SOP –CLINICAL AND PATIENT

INTRODUCTION

Oral & Maxillofacial Pathology is the specialty of dentistry and discipline of pathology that deals with the nature, identification, and management of diseases affecting the oral and maxillofacial regions. It is a science that investigates the causes, processes, and effects of these diseases. The practice of oral pathology includes research and diagnosis of diseases using clinical, radiographic, microscopic, biochemical and other investigations.

The Department carries out routine histopathological evaluation of specimens relating to Oral mucosa, routine diagnostic procedures including haematological and cytopathological, investigations.

Scope:

1. Determines nature and extent of oral diseases and abnormal growths.

2. Diagnosis of microscopic slides of diseases or lesions of the head and neck region, including exfoliative and fine needle aspiration cytology.

3. Determines types of tests or examinations and evaluates results to diagnose the nature and progress of diseases.

4. Histopathological diagnosis of disease using clinical, radiographic and microscopic examinations.

Registration of Patients

Purpose:
For the documentation of patients records.

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

Procedure for Records:

1] Patient Registration:

- Enter patient demographic details in hematology Register.
- Name in full, Age, Sex, OPD number ,address
- Enter reason for patient's referral
- Enter name of department referring patient
- Apply charges

2] Responsibility: Lab Technician

3] Document: Hospital Case Paper

Routine Patient Examination

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

Scope:
Applies to all patients referred to the department.

Armamentarium:

- Dental Chair with adjustable light
- Case History recording proforma

The standard set of instruments for routine patient examination includes the following:

1. Kidney Tray
2. Mouth Mirror
3. Probe
4. Tweezer
5. Sterile Gauze pads
6. Face Mask
7. Examination Gloves
8. Dental Chair

Procedure:

- Study the case paper, scan the radiographs and any other prior investigation reports.
- Confirm identity of the patient by name.
- Seat the patient on the dental chair, adjust the height, focus the light and draw in examination tray with armamentarium.
- Record case history

Responsibility:

Interns, Staff member and Lab Technician.

EXAMINATION OF PATIENT:

ARMAMENTARIUM:

Mouth Mirror, Probe, Tweezer , Cheek Retractors, Sterile Gauze pads, Examination Gloves, Face Mask, Apron, Patient's Drape

PROCEDURE:

- Adjust face mask, decontaminate hands and pull on gloves.
- Extra-oral examination, including TMJ, salivary glands, cervical lymph nodes.
- Intra-oral examination: oral vestibule, oral cavity proper, including tongue and dentition.
- Note findings, clinical staging, if applicable.
- Advise relevant chair side diagnostic or hematological investigations.
- Explain need for and nature of investigations to patient
- Turn off light, swing out examination tray, lower chair for patient to stand up.
- Dispose used gauze pads and gloves into appropriate bins.
- Take consent from patients/guardian for hematological investigations.

RESPONSIBILITY:

- Interns, Lab Technician and Faculty

MIDSR Dental College, Latur

DEPARTMENT OF ORAL PATHOLOGY AND MICROBIOLOGY

PATIENT CONSENT FORM

REG. NO. -: **CASE NO-:**

I ----------the undersigned hereby give my consent for the investigations and also for performance of diagnostic procedure including biopsy on myself. I have been informed that all the data obtained will be kept confidential. The procedures and the nature of investigations are properly explained to me.

Date: Patient's Signature

HEMATOLOGICAL INVESTIGATION:

Blood investigation is the drawing of blood from a vein by the insertion of a needle to collect appropriate representative samples for various haematological analyses. This protocol documents the correct technique for obtaining a blood specimen with the aim of reducing the associated risks for both patient and staff.

Purpose:

- For the determination of blood cell counts (White blood cells, Red blood cells, Platelets) hemoglobin measurement and the calculation of hematological indexes (mean cell volume, mean corpuscular hemoglobin and mean cell hemoglobin concentration).
- For the manual methods for Bleeding time, Clotting time, Total and Differential WBC counts and Hemoglobin estimation.

Documents:

- Patient registration in hematology register.

