REGULATIONS AND CURRICULUM GOVERNING

M.Ch. SURGICAL ONCOLOGY PROGRAM

(2024-25)

Name of the Constituent Unit/Centre: Yenepoya Medical College



YENEPOYA
Deemed to be University

Deralakatte, Mangalore, Karnataka.

NOTIFICATION FROM THE UNIVERSITY

YENEPOYA
(DEEMED TO BE UNIVERSITY)
Recognized under Sec 3(A) of the UGC Act 1956
Accredited by NAAC with 'A' Grade

Office of the Registrar
University Road
Deralakatte, Mangalore – 575 018
Ph: 0824 – 2204667/68/69/70/71
Fax: 0824 - 2203943

NOTIFICATION – 37-ACM/10/2019 dtd. 31.12.2019

Sub: Starting of M.Ch (Surgical Oncology) course

Ref: Resolution of the Academic council at its 37th meeting held on 13.12.2019, vide agenda-24

****

The Academic Council at its 37th meeting and subsequently 48th meeting of Board of Management held on 13.12.2019 have accepted the proposal for starting of M.Ch (Surgical Oncology) course with effect from the academic year 2019-2020 onwards.

REGISTRAR

To,

The Principal, Yenepoya Medical College

Copy to:

1. Controller of Examinations
2. File copy

दूरभाष/Phone : 25367033, 25367035, 25367036
फैक्स /Fax : 0091-11-25367024
ई-मेल /E-mail : mci@bol.net.in
वेबसाईट /Website : www.mciindia.org

पॉकेट -14, सेक्टर-8, द्वारका,
फेस-1, नई दिल्ली-110077
Pocket- 14, Sector- 8, Dwarka,
Phase – 1, New Delhi-110077

भारतीय आयुर्विज्ञान परिषद के अधिक्रमण में शासी बोर्ड
BOARD OF GOVERNORS
IN SUPERSESSION OF MEDICAL COUNCIL OF INDIA

No. MCI-50(22)/2019-Med./ 123658 Date: 13-06-19

LETTER OF PERMISSION

The Dean/Principal,
Yenepoya Medical College,
Mangalore University Road, Deralakatte
Mangalore – 575018 (Karnataka)
E-Mail: principalymc@yenepoya.edu.in

Subject: **Starting of M.Ch.(Surgical Oncology) course at Yenepoya Medical College, Mangalore under Yenepoya University of Health Sciences (Deemed), Mangalore u/s 10(A) of the IMC Act, 1956 for academic year 2019-2020 - Permission of Board of Governors - Regarding.**

Sir/Madam,

In continuation to this office letter dated 10/05/2019 seeking information and your acceptance of the conditions mentioned therein vide letter dated **21/05/2019**, I am directed to convey the permission of the Board of Governors for **Starting of M.Ch.(Surgical Oncology)** course for **2(Two)** seat(s) per year with prospective effect i.e. from the academic year 2019-2020 at **Yenepoya Medical College, Mangalore** u/s 10A of the IMC Act, 1956, as amended.

This permission for starting of above mentioned course and admission of students will be till such time the first batch of students admitted against the above course appears for the final examination in the subject. The college authorities may take up the matter for recognition of the qualification under section 11(2) of the IMC Act at the time of first batch admitted against the sanctioned intake appears for final year examination with the Central Government.

I am further directed to inform that you and your institution is fully responsible to fulfill and maintain norms including the infrastructure both physical and human resource, teaching faculty and clinical material, etc. throughout the academic year, as stipulated in Regulation of Medical Council of India. In case false/wrong declaration or fabricated documents have been used for procuring permission of the Board of Governors and the said misconduct is brought to notice or comes to the knowledge of Medical Council of India at any stage during the current academic year, your institution is liable not to be considered for recognition of the degree and this letter of permission is also liable to be revoked for current academic year. Besides, Medical Council of India is entitled to take all such measure against you and your college/institution as permissible under the law.

Kindly acknowledge receipt of this letter.

Yours faithfully,

(Dr. Rakesh Kumar Vats)
Secretary General

C.C.:

1. The Secretary, (Health Deptt.) Multi Storied Building, Dr. B.R. Ambedkar Veedhi, Bangalore-560001 (Karnataka).
2. The Director of Medical Education, Anand Rao Circle, Bangalore-560009 (Karnataka)
3. The Registrar, Yenepoya University of Health Sciences (Deemed), Mangalore University Road,Deralakatte, Mangalore - 575018.
4. The Secretary to the Govt. of India, Ministry of Health & F.W., Nirman Bhawan, New Delhi-110011.
5. The Assistant Director General (ME), Directorate General of Health Services, 352-A Nirman Bhawan, New Delhi-110011

YENEPOYA
Deemed to be University

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M.Ch. SURGICAL ONCOLOGY

The infrastructure and faculty of the department of Surgical Oncology will be as per MCI

Guidelines

Goals

The goal of M.Ch. course is to produce a competent physician who:

- Recognizes the health needs of adults and carries out professional obligations in keeping with principles of National Health Policy and professional ethics;
- Has acquired the competencies pertaining to Surgical Oncology that are required to be practiced in the community and at all levels of health care system;
- Has acquired skills in effectively communicating with the patients, family and the community;
- Is aware of the contemporary advances and developments in medical sciences.
- Acquires a spirit of scientific enquiry and is oriented to principles of research methodology; and
- Has acquired skills in educating medical and paramedical professionals.

