volume 2
- Oral & Maxillofacial Surgery by Raymond J Fonseca 3rd edition

Pedodontics
Periodontology



Reception and Registration
OPD

Emergency cases such as

- 1.
- 2.
- 3.



Abscess drainage followed by
antibiotics

Scaling & Root Planing
(Appointments given)

V.Y.W.S. DENTAL COLLEGE AND HOSPITAL

Convenor

Signature No. _____

Amravati

①

STANDARD OPERATING PROCEDURE FOR PERIODONTAL PROCEDURES**Purpose:** To document the periodontal procedures carried out in the department**Scope:** Applicable to all patients who visit the OPD section of the Department of **Periodontics** (New or follow-up patients)**1. Scaling & Polishing:****Aim:** To remove plaque and calculus & to prevent further progression of periodontal disease

The patient enters the department and is greeted by the nurse or hygienist on duty. The patient's details are entered in the OPD register and then the patient is asked to sit on the chair allotted for OPD. The postgraduate student or interns then attends to him/her.

Depending on the amount of calculus & presence of extrinsic stains, we decide if scaling is to be done by hand instrumentation or ultrasonic. The patient is given an appointment by the postgraduate student interns or hygienist on duty. Supragingival scaling is done by scalars and sub gingival scaling is done using curettes.

The patient is placed in a supine position, and the clinician maintains a balanced posture throughout instrumentation.

All procedures carried out are entered in the respected work done books.

After scaling, depending on the outcome, number of further appointments for additional scaling and/or surgery are given to the patient.

If the patient has no bleeding on probing and no pockets, the he/she is referred to the next department for further treatment.

2. Gingivectomy**Aim:** Elimination of suprabony pockets, regardless of their depth, if the pocket wall is fibrous and firm, elimination of fibrous gingival enlargements and elimination of suprabony periodontal abscesses.

The gingivectomy technique may be performed using scalpels, electrodes, lasers or chemicals.

When the area scheduled for surgery has been properly anesthetized, the depths of the pathological pockets are identified with a conventional periodontal probe and marked with a pocket marker.

Each pocket is marked in several areas to outline its course on each surface.

Periodontal knives are used for incisions on the facial and the lingual surface and those distal to the terminal tooth in the arch.

Bard-Parker knives # 11 and # 12 and scissors are used as auxillary instruments.

The incisions are started 0.5 mm apical to the points marking the course of the pocket and is directed coronally to a point between the base of the pocket and the crest of the bone.

Discontinuous or continuous incisions may be used.

Surgical pack is used to cover the exposed tissue

After the surgery, post-procedural instructions and drug prescriptions are given to the patient who is recalled after 1 week for a check-up

3. SPLINTS

Channel or slot is prepared mid way between cingulum & incisal edge of approximately 3mm wide & 2 mm deep on the lingual aspect of tooth.

Platinized knurled wire (22-16) gauge or stainless steel wire is placed in the slot.

Self cure acrylic is then placed over the wire to seal the slots.

It is one of the effective methods of stabilizing teeth for prolonged periods of time if proper plaque control is achieved.

4. Open Flap debridement:

Aim: To treat periodontal pockets >5 mm and/or to gain clinical attachment level

After adequate plaque control and occlusal therapy consisting of adjustment or splinting of teeth, patients are considered for Periodontal flap surgery depending on presence of persistent periodontal pockets of probing depth >5mm.

Procedure: A pre-procedural rinse with a substantive antimicrobial agent, such as 0.12% chlorhexidine gluconate for 30 seconds, immediately prior to the surgery can help reduce intraoral bacteria. Regional anesthesia is given for the patient's comfort.

A sulcular incision full thickness flap is reflected. Surgical area is visualized. Granulation tissue is removed & presence of any bony defect if visualized is corrected through osseous surgery. If required, suitable bone grafts are placed in the defect. When indicated, membranes are also placed. Resorbable sutures are used to close the flaps by primary closure.

Post-operative antibiotics are given to aid in plaque control. Antimicrobial rinse is also prescribed.

Periodontal probing or recording of attachment levels is done only after 6-12 months, since probing force may damage the healing site, thereby diminishing the regenerative outcome.

5. Crown lengthening:

Aim: To expose a greater amount of tooth structure for the purpose of subsequently restoring the tooth prosthetically

Choice depends on: Gingival crevice depth

Need to maintain minimum of 1mm connective tissue between depth of crevice and bone

Adequate width of Keratinized gingiva

Procedure followed: Gingivectomy completed with surgical scalpels and knives. Bard parker #15 scalpel is used to distalize gingival margin equally on central incisors. Bard Parker #12 scalpel is used for sharp dissection of full thickness flap with preservation of interdental papillae. Incised gingiva is gently removed with sharp back action hoe. Flap is elevated and bone recontoured. Flaps are sutured with vicryl sutures. Firm pressure needs to be applied to flap for 5 minutes. Periodontal pack may be placed

Healing occurs at three weeks to four weeks. Crowns are placed twelve weeks after gingivectomy.

6. Frenectomy:

Aim: To treat aberrant frenal attachment that results in midline diastema & impairs orthodontic treatment.

Frenectomy is the complete removal of frenum including its attachment to underlying bone.

Procedure:

Grasp the lip and create tension on frenum. Make a perpendicular incision at the most coronal aspect of the attachment to the gingiva.

A diamond shaped surgical area will indicate that you have released the attachment. Periodontal pack is placed

after procedure is complete

7. Gingival Depigmentation:

Aim: It is a periodontal plastic surgical procedure, whereby the hyper pigmentation is removed or reduced by various techniques.

For depigmentation of gingiva different treatment modalities have been reported, such as scalpel, electrosurgery, lasers, etc.

Local anesthesia is infiltrated in the selected region. (Lignocaine with adrenaline in the ratio 1:100000 by weight).

A scalpel with 15 number blade is used to remove the pigmented layer. Pressure is applied with sterile gauze soaked in local anesthetic agent to control haemorrhage during the procedure.

After removing the entire pigmented epithelium along with a thin layer of connective tissue, the exposed surface is irrigated with saline.

Care is taken to see that all remnants of the pigment layer are removed. The surgical area is covered with a periodontal dressing.

8. Lasers

Soft tissue lasers are used in the department of Periodontics for frenectomies, gingivectomies, gingivoplasties, operculectomy, crown lengthening and incisional and excisional biopsies. 10 W/980 nm Diode laser surgical system is used in the department

9. Electrocautery

Electrocautery are used in the department of Periodontics for frenectomies, gingivectomies, gingivoplasties, operculectomy, crown lengthening and incisional and excisional biopsies. Unicorn Denmart and Q-Dent R.E cautery is used in the department.

10. Implant

Patient preparation is done local anesthesia is given to patient.

Implant site preparation is done. Prerinsing with chlorhexidine gluconate for 1-2 min immediately before procedure is done.

Flap design, incisions and elevation is done. implant site preparation is done. Round bur is used to make initial preparation → 2mm twist drill is used → pilot drill is used → 3 mm twist drill is used → countersink drill is used → flap closure and suturing is done → post operative instruction is given to patient.

POST-OPERATIVE INSTRUCTIONS GIVEN TO PATIENTS:

Dos:

1. Have a cold beverage or an ice cream soon after the procedure
2. Take a tablet of Ibuprofen immediately after the procedure and take another one s.o.s. (as and when required)
3. Chew on the non-operated side
4. Have semi-solid food
5. Apply ice, intermittently for alternating 20 minutes on and 20 minutes off, on the face over the operated side on the first day
6. Use chlorhexidine mouthwash
7. If the bleeding does not stop, take a piece of gauze and form it into a U-shape and hold it between the thumb and index finger, apply it to both sides of the pack, and hold it there under pressure for 20 minutes
8. Swelling is usual in extensive surgical procedures. It subsides in 3 or 4 days. Apply moist heat if it persists
9. If any other problem arises, do call the doctor

Do Nots:

1. Avoid hot and hard food
2. Do not smoke or consume alcohol
3. Avoid citrus, highly spiced food
4. Do not brush over the pack
5. Avoid exertion
6. Do not try to stop bleeding by rinsing

Oral Pathology

DEPARTMENT HOUSEKEEPING

1.0 Purpose: To describe department housekeeping services to ensure cleanliness and a safe work place.

1.1 Scope: This protocol is applicable for day to day cleaning, maintenance, pest control and allied services.

1.2 Responsibility: Department housekeeping is supervised by the senior staff faculty. The Head of Department provides feedback on the quality of housekeeping services.

1.3 Procedure: As mentioned below

Sr no	ACTIVITY	RESPONSIBILITY
1.3.1	<u>SCHEDULE (MON-SAT)</u> • 08:30 hrs: Unlock, commence cleaning the Department. • 09:00 hrs: The department, clinic and lab ready for operations. • 3:00 hrs: Shut down department (Mon-sat)	Dept. Attendants Cleaning crew
1.3.2	<u>GENERAL HOUSEKEEPING</u> • Sweep and swab floor areas • Dust cobwebs • Clean and wipe furniture and fixtures • Clean tiled wall surfaces • Clean washrooms • Empty general waste dust bins	Dept. Attendants Cleaning crew
1.3.3	<u>LABORATORY & CLINIC CLEANING</u> • Scrub, clean and disinfect work stations, lab equipment, computers, instruments, glassware, dental chairs and units. • Sterilize instruments and glassware. • Power on dental chair units, deionized water filter • Change used linen • Clean chemical and tissue storage cabinets • Place and clear procedure specific instrument kits. • Segregate waste <u>CLEANING OF MICROSCOPES</u> Cleaning of microscope on regular basis to avoid dust accumulation Covering of microscope if not in used Keeping covered microscope in cupboard <u>MAINTAINING RECORDS/ FILES AND OTHER STUDY MATERIAL IN PLACE</u> Keeping files and record in proper place Keeping study material like slide box, casts and tooth specimen back in place after use Maintaining department books and keeping back after use Keeping all exam record and papers in proper cupboard	Dept. Attendants Cleaning crew

PATIENT REGISTRATION

2.0. Purpose: for the documentation of patient records (referrals for investigations, consultation), recall or follow up visits.

2.1. Scope: Applies to all patients visiting/referred to/followed up in the department of Oral & Maxillofacial Pathology.

2.2. Responsibility: Oral pathologist/staff / interns

2.3. Procedure: As mentioned below

	ACTIVITY /PROCEDURE	RESPONSIBILITY	DOCUMENTS
2.3.1	<u>ENTER PATIENT DEMOGRAPHIC DETAILS IN OPD REGISTER:</u> Name of patient Age and gender Case Paper number, Postal address, Contact number etc. Enter reason for patient referral Enter name of dept. referring patient Apply charges if any	Faculty and interns	Case paper and entry register
2.3.2	<u>PATIENT RECALL/FOLLOW UP VISIT:</u> Planning of follow up visit if required Dates should be maintained in the register regarding follow-up and on case paper as well Rescheduling of follow up dates if required	Faculty and interns	Case paper/Register record

PATIENT EXAMINATION

3.0. Purpose: For the comprehensive clinical examination, evaluation and documentation of findings in patients.

3.1 Scope: Applies to all patients referred to the department.

3.2. Responsibility: Oral pathologist/ faculty member

3.3. Procedure: as mentioned below

ACTIVITY	ARMAMENTARIUM	PROTOCOL	RESPONSIBILITY
3.3.1 Patient examination	Dental Chair with adjustable light Kidney Tray Mouth Mirror Probe Tweezer Cheek Retractors Tongue Depressor Sterile Gauze pad Examination Gloves Face Mask Lab coat etc.	Greet and confirm identity of the patient by name, ask to Seat the patient on the dental chair. Extra-oral examination: Including TMJ, salivary glands, and cervical lymph nodes. Intra-oral examination: Oral vestibule, oral cavity proper, including tongue and dentition. Note findings. Advise relevant chair side diagnostic or hematological/serological/surgical investigations. Explain need for and nature of investigations to patient/guardian. Dispose gloves into appropriate bins	faculty as per roster and associated interns

HEMATOLOGY INVESTIGATIONS

4.0. Purpose: For the determination of blood cell counts hemoglobin measurement and the calculation of hematological indexes.

4.1. Hematology measurements are obtained from whole blood using the automated / manual method

4.2. Scope: To define the blood collection procedures

4.3. Responsibility: Lab In charge/ Pathologist

4.4. Procedure: As under

SR NO	ACTIVITY/ PROCEDURE	ARMAMENTARIUM	RESPONSIBILITY
4.4.1	<u>ENTRY OF DETAILS IN HEMATOLOGY REGISTER</u> Enter details like OPD registration number, age/gender, address, contact number, charges paid and test requested by respective referring department.	<u>Manual: Hemogram</u> WBC, Hb pipettes, glass rod stirrers, droppers, Neubauer's hemocytometer with coverslip Sahli's hemoglobinometer, Blood cell counter, Oil Immersion Binocular Microscope, Stopwatch, blood lancet, hand glove etc.	
4.4.2	<u>VARIOUS BLOOD INVESTIGATIONS PERFORMED UNDER DEPARTMENT (SEE ANNEXURE)</u>		Technical Staff posted at Collection Counter
4.4.3	<u>REJECTION OF PRIMARY SAMPLES</u> Mislabelled/Unlabelled specimens Improper container Quantity not sufficient for testing Without test request Haemolysed /Clotted (Where not indicated) Samples not adhering to the Vacuum blood collection tubes specifications		Technical Staff supervised by staff as per roster
4.4.4	<u>REPORTING OF SAMPLE</u>		

❖ ANNEXURE

MANUAL: HEMOGRAM

A) BLEEDING TIME, CLOTTING TIME B) TOTAL COUNT, DIFFERENTIAL COUNT C) HEMOGLOBIN COUNT D) BLOOD SUGAR LEVEL

The manual hemogram is performed as part of the curriculum requirements and constitutes a simple, rapid chairside investigation to screen patients for hematological, inflammatory-infectious or nutritional disorders.

BLEEDING TIME

PRINCIPLE OF TEST

Bleeding time is a basic chairside test to measure the time taken for blood vessel constriction and platelet plug formation to occur following a standardized puncture of peripheral blood vessels.

Method Duke's method: 1-5 minutes.

PROCEDURE

- Clean the pulp of the index or ring finger with an alcohol swab.
- Pierce the tip of the finger with the lancet or 21 gauge needle making a 3mm deep incision.
- Start the stopwatch.
- Blot the blood with filter paper at regular 30 second intervals in a circular strip on the filter paper so that each drop touches a clean area of the filter paper.
- Stop the timer as soon as there is no sign of blood on the filter paper.
- Record the time taken for complete stoppage of blood flow in minutes and seconds.