Equipment & Instruments:

- Manual: WBC, RBC, Hb pipettes, glass rod stirrers, droppers, Neubauer"s hemocytometer with cover slip, Sahli's hemoglobinometer, Blood cell counter, Oil Immersion Binocular Microscope, Stopwatch.

- Automated blood cell counter.

- Biochemical analyser.

- Monitor reagent levels before start up every day.

REAGENTS FOR MANUAL HEMOGRAM:

1] WBC diluting fluid:

WBC diluting fluid (Turk's fluid) consists of a weak acid solution (which hemolyzes red cells) and gentian violet (which stains leucocyte nuclei deep violet). Diluting fluid also suspends and disperses the cells and facilitates counting. Its composition is as follows:

- Acetic acid, glacial 2 ml
- Gentian violet, 1% aqueous 1 ml
- Distilled water to make 100 ml

The solution should be used to dilute blood (ratio 1volume of blood/10 or 20 vol. of Turk solution).The number of cells in undiluted blood is reported per cumm (µl) of whole blood.

2] N/10 HCl :

- Concentrated HCl: 4.5 ml, Distilled water: 500 ml
- N/10 HCl converts hemoglobin into soluble unstable acid hematein.
- The colour intensity of the acid hematein after dilution is compared with standard brown glass in the comparator of Sahli"s hemoglobinometer.
- The hemoglobin content is reported as gm%.

3] Leishman's stain:

- Leishman powder: (Eosin, Methylene Blue)0.15 gm, Absolute Methanol (Acetone free)-100 ml (pH adjusted 6.8-7.2 using phosphate buffer) distilled water.
- Methanol acts as a fixative, eosin (acidic) and Methylene Blue (basic) stain WBC nuclei and cytoplasm.
- Leukocyte differential counts are reported as a percentage and as an absolute cell count.

Armamentarium for Blood Investigation:

1. EDTA tube.
2. 21gauge disposable needles, lancet
3. Tourniquet
4. Alcohol swabs
5. Sterile cotton gauze pad
6. Disposable sterile gloves
7. Kidney Tray
8. Cleaned, sterile Glass slides (for Differential Count and Clotting Time)
9. Whatman's Filter paper (for Bleeding Time)
10. Waste disposal bins

Procedure

SAMPLE COLLECTION AND STORAGE

Lab technician collects 2 ml venous blood in EDTA bulbs following venepuncture protocol and procedures. Capillary blood from index finger for manual hemogram is obtained by the finger-prick method using a lancet or 21 gauge sterile disposable needles.

SAMPLE PREPARATION:

For automated method

For Microscopic examination

For manual methods for Total WBC Count (TC) and Hemoglobin (Hb)

ANALYSIS:

➢Automated

- Complete Blood Count

➢Manual

A) Bleeding Time, Clotting Time

B) Total Count, Differential Count

C) Hemoglobin

D) Blood sugar

By attendants

- Rinsing, detergent scrubbing and autoclaving of glassware.
- Rubber/Plastic tubings disinfected, autoclaved.

MANUAL: HEAMOGRAM

A) BLEEDING TIME, CLOTTING TIME

B) TOTAL COUNT, DIFFERENTIAL COUNT

C) HEMOGLOBIN

The manual hemogram is a simple, rapid chair side investigation to screen patients for haematological or inflammatory-infectious.

A] 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

- 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.

B] <u>CLOTTING TIME :</u>

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

- Clean the pulp of the index or ring finger with an alcohol swab.
- Pierce the tip of the finger with the lancet or sterile 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

C] 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

- 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.
- 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: Nx50cumm

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.

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
- Place a single drop of blood 1-2 mm in diameter, ¼ inch away from edge of slide.
- 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
- Examine platelets, RBCs for morphology, tinctorial properties and presence of Inclusion bodies.

D] HEMOGLOBIN:

Haemoglobin 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 anaemia 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 of sahli's Hemoglobinometer . The concentration of Hb is read directly at first marking on box.