Objectives

At the end of the M.Ch. course in Surgical Oncology, the student should be able to:

- Recognize the key importance of medical problems in the context of the health priority of the country;
- Practice the specialty of Surgical oncology in keeping with the principles of professional ethics;
- Identify social, economic, environmental, biological and emotional determinants of adult surgical oncology and know the therapeutic, rehabilitative, preventive and promotion measures to provide holistic care to all patients;
- Take detailed history, perform full physical examination and make a clinical diagnosis;
- Perform and interpret relevant investigations (Imaging and Laboratory);
- Perform and interpret important diagnostic procedures;
- Diagnose Surgical Oncology illnesses in adults based on the analysis of history,

- physical examination and investigative work up;
- Plan and deliver comprehensive treatment for illness in adults using principles of rational drug therapy;
- Plan and advice measures for the prevention of cancer.
- Plan rehabilitation of adults suffering from chronic illness, and those with special needs;
- Manage Oncological emergencies efficiently;
- Demonstrate skills in documentation of case details, and of morbidity and mortality data relevant to the assigned situation;
- Demonstrate empathy and humane approach towards patients and their families and respect their sensibilities;
- Demonstrate communication skills of a high order in explaining management and prognosis, providing counseling and giving health education messages to patients, families and communities.
- Develop skills as a self-directed learner, recognize continuing educational needs; use appropriate learning resources, and critically analyze relevant published literature in order to practice evidence-based medicine;
- Demonstrate competence in basic concepts of research methodology and epidemiology;
- Facilitate learning of medical/nursing students, practicing physicians, paramedical health workers and other providers as a teacher-trainer;
- Play the assigned role in the implementation of national health programs,effectively and responsibly;
- Function as a productive member of a team engaged in health care, research and education.

Eligibility

- Pass in MS (General Surgery) of Yenepoya University or any recognized university or equivalent qualifications DNB (G.Surgery)

Duration of the Course

The period of study and training for the surgical oncology shall be 3 Year academic years including examination process.

Syllabus

5.1 Theory

A trainee in Surgical Oncology has to become familiar with the basic principles of :

- Surgery
- Radiotherapy
- Chemotherapy
- Endocrine therapy
- Immunotherapy
- Evaluation of the choices of treatments
- Adverse effects with these treatments
- Interactions of these treatments modalities with those of surgery
- Surveillance and prevention of cancer
- Palliative oncology
- Clinical research in oncology

❖ Etiology and epidemiology of malignant diseases

- Genetic Predisposition to Cancer
- Chemical Carcinogenesis
- Hormones and the Etiology of Cancer
- Ionizing Radiation
- Ultraviolet Radiation Carcinogenesis
- Physical Carcinogens
- Trauma and Inflammation
- Oncogenic viruses
- Parasites
- Environmental factors in carcinogenesis

❖ Prognosis and natural history of malignant diseases

- Mechanisms and patterns in local, regional and distant dissemination of malignant diseases
- Differences in natural history between hereditary and sporadic forms of cancer

- Diseases predisposing to malignancy e.g. Inflammatory bowel disease or primary
- sclerosing cholangitis
- Prognostic and predictive factors
- Cancer etio pathogenesis
- Genetics of hereditary malignant diseases

❖ Cancer biology

- Cell kinetics, proliferation, apoptosis and the balance between cell death and cell proliferation
- Angiogenesis and lymphangiogenesis
- Genome maintenance mechanisms to prevent cancer
- Intercellular and intermolecular adhesion mechanisms and signaling pathways
- Potential effects of surgery and surgery-related events on cancer biology(e.g. Angioenesis)

❖ Tumor immunology

- Cellular and humoral components of the immune system
- Regulatory mechanisms of the immune system
- Tumor antigeneity
- Immune-mediated antitumour cytotoxicity
- Effect of cytokines on the tumor
- Effects of the tumor on anti-tumor immune mechanisms
- Potential adverse effects of surgery and surgery-related events (like blood
- transfusions) on the immunological responses