CLOTTING TIME:**PRINCIPLE OF TEST**

Coagulation or clotting time is a basic laboratory test to measure the time taken for whole blood to coagulate after rupture of blood vessels in vitro under standard conditions.

Method Slide/Drop method: 4-10 minutes

PROCEDURE

- Clean the pulp of the index or ring finger with an alcohol swab.
- Pierce the tip of the finger with the lancet or 20 gauge needle making a 3mm deep incision.
- Place a drop of blood 1-2 mm in diameter onto a clean glass slide.
- Start the stopwatch. Pass the tip of the lancet/needle through the drop at 30 second intervals till a fibrin strand forms.
- Record the time taken for the fibrin strand to form in minutes.

TOTAL WBC COUNT

WBC disorders can be classified as quantitative or qualitative. In quantitative alterations all cells appear normal but are present in abnormal quantities, either in excess or in defect of normal values. In qualitative defects, abnormal appearing cells or extrinsic cells are found in circulation.

A WBC count measures the total number of white blood cells in blood. Their normal concentration in blood varies between 4,000 to 11,000 cells per cubic millimeter of blood.

PRINCIPLE OF TEST

Whole blood is diluted in 1:20 ratio with the help of an isotonic WBC diluting fluid (Turk's Fluid) which preserves, stains and fixes the WBCs and lyses the RBCs.

METHOD

- Microdilution Method
- Fill the WBC pipette up to the 0.5 mark with capillary or EDTA anti-coagulated blood specimen and wipe out the pipette externally with filter paper.
- Fill the same pipette with the WBC diluting fluid up to the mark 11.
- Avoid air bubbles in the pipette bulb.
- Rotate pipette horizontally between palms to mix contents. Allow to stand for 5 minutes.

Convenor

- Mix the solution present in WBC pipette again, discard 1-2 drops from the pipette before charging the Neubauer's chamber.
- Gently press the rubber tube of the WBC pipette, so that the next drop of fluid is in hanging position. Touch the tip of the pipette with the hanging drop against the edge of the hemocytometer coverslip making an angle of 45° approximately.
- Allow a small amount of fluid from the pipette to fill into the chamber by capillary action.
- Do not overcharge the chamber and there should be no air bubbles in the chamber.
- After charging, wait for 3-5 min so that the cells settle down in the chamber, focus the chamber under the microscope under 10x objectives and count the number of WBCs in the 4 corner squares under 40x objectives.
- Calculate the total count: $N \times 50 \text{ cumm}$

DIFFERENTIAL WBC COUNT

A WBC differential determines the percentage of each type of white blood cell present in blood.

A differential can also detect qualitative abnormalities in morphology and size or level of differentiation of white blood cells.

PRINCIPAL OF TEST

Leishman stain belongs to the Romanowsky group of stains. It is a neutral stain for blood smears which is based on a methanolic mixture of "polychromed" methylene blue and eosin. The methanolic stock solution is stable and also serves the purpose of directly fixing the smear.

METHOD

- Thin smear for Differential Count (DC)
- Place a single drop of blood 1-2 mm in diameter, $\frac{1}{8}$ inch away from edge of slide. Use spreader slide to prepare a tongue-shaped thin smear. Air dry.
- Cover the well dried, thin blood smear with undiluted Leishman stain solution drop by drop.
- Let it stand for 2 minutes
- Add twice the amount of distilled water or Phosphate buffer solution and mix the contents by swirling or by blowing gently.
- Incubate the slides for at least 10 min at 37°C . This will stain the blood cells.
- Rinse the slides thoroughly with Phosphate buffer solution up to 2 minutes or until it acquires a purple-pinkish tinge.
- Air dry the slides in a tilted position so that the water drains out of the slides.
- Observe the smear under oil immersion objective lens of the microscope.
- Count 100 WBCs, categorizing each type of WBC using the cell counter or Schilling's leukogram.
- Examine platelets, RBCs for morphology, tinctorial properties and presence of inclusion bodies.

HEMOGLOBIN COUNT

Hemoglobin is the major constituent of the red cell cytoplasm and functions as the primary medium of exchange of oxygen and carbon dioxide. Hemoglobin concentration provides information about the status of anemia in the patient.

PRINCIPLE OF TEST

Blood is mixed with N/10 HCl resulting in the conversion of Hb to acid hematin which is brown in color. The solution is diluted with distilled water till the color matches with the brown colored glass of the comparator box. The concentration of Hb is read directly.

METHOD

- In Hbmeter tube, add N/10 HCl upto 2 gm% mark, draw blood using Hb pipette upto 20 cumm mark (0.02 ml) dab excess from tip using filter paper.

- Transfer to Hbmeter tube containing N/10 HCl, wash out contents of pipette by pipetting and discharging the N/10 HCl till all blood is discharged into Hbmeter tube. Allow to stand undisturbed for 10 mins.
- Add distilled water drop wise, stirring, till specimen color matches glass comparator strips.
- Remove stirrer before reading Hb in gm %

BLOOD SUGAR LEVEL

Mainly with the help of glucometer blood sugar level (fasting and post meal) is measure with the help of strip.

PROCEDURE

- Clean the fingertip with alcohol swab and with lancet needle puncture finger deep enough
- Blood is taken on the strip of glucometer
- Note the result
- For fasting – empty stomach morning
- PP- 2 hours after meal

CYTOLOGY AND FNAC EXAMINATION

5.0. PURPOSE: To lay down the procedures for exfoliative cytology investigation.

5.1. SCOPE: To provide an adjunctive histopathology service

5.2. RESPONSIBILITY: Oral & Maxillofacial Pathologist/Associated interns

5.3. Procedure: As follows

SR NO	ARMAMENTARIUM	PROTOCOL	RESPONSIBILITY
5.3.1	<u>FOR EXFOLIATIVE CYTOLOGY</u> 1. Kidney Tray 2. Mouth Mirror (x2) 3. Probe 4. Tweezer 5. Cheek Retractors 6. Tongue Depressor 7. Examination Gloves 8. Face Mask 9. Lab coat 10. Sterile Gauze pads 11. Dental Chair Supplies 12. Slide Marker Pencil 13. Disposable wooden/sterile spatula/cytobrush 14. Cleaned glass slides	<u>PROCEDURE FOR TAKING SAMPLE:</u> Greet patient by name, seat him/her comfortably on the dental chair. Adjust height, light as required. Check instrument layout. Put on face mask, perform hand wash and wear gloves. Request patient to rinse his/her mouth Inspect site from which sample is to be collected. Mark glass slides site-wise Using firm pressure, scrape the leading edge of the spatula across the mucosal surface. Alternatively use the cytobrush according to manufacturer's directions. Transfer smear and spread evenly at	Respective staff as per roster

5.3.2	<u>FOR FNAC SAMPLE</u> FNAC sample should receive from the department with filled requisition form The unstained FNAC sample is directly seen under microscope by putting fresh sample on slide For Staining FNAC sample can be rapid PAP stain can be used	the centre of the previously marked glass slides. Air dry. Keep dried smears in normal saline for 30 seconds followed by alcoholic formalin for 10 seconds. <u>STAINING PROCEDURE</u> <u>(SEE ANNEXURE)</u> <u>EXAMINATION OF SLIDES</u> <u>RELEASE OF REPORT</u> Fixative spray , slides , cover slips, stains for slide staining Examination of slide directly under microscope and release report After staining slide, slide can be viewed under microscope and then release report	Monitor staining solution levels every Monday. Weekly changing of staining solutions.
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V.Y.W.S. DENTAL COLLEGE AND HOSPITAL

❖ Annexure

STAINING PROCEDURE FOR MODIFIED ULTRAFAST PAPANICOLAU STAIN**STAINING PROCEDURE**

- 6 slow dips under tap water
- Stain with Harris hematoxylin for 30 s
- 6 slow dips under tap water
- 6 dips in 95% Isopropyl alcohol
- Stained with EA-36 for 15 sec
- 6 dips in 95% isopropyl alcohol
- 6 dips in 100% Isopropyl alcohol
- 10 slow dips in xylene Mount in DPX, cover slip

STAINING PROCEDURE FOR CONVENTIONAL PAPANICOLAU STAIN

- Dip the smear in 80% alcohol – 1 minutes
- Dip the smear in 70% alcohol – 1 minutes
- Dip the smear in 50% alcohol – 1 minutes
- Wash the smears in running tap water – 2-3 minutes
- Dip the smear in Harris Hematoxylin – 45 seconds
- Wash the smear in running tap water for - 5 minutes
- Dip the smear in 50% alcohol – 1 minutes
- Dip the smear in 70% alcohol – 1 minutes
- Dip the smear in 80% alcohol – 1 minutes
- Dip the smear in 95% alcohol – 1 minutes
- Dip the smear in 95% alcohol – 1 minutes
- Stain the smear with Orange G-6 for – 2-3, 7 minutes
- Dip the smear in 95% alcohol – 1 minutes
- Dip the smear in 95% alcohol – 1 minutes
- Stain with EA-50 for – 5-7 minutes
- Dip the smear in 95% alcohol – 2 minutes
- Dip the smear in 100% alcohol – 2 minutes
- Dip the smear once in Xylene
- Mount the tissue section in DPX solution.

RESULTS AND INTERPRETATION:

- Basal cells – Blue
- Parabasal cells – Light blue
- Intermediate cells – Light green
- Superficial cells – Orange

GRADING & REPORTING (GENERAL CATEGORIZATION)

- A. Normal
- B. Reactive
- C. Atypical-probably reactive low grade, including low grade squamous intraepithelial lesion (LSIL)
- D. Atypical-probably high grade
- E. High grade squamous intra-epithelial lesion
- F. Invasive squamous cell carcinoma

REPORTING FORMAT

View slides, co-relate with clinical findings, history and other investigations, grade, and print the formal written report in the designated form, sign (consultant oral pathologist) and dispatch.
Retain a copy in the designated box file (CYTOPATHOLOGY REPORTS)

REFERENCES

Comparison of modified ultrafast Papanicolaou stain with the standard rapid Papanicolaou stain in cytology of various organs. Choudhary P, Sudhamani S, Pandit A, Kiri V J Cytol. 2012 Oct; 29(4):241-5.

HISTOPATHOLOGY

6.0. Purpose: Collection and Handling of samples in histopathology section

6.1. Scope: To define the basic handling of specimens

6.2. Responsibility: Lab Incharge/ Oral Pathologist

6.3. Procedure: as under

Sr no	PROCEDURE/ACTIVITY	ARMAMENTARIUM	RESPONSIBILITY
6.3.1	<u>COLLECTION AND HANDLING OF PRIMARY SPECIMENS</u> The tissue specimens are generated from various department during surgical procedure. Also are received Blocks and slides for review.	<u>EQUIPMENT REQUIRED</u> Digital camera, Kidney Tray, Petri dish 6" , Gauze pads, Cassette basket, Tweezer, Whitman's filter paper Tissue processor, Ruler/measuring scale, Grossing Form, Paraffin wax dispenser, Grossing knives, Neutral Buffered Formalin 10%, Embedding station, Cutting board, Decalcifying solutions, Refrigerator, Scalpel and Blade (No 12, 15), Mollifying agents, Rotary Microtome,	Monitor staining solution levels every Monday. Weekly changing of staining solutions.
6.3.2	<u>THE PRE REQUISITES ARE</u> Completely Filled requisition forms(see annexure) Container with 10% FORMALIN to be kept ready by OT/Nursing staff To ensure that fixatives is 10 times the volume of primary sample.		
6.3.3	<u>ACCEPTANCE AND REJECTION OF THE SAMPLES</u> ACCEPTANCE Technical staff in the laboratory checks the labels on the		

	container and match them with the requisition form. It is also checked if the container is leak proof Is there adequate formalin	Forceps, Embedding trays and rings, Water bath, Bone saw, Paraffin Wax, Slide warming table, Specimen containers, labels Glass Slides, Binocular Microscope, Slide label, printer (glass marker) Coverslips	
6.3.4	<u>REJECTION OF SAMPLES:</u> All cases must be accompanied by requisition forms duly filled, verbal requisition will not accepted. Incompletely filled form Improperly labelled containers - Details on form and sample container not matching - Mismatching demographics. - Tissue not sent in formalin or inadequate amount. - No tissue in the container		
6.3.5	<u>FURTHER PROCESSING OF WELL DOCUMENTED SAMPLE RECEIVED IN HISTOPATH LAB</u> Labeling sample with UHID- Pathology number is assigned to the patient sample. This becomes the unique identifier for the patient, sample and date of procedure. This number is placed on all requisition slips, sample container, tissue cassettes, blocks and slides. TISSUE GROSSING - GROSS EXAMINATION OF TISSUE SHOULD DONE (SEE ANNEXURE) TISSUE PROCESSING (SEE ANNEXURE) TISSUE BLOCK PREPARATION (SEE ANNEXURE) SLIDE PREPARATION AND STAINING (SEE ANNEXURE) SLIDE EXAMINATION(SEE ANNEXURE) RELEASE OF REPORT (SEE ANNEXURE)		To be done on the morning following overnight run by lab technician underSupervision by faculty on weekly roster.
6.3.6	<u>STORAGE OF SLIDES AND TISSUE BLOCK AS ARCHIVED</u> Reported slides and block have to keep in		

B) CLEARING

A typical clearing sequence for specimens

- xylene 20 min
- xylene 20 min
- xylene 45 min

C) WAX INFILTRATION

A typical infiltration sequence for specimens

- wax 30 min
- wax 30 min
- wax 45 min

D) EMBEDDING OR BLOCKING OUT

- Now the specimen is thoroughly infiltrated with wax, it must be formed into a "block" which can be clamped into a microtome for section cutting.
- This step is carried out using embedding tissue in Centre where a mold is filled with molten wax and the specimen placed into it.
- The specimen is very carefully orientated in the mold because its placement will determine the plane of section an important consideration in both diagnostic and research histology.

PROTOCOL FOR MICROTOMY

- Allow tissue block to cool. Refrigerate before trimming and sectioning.
- Align and fix tissue block onto block holder on microtome, retract, fix and tighten
- Disposable high-profile microtome blade, trim paraffin block at 10 μ thickness, reduce to 4-5 μ for sectioning.
- Transfer section ribbon to petri-dish with 50% alcohol to remove folds. Drain alcohol.
- Float onto water bath heated to 56-60° C.
- Lift onto warm adhesive coated glass slides bearing same unique identity number as inscribed on embedding ring. Drain off excess water.
- Place onto slide warming table heated to 60° C.