Method

- In Hb meter 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 Hemoglobinometer tube containing N/10 HCl, wash out contents of pipette by pipetting and discharging the N/10 HCl till all blood is discharged into Hb meter 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 %

GENERATION OF TEST RESULT AND SIGN :

- The report is generated by the lab technician and interns , checked and verified by the faculty and signed before handing over to the patient.

AUTOMATED: COMPLETE BLOOD COUNT (CBC)

Niohn Kohden hematology Analyzer is a quantitative, fully automated hematology analyzer and 3 part leukocyte differential cell counter for in vitro diagnostic use in laboratories. The Automated Cell Counter works on the principle of electrical impedance method.

Procedure

The probe of the Counter is gently aligned with the bulb and hand held steadily without contacting the bottom or sides of the bulb till the probe retracts into the machine.

Generation Of Test Result And Sign Out

The Cell Counter generates the printout of the test result. The values are stored in the memory of the haemanalyser. The report is checked by the technician, verified by the faculty and signed before handing over to the patient.

HISTOPATHOLOGICAL ANALYSIS

PURPOSE:

To describe the procedures for histopathological examination of tissues to arrive at a final diagnosis.

SCOPE:

- Histopathology is the branch of pathology which studies disease in tissue in order to produce a report to assist the clinician in making management decisions.
- The histopathology report provides diagnosis, recommendations on need for further investigation (where diagnosis is not immediately possible), essential prognostic information in cancer staging.

ASSOCIATED DOCUMENTS:

- Biopsy Requisition form.
- Grossing form.
- Histopathology reporting form.
- Histopathology Dispatch Register.

PROTOCOL FOR TISSUE PROCESSING :

- Check whether biopsy tissue samples are immersed in appropriate fixative in a container of adequate size and sufficient volume of fixative.
- Note special investigative procedure, if any are indicated requested for in the requisition form.
- Ensure that the requisition form is completely filled. Record date and time of receipt of sample on requisition form.
- Each biopsy sample is assigned a unique identification number.
- Grossing of tissue is performed.
- Details of the gross examination and sampling of tissues are documented in the grossing form and photographically recorded under the supervision of the faculty in charge.
- Treatment with decalcifying agents if indicated. Record details on grossing form.A minimum 24 hrs required for adequate fixation of tissues before further processing.
- Monitor working reagent volume levels every week. Change if indicated.
- Soft tissue for overnight automatic processing or manual processing the subsequent day.
- Hard tissues placed in decalcification agent depending on the size, density, type of tissue and nature of histopathological investigation. Check daily for endpoint of decalcification. 5% nitric acid: 2 days- 7 days. Waterwash decalcified tissues prior to tissue processing.
- Tissue sectioning and staining done by lab technician

PROTOCOL FOR PARAFFIN WAX EMBEDDING, MICROTOMY, FLOTATION:

- Align requisite number of embedding trays, embedding rings.
- Dispense molten paraffin wax into tray, orient and embed tissue, top up with additional wax if required. Inscribe unique identity number with indelible ink onto embedding ring.
- Cool to set. Refrigerate before trimming and sectioning.

- Align and fix tissue block onto block holder on microtome[Thermo scientific –semi automated], retract, fix and tighten disposable high-profile microtome blade, trim paraffin block at 10µ thickness, reduce to 4-5µ for sectioning.
- 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.
- Stained with routine hematoxylin-eosin staining technique.

PROTOCOL FOR BIOPSY REPORTING:

- 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 utilising the patient data request form.
- Co-relate the histopathological findings with the clinical, imaging, haematological, 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 keeping pending results of the advanced investigations.
- The report is signed by a pathologist (faculty member), a copy is filed for department records.
- Report in original is dispatched via the Histopathology Report Dispatch Register.

Time taken from receipt of tissue to sign out of final report:

- Small incisional biopsies without decalcification: 4-8 days

- Small incisional biopsies with decalcification: 7-15 days
- Large excisional biopsies/resections with multiple blocks: 10-25 days
- Large hard tissue resections requiring decalcification: 21-30 days

Reporting

The histopathological report is dispatched in a hard copy format signed by Staff member.