❖ Cancer Screening and Early Detection

- Cancer screening and early detection

❖ Theory and practice of clinical trials

❖ Cancer Epidemiology

- Cancer Epidemiology

❖ Cancer Prevention

- Prevention of tobacco-related cancers
- Nutrition in the etiology and prevention of cancer
- Chemo-prevention of cancer
- Cytokinetics
- Drug resistance and its clinical circumvention
- Principles of dose, schedule, and combination
- Chemotherapy
- Regional Chemotherapy
- Animal models in developmental therapeutics In vitro and in vivo predictive tests
- Pharmacology
- Toxicology by organ system

❖ Chemotherapeutic Agents and their principles

- Folate Antagonists
- Pyrimidine and Purine Antimetabolites
- Alkylating Agents and Platinum Antitumor Compounds
- Anthracyclines and DNA Intercalators
- Epipodophyllotoxins / DNA Topoisomerases
- Microtubule – targeting anticancer drugs derived from plants and microbes
- Vinca Alkaloids, Taxanes, and Epothilones, Asparaginase
- Recent Advances/concepts
- Bone marrow transplantation

❖ Principles of EndocrineTherapy

- Steroid Hormone Binding and Hormone Receptors
- Hypothalamic and Other Peptide Hormones
- Corticosteroids estrogens and Anti-estrogens
- Clinical use of Aromatase Inhibitors in Breast Carcinoma

- Progestins
- Androgen Deprivation Strategies in the treatment of Advanced Prostate
- Cancer.

❖ Principles of Cancer Pathology

- Principles of cancer pathology

❖ Principles of Imaging

- Imaging neoplasms of the head and neck and central nervous system
- Imaging neoplasms of the thorax
- Imaging neoplasms of the abdomen and pelvis
- Cross-sectional imaging of musculoskeletal neoplasms
- Imaging the breast
- Ultrasound in cancer medicine
- Radionuclide imaging in cancer medicine
- Perspectives in imaging
- Interventional radiology for the cancer patient

❖ Principles of Surgical Oncology

- Principles of Surgical Oncology
- Vascular access in cancer patients
- Advances in surgical oncology

❖ Principles of Radiation Oncology

- Physical and biologic basis of Radiation Oncology
- Principles of Hyperthermia
- Photodynamic Therapy for cancer

❖ Principles of Medical Oncology

- Principles of Medical Oncology

❖ Principles of Biotherapeutics

- Immunostimulants
- Active specific immunotherapy with vaccines Interferons
- Cytokines: biology and applications in cancer medicine
- Hematopoietic Growth Factors.
- Monoclonal Serotherapy
- Cancer Gene Therapy
- Hepatitis Viruses
- Parasites

❖ Neoplasms of the Thorax

- Cancer of the Lung
- Malignant Mesothelioma
- Thymomas and Thymic Tumors

❖ Neoplasms of the Female Reproductive Organs

- Neoplasms of the vulva and vagina
- Neoplasms of the cervix
- Endometrial cancer
- Neoplasms of the fallopian tube
- Ovarian cancer
- Gestational Trophoblastic Disease

❖ Neoplasms of the Breast

- Neoplasms of the breast

❖ Neoplasms of the Skin

- Neoplasms of the skin

❖ Malignant Melanoma

- Malignant melanoma

❖ Neoplasms of the Bone and soft Tissue

- Bone Tumors & Sarcoma of non- osseous tissues

❖ Neoplasms of the Hematopoietic System

- Myelodysplastic Syndrome
- Acute Myeloid Leukemia in adults
- Chronic Myeloid Leukemia
- Acute Lymphocytic Leukemia
- Chronic Lymphocytic Leukemia
- Tumors of the heart and great vessels
- Primary germ cell tumors of the Thorax
- Metastatic tumors in the Thorax
- Hairy – Cell Leukemia
- Hodgkin's Disease
- Non – Hodgkin's Lymphomas
- Mycosis Fungoides and the Sezary Syndrome
- Plasma cell tumors
- Mast cell Leukemia and other mast cell neoplasms
- Polycythemia vera and essential thrombocythemia

❖ Neoplasms of the Alimentary Canal

- Neoplasms of the Esophagus
- Neoplasms of the Stomach
- Primary Neoplasms of the Liver
- Treatment of Liver Metastases
- The Gallbladder
- Diagnosis and Management of Biliary Tract Cancer
- Neoplasms of the Ampulla of Vater
- Neoplasms of the Exocrine Pancreas
- Neoplasms of the small intestine, vermiform appendix, and peritoneum, colon and
- rectum & anal canal

❖ Neoplasms of the Genitourinary Tract

- Renal Cell Carcinoma
- Neoplasms of the Renal Pelvis and Ureter
- Bladder Cancer
- Neoplasms of the Prostate
- Neoplasms of the Penis
- Neoplasms of the Testis
- Neoplasms in Acquired Immunodeficiency Syndrome