PROTOCOL FOR ROUTINE HEMATOXYLIN-EOSIN STAINING:

- Dewax sections on slide warming table
- Hydrate through graded alcohol (50-70-90-100) to water
- Remove fixation pigments, if evident
- Stain in hematoxylin for 20-30 minutes
- Wash well in running stream of tap water for 5 mins
- Differentiate in 1% acid-alcohol (5-10 secs)
- Water wash for 10 minutes
- Stain in 1% Eosin for 10 minutes
- Water wash for 1-5 minutes
- Dehydrate through alcohol
- Clear in xylene
- Mount with DPX.

RESULTS AND INTERPRETATION:

Nuclei: Blue-black
Cytoplasm: Shades of pink

Muscle: deep pink/red

RBCs: red

Fibrin: deep pink

PROTOCOL FOR REPORTING STAINED SLIDES:

- Request attending clinician for any additional information including clinical examination of the patient, reviewing radiographic/imaging studies as required for formulation of a clinicopathological diagnosis.
- Co-relate the histopathological findings with the clinical, imaging, hematological, biochemical and other adjunctive investigations as relevant to the case and a final report generated.
- In the event that diagnosis requires further specialized studies, a provisional report is generated pending results of the advanced investigations. The report is signed out by a pathologist (faculty member), a copy is filed for department records.
- Report in original is dispatched to the requesting clinician via the Histopathology Report Dispatch Register.

TIME TAKEN FROM RECEIPT OF TISSUE TO SIGN OUT OF FINAL REPORT:

- Small incisional biopsies without decalcification: 4-10 days
- Small incisional biopsies with decalcification: 7-15 days
- Large excisional biopsies/resections with multiple blocks: 10-20 days
- Large hard tissue resections requiring decalcification: 21-30 days
- Biopsies requiring additional tests/special stains/IHC: 30-35 days
- Biopsies requiring referrals for investigations to specialized centers: 30-35 days

REFERENCES – Bancroft's Theory and Practice of Histological Techniques

STOCK MANAGEMENT

- 7.0. PURPOSE: To maintain record of stock of all chemical reagents and equipment's used in the laboratory.
- 7.1. SCOPE: Applies to all chemical reagents and equipment's procured for use in the laboratories.
- 7.2. RESPONSIBILITY: designated staff as per roster supervised by Head of Department.
- 7.3 Procedure: as under

Muscle: deep pink/red

RBCs: red

Fibrin: deep pink

PROTOCOL FOR REPORTING STAINED SLIDES:

- Request attending clinician for any additional information including clinical examination of the patient, reviewing radiographic/imaging studies as required for formulation of a clinicopathological diagnosis.
- Co-relate the histopathological findings with the clinical, imaging, hematological, biochemical and other adjunctive investigations as relevant to the case and a final report generated.
- In the event that diagnosis requires further specialized studies, a provisional report is generated pending results of the advanced investigations. The report is signed out by a pathologist (faculty member), a copy is filed for department records.
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STOCK MANAGEMENT

7.0. PURPOSE: To maintain record of stock of all chemical reagents and equipment's used in the laboratory.

7.1. SCOPE: Applies to all chemical reagents and equipment's procured for use in the laboratories.

7.2. RESPONSIBILITY: designated staff as per roster supervised by Head of Department.

7.3 Procedure: as under

Sr no	ACTIVITY/ PROCEDURE	RESPONSIBILITY	REFERENCE DOCUMENTS/ RECORD
7.3.1	<u>STORAGE OF CHEMICALS AND EQUIPMENT'S</u> Received material should be check for date of manufacturing, date of expiry etc. Entry of material received in stock register	All users: Faculty, Technicians, PG students Senior Laboratory Technician supervised by staff	Common SOP and indent/ stock register
7.3.2	<u>LABELING AND STORAGE CHEMICALS AND EQUIPMENTS</u> 1) lab chemical should be kept from risk of fire and other kind of damage 2) proper labeling of chemical stock for easy retrieving 3) Expiry date should be clearly mentioned on the storage containers Issue of material Material should be issued against request and record should be maintain After the issue of material, stock register should be updated accordingly	Senior Laboratory Technician supervised by staff	Indent / stock register
7.3.3	<u>DISPOSAL OF OBSOLETE MATERIAL</u> The expired material should kept separately and should be dispose as per standard waste disposal guideline Record should be maintain from time to time for disposal	Senior Laboratory Technician supervised by staff	
7.3.4	<u>EQUIPMENT MAINTENCE AND BREAKDOWN</u> The calibration, standardizing, maintenance and servicing of all equipment in the department for optimum delivery of services AMC provided to the equipment. Malfunctioning in the equipments should be reported immediately	Senior Laboratory Technician supervised by staff	Stock register

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WASTE MANAGEMENT

8.0. Purpose: to define the guideline for segregation, handling, storage, transportation and disposal of various kind of biomedical waste. To categories the lab generated waste based on its type and management of waste until its disposal in accordance with the regulation of the state pollution control board.

8.1. Scope: Apply to all waste generated in the department and laboratory

8.2. Responsibility: Lab technician and assigned staff member as per roster

8.3. Procedure: As follows

Sr no	ACTIVITY / PROCEDURE	RESPONSIBILITY	REFERENCE DOCUMENT
8.3.1	<u>WASTE COLLECTION AND WASTE SEGREGATION</u> Proper categorization of waste should be followed and separate container should be maintained. The containers should have color coding like yellow, red, blue and black. The accumulated waste should be store the designated container till the handover.	Lab technician/ Attendant	Common SOP /regulation of state pollution control board
8.3.2	<u>CHEMICAL LIQUID WASTE</u> Strong acids, alkali, flammables, and heavy metals: reduce, replace, recycle, dilute, inactivate. Alcohol, xylene, acetone: store in waste disposal containers made of metal or glass Formalin: dilute, dispose via drain	Lab technician/ Attendant	

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LIST OF RECORD AND FILES

SERIAL NO	RECORD/FILE
1	CLINICAL OPD REGISTER FILE
2	INFECTION CONTROL RECORD BOOK
3	BIOMEDICAL WASTE RECORD
4	DEAD STOCK RECORD
5	INDENT / CONSUMABLE RECORD
6	HISTOPATHOLOGY REQUISITION FILE
7	HISTOPATHOLOGY REPORT FILE
8	EXFOLIATIVE CYTOLOGY REPORT FILE
9	EXFOLIATIVE CYTOLOGY REPORT FILE
10	FNAC REQUISITION FILE
11	FNAC REPORT FILE

Conservative

1. Standard procedures:

Sr. no	Activity	Responsibility	Reference document/record
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DAILY PROCEDURES**4.1 START OF THE DAY**

- ☐ Open the clinic by 8.30 am and switch the mains on.
- ☐ Clean and disinfect the chairs, spittoons, side trolleys and fill bottles of dental chairs with water.
- ☐ Sweep and swab the department.
- ☐ Register patients and segregate case papers into those for diagnostic checkup or for appointment.
- ☐ Sort out and arrange sterilized instrument sm trays for use.
- ☐ Remove essential equipment (endomotors, apex locators, light cure units), disinfect and keep ready for use.
- ☐ Prepare clinical areas before the consultants start treating the patient.

Class D staff

Contract
housekeeping staff

Staff nurse

V.Y.W.S.
DENTAL COLLEGE & H
OSPITAL/GEN/SOP-DAILY
OPENING AND
CLOSING-01

Sr.no	Activity	Responsibility	Reference document/ Record
	INBETWEENACTIVITIES Dispense all dental materials required during treatment. Disinfect and transfer essential equipment from one chair to other as required. Wash instruments at regular intervals. Pack instruments in sterilization pouches. Auto clave instruments. Make cotton rolls and gauze pieces. Clean spittoons when necessary. Refill bottles of chairs. Empty waste receptacles from every dental chair at regular intervals. ENDOF THE DAY Collect, disinfect safely store essential equipment. Close windows, put off main and lock the department.	Staff nurse Class D staff under supervision of staff nurse Class D staff Staff nurse Class D staff	- V.Y.W.S. DENTAL COLLEGE & HOSPITAL AL /GEN/SOP-DAILY OPENING AND CLOSING-01

Sr.no	Activity	Responsibility	Reference document/ Record
	INBETWEENACTIVITIES Dispense all dental materials required during treatment. Disinfect and transfer essential equipment from one chair to other as required. Wash instruments at regular intervals. Pack instruments in sterilization pouches. Auto clave instruments. Make cotton rolls and gauze pieces. Clean spittoons when necessary. Refill bottles of chairs. Empty waste receptacles from every dental chair at regular intervals. ENDOF THE DAY Collect, disinfect safely store essential equipment. Close windows, put off main sand lock the department.	Staff nurse Class D staff under supervision of staff nurse Class D staff Staff nurse Class D staff	- V.Y.W.S. DENTALCOLLEGE&HOSPITAL /GEN/SOP-DAILY OPENINGANDCLOSING-01

Q

TREATMENT PROCEDURES FOR APPOINTMENT PATIENTS

1. Purpose:

To ensure that adequate treatment services are provided to patients during the appointments and all the diseased teeth are restored back to form and function.

2. Scope:

It covers the patients visiting the department for appointment treatment procedures.

3. Responsibility:

- The staff nurses are responsible for registering patients and also giving appointments where indicated after the treatment is completed.
- The interns, postgraduate students and senior residents are responsible for treating the patients, as per the appointments.
- The consultants are responsible for supervision and also rendering treatment to patient on their respective work checking and working days.

4. Standard procedures:

Sr. no	Activity	Responsibility	Reference document/ Record
4.4	<u>TREATMENT</u> <u>PROCEDURES FOR APPOINTMENT PATIENTS</u> Call the patient in the department and make the patient sit comfortably in the dental chair. Establish a verbal communication with the patient and enquire about his/her chief complaint and any associated medical conditions. Carry out an oral examination and explain the procedure in simple terms to the patient. Assure and allay patient's fears if any about the dental treatment. Wear mask and gloves and follow the universal standard precautions while treating patients. At the end of the procedure, dispose the mask and gloves as per the waste disposal guidelines. Schedule the patient for another appointment for continuation /completion of the treatment. Refer the patient to the concerned department after all the restorations are completed. Enter the patient details and treatment carried out on work done registers.	All students/doctors rendering treatment	-Patient case papers -CONS/ V.Y.W.S. DENTAL COLLEGE & HOSPITAL /WORK DONE REGISTER/003 -CONS/ V.Y.W.S. DENTAL COLLEGE & HOSPITAL /APPOINTMENT REGISTER/002

Sr. no	Activity	Responsibility	Reference document/ Record
	The following are the treatment procedures carried out in the department.		
4.4A	DIRECT RESTORATIONS - Take a preoperative radio graph in case of deep carious lesions to assess the proximity of lesion to pulp. - Check occlusion and design the outline form. - Administer local anesthetic where indicated. - Prepare a cavity and excavate caries and assess the need for a liner or base, and type of restorative material. - Use capsulated amalgam if the material of choice is amalgam. - Follow step by step technique, bonding and incremental light curing technique if the material of choice is composite. - Place matrix band, retainer and wedge where indicated. - Carry out restoration under isolation. - Check for high points and occlusion. - Give instructions to the patient post restoration, based on the restorative material used.	Undergraduate students, interns, postgraduate students, senior residents, consultants	-Patient case papers -CONS/ V.Y.W.S. DENTAL COLLEGE & HOSPITAL /WORK DONE REGISTER/003 -CONS/ V.Y.W.S. DENTAL COLLEGE & HOSPITAL /APPOINTMENT REGISTER/002


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 Dental College & Hospital
 Amravati

Sr. no	Activity	Responsibility	Referencedocument/ record
4.4B	INDIRECT RESTORATIONS Take a preoperative radiograph to assess the proximity of lesion to pulp. Check occlusion and design the outline form. Make casts for large cavities that may require cuspal coverage or crowns/ teeth needing laminates/veneers. Local anaesthesia where indicated. Use inlay/crown/laminate preparation armamentarium as indicated. Prepare the cavity. Take a wax pattern or make an impression as indicated. Temporize the cavity and send the patient. Fabricate the casting in the laboratory. Next appointment, try the restoration and cement it in the cavity. Give instructions to the patient post restoration.	the post graduate student, residents, senior residents, consultants	-Patient case papers -CONS/ V.Y.W.S. DENTAL COLLEGE & HOSPITAL /WORK DONE REGISTER/003 -CONS/ V.Y.W.S. DENTAL COLLEGE & HOSPITAL /APPOINTMENT REGISTER/002

Sr. No	Activity	Responsibility	Referencedocument/ record
4.3C	ROOTCANALTREATMENT The number of appointments can vary for this procedure based on the severity of infection and case difficulty. Take a preoperative radiograph. Administer local anaesthesia to the patient. Prepare an access cavity for the indicated tooth. Determine the working length and take a radiograph. Carry out cleaning and shaping of the canals along with irrigation. Place an intracanal medicament if required. Take a master cone radiograph. Obtain the tooth. Place a post endodontic restoration. ☐	Interns, postgraduate students, senior residents, consultants	- Patient case papers -CONS/ V.Y.W.S. DENTAL COLLEGE & HOSPITAL /WORK DONE REGISTER/003 -CONS/ V.Y.W.S. DENTAL COLLEGE & HOSPITAL /APPOINTMENT REGISTER/002
4.3D	BLEACHING OF TEETH In-Office bleaching Evaluate teeth color with shade guide. Protect tissue with either rubber dam or resin barriers. Apply bleaching gel to the teeth.	Post graduate students, senior residents, consultants	- Patient case papers -CONS/ V.Y.W.S. DENTAL COLLEGE & HOSPITAL /WORK DONE REGISTER/003 -CONS/ V.Y.W.S. DENTAL COLLEGE & HOSPITAL /APPOINTMENT REGISTER/002

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Sr. no	Activity	Responsibility	Referencedocument/ Record
	Follow manufacturer's instructions for light activation and time of application (not exceeding 45 minutes to 1 hour). Place protective eyewear over patient's eyes if activating with light. Remove bleaching gel with high volume aspirator. Rinse and polish the teeth. Repeat process in 6 weeks until desired shade is achieved. Walking bleach technique Assess quality of obturation and periapical status with a radiograph Evaluate tooth color with a shade guide Isolate the tooth with a rubber dam Place a gingival barrier in access cavity 2mm below labio gingival margin Place the bleach material in the access cavity Temporize with either IRM or GIC (3mm thickness) Evaluate after 2 weeks and repeat if necessary		