The record it is maintained in histopathological dispatch book.

Staining of tissues:

Purpose:

To define the protocol for the differential staining of specific tissues components using histochemical stains.

Scope:

To provide a full tissue diagnostic histopathology

Responsibility:

Lab Technician, Faculty

HARRIS'S HAEMATOXYLIN & EOSIN STAIN:

Purpose:

The haematoxylin and eosin stain is the most widely used stain to demonstrate different tissue components in routine histology and diagnostic cytopathology.

Principle:

Harris's hematoxylin is a chemically ripened regressive alum hematoxylin used with Eosin as a counterstain. The oxidation product hematein complexes with potash alum, a mordant enabling its binding to anionic tissue sites such as the nuclear chromatin. Eosin Y is a xanthene dye, water soluble, cytoplasmic stain.

Reagents:

- Alcohol: 50% 100%
- Xylene
- Harris‟ Haematoxylin
- Eosin
- Blueing agent

- Acid alcohol
- DPX (Dibutylphthalate Polystyrene Xylene)

Procedure:

- Dewax sections on slide warming table
- Hydrate through graded alcohol (50%-70%-90%-100%) to water
- Remove fixation pigments, if evident
- Stain in haematoxylin for 20-30 minutes.Wash well in running stream of tap water for 5 mins until section is blue.
- 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

PERIODIC ACID SCHIFF STAIN

Purpose:

To lay down the procedures for demonstrating the presence of neutral mucopolysaccharides, especially glycogen. A positive stain is perceived as purplish-red or magenta.

Principle:

PAS involves the oxidation of hydroxyl groups in 1,2 glycols to aldehyde and subsequent staining of the aldehydes with fuschin-sulfuric acid, which combines with the basic pararosaniline to form a magenta colored compound.

Reagents:

a) Periodic acid
b) Schiff‟s solution
c) Harris‟s hematoxylin

Preparation Of The Schiffs Reagent:

- Dissolve basic fuchsin in 200 ml boiling distilled water.
- Basic fuchsin solution is then sulphurated by addition of potassium metabisulfite.
- Add 2 ml of HCl and 2 g of activated charcoal, leave overnight in dark room.

Preparation Of The Periodic Acid:

- 1g of Periodic acid in 100 ml of distilled water

Procedure:

- Place the tissue section on the hot plate at 60 °C for 5 minutes (melts the paraffin wax)
- Dip the tissue sections in xylene 1 solution for 10 minutes
- Dip the tissue sections in xylene 2 solution for 5 minutes
- Dip the tissue sections in Alcohol 1 solution for 10 minutes
- Dip the tissue sections in Alcohol 2 solution for 5 minutes

- Place the tissue section in a water bath under a gentle stream of distilled water for 5 minutes
- Dip the tissue section in periodic acid solution for 5 minutes
- Place the tissue section in a water bath under a gentle stream of distilled water for 5 minutes
- Dip the tissue section in Schiff‟s reagent for 15 minutes
- Rinse the tissue section in a water bath under a gentle stream of distilled water for 5 minutes
- Dip the tissue section in Harris‟s hematoxylin for 5 minutes (stain nuclei)
- Place the tissue section in a water bath under a gentle stream of distilled water for 5 minutes
- Dip the tissue section in 1% acid alcohol for a second (Differentiation) and immediately place the slide under stream of distilled water in a water bath for2-3 minutesDip the tissue section once in 70% alcohol, 90% alcohol & 100% alcohol rapidly (Dehydration of the tissue)
- Dip the tissue section once in Xylene (Clearing)
- Mount the tissue section in DPX solution (Dibutylphthalate Polystyrene Xylene).

Results And Interpretation:

- Glycogen, neutral mucins, glycoproteins – magenta
- Nuclei – blue

Other PAS Positive Carbohydrates Are:

- Basement membrane
- Thyroid colloid
- Pituitary basophil cells
- Cerebrosides and gangliosides in nervous tissue

TOLUIDINE BLUE STAIN

Purpose:

To lay down the procedures for demonstrating the presence of mast cells inconnective tissue stroma. A positive stain is perceived as violet/ purple color.