Coordinator
 RAAC Cell No. _____
 V.Y.W.S Dental College & Hospital
 Amravati

Sr. no	Activity	Responsibility	Referencedocument/ record
	Homebleaching Makeupper and lowerimpressions Fabricatetrays Give instructions on usage of thebleaching agent and the trays to thepatient. Deliver only the upper trayfirst Reviewafter 1 week.Deliverthelower trayatthis visit Reviewafter 1 week		
4.3E	POSTANDCORE Ensurethequalityofobturationandperiapicalstatus PreparethepostspacewithPeesoreamers Take the post space impression withpatternresin Temporizethe tooth Fabricate the casting in thelaboratory Try- in the casting and cement withlutingcement Makeanimpression Fabricate the crown in thelaboratory Try- inand cementthecrown	Post graduate students, seniorresident s, consultants	-Patientcasepapers -CONS/ V.Y.W.S. DENTALCOLLEGE&HOSPITAL /WORK DONEREGISTER/003 -CONS/ V.Y.W.S. DENTALCOLLEGE&HOSPITAL / APPOINTMENT REGISTER/002

R

 Dean
 Dental College & Hospital
 Camp Amravati

Sr. no	Activity	Responsibility	Referencedocument/ Record
4.3F	ENDODONTIC- PERIODONTALCASES These cases are done in collaboration with the department of Periodontics after careful diagnosis of the type of Endo-perio lesion Complete the endodontic treatment before the periodontal treatment Adopt periodontal treatment modalities like curettage, root resection, hemisection, bicuspidization, Guided Tissue Regeneration, where indicated Followup ☐	Post graduate students, senior residents, consultants	-Patient case papers -CONS/ V.Y.W.S. DENTAL COLLEGE & HOSPITAL /WORK DONE REGISTER/003 -CONS/ V.Y.W.S. DENTAL COLLEGE & HOSPITAL /APPOINTMENT REGISTER/002
4.3G	ENDODONTIC SURGERIES These cases are done in collaboration with the department of Oral & Maxillofacial Surgery or Periodontics after careful evaluation of the case and diagnostic radiographs Complete the endodontic treatment Administer local anaesthesia Reflect the flap Enucleate the cyst Carry out apicoectomy and do retro preparation and root end filling. Place a bone graft if required.	Post graduate students, senior residents, consultants	-Patient case papers -CONS/ V.Y.W.S. DENTAL COLLEGE & HOSPITAL /WORK DONE REGISTER/003 -CONS/ V.Y.W.S. DENTAL COLLEGE & HOSPITAL /APPOINTMENT REGISTER/002

Sr. no	Activity	Responsibility	Referencedocument/ Record
	Approximate the flap and suture it Give post surgical instructions and call patient for follow-up Hemisection or bicuspidization cases are also done in a similar manner, following the above protocol		

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- Roberson TM, Heymann HO, Swift EJ. Struven's Art and Science of Operative Dentistry. 5th edition, Mosby, St. Louis Missouri, 2006.
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EMERGENCY TREATMENT PROCEDURES FOR PATIENTS

1. Purpose:

To provide emergency treatment to patients who report to the department with pain, swelling or traumatic injuries.

2. Scope:

It covers the patients (new and old patients) visiting the department for emergency treatment.

3. Responsibility:

- The staff nurses are responsible for registering patients and also giving appointments where indicated after their emergency treatment procedure.
- The interns, postgraduate students and senior residents are responsible for rendering the necessary emergency treatment.
- The consultants are responsible for supervision on their respective work checking days.

4. Standard procedures:

Sr. no	Activity	Responsibility	Reference document/record
4.3	<u>EMERGENCY TREATMENT PROCEDURES FOR PATIENTS</u> Render emergency treatment to patients having moderate to severe pain in the teeth/ difficulty in eating, patients presenting with swelling, patients with trauma/fractured teeth. Call the patient in the department and make the patient sit comfortably in the dental chair. Establish a verbal communication with the patient and enquire about his/her chief complaint and any associated medical conditions. Carry out a normal examination and explain the procedure in simple terms to the patient. Assure and allay patient's fears if any about the dental treatment. Wear mask and gloves and follow the universal standard precautions while treating patients. At the end of the procedure, dispose the mask and gloves as per the biomedical waste disposal guidelines. Enter the patient details and treatment carried out in work done registers. After the emergency treatment is rendered, schedule the patient for a regular appointment for continuation / completion of the treatment. The following emergency procedures are carried out.	interns, postgraduate students and Senior Residents who are posted in emergency procedures under the supervision of a consultant Staff nurse	Patient's case papers -CONS/ VY.W.S. DENTAL COLLEGE & HOSPITAL / APPOINTMENT REGISTER/002 -CONS/ VY.W.S. DENTAL COLLEGE & HOSPITAL / WORK DONE REGISTER/003
Sr. no	Activity	Responsibility	Reference document/record

4.3A	ESEXCAVATIONANDTEMPORIZATION Carry out this procedure for patients having moderate pain in the teeth and difficulty in eating. Administer local anaesthesia where indicated. Prepare a cavity and excavate caries. If the tooth is not exposed, then temporize the tooth with a temporary material like zinc oxide eugenol.	Interns, postgraduate students and Senior Residents who are reposted emergency procedures under the supervision of a consultant	Patient's case paper -CONS/ V.Y.W.S. DENTAL COLLEGE & HOSPITAL /APPOINTMENT REGISTER/002 -CONS/ V.Y.W.S. DENTAL COLLEGE & HOSPITAL /WORK DONE REGISTER/003
4.3 B	ROOT CANAL OPENING PROCEDURE Tooth is vital and not tender to percussion (non TTP) Administer local anaesthesia Prepare an access cavity Remove coronal pulp Flush cavity with sodium hypochlorite (NaOCl) Place a cotton pellet Temporize the cavity Prescribe analgesic to the patient	Interns, postgraduate students and Senior Residents who are reposted emergency procedures under the supervision of a consultant	Patient's case paper -CONS/ V.Y.W.S. DENTAL COLLEGE & HOSPITAL /APPOINTMENT REGISTER/002 -CONS/ V.Y.W.S. DENTAL COLLEGE & HOSPITAL /WORK DONE REGISTER/003

Sr.no	Activity	Responsibility	Referencedocument/record
	Tooth is nonvital and non TTP or TTP Prepare an access cavity Locate and debride the canals Flush cavity with sodium hypochlorite (NaOCl) Place a cotton pellet Temporize the cavity Prescribe analgesic to the patient Patient presents with extraoral swelling Prepare an access cavity Locate and debride the canals Establish drainage Flush cavity with sodium hypochlorite (NaOCl) Place a cotton pellet Temporize the cavity / give an open dressing (not longer than 24 hours) if there is active pus drainage Prescribe antibiotics and analgesic to the patient	Interns, postgraduate students and Senior Residents who are posted emergency procedures, under the supervision of a consultant	Patient's case paper -CONS/ V.Y.W.S. DENTAL COLLEGE & HOSPITAL / APPOINTMENT REGISTER/002 -CONS/ V.Y.W.S. DENTAL COLLEGE & HOSPITAL / WORK DONE REGISTER/003

Sr. No	Activity	Responsibility	Reference document/record
4.3C	TRAUMACASESMANAGEMENT - These cases are referred from the department of Oral Medicine or Oral & Maxillofacial Surgery. - Follow International Association for Dental Traumatology (IADT) guidelines (revised 2012) for management of avulsed permanent teeth and management of fractures and luxation of permanent teeth. Avulsion <u>Treatment guidelines for avulsed permanent teeth with closed apex</u> <i>a. The tooth has been replanted before the patient's arrival at the clinic</i> - Leave the tooth in place. - Clean the area with water spray, saline or chlorhexidine. - Suture gingival lacerations, if present. - Verify normal position of the replanted tooth both clinically and radiographically. - Apply a flexible splint for up to 2 weeks. - Administer systemic antibiotics. - Check tetanus protection. - Give patient instructions. - Initiate root canal treatment 7–10 days after replantation and before splint removal. - Follow up.	Interns, postgraduate students and Senior Residents who are posted for emergency procedures, under the supervision of a consultant	- Patients case papers -CONS/ V.Y.W.S. DENTAL COLLEGE & HOSPITAL /APPOINTMENT REGISTER/002 -CONS/ V.Y.W.S. DENTAL COLLEGE & HOSPITAL /WORK DONE REGISTER/003

Sr. no	Activity	Responsibility	Reference document/record
	<i>b. The tooth has been kept in a physiologic storage medium or osmolarity balanced medium and/or stored dry, the extraoral dry time has been less than 60 minutes.</i> Clean the root surface and apical foramen with a stream of saline and soak the tooth in saline thereby removing contamination and dead cells from the root surface. Administer local anesthesia. Irrigate the socket with saline. Examine the alveolar socket. If there is a fracture of the socket wall, reposition it with a suitable instrument. Replant the tooth slowly with slight digital pressure. Do not use force. Suture gingival lacerations, if present. Verify normal position of the replanted tooth both clinically and radiographically. Apply a flexible splint for up to 2 weeks. Administer systemic antibiotics. Check tetanus protection. Give patient instructions. Initiate root canal treatment 7-10 days after replantation and before splint removal. Followup.	V.V.W.S. Dental College & Hospital, Amravati Students and Senior Residents who are posted emergency procedures under the supervision of a consultant	Patients, case papers -CONS/ V.V.W.S. DENTAL COLLEGE & HOSPITAL /APPOINTMENT REGISTER/002 -CONS/ V.V.W.S. DENTAL COLLEGE & HOSPITAL /WORK DONE REGISTER/003

Sr. no	Activity	Responsibility	Reference document/record
	<i>c. Dry time longer than 60 min</i> Remove attached non-viable soft tissue carefully e.g. with gauze. Root canal treatment to the tooth can be carried out prior to replantation or later. Treat root surface with 2% sodium fluoride solution for 20 min prior to replantation. In cases of delayed replantation, root canal treatment should be done either on the tooth prior to replantation, or it can be done 7–10 days later like in other replantation situations. Administer local anesthesia. Irrigate the socket with saline. Examine the alveolar socket. If there is a fracture of the socket wall, reposition it with a suitable instrument. Replant the tooth. Suture gingival lacerations, if present. Verify normal position of the replanted tooth clinically and radiographically. Stabilize the tooth for 4 weeks using a flexible splint. Administer systemic antibiotics. Check tetanus protection. Give patient instructions. Follow-up.	Interns, postgraduate students and Senior Residents who are posted Emergency procedures, under the supervision of a consultant	Patients case papers -CONS/ V.Y.W.S. DENTAL COLLEGE & HOSPITAL / APPOINTMENT REGISTER/002 -CONS/ V.Y.W.S. DENTAL COLLEGE & HOSPITAL / WORK DONE REGISTER/003

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Sr. no.	Activity	Responsibility	Reference
	<u>Treatment guidelines for avulsed permanent teeth with an open apex</u> <i>a. The tooth has been replanted before the patient's arrival at the clinic</i> Leave the tooth in place. Clean the area with water spray, saline or chlorhexidine. Suture gingival lacerations, if present. Verify normal position of the replanted tooth both clinically and radiographically. Apply a flexible splint for up to 2 weeks. Administer systemic antibiotics. Check tetanus protection. Give patient instructions. The goal for replanting still-developing (immature) teeth in children is to allow for possible revascularization of the pulp space. If that does not occur, root canal treatment may be recommended. Follow-up.	Interns, postgraduate students and Senior Residents who have reported emergency procedures under the supervision of a consultant	document/record - Patient's case papers - CONS/ V.Y.W.S. DENTAL COLLEGE & HOSPITAL / APPOINTMENT REGISTER/002 - CONS/ V.Y.W.S. DENTAL COLLEGE & HOSPITAL / WORK DONE REGISTER/003

Sr. no	Activity	Responsibility	Reference document/record
	<i>b. The tooth has been kept in a physiologic storage medium or osmolality balanced medium and/or stored dry, the extraoral dry time has been less than 60 minutes</i> Physiologic storage media include e.g. tissue culture medium and cell transport media. Examples of osmolality balanced media are HBSS, saline and milk. Saliva can also be used. If contaminated, clean the root surface and apical foramen with a stream of saline. Topical application of antibiotics has been shown to enhance chances for revascularization of the pulp and can be considered if available. Administer local anesthesia. Examine the alveolar socket. If there is a fracture of the socket wall, reposition it with a suitable instrument. Remove the coagulum in the socket and replant the tooth slowly with slight digital pressure. Suture gingival lacerations, especially in the cervical area. Verify normal position of the replanted tooth clinically and radiographically. Apply a flexible splint for up to 2 weeks.	Interns, postgraduate students and Senior Residents who have reported emergency procedures under the supervision of a consultant	Patient's case papers -CONS/ V.Y.W.S. DENTAL COLLEGE & HOSPITAL /APPOINTMENT REGISTER/002 -CONS/ V.Y.W.S. DENTAL COLLEGE & HOSPITAL /WORK DONE REGISTER/003

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	Administers systemic antibiotics. Check tetanus protection. Give patient instructions. The goal for replanting still-developing (immature) teeth in children is to allow for possible revascularization of the pulp space. The risk of infection related to root resorption should be weighed up against the chances of revascularization. Such resorption is very rapid in teeth of children. If revascularization does not occur, root canal treatment may be recommended. Follow-up. <i>c. Dry time longer than 60 minutes or other reasons suggesting non-viable cells</i> Delayed replantation has a poor long-term prognosis. The goal in delayed replantation is to restore the tooth to the dentition for aesthetic, functional and psychological reasons and to maintain alveolar contour. The eventual outcome will be ankylosis and resorption of the root. Remove attached non-viable soft tissue carefully e.g. with gauze. Root canal treatment to the tooth can be carried out prior to replantation or later.	Interns, postgraduate students and Senior Residents who are posted emergency procedures under the supervision of a consultant	Patients case papers -CONS/ V.Y.W.S. DENTAL COLLEGE & HOSPITAL /APPOINTMENT REGISTER/002 -CONS/ V.Y.W.S. DENTAL COLLEGE & HOSPITAL /WORK DONE REGISTER/003
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Sr. no	Activity	Responsibility	Reference document/record
	Administer local anesthesia. Remove the coagulum from the socket with a stream of saline. Examine the alveolar socket. If there is a fracture of the socket wall, reposition it with a suitable instrument. Replant the tooth slowly with slight digital pressure. Suture gingival laceration. Verify normal position of the replanted tooth clinically and radiographically. Stabilize the tooth for 4 weeks using a flexible splint. Administer systemic antibiotics. Check tetanus protection. Give patient instructions. In order to slow down osseous replacement of the tooth, treatment of the root surface with fluoride prior to replantation (2% sodium fluoride solution for 20 min) has been suggested but it should not be seen as an absolute recommendation. Follow-up.	Interns, postgraduate students and Senior Residents who are posted emergency procedures under the supervision of a consultant	Patient's case papers -CONS/ V.Y.W.S. DENTAL COLLEGE & HOSPITAL /APPOINTMENT REGISTER/002 -CONS/ V.Y.W.S. DENTAL COLLEGE & HOSPITAL /WORK DONE REGISTER/003