Principle:

The cytoplasm of the mast cells contains granules composed of heparin and histamine. These granules are metachromatic i.e. tissue elements stain a different color from the dye solution and depends on the pH, dye concentration and temperature of the basic dye. Blue or violet dyes will show a red color shift, and red dyes will show a yellow color shift with metachromatic tissue elements

Reagents:

Toluidine blue stock solution: 1g Toluidine Blue in 100 mL of 70% alcohol (Mix, solution is stable for 6 months) 1% Sodium Chloride: 0.5g of Sodium chloride in 50 mL of distilled water. (Make fresh)

Preparation Of The Working Solution:

- 5.0 ml - Toluidine blue stock solution
- 45.0 ml - 1% Sodium chloride
- Make fresh, discard after use

Procedure

- Place the tissue section on the hot plate at 60 °C for 5 minutes (melts the wax)
- Dip the tissue sections in xylene 1 solution for 10 minutes
- Dip the tissue sections in xylene 2 solution for 5 minutes
- Dip the tissue sections in Alcohol 1 solution for 10 minutes
- Dip the tissue sections in Alcohol 2 solution for 5 minutes

- Place the tissue section in a water bath under a gentle stream of distilled water for 5 minutes
- Dip the tissue section in toluidine blue working solution for 2-3 minutes
- Rinse the tissue section in a water bath under a gentle stream of distilled water for 1 minutes
- Dip the tissue section once in 90% alcohol & 100% alcohol rapidly (dehydration)
- Dip the tissue section once in Xylene (clearing)
- Mount the tissue section in DPX solution (DibutylphthalatePolystyrene Xylene).

Results And Interpretation:

Mast cells - violet

Background - shades of blue

CYTOLOGICAL EXAMINATION:

Purpose:
To lay down the procedures for exfoliative cytology investigation.

Scope:
To provide an adjunctive to histopathology service.

Responsibility:
Oral & Maxillofacial Pathologist

Equipment & Instruments:

The standard set of instruments for routine patient examination includes the following:

1. Kidney Tray

2. Mouth Mirror

3. Probe

4. Tweezer

5. Cheek Retractors

6. Examination Gloves

7.Sterile Gauze pads

8. Dental Chair

Chairside armamentarium for exfoliative cytology

1.Slide Marker Pencil

2. cytobrush

3. Cleaned glass slides 4. Binocular Microscope

Procedure

1. Greet patient by name, seat him/her comfortably on the dental chair.

2. Adjust height, light as required.

3. Check instrument layout.

4. Put on face mask and wear gloves.

5. Request patient to rinse his/her mouth

6. Inspect site from which sample is to be collected.

7. Mark glass slides site-wise and with unique number given to patient.

8. Using firm pressure, scrape the leading edge of the spatula across the mucosal surface.

9. Transfer smear and spread evenly at the centre of the previously marked glass slides.

10. Air dry.

Reporting Format

• View slides, co-relate with clinical findings, history and other investigations, sign and dispatch.

• Retain a copy in the Cytopathology Report

FEEDBACK AND GRIEVANCE REDRESSAL MECHANISM

Purpose:

To establish a procedure whereby patients complain their grievances
To provide a mechanism by which department redress the patient rights.

Scope :

Department patients.

Procedure:

- Department takes feedback from each patient.

MAEER PUNE's

MAHARASHTRA INSTITUTE OF DENTAL SCIENCES & RESEARCH (DENTAL COLLEGE)

ESTD 2006 MIDSR

Departmental Patient Feedback Form

Date:-

Name: _____ Reg No: Dept: Oral Pathology

1. Did you find the working space clean and hygienic?

   Yes No

2. Were you informed of blood investigations to be done, along with expected expenditure?

   Yes No

3. Are you provided with restroom (Washroom) facilities?

   Yes No

4. Do you have any problem with behavior of non teaching staff?

   Yes No

5. Were you informed about any delays during entire treatment procedure or were you sent back anytime without any work done

   Yes No

6. Will you refer your family members and friends to this institute?

   Yes No

7. Your experience with our doctor.

   Good Average Poor

8. Have you faced any problem because of non electricity in the department?

   Yes No

9. How good was the treatment and is expected outcome satisfactory.

   Yes No

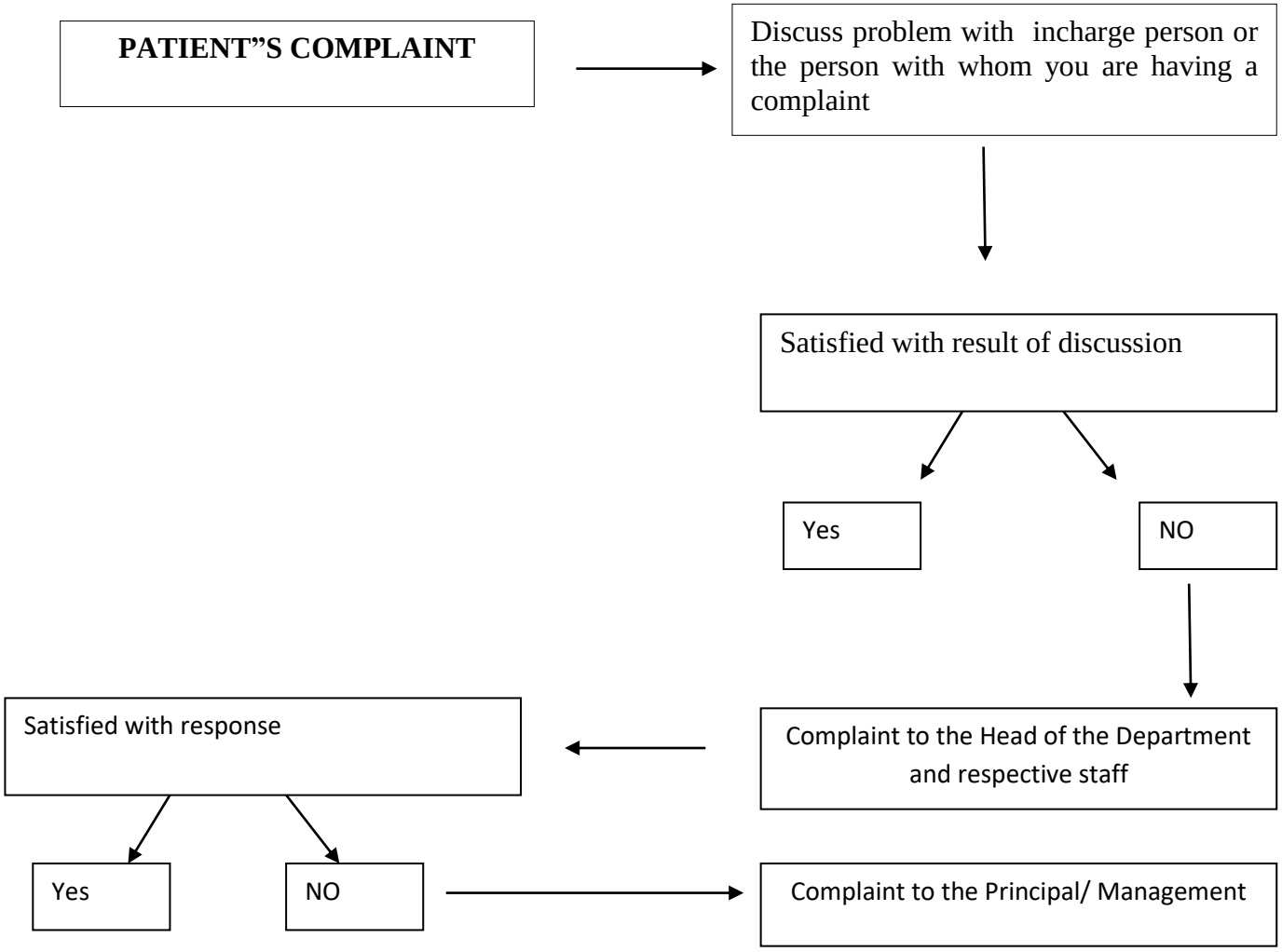
10. Any other suggestions/improvements please mention.