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Sr. no	Activity	Responsibility	Reference document/record
	Fractures of teeth and alveolar bone Infraction In case of marked infractions, etching and sealing with resin to prevent discoloration of the infraction lines. Otherwise, no treatment is necessary. Enamel fracture If the tooth fragment is available, it can be bonded to the tooth. Contouring or restoration with composite resin depending on the extent and location of the fracture. Enamel-dentin fracture If a tooth fragment is available, it can be bonded to the tooth. Otherwise perform a provisional treatment by covering the exposed dentin with glass-ionomer or a more permanent restoration using a bonding agent and composite resin, or other accepted dental restorative materials. If the exposed dentin is within 0.5mm of the pulp (pink, no bleeding) place calcium hydroxide base and cover with a material such as a glass ionomer.	Interns, postgraduate students and Senior Residents who are posted emergency procedures, under the supervision of a consultant	Patients case papers -CONS/ V.Y.W. DENTAL COLLEGE & HOSPITAL / APPOINTMENT REGISTER/002 -CONS/ V.Y.W. DENTAL COLLEGE & HOSPITAL / WORK DONE REGISTER/03

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	<u>Enamel-dentin-pulp fracture</u> In patients with mature apical development, root canal treatment is usually the treatment of choice, although pulp capping or partial pulpotomy also may be selected. If tooth fragment is available, it can be bonded to the tooth. Future treatment for the fractured crown may be restoration with other accepted dental restorative materials. <u>Crown-root fracture without pulp exposure</u> <u>Emergency treatment</u> As an emergency treatment a temporary stabilization of the loose segment to adjacent teeth can be performed until a definitive treatment plan is made. <u>Non-Emergency Treatment Alternatives</u> Fragment removal only. Fragment removal and gingivectomy. Orthodontic extrusion of apical fragment. Surgical extrusion. Root submergence. Extraction-Extraction is inevitable in crown-root fractures with a severe apical extension, the extreme being a vertical fracture.	Interns, postgraduate students and Senior Residents who are posted emergency procedures under the supervision of a consultant	Patients case papers -CONS/ V.Y.W.S DENTAL COLLEGE & HOSPITAL /APPOINTMENT REGISTER/002 -CONS/ V.Y.W.S DENTAL COLLEGE & HOSPITAL /WORK DONE REGISTER/003
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	Crown-root fracture with pulp exposure <u>Emergency treatment</u> As an emergency treatment a temporary stabilization of the loose segment to adjacent teeth. In patients with open apices, it is advantageous to preserve pulp vitality by a partial pulpotomy. This treatment is also the choice in young patients with completely formed teeth. Calcium hydroxide compounds are suitable pulp capping materials. In patients with mature apical development, root canal treatment can be the treatment of choice. <u>Non-Emergency Treatment Alternatives</u> Fragment removal and gingivectomy (sometimes ostectomy). Post placement and fragment reattachment. Orthodontic extrusion of apical fragment. Surgical extrusion. Root submergence. Extraction-Extraction is inevitable in very deep crown-root fractures, the extreme being a vertical fracture.	Interns, postgraduate students and Senior Residents who are posted emergency procedures under the supervision of a consultant	Patients case papers -CONS/ V.Y.W.S. DENTAL COLLEGE & HOSPITAL APPOINTMENT REGISTER/002 -CONS/ V.Y.W.S. DENTAL COLLEGE & HOSPITAL /WORK DONE REGISTER/003

Sr. no	Activity	Responsibility	Reference document/record
	Horizontal Root fracture Reposition, if displaced, the coronal segment of the tooth as soon as possible. Check position radiographically. Stabilize the tooth with a flexible splint for 4 weeks. If the root fracture is near the cervical area of the tooth, stabilization is beneficial for a longer period of time (up to 4 months). It is advisable to monitor healing for at least one year to determine pulpal status. If pulp necrosis develops, root canal treatment of the coronal tooth segment to the fracture line is indicated to preserve the tooth. Vertical Root fracture Extraction is advised for a vertical root fracture. Alveolar fracture Reposition any displaced segment and then splint. Suture gingival laceration if present. Stabilize the segment for 4 weeks. Concussion No treatment is needed. Monitor pulpal condition for at least one year.	Interns, postgraduate students and Senior Residents who are posted emergency procedures, under the supervision of a consultant	- Patients case papers - CONS/ V.Y.W.S. DENTAL COLLEGE & HOSPITAL / APPOINTMENT REGISTER/002 - CONS/ V.Y.W.S. DENTAL COLLEGE & HOSPITAL / WORK DONE REGISTER/002

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Sr. no	Activity	Responsibility	Reference document/record
	Subluxation Normally no treatment is needed, however a flexible splint to stabilize the tooth for patient comfort can be used for up to 2 weeks. Extrusive luxation Reposition the tooth by gently reinserting it into the tooth socket. Stabilize the tooth for 2 weeks using a flexible splint. In mature teeth where pulp necrosis is anticipated or if several signs and symptoms indicate that the pulp of mature or immature teeth became necrotic, root canal treatment is indicated. Lateralluxation Reposition the tooth digitally or with forceps to disengage it from its bony lock and gently reposition it into its original location. Stabilize the tooth for 4 weeks using a flexible splint. Monitor the pulpal condition. If the pulp becomes necrotic, root canal treatment is indicated to prevent root resorption.	Interns, postgraduate students and Senior Residents who are posted emergency procedures under the supervision of a consultant	Patient's case papers -CONS/ V.Y.W.S. DENTAL COLLEGE & HOSPITAL /APPOINTMENT REGISTER/002 -CONS/ V.Y.W.S. DENTAL COLLEGE & HOSPITAL /WORK DONE REGISTER/003

Sr no	Activity	V.V.W.S Dental College & Hospital, Amravati Responsibility	Reference document/record
	<u>Intrusive luxation</u> <u>Teeth with incomplete root formation</u> Allow eruption without intervention If no movement within few weeks, initiate orthodontic repositioning. If tooth is intruded more than 7mm, reposition surgically or orthodontically. <u>Teeth with complete root formation:</u> Allow eruption without intervention if tooth intruded less than 3mm. If no movement after 2-4 weeks, reposition surgically or orthodontically before ankylosis can develop. If tooth is intruded 3-7mm, reposition surgically or orthodontically. If tooth is intruded beyond 7mm, reposition surgically. The pulp will likely become necrotic in teeth with complete root formation. Root canal therapy using temporary filling with calcium hydroxide is recommended and treatment should begin 2-3 weeks after repositioning. Once an intruded tooth has been repositioned surgically or orthodontically, stabilize with a flexible splint for 4 weeks.	Interns, postgraduate students and Senior Residents who are posted emergency procedures, under the supervision of a consultant	Patients case Papers -CONS/ DENTAL COLLEGE HOSPITAL / APPOINTMENT REGISTER/002 -CONS/ DENTAL COLLEGE HOSPITAL / WORK DONE REGISTER

References:

Roberson TM, Heymann HO, Swift EJ. Struement's Art and Science of Operative Dentistry. 5th edition, Mosby. St. Louis Missouri, 2006.

Ingle JI, Bakland LK. Endodontics. 5th ed, BC Decker, Hamilton, 2002.

Andreasen JO, Andreasen FM. Textbook and color atlas of traumatic injuries to the teeth. 3rd edition, Mosby. St. Louis Baltimore, 1994.

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<https://www.iadt-dentaltrauma.org>

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MANAGEMENT OF MEDICALLY COMPROMISED PATIENT DURING CONSERVATIVE DENTISTRY & ENDODONTIC PROCEDURES

1. Purpose:

To carry out conservative dentistry and endodontic procedures for the medically compromised patient with utmost care and thus avoid complications.

2. Scope:

It covers medically compromised patients like patients with cardiovascular disease, pulmonary disease, endocrine disease, immunologic disease etc visiting the department for diagnosis or emergency treatment or appointment treatment procedures.

3. Responsibility:

- The staff nurses are responsible for registering patients and also giving appointments where indicated after their diagnostic check ups or treatment.
- The interns, postgraduate students, junior residents and senior residents are responsible for evaluating medically compromised patients and rendering the necessary treatment.
- The consultants are responsible for supervision and also rendering treatment to medically compromised patients on their respective work checking and working days.

4. Standard procedures:

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Sr.no	Activity	Responsibility	Referencedocument/ Record
4.1	<u>PATIENT EVALUATION/ RISK ASSESSMENT</u> Take a medical history for every patient who is to receive dental treatment. Engage in indirect discussion of relevant issues with the patient. Identify all medications and drugs being taken, by the patient. Examine the patient for signs and symptoms of disease. Review/ obtain recent laboratory test results or images where indicated. Obtain a medical consultation if the patient has a poorly controlled or undiagnosed problem, or if the patient's health status is uncertain. Various medical conditions along with their oral manifestation, prevention of problems and treatment planning modifications are attached with this document.	students/	Little JW, Falace DA, Miller CS, Rhodes NL. Dental management of the medically compromised patient. Eight edition. Elsevier Mosby, 2013.

RECORDS**REGISTERS**

SR. NO.	NAME OF THE REGISTER	REGISTER NO.
1.	Out Patient Department register	CONS/V.Y.W.S DCH /OPDREGISTER/001
2.	Appointment registers	CONS/ V.Y.W.S DCH Staff /APPOINTMENTREGISTER/002-I
		CONS/ V.Y.W.S DCH Staff /APPOINTMENTREGISTER/002-II
		CONS/ V.Y.W.S DCH PG /APPOINTMENTREGISTER/002-III Students
		CONS/ V.Y.W.S DCH Senior /APPOINTMENTREGISTER/002-IV Residents
		CONS/ V.Y.W.S DCH Interns /APPOINTMENTREGISTER/002-V
		CONS/ V.Y.W.S DCH IV BDS /APPOINTMENTREGISTER/002-VI Students
		CONS/ V.Y.W.S III BDS DCH/APPOINTMENTREGISTER/002-VII Students
		CONS/ V.Y.W.S emergency treat DCH/APPOINTMENTREGISTER/002-VIII ment

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SR. NO.	NAME OF THE REGISTER	REGISTER NO.	
3.	Work doneregisters	CONS/V.Y.W.S. DCH/WORKDONEREGISTER/003/STAFF-I	Staff
		CONS/ V.Y.W.S. DCH/WORKDONEREGISTER/003/STAFF-II	
		CONS/ V.Y.W.S. DCH/WORKDONEREGISTER/003/STAFF-III	
		CONS/ V.Y.W.S. DCH/WORKDONEREGISTER/003/STAFF-IV	
		CONS/ V.Y.W.S. DCH/WORKDONEREGISTER/003/STAFF-V	
		CONS/ V.Y.W.S. DCH/WORKDONEREGISTER/003/STAFF-VI	
		CONS/ V.Y.W.S. DCH/WORKDONEREGISTER/003/STAFF-VII	
		CONS/ V.Y.W.S. DCH/WORKDONEREGISTER/003/STAFF-VIII	
		CONS/ V.Y.W.S. DCH/WORKDONEREGISTER/003/PG- I	PG
		CONS/ V.Y.W.S. DCH/WORKDONEREGISTER/003/PG- II	
		CONS/ V.Y.W.S. DCH/WORKDONEREGISTER/003/SR- I	SR
		CONS/ V.Y.W.S. DCH/WORKDONEREGISTER/003/SR-II	

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SR. NO.	NAME OF THE REGISTER	REGISTER NO.	TOTAL NO.
		CONS/V.Y.W.S. DCH/WORKDONEREGISTER/003/SR-III	
		CONS/ V.Y.W.S. DCH/WORKDONEREGISTER/003/SR-IV	
		CONS/ V.Y.W.S. DCH/WORKDONEREGISTER/003/INTERNS	INTERNS
		CONS/ V.Y.W.S. DCH/WORKDONEREGISTER/003/STUDENTS	STUDENTS
4.	Deadstockregister	CONS/ V.Y.W.S. DCH/DEADSTOCKREGISTER/004-I	
		CONS/ V.Y.W.S. DCH/DEADSTOCKREGISTER/004-II	
5.	Consumableregister	CONS/ V.Y.W.S. DCH/CONSUMABLEREGISTER/005-I	
		CONS/ V.Y.W.S. DCH/CONSUMABLEREGISTER/005-II	
		CONS/ V.Y.W.S. DCH/CONSUMABLEREGISTER/005-III	
		CONS/ V.Y.W.S. DCH/CONSUMABLEREGISTER/005-IV	
		CONS/ V.Y.W.S. DCH/CONSUMABLEREGISTER/005-V	
		CONS/ V.Y.W.S. DCH/CONSUMABLEREGISTER/005-VI	

SR. NO.	NAME OF THE REGISTER	REGISTER NO.	
6.	Permanent advance consumable register	CONS/ DCH/PERMANENT ADVANCE CONSUMABLE REGISTER/006	V.Y.W.S.
7.	Stock and expenditure register	CONS/ V.Y.W.S. DCH/STOCK AND EXPENDITURE REGISTER/007	
8.	Indent Register	CONS/ V.Y.W.S. DCH/INDENT REGISTER/008	
9.	Laundry Register	CONS/ V.Y.W.S. DCH/LAUNDRY REGISTER/009	
10.	Instruments & materials issuing register	CONS/ DCH/INSTRUMENTS & MATERIALS ISSUING REGISTER/010	V.Y.W.S.
11.	Department Library books issuing register	CONS/ DCH/DEPARTMENT LIBRARY BOOKS ISSUING REGISTER/011	V.Y.W.S.
12.	Breakdown register	CONS/ V.Y.W.S. DCH/BREAKDOWN REGISTER /012-I	Dental chairs
		CONS/ V.Y.W.S. DCH/BREAKDOWN REGISTER /012- II	Other Dental equipment
13.	Complaint register	CONS/ V.Y.W.S. DCH/COMPLAINT REGISTER/013-I	Department
		CONS/ V.Y.W.S. DCH/COMPLAINT REGISTER/013-II	Preclinical lab

SR. NO.	NAME OF THE REGISTER	REGISTER NO.	
14.	Attendance registers	CONS/ V.Y.W.S. DCH/ATTENDANCE REGISTER /014-I	Staff
		CONS/ V.Y.W.S. DCH/ATTENDANCE REGISTER /014- II	PGs
		CONS/ V.Y.W.S. DCH/ATTENDANCE REGISTER /014-III	Students
15.	Movement register	CONS/ V.Y.W.S. DCH/MOVEMENT REGISTER/015	
16.	Outward register	CONS/ V.Y.W.S. DCH/OUTWARD REGISTER/016	
17.	PG presentations register	CONS/ V.Y.W.S. DCH/PG PRESENTATIONS REGISTER/017	
18.	UG assessment register	CONS/G V.Y.W.S. DCH/UG ASSESSMENT REGISTER /018	V.Y.W.S.
19.	UG Exampatients register	CONS/G V.Y.W.S. DCH/UG EXAMPATIENTS REGISTER/019	
20.	Housekeeping register	CONS/G V.Y.W.S. DCH/HOUSEKEEPING REGISTER/020	

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SR. NO.	NAME OF THE FILE	FILE NO.
1.	Inward file	CONS/ V.Y.W.S. DCH/INWARD FILE/001
2.	Outward file	CONS/ V.Y.W.S. DCH/OUTWARD FILE/002
3.	Monthly report file	CONS/ V.Y.W.S. DCH/MONTHLY REPORT FILE/003
4.	Effective report file	CONS/ V.Y.W.S. DCH/EFFECTIVE REPORT FILE/004
5.	Repair and maintenance file	CONS/ V.Y.W.S. DCH/REPAIR & MAINTENANCE FILE/005
6.	Instrument and equipment verification file	CONS/ V.Y.W.S. DCH/INSTRUMENT AND EQUIPMENT VERIFICATION FILE/006
7.	Material requirement file	CONS/ V.Y.W.S. DCH/MATERIAL REQUIREMENT FILE/007
8.	Preclinical maintenance file	CONS/ V.Y.W.S. DCH/PRECLINICAL MAINTENANCE FILE/008
9.	Furniture requirement file	CONS/ V.Y.W.S. DCH/FURNITURE REQUIREMENT FILE/009
10.	Permanent advance file	CONS/ V.Y.W.S. DCH/PERMANENT ADVANCE FILE/010
11.	Postings file	CONS/ V.Y.W.S. DCH/POSTING FILE/011


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SR. NO.	NAME OF THE FILE	FILE NO.	
12.	Leaverecordfile	CONS/ V.Y.W.S. DCH/ LEAVERECORDFILE/012-I	Staff
		CONS/ V.Y.W.S. DCH/LEAVERECORDFILE/012-II	PGs
13.	PostGraduatefile	CONS/ V.Y.W.S. DCH/POSTGRADUATEFILE/013	
14.	Affiliationfile	CONS/ V.Y.W.S. DCH/AFFILIATIONFILE/014	
15.	Internsquotafile	CONS/ V.Y.W.S. DCH/ INTERNSQUOTAFILE/015	
16.	PGprogramme file	CONS/ V.Y.W.S. DCH/PGPROGRAMMEFILE/016	
17.	PGpresentations file	CONS/ V.Y.W.S. DCH/PGPRESENTATIONSFILE/017	
18.	Internalassessment file	CONS/ V.Y.W.S. DCH/ INTERNALASSESSMENTFILE/018	
19.	Attendancerecordfile	CONS/ V.Y.W.S. DCH/ATTENDANCERECORD FILE/019-I	IIBDS dental materials
		CONS/ V.Y.W.S. DCH/ATTENDANCERECORD FILE/019-II	IIBDS practicals
		CONS/ V.Y.W.S. DCH/ATTENDANCERECORD FILE/019-III	IIBDS lectures
		CONS/ V.Y.W.S. DCH/ATTENDANCERECORD FILE/019-IV	IIIBDS lectures
		CONS/ V.Y.W.S. DCH/ATTENDANCERECORD FILE/019-V	IVBDS lectures
20.	Exammarksrecordfile	CONS/ V.Y.W.S. DCH/EXAMMARKSRECORD FILE/001	IIBDS
		CONS/ V.Y.W.S. DCH/EXAMMARKSRECORD FILE/001	IVBDS

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Pedodontics**1. Standard procedures**

Sr.No.	Activity	Responsibility	Reference document/ Record
4.1	<u>DAILY ACTIVITIES</u> Sort out and arrange sterilized instruments in trays for use. Disinfect essential equipment and keep ready for use. Prepare clinical areas before the consultants start treating the patient.	Nursing staff	

Sr.No.	Activity	Responsibility	Reference document/ Record
4.2	<u>IN BETWEEN ACTIVITIES</u> Dispense all dental materials required during treatment. Disinfect and transfer essential equipment from one chair to other as required. Clean up after procedures and wash instruments at regular intervals. Packing instruments in sterilization pouches and autoclaving of instruments. Cleaning spittoons when necessary. Refilling bottles of chairs. Segregation of waste from every dental chair at regular intervals according to Bio Medical Waste Disposal Rules, 2016.	Nursing staff Housekeeping staff Housekeeping staff	Autoclave register

2. Records

Sr.No.	Name of Records	Record No.
1.	Department Cleaning file	
2.	Autoclave Register	

01 OutPatientDepartmentPatientManagement

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1. Purpose:

- To ensure that adequate services are provided to all pediatric patients who require dental treatment.
- To respond to the need and expectations of the patients and to enhance patient and parents' satisfaction.
- Managing the delivery of prosthodontics care for cases that present to the department.
- To formulate and provide a sound treatment plan to patients who reports to the department for the first time.
- To assess the suitability of individual patients for various treatments provided by the department.

2. Scope:

- The Department of pedodontics by being an age-specific specialty, pediatric dentistry encompasses disciplines such as behavior guidance, care of the medically and developmentally compromised and disabled patient, supervision of orofacial growth and development, caries prevention, sedation, pharmacological management, and hospital dentistry, as well as other traditional fields of dentistry..

3. Responsibility:

- The staff nurse is responsible for registering a patient who is referred to the department and segregating them into new patients and follow-up patients.
- The OPD nurse in-charge is responsible for monitoring the respective OPD unit functioning, maintaining necessary records and assisting the consultants.
- The interns are responsible for examination of all new patients and for determining the line of management.
- The Consultants are responsible for the treatment of pedodontic patients on their respective working days.

4. Standard procedures

Sr No	Activity	Responsibility	Reference Document/Record
01	<u>OutPatientDepartmentPatientManagement</u> Patient along with their parents who reports to the college and needs pedodontic treatment is seen by a Interns and Consultant in the department on the same day. Each consultant is allotted a time table for OPD, Working days, Work-checking days and preclinical-work checking days. OPDs are categorized according to the age and dental problems into those requiring the following treatment modalities: A) Priority Patients (Traumatic injuries to	Interns Consultant Head of the Department Interns Consultant	McDonald and Avery's <i>Dentistry for the Child and Adolescent</i>, 10th Edition

primary or permanent dentition , swellings , space infections cellulitis) B) pulp therapies (pulpectomy, pulpotomies , IPC/DPC, apexification / apexogenesis , RCT, revascularization) C) Corrective Treatments : SS crowns , space maintainers , space regainers D) habit breaking appliances/ Myofunctional/ and removable appliances E) Preventive Treatments : (oral prophylaxis , fluoride varnish applications, pit fissure sealant application) F) follow up patients Records of the same are maintained by the Staff Nurse	Interns Staff nurse	
Patients experiencing pain as a result of Traumatic injuries to primary or permanent dentition , swellings , space infections cellulitis are attend and treated immediately. Patients reporting from distant places are usually given preference for single sitting pulp therapies and removable appliance delivery on the same day. Children with severe jaw deformities and Cleft lip palate and children with special health care need . Therefore, they are treated on priority basis.	Interns /consultant Interns Interns /consultant	

5. Records

Sr.No.	Name of Records	Record No.
1.	OPD register	
2.	Appointment Registers	

02 Standard procedure for Emergency treatments

1. Purpose:

- The purpose is to provide emergency care
 - Used for treating Traumatic injuries to primary or permanent dentition, swellings, space infections, cellulitis
- 2. Scope:**
- a. Traumatic injuries to primary or permanent dentition:
 - b. Swellings:
 - c. space infections & cellulitis
- 3. Responsibility:**
- a. The nursing and clerical staff is responsible for making entries into the case papers and scheduling appointments and maintaining registers.
 - b. The nursing staff is responsible for chair preparation and assistance of consultants. They are also responsible for maintaining patient record and appointment scheduling.
 - c. The consultants and the intern under the guidance of consultants are responsible for evaluating the cases and administering emergency care

4. Standard Procedure

Sr. No.	Activity	Responsibility	Reference Document/ Record
4.1	Treating Traumatic injuries to primary or permanent dentition, swellings, space infections, cellulitis Emergency treatment 4.1.a Treating traumatic injuries to primary or permanent dentition are carried out on walk-in patients along with parents when deemed necessary. It is always preceded by a referral from ODMR department. The patient's visit to the department is recorded. The dental chair is cleaned using a surface disinfectant and the chair is readied before the patient is seated. The instruments required are readied and arranged. The presenting complaint is recorded. Radiographs and other investigations are advised if necessary. The patient is seated in the chair and local anaesthesia is administered if needed. Injury to a Primary Tooth occurs, informing parents about possible pulpal complications, appearance of a vestibular	Clerical/nursing staff Attendant/ nursing staff student/ consultant Post graduate student/ consultant	Textbook and Color Atlas of Traumatic Injuries to the Teeth, 5th Edition Jens O. Andreasen OPD register Case paper

sinus tract, or color change of the crown associated with a sinus tract can help assure timely intervention, minimizing complications for the developing succedaneous teeth. Treatment strategy after injury to a Permanent Tooth is dictated by the concern for vitality of the periodontal ligament and pulp. Subsequent to the initial management of the dental injury, continued periodic monitoring is indicated to determine clinical and radiographic evidence of successful intervention (ie, asymptomatic, positive sensitivity to pulp testing, root continues to develop in immature teeth, no mobility, no periapical pathology) Once the procedure is complete, the patient is informed about the further procedures needed and instructed to collect the updated case paper from the nursing staff. The gloves and other waste generated during the procedure are disposed off according to the existing Bio-Medical Waste Disposal Rules. Details of the procedure carried out and further referral is entered on the case paper. 4.1.b Swellings , Space Infections , Cellulitis The procedure is carried out only when the patient and parents present The patient's visit to the department is recorded. emergencies root canal opening performed. The dental chair is cleaned using a surface disinfectant and the chair is readied before the patient is seated. The instruments required are readied and arranged. The gloves and other waste generated during the procedure are disposed off according to the existing Bio-Medical Waste Disposal Rules. The patient is given personal, written	Clerical/nursing staff Clerical/ nursing staff Post graduate student/ Intern Clerical/ nursing staff	Case paper Textbook and Color Atlas of Traumatic Injuries to the Teeth, 5th Edition Jens O. Andreasen OPD register Case paper
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	instructions on denture use and care. The patient is recalled after 24 hours for a check-up.		Case paper, work record register.
	Details of the procedure carried out and further referral is entered on the case paper.	Clerical/ nursing staff	
		Attendant/ nursing staff	Maxillofacial Rehabilitation, John Beumer III et al OPD register

5. Records

Sr.No.	Name of Records	Record No.
1.	OPD register	
2.	Appointment register	
3.	Work record register	

03 Standard operating procedure for preparatory treatments

1. **Purpose:**

- The purpose is to provide preparatory treatment
- Used for **pulp therapies** (pulpectomy, pulpotomies, IPC/DPC, apexification / apexogenesis, RCT, revascularization)

2. **Scope:**

- Pulpectomy
- pulpotomies
- IPC/DPC
- apexification / apexogenesis
- RCT
- revascularization

3. **Responsibility:**

- The nursing and clerical staff is responsible for making entries into the case papers and scheduling appointments and maintaining registers.
- The nursing staff is responsible for chair preparation and assistance of consultants. They are also responsible for maintaining patient record and appointment scheduling.
- The consultants and the intern under the guidance of consultants are responsible for evaluating the cases and administering emergency care

4. Standard Procedure

Sr. No.	Activity	Responsibility	Reference Record	Document/
4.1	(pulpectomy, pulpotomies , IPC/DPC, apexification / apexogenesis , RCT, revascularization) Preparatory treatment Pulpal pathology are carried out on patients with pulpal pathology in primary tooth . It is always preceded by a referral from ODMR department. The patient's visit to the department is recorded. The dental chair is cleaned using a surface disinfectant and the chair is readied before the patient is seated. The instruments required are readied and arranged. The presenting complaint is recorded. Radiographs and other investigations are advised if necessary. The patient is seated in the chair and local anaesthesia is administered if needed. Pulpectomy of primary teeth is indicated when the pulp tissue is irreversibly infected or necrotic due to caries or trauma. The treatment consists of extirpation of the pulp tissue, removal of organic debris with filing, and obturation of the canals with a suitable material A Pulpotomy is a dental procedure in which the pulp of the tooth in the crown (the crown is the part of the tooth that is visible) is removed and the pulp in the root canal is left intact. It is mainly performed on primary teeth (on children) and is used to treat tooth decay that has extended to the pulp IPC/DPC	Interns and consultants Clerical/nursing staff Attendant/ nursing staff student/ consultant student/ consultant student/ consultant	<i>Clinical pedodontics</i> Sidney B. Finn OPD register Case paper <i>Clinical pedodontics</i> Sidney B. Finn	

	Indirect pulp treatment (IPT) or indirect pulp capping (IPC) is recommended for teeth that have deep carious lesions approximating the pulp with no signs or symptoms of pulp degeneration. Direct pulp capping (DPC) is defined as the treatment of a mechanical or traumatic vital pulp exposure by sealing the pulpal wound with a biomaterial placed directly on exposed pulp to facilitate formation of reparative dentin and maintenance of the vital pulp Apexification / Apexogenesis Apexogenesis is a procedure that addresses the shortcomings involved with capping the inflamed dental pulp of an incompletely developed tooth. The goal of apexogenesis is the preservation of vital pulp tissue so that continued root development with apical closure may occur. Apexification is defined as a method to induce a calcified barrier in a root with an open apex or the continued apical development of an incompletely formed root in teeth with necrotic pulp tissue. Once the procedure is complete, the patient is informed about the further procedures needed and instructed to collect the updated case paper from the nursing staff. The gloves and other waste generated during the procedure are disposed off according to the existing Bio-Medical Waste Disposal Rules. Details of the procedure carried out and further referral is entered on the case paper.	student/ consultant student/ consultant Clerical/nursing staff Clerical/ nursing staff	Clinical pedodontics Sidney B. Finn
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			OPD register
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5. Records

Sr.No.	Name of Records	Record No.
1.	OPD register	
2.	Appointment register	
3.	Work record register	

04 Standard operating procedure for corrective treatments

1. Purpose:

- The purpose is to provide correct and restore the function
- Used for **Corrective Treatments** : SS crowns , space maintainers , space regainers)

2. Scope:

SS crowns
space maintainers
space regainers

3. Responsibility:

- The nursing and clerical staff is responsible for making entries into the case papers and scheduling appointments and maintaining registers.
- The nursing staff is responsible for chair preparation and assistance of consultants. They are also responsible for maintaining patient record and appointment scheduling.
- The consultants and the intern under the guidance of consultants are responsible for evaluating the cases and administering emergency care