_____

_____

_____

Grievance redreesal procedure:



PAYMENT METHODOLOGY:

Investigations Charges

Sr.no	Investigations	Charges
1	CBC	150
2	HIV	200
3	HBsAg	200
4	Biopsy	200
5	Cytology	200
6	Urea	100
7	Sr. Creatinine	100
8	Total Bilirubin Direct Bilirubin	100
9	BSL	50
10	BT/CT	50
11	PRF	100

DEPARTMENTAL RECORD MAINTAINING

Purpose:

Preparation and maintenance of files and other departmental documents storing of closed files and retrieval of documents.

Scope:

Applies to all files and their related documents that are maintained in department and closed files

Maintainance :

- Department maintains record in hard copies that is files and soft copies that is computer data.
- The Department maintains records like, circular file, notice file, master file, teaching-schedule file, biopsy requisition file, cytology requisition file, reporting file, general dispatch book.
- The Department maintains record through register like stock book, hematology register, histopathological reporting register, cytology register, daily census records and library books, biopsy dispatch book, indent book.
- Museum records are maintained through museum file. Also Ist and IIIrd year charts are stored in files.
- Attendance musters of Ist and IIIrd BDS students and interns are maintained. Also internal assessment file reords of Ist and IIIrd BDS students are maintained.

- Efforts will be made to keep the records under lock and key for maintaining security, integrity and confidentiality using lockable steel cupboards. Access to the keys of locked steel cupboards will be available only to one of the departmental staff member.
- Soft copies of all staff documents, students' attendance and internal assessment records batch wise are maintained. Also the soft copy of internal question papers, MCQ's, LAQ's, SAQ's are maintained. Record of lecture power point presentations is maintained.
- All NAAC related records are maintained as a soft copy.

BIOMEDICAL WASTE MANAGEMENT

Purpose:

To ensure proper segregation of the solid and liquid waste in the respective labelled bins.

To ensure that waste is dispose safely and in-an environment friendly manner.

To ensure timely disposal of waste and no waste is accumulated for longer period in the department.

Responsibility:

Attendant and Lab Technician

Frequency: weekly- twice in a week

Procedure:

- Waste is categorised into solid and liquid waste.
- Solid waste: The following items can be considered general waste:

  Disposable gloves, Specimen containers

  Biohazard sharps- Needles, Lancets, Syringes, Glass –Slide

- Liquid waste: Human tissue blood and body fluids and chemicals.
- It is adequate to place such waste items in sealed, sturdy impervious bags (heavy-duty garbage bags or double bagging) to prevent leakage or breakage, and to dispose of them as regular garbage.
- Soiled dressings and sponges are placed into biohazard bags and placed into bins designated for biohazard waste.

- Biomedical waste is stored in a safe, ventilated and secured location for segregation of biomedical waste in colored bags or containers as per color coding norms.
- Red bag: human tissues, blood and body fluids
- Blue bag: waste sharps like Needles, Lancets, Syringes, and Glass –Slide
- Yellow and black bags: solid waste like Disposable casts, Disposable gloves, Specimen containers, chemicals.
- Disposable items are often recycled, like glass slides, cover slips are dipped in freshly prepared 1% sodium hypochlorite for 30 min- 1 hour.
- Scalpel blades, lancet, broken glass put in separate containers with bleach transformed to plastic or cardboard boxes sealed to prevent spillage.
- Glassware should be disinfected, cleaned and sterilized.
- Gloves are shredded or cut before disposal.
- These container bags have bio-hazard symbol.
- At the time of the collection of general waste from department a lab. Technician is there and he ensures that there is no mixing of different types of waste.
- Weighing is done at the central garbage area and weight is mentioned on a register maintained for this purpose.
- Bio-medical waste is transported to central garbage area by department attendant.