4. Standard Procedure

Sr. No.	Activity	Responsibility	Reference Record	Document/
4.1	(SS crowns , space maintainers , space regainers) Corrective treatment The patient's visit to the department is recorded. The dental chair is cleaned using a surface	Clerical/nursing staff	OPD register	

	disinfectant and the chair is readied before the patient is seated. The instruments required are readied and arranged. The presenting complaint is recorded. Radiographs and other investigations are advised if necessary. Stainless steel crowns are tooth-shaped caps that fit over an entire tooth. They are commonly used in pediatric dentistry as a way of preserving baby teeth that have become significantly decayed or damaged. Space maintainers premature extraction or loss of tooth is unavoidable due to extensive caries or other reasons, the safest option to maintain arch space is by placing a space maintainer. The fixed space maintainers are usually indicated to maintain the space created by unilateral/bilateral premature loss of primary teeth in either of the arches. Space regainers are used to regain space lost by drifting of teeth and may be either extra-oral or intra-oral fixed or removable appliances. Definition: "A fixed or removable appliance capable of moving a displaced permanent tooth into its proper position in dental arch." Once the procedure is complete, the patient is informed about the further procedures needed and instructed to collect the updated case paper from the nursing staff. The gloves and other waste generated during the procedure are disposed off according to the existing Bio-Medical Waste Disposal Rules. Details of the procedure carried out and further referral is entered on the case paper.	Interns and consultants student/ consultant student/ consultant student/ consultant Clerical/nursing staff Clerical/ nursing staff	<i>Clinical pedodontics</i> Sidney B. Finn OPD register Case paper <i>Clinical pedodontics</i> Sidney B. Finn <i>Clinical pedodontics</i> Sidney B. Finn
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			OPD register
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5. Records

Sr.No.	Name of Records	Record No.
1.	OPD register	
2.	Appointment register	
3.	Work record register	

05 Standard operating procedure for Preventive treatments

01 Purpose:

- The purpose is to provide preventive care
- Used for **Preventive Treatments** : fluoride application , minimally invasive dental treatment , SDF application

02 Scope:

fluoride application
minimally invasive dental treatment
SDF application

03 Responsibility:

- The nursing and clerical staff is responsible for making entries into the case papers and scheduling appointments and maintaining registers.
- The nursing staff is responsible for chair preparation and assistance of consultants. They are also responsible for maintaining patient record and appointment scheduling.
- The consultants and the intern under the guidance of consultants are responsible for evaluating the cases and administering emergency care

04 Standard Procedure

Sr. No.	Activity	Responsibility	Reference Record	Document/
4.1	fluoride application minimally invasive dental treatment SDF application Preventive treatment The patient's visit to the department is recorded. The dental chair is cleaned using a surface disinfectant and the chair is readied before the patient is seated. The instruments	Clerical/nursing staff	OPD register Clinical pedodontics Sidney B. Finn	

	required are readied and arranged. The presenting complaint is recorded. Radiographs and other investigations are advised if necessary. fluoride application Prophylaxis (tooth brush or professional). Isolate quadrant that is ready to receive the varnish using cotton rolls. Most commercially available varnishes set in the presence of moisture, so meticulous drying of the teeth is not critical. Dispense fluoride varnish as per manufacturer's instruction. Usually 0.5-1 ml is more than adequate for the entire dentition. Apply varnish on tooth surfaces using a disposable brush or cotton applicator The entire surface of the tooth must be treated. Avoid getting varnish on the soft tissue. The varnish sets in a few seconds leaving a fluoride rich layer adjacent to the tooth surface. The entire process takes 3-4 minutes. Duraflor and Duraphat set to a yellowish-brown layer causing a temporary change in tooth color. Parents and patients should be instructed that this discoloration is temporary and will vanish once toothbrushing is commenced. Once the procedure is complete, the patient is informed about the further procedures needed and instructed to collect the updated case paper from the nursing staff. The gloves and other waste generated during the procedure are disposed off according to the existing Bio-Medical Waste Disposal Rules. Details of the procedure carried out and further referral is entered on the case paper.	Interns and consultants student/ consultant student/ consultant student/ consultant Clerical/nursing staff Clerical/ nursing staff	OPD register Case paper Clinical pedodontics Sidney B. Finn Clinical pedodontics Sidney B. Finn
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			OPD register
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05 Records

Sr.No.	Name of Records	Record No.
1.	OPD register	
2.	Appointment register	
3.	Work record register	

07 Standard operating procedure for habit breaking appliances

1. Purpose:

- The purpose is to provide correct and restore the function
- Used for habit breaking appliances/ Myofunctional/and removable appliances

2. Scope:

habit breaking appliances
Myofunctional
removable appliances

3. Responsibility:

- The nursing and clerical staff is responsible for making entries into the case papers and scheduling appointments and maintaining registers.
- The nursing staff is responsible for chair preparation and assistance of consultants. They are also responsible for maintaining patient record and appointment scheduling.
- The consultants and the intern under the guidance of consultants are responsible for evaluating the cases and administering emergency care

4. Standard Procedure

Sr. No.	Activity	Responsibility	Reference Record	Document/
4.1	habit breaking appliances/ Myofunctional/and removable appliances <u>Standard Protocol For Removable Appliance Patients</u> Before starting Pedodontics treatment, it is imperative that periodontal tissue is healthy. Therefore any patient requiring extractions are completed	Clerical/nursing staff	OPD register	Clinical pedodontics Sidney B. Finn

The complete details of the allotted patients are maintained for future correspondence.	Interns and consultants	OPD register
The patient reports to the department on the day of his scheduled appointment and case paper is handed over to the staff Nurse for the entry.		
The concerned Doctor attends to the patient and then is made to sit comfortably on the chair and the procedure to be carried out is explained.	student/consultant	Case paper
<u>For Myofunctional Appliance</u>		
Before starting orthodontic treatment, it is imperative that periodontal tissue is healthy. Therefore any patient requiring extractions will be performed		
they are allotted to the Interns under the supervision of the Consultants.	student/consultant	
The complete details of the allotted patients are maintained for future correspondence.		
The patient reports to the department on the day of his scheduled appointment and case paper is handed over to the staff Nurse for the entry.		
The concerned Doctor attends to the patient and Once the procedure is complete, the patient is informed about the further procedures needed and instructed to collect the updated case paper from the nursing staff. The gloves and other waste generated during the procedure are disposed off according to the existing Bio-Medical Waste Disposal Rules.	student/consultant	Clinical pedodontics Sidney B. Finn
Details of the procedure carried out and further referral is entered on the case paper.		Clinical pedodontics Sidney B. Finn
	Clerical/nursing staff	

			OPD register
		Clerical/ nursing staff	

5. Records

Sr.No.	Name of Records	Record No.
1.	OPD register	
2.	Appointment register	
3.	Work record register	

08. Standard Operating Procedure Material Indent

1. Purpose:

- To ensure that adequate services are provided to all patients who require treatment.
- To ensure that material is always available to patients at all times there by reducing a delay in treatment.

2. Scope:

- Department of PEDIATRIC PREVENTIVE DENTISTRY receives a vast number of patients on a day to day basis on OPD as well as for treatment procedures.

3. Responsibility:

- Staff nurse is responsible for material indent
- The head of the department is responsible for the final approval

4. Standard Procedure

Sr no	Activity	Responsibility	Reference Document/Record
	<u>Standard protocol for material indent</u> Indenting of materials is done once a week (every Thursday of the week) The list of material to be indented is entered in the indent book maintained by the department. Following entry into the indent book, it is sent for the Dean's approval which is taken on the prior day Material is then indented from the central store of the hospital. Material is then stocked in its respective place in the department store and entered accordingly in the consumable and dead stock register	Staff nurse Attendant	

09. Standard Operating Procedure Laundry & linen**1. Purpose:**

- To ensure that adequate services are provided to all patients who require treatment.
- To ensure that every patient receives clean and sterile drapes during treatment.

2. Scope:

- Department of PEDIATRIC AND PREVENTIVE DENTISTRY receives a vast number of patients on a day to day basis on OPD as well as for treatment procedures

3. Responsibility:

- Attendant and Staff nurse are responsible for collection, reception and storage of drapes.

Sr no	Activity	Responsibility	Reference Document/Record
13	<u>Standard protocol for laundry & linen</u> Soiled drapes and linen is collected, stored in closed bins and their count is entered into the laundry register maintained in the dept. It is then sent to the collective hospital cleansing depot and then further forwarded for the cleansing & disinfection process. The disinfected linen and drapes are then collected from the collection depot, recounted and finally stored appropriately in the dept. The patient's drapes are always autoclaved before use. This protocol is followed biweekly (Tuesday & Friday).	Staff Nurse Attendants Staff Nurse	

Orthodontics

Sr no	Activity	Responsibility	Reference Document/Record
01	<u>Out Patient Department Patient Management</u> Patient who reports to the college and needs orthodontic treatment is seen by a PG Student and Consultant in the department on the same day. Each consultant is allotted a time table for OPD, Working days, Work-checking days and preclinical-work checking days. OPDs are categorized according to the age and deformity into those requiring the following treatment modalities: A) Removable appliances, B) Myofunctional / orthopaedic appliances and C) Fixed appliances. D) Priority Patients (severe jaw deformities, children with special needs, cleft lip and palate, TMDs) Records of the same are maintained by the Staff Nurse	PG Student Consultant Head of the Department PG Student Consultant PG Student Staff nurse	

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	Patients experiencing pain as a result of Temporomandibular dysfunction are given occlusal appliance therapy (Splints) immediately. Patients reporting from distant places are usually given preference for removable appliance delivery on the same day. Patients with severe jaw deformities and Cleft lip palate face psycho social issues. Therefore, they are treated on priority basis.	Post graduate student/consultant PG Student	
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- Removable Orthodontic Appliances (T.M. Graber, Bedrich Neuman, 2nd Edit)
- Management Of TMDs and occlusion - Jeffrey P. Okeson

2. Standard procedure for Removable Appliance

2. Purpose:

- The purpose is to guide teeth into desired position.
- Used for treating minor orthodontic problems associated with upper and lower teeth.

3. Scope:

- Removable appliances can achieve adequate occlusal improvement, provided that suitable cases are chosen that require tipping movements only.

4. Responsibility:

- The patients are allotted to the undergraduate students and interns.
- The staff supervises the clinical work of undergraduate students.
- The Staff nurses maintain the details and contact information of the allotted patients in the register.

Sr no	Activity	Responsibility	Reference Document/Record
02	<u>Standard Protocol For Removable Appliance Patients</u> Before starting orthodontic treatment, it is imperative that periodontal tissue is healthy. Therefore any patient requiring extractions and oral prophylaxis are referred to Dept. of OMFS, Dept., of Periodontics. Or Dept. of Conservative Dentistry. Once patients are referred back from their respective departments, they are allotted to the students/ Interns/ Junior Residents under the supervision of the Consultants. The complete details of the allotted patients are maintained for future correspondence. The patient reports to the department on the day of his scheduled appointment and case paper is handed over to the staff Nurse for the entry. The concerned Doctor attends to the patient and then is made to sit comfortably on the chair and the procedure to be carried out is explained.	Intern/ PG Student and Consultant Intern/PG Student and Consultant Staff Nurse Concerned Doctor (Intern/PG Student) to whom the case is allotted.	

Patients with removable appliances that incorporate an expansion screw shall be given strict instructions on home activation of appliance and in addition are made to sign a consent form listing the instructions to follow. Parents of minors shall be made to sign. The patient shall be checked regularly at monthly intervals till the completion of treatment. The patient is then reviewed post treatment to assess the retention of the treatment results for the next 5 years.	Intern/PG student Doctor to whom the case is allotted under supervision of the teaching staff Intern/junior resident under the supervision of teaching staff	
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- Removable Orthodontic Appliances (T. M. Graber, Bedrich Neuman, 2nd Edit). The Design, Construction and Use of Removable Orthodontic Appliances (C. Philip Adams, W. John S. Kerr, 6th Edit,

03 MYOFUNCTIONAL APPLIANCE

1. Purpose:

- Myofunctional therapy aims at changing muscle function and thereby influencing jaw growth and the position of teeth.

2. Scope:

- Correction of Class II and class III discrepancies during active growth period can be achieved in the patients.

3. Responsibility:

- The patients are allotted to the postgraduate students (Junior residents)
- The staff supervises the clinical work of postgraduate students.
- The Staff nurses maintain the details and contact information of the allotted patients in the register.

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03	<u>Standard</u> <u>Protocol For Myofunctional/Orthopaedic Appliance Patients</u> Before starting orthodontic treatment, it is imperative that periodontal tissue is healthy. Therefore any patient requiring extractions and oral prophylaxis are referred to Dept. of OMFS, Dept., of Periodontics, Or Dept. of Conservative Dentistry. Once patients are referred back from their respective departments, they are allotted to the PG students under the supervision of the Consultants. The complete details of the allotted patients are maintained for future correspondence. The patient reports to the department on the day of his scheduled appointment and case paper is handed over to the staff Nurse for the entry. The concerned Doctor attends to the patient and	PG Student Concerned Doctor to whom the case is allotted	
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	thenismadetositcomfortably on the chair andtheproceduretobecarrriedout is explained. Alginateimpressionsaretakenandaresterilizedbeforepouredindentalstone. Following this procedure,records (case history/clinicalexamination//photographs/radiographs)aretaken. Thepatientisgivenanappointmentforthecasepresentation/bite registrationwithin a week.	Concerned Doctor towhom the case isallotted PG Students under the supervision of theteachingstaff Concerned Doctor towhom the case isallotted	
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	The appliance is delivered and the patient is checked regularly at monthly intervals till the completion of treatment. The patient is then reviewed post treatment to assess the retention of the treatment result prior to transferring the patient onto fixed mechanotherapy.	Concerned Doctor to whom the case is allotted Concerned Doctor to whom the case is allotted	
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- Radiographic Cephalometry-Alexander Jacobson
 - Dentofacial Orthopedics with Functional Appliances (2nd edition)-T.M. T.M. Graber, Bedrich Neumann (W.B. Saunders Company)
 - Combined activator headgear orthopaedics-Paul W. Stockli, Ullrich M. Teuscher (pg 405-483): Orthodontics current principles and techniques-T.M. Graber, Brainerd F. Swain
 - Twin Block Functional Therapy, 3rd Edit... William J. Clark
- 04 TMDs

1. Purpose:

- Occlusal appliance therapy is used for the treatment of clinical problems affecting Temporomandibular joint, myofascial muscles and other Temporomandibular disorders.

2. Scope:

- The occlusal appliance protects the articular disc in the Temporomandibular joint from dysfunctional forces that may lead to perforations or permanent displacement. It improves jaw-muscle function and relieves associated pain by creating a musculo-skeletally stable position of the joint.

3. Responsibility:

- The patients are allotted to the postgraduate students (junior residents)
- The staff supervises the clinical work of postgraduate students.
- The Staff nurses maintain the details and contact information of the allotted patients in the register.

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Sr no	Activity	Responsibility	Reference Document/Record
04	<u>Standard Protocol For patients with TMDs</u> Any patient reporting with pain in the TMJ is taken up for immediate occlusal therapy after appropriate diagnosis. A thorough case history is taken. A detailed clinical examination is carried out and an appropriate treatment therapy is formulated. The patient is seated comfortably on the dental chair and the procedure to be carried out is explained. Alginate impressions are taken and are sterilized before poured in dental stone. Appliance fabrication (splint therapy) is carried out.	PG Student Concerned Doctor to whom the case is allotted Concerned Doctor to whom the case is allotted	

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	The patient is given an appointment for the delivery of the appliance (splint) within 24 hours. The patient is checked regularly at 7 day intervals until the pain subsides and then followed every 30 days. The patient is then reviewed post splint therapy to assess the need for fixed mechanotherapy	Concerned Doctor to whom the case is allotted Concerned Doctor to whom the case is allotted	
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- Removable Orthodontic Appliances (T.M. Graber, Bedrich Neuman, 2nd Edit)
- Management Of TMDs and occlusion - Jeffrey P. Okeson

05 Fixed Appliance Patients

1. Purpose:

- To create the best possible functional occlusal relationships, within the framework of Facial esthetics and stability of end result.

2. Scope:

- It is possible to bring about various types of tooth movements with fixed appliances. More precise tooth movements and detailing of occlusion can be achieved.
- Fixed appliances offer better control over anchorage and more complex kind of malocclusions can be treated.

3. Responsibility:

- The patients are allotted to the postgraduate students (junior residents)
- The staff supervises the clinical work of postgraduate students.

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- The Staff nurses maintain the details and contact information of the allotted patients in the register.

Sr no	Activity	Responsibility	Reference Document/Record
05	<u>Standard Protocol For Fixed Appliance Patients</u> Before starting orthodontic treatment, it is imperative that periodontal tissue is healthy. Therefore any patient requiring extractions and oral prophylaxis are referred to Dept. of OMFS Dept. of Periodontics and Dept. of Conservative Dentistry Once patients are referred back from their respective departments, pre-treatment records (case history/clinical examination/study models/photographs/X-rays). Records to be maintained by Staff Nurse	PG Student Concerned Doctor to whom the case is allotted PG Student	

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	Patients are reviewed monthly. Reviews include adjustments in the appliance, wire changes and tightening as well as repair of any broken components. The patient is reviewed post treatment to assess the retention of the treatment for the next 5 years.	Concerned Doctor to whom the case is allotted	
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➤ Radiographic Cephalometry-Alexander Jacobson

➤ Color Atlas of Dental Medicine and Orthodontic Diagnosis- Thomas Rakosi, Irmtrud Jonas, Thomas M. Graber

➤ Orthodontics: Current principles and Techniques, 5th Edit, Lee W. Graber, Robert L. Vanarsdall

06 Ortho-surgical patients

1. Purpose:

- Severe dentofacial deformity and impaired function requires a combination of orthodontics and orthognathic surgery in non-growing teen and adult patients. This can improve the patient's facial esthetics and function thereby boosting up in patient's self-esteem and psycho-social well-being.

2. Scope:

- Severe dentofacial deformities associated with problems including esthetic, functional, psychological, speech and Temporomandibular joint dysfunction can be treated with combined orthodontics and orthognathic surgery. Carefully planned presurgical orthodontics with skillfully done orthognathic surgery and adequate detailing during postsurgical orthodontic phase, keeping patients expectations in mind accomplishes desired results.

3. Responsibility:

- The patients are allotted to the postgraduate students (junior residents)
- The staff supervises the clinical work of postgraduate students.
- The Staff nurses maintain the details and contact information of the allotted patients in the register.

Sr no	Activity	Responsibility	Reference Document/Record
6	<u>Standard Protocol For Ortho-surgical patients</u> Before starting orthodontic treatment, it is imperative that periodontal tissue is healthy. Therefore any patient requiring extractions and/or prophylaxis are referred to Dept. of OMFS Dept. of Periodontics and Dept. of Conservative Dentistry Once patients are referred back from their respective departments, pre-treatment records (case history/clinical examination /study models/photographs/X-rays). Records to be maintained by Staff Nurse For ortho-surgical patients, diagnosis, pre-surgical orthodontics as well as post-surgical settling is done by the Department of Orthodontics.	Consultant	


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Patients are reviewed monthly. Reviews include adjustments in the appliance, wire changes and tightening as well as repair of any broken components Mock surgery and splint therapy is carried out by the department of orthodontics. The surgery is carried out by the department of oral surgery in close co-ordination with the department of orthodontics. The patient is reviewed on a monthly basis for finishing and detailing **A new case that requires ortho-surgical treatment is put on the 'PRIORITY' waiting list. A special register is systematically maintained. Very severe deformities that could be psychologically damaging are taken up immediately.	Concerned Doctor to whom the case is allotted
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➤ Dentofacial Deformities, Integrated Orthodontic and Surgical Correction Vol 1-3, Edit 2, Bruce N. Epker, John, Paul Stella, Leward C. Fish.

07 Bonding

1. Purpose:

- To bond the attachment of fixed orthodontic appliance to the prepared tooth surfaces with light cured adhesive to facilitate orthodontic tooth movement.

2. Scope:

- It is possible to bring about various types of tooth movements with fixed appliances. More precise tooth movements and detailing of occlusion can be achieved. Fixed appliances offer better control over anchorage and more complex kind of malocclusions can be treated.

3. Responsibility:

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- The patients are allotted to the postgraduate students (Junior residents), Senior residents and staff.
- The staff supervises the clinical work of postgraduate students.
- The Staff nurses maintain the details and contact information of the allotted patients in the register.

Sr no	Activity	Responsibility	Reference Document/Record
7	<u>Standard Protocol For bonding</u> Patient is explained about the entire procedure prior to the scheduled appointment. The patient reports to the department on the day of his scheduled appointment and case paper is handed over to the staff Nurse for the entry The dental chair is disinfected. All necessary radiographs and study models for the patient are analyzed thoroughly and kept on the table before beginning the procedure. Patient is asked to brush his /her teeth before the procedure. Meanwhile, all the sterilized necessary instruments are arranged on the tray. The chair is adjusted to a position comfortable to the operator for bonding and the patient is seated comfortably.	Concerned doctor Staff nurse Concerned doctor Concerned doctor	

Cheek retractor is placed in the patient's mouth for isolation. The working area is kept dry using suction and cotton rolls. The etchant and primer are dispensed on disposable wells (single use only) along with disposable applicator tips and adhesive is kept alongside. The etching process is the first step in bonding where 37% phosphoric acid etchant is used to etch the surfaces of all teeth where orthodontic brackets have to be placed with one arch at a time. Etchant is applied on each tooth using an applicator brush and kept for 30 seconds. The etchant is rinsed off using 3 way air and water syringe and the water is removed with the help of suction.	Concerned doctor	
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After rinsing the etchant, all teeth are dried to give a frosty appearance using an air syringe. Cotton rolls are then placed to isolate and maintain a dry working field. Once the teeth are dried, a sealant is applied to each tooth with an applicator tip using a light painting motion and then cured with LED unit for 10 seconds per tooth. Patient is instructed to keep his/her eyes closed during the curing process as the light used for curing can harm the eyes. The bracket is held with the bracket holding tweezers and adhesive is applied on the bracket base. The bracket is then immediately placed on the tooth in the correct position and firmly pressed to remove any extra adhesive. Following this, the brackets are cured using the light source for 20 seconds per tooth. Once the curing is complete, the initial arch wire is ligated into the bracket slots using modules or ligature ties.	Concerned doctor	
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	All necessary instructions are given to the patient regarding the fixed appliance and a written instruction list is handed over to the patient before dismissing the patient. The patient is also scheduled with the next appointment after six weeks and is motivated to follow the instructions strictly.		
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- Bonding in orthodontics (pg:727-784): Orthodontics current principles and techniques (5th edition)- Lee. W. Graber, Robert L. Vanarsdall, Katherine Vig (Elsevier publications)
- Bjorn Ogaard, Morten Fjeld- The enamel surface and bonding in orthodontics- Sem ortho 2010; 16:37-48

08 Banding

1. Purpose:

- To weld an attachment to band material over the molar that forms part of anchor unit and facilitate orthodontic tooth movement

2. Scope:

- Fixed appliances offer better control over anchorage and more complex kind of malocclusions can be treated.

3. Responsibility:

- The patients are allotted to the postgraduate students (Junior residents), Senior residents and staff.
- The staff supervise the clinical work of postgraduate students.
- The Staff nurses maintain the details and contact information of the allotted patients in the register.

Sr no	Activity	Responsibility	Reference Document/Record
8	<u>Standard Protocol For banding</u> Working condition of the chair and welder is checked and ensured that they are disinfected. A tray with explorer, mouth mirror, ball burnisher, band material, cotton rolls, suction tip, band pusher, band pinching pliers, band contouring pliers, band material, scissors, spot welder, Glass Ionomer cement, gloves is prepared. The chair is adjusted to appropriate working position. The patient is seated comfortably, draped and explained about the procedure and treatment duration. Prescribed medications are taken in case of relevant medical history. The oral hygiene of the patient is checked.	Staff nurse	

- Limited corrective Orthodontics: Fixed appliances (Pg 821-829): Orthodontics principles and practice (3rd edition) - T.M. Graber (W.B. Saunders Company)

09 Placement of Temporary Anchorage Devices

1. Purpose:

- To provide absolute anchorage during orthodontic tooth movement to affect the movement of certain tooth or group of teeth to move in desired direction.

2. Sources: V.Y.W.S Dental College & Hospital, Amravati

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- The use of TADs provides a solution to the anchor loss situation as well as facilitation of tooth movement in any desired direction. The utilization of this technique can expand the horizons of conventional orthodontic treatment.

3. Responsibility:

- The patients are allotted to the postgraduate students (Junior residents), Senior residents and staff.
- The staff supervises the clinical work of postgraduate students.
- The staff nurses maintain the details and contact information of the allotted patients in the register.

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Sr no	Activity	Responsibility	Reference Document/Record
9	<u>Standard Protocol For The Placement Of Temporary Anchorage Devices</u> The chair is disinfected and Sterilized instruments such as mouth mirror, explorer, periodontal probe, gloves, syringe, anesthetic solution, suction tip, implants, implant drive, gauze, guide drill & contra-angle slow speed handpiece are arranged. Patient is seated on the chair and the treatment procedure is explained. Patient is draped and the face is wiped with povidone iodine. Template for TADs is pre-fabricated using a wire framework and tried in patient's mouth, secured and then patient is referred to Dept. of Oral Radiology for a radiograph (IOPA) Local anesthetic solution (Lignocaine with 2% Adrenaline) is injected at the insertion site with syringe (0.45 X 38 mm gauge needle). The insertion site is located with the help of the template.	Staff nurse Concerned doctor	

- Temporary anchorage devices in orthodontics (1st edition)-Ravindra Nanda, Flavio Andres Uribe (Elsevier publications)
- Cope-Temporary Anchorage devices in Orthodontics: A paradigm shift-Sem Ortho 2005;1


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10 During the day

1. Purpose:

- To ensure that adequate services are provided to all patients who require orthodontic treatment.
- To ensure that the patient receives treatment with highest levels of sterilization and disinfection.

2. Scope:

- Department of Orthodontics & Dentofacial Orthopaedics receives a vast number of patients on a day to day basis on OPD as well as for treatment procedures.

3. Responsibility:

- Attendants supervised by the staff nurse are responsible for cleanliness and disinfection of the instruments and clinic.
- Staff nurse is responsible for sterilization of instrument.
- Staff nurse is responsible for maintaining inventory and registers of the department.

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Sr no	Activity	Responsibility	Reference Document/Record
10	<u>Standard protocol during the day</u> Instruments are washed after each use and 3-4 additional sterilization cycles are carried out as per requirement. Indenting materials for the department are done once a week. Inventory for department materials are done twice a week. Linen like towels, drapes and other materials are sent to the laundry twice a week, Registers regarding the work done and the waiting list for fixed appliance patients are updated once a week. Patient's records, study models, radiographs and photographs are stored in their respective place.	Attendant Staff nurse	

11 Material inventory

1. Purpose:

- To ensure that adequate services are provided to all patients who require orthodontic treatment.
- To ensure that orthodontic material is always available to patients at all times there by reducing a delay in patient treatment.

2. Scope:

- Department of Orthodontics & Dentofacial Orthopedics receives a vast number of patients on a day to day basis on OPD as well as for treatment procedures.

3. Responsibility:

- Staff nurse is responsible for maintaining inventory and handing over material to the various doctors

Sr no	Activity	Responsibility	Reference Document/Record
11	<u>Standard protocol for material inventory</u> Material inventory is done once every week after checking levels of stock. If material levels are low, storekeeper of the central store is contacted to check for availability. If stock is available, material is indented accordingly. If stock is unavailable at central store, then the HOD is notified and protocol is followed in conjunction with the purchase section to procure new stock. The lower limit for orthodontic materials in the department store is 50 units of any type.	Staff nurse	

12 Material indent5. Purpose:

- To ensure that adequate services are provided to all patients who require orthodontic treatment.
- To ensure that orthodontic material is always available to patients at all times there by reducing a delay in treatment.

6. Scope:

- Department of Orthodontics & Dentofacial Orthopedics receives a vast number of patients on a day to day basis on OPD as well as for treatment procedures.

7. Responsibility:

- Staff nurse is responsible for material indent

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- The head of the department is responsible for the final approval.

Sr no	Activity	Responsibility	Reference Document/Record
12	<u>Standard protocol for material indent</u> Indenting of materials is done once a week (every Thursday of the week) The list of material to be indented is entered in the indent book maintained by the department. Following entry into the indent book, it is sent for the Dean's approval which is taken on the prior day Material is then indented from the central store of the hospital. Material is then stocked in its respective place in the department store and entered accordingly in the consumable and dead stock register.	Staff nurse Attendant	

13 Laundry & linen

4. Purpose:

- To ensure that adequate services are provided to all patients who require orthodontic treatment.
- To ensure that every patient receives clean and sterile drapes during treatment.

5. Scope:

- Department of Orthodontics & Dentofacial Orthopedics receives a vast number of patients on a day to day basis on OPD as well as for treatment procedures.