❖ Neoplasms of Unknown Primary Site

- Neoplasms of unknown primary site

❖ Neoplasms in Children

- Principles and practice of pediatric oncology
- Incidence, origins, epidemiology
- Principles of pediatric radiation oncology
- Late effects of treatment of cancer in children and adolescents
- Childhood Acute Lymphoblastic Leukemia
- Pediatric Acute Myeloid Leukemia
- Hodgkin's disease in children and adolescents
- Non – Hodgkin's Lymphoma in children
- Langerhan's Cell Histiocytosis
- Hepatic tumors
- Renal tumors of childhood
- Germ cell tumors
- Neuroblastoma
- Soft tissue sarcoma of childhood

❖ Complications of Cancer and its Treatment

- Management of cancer pain
- Anorexia and Cachexia

- Antiemetic Therapy
- Neurologic complication
- Dermatologic complications of cancer chemotherapy
- Skeletal complications
- Hematologic complications of cancer
- Blood bank support
- Coagulopathic complications of cancer
- Urologic complications
- Cardiac complications
- Respiratory complications
- Liver function and hepatotoxicity in cancer
- Gastrointestinal complications
- Oral complications
- Gonadal complications
- Endocrine complications
- Secondary cancers : incidence, risk factors, and management

❖ Infections in Patients with Cancer

- Infections in patients with cancer

❖ Oncologic Emergencies

- Oncologic Emergencies

❖ Other areas in which k knowledge is to be acquired

- Biostatistics, Research methodology and clinical Epidemiology
- Ethics
- Medico legal aspects relevant to the discipline
- Health policy issues as may be applicable to the discipline

5.2. Practical:

History, examination and writing of records:

- History taking should include the background information, presenting complaints and the history of present illness, history of previous illness, family history, social and occupational history and treatment history.
- Detailed physical examination should include general physical and CVS Examination, Respiratory examination, neurology examination.
- Skills in writing up notes, maintaining problem-oriented medical records (POMR), progress notes, and presentation of cases during ward rounds, planning investigation and making a treatment plan should be taught.
- Other oncology procedures- investigative surgical oncological Procedures like UGI scopy, Colonoscopy, Bronchoscopy, FNAC, biopsies.

Clinical Teaching

General, Physical and specific examinations of Surgical Oncology should be mastered. The resident should able to analyse history and correlate it with Clinical findings. He should be well versed with all radiological procedures like CT scan, MRI, Mammogram, and USG.

He should present his daily admissions in morning report and try to improve management skills, fluid balance, choice of drugs. He should clinically analyse the patient & decide for pertinent Investigations required for specific patient.

1. Teaching Programme

6.1 General Principals

Acquisition of practical competencies being the keystone of postgraduate medical education, postgraduate training is skills oriented.

Learning in postgraduate program is essentially self-directed and primarily emanating from clinical and academic work. The formal sessions are merel meant to supplement this core effort.

6.2 Teaching Sessions

The teaching methodology consists of bedside discussions, ward rounds, case presentations, clinical grand rounds, statistical meetings, journal club, lectures and seminars. Along with these activities, trainees should take part in inter-departmental

meetings i.e clinico-pathological and clinico-radiological meetings that are organized regularly.

Trainees are expected to be fully conversant with the use of computers and be able to use databases like the Medline, Pubmed etc.

They should be familiar with concept of evidence based medicine and the use of guidelines available for managing various diseases.

6.3 Teaching Schedule

Following is the suggested weekly teaching programme in the Department of Surgical Oncology.

Sr. No	Description	Frequency
1	Case Presentation & Discussion	Once a week
2	Seminar	Once a week
3	Journal Club	Once a week
4	Grand Round presentations	Once a month
5	Emergency case discussions	Once a week
6	Statistical & Mortality Meet	Once a month
7	Clinico–Pathological meet	Once a month
8	Clinico–Radiological meet	Once a month
9	Clinico-Surgical meet	Once a month
10	Faculty lecture teaching	Once a month

- Each unit should have regular teaching rounds for residents posted in that unit. The rounds should include bedside case discussions, file rounds (documentation of case history and examination, progress notes, round discussions, investigations and management plan), interesting and difficult case unit discussions.
- Central hospital teaching sessions will be conducted regularly and the residents would present interesting cases, seminars and take part in clinicopathological case discussions.

6.4 Conferences and Papers

- A resident must attend at least one conference per year.
- One paper must be presented in at least 3 years.

2. Schedule of Postings

- OPD : Twice a week
- OT : Thrice a week
- Investigative Surgical Oncology : All Days

- The MCh resident is expected to do daily ward rounds at 8 AM in the morning and evening between 5 Pm to 7 PM along with PG resident.
- The MCh resident should do the dressing of the patient that have been Operated/assisted by them.
- The MCh resident should note down the history and examination of admitted patients and should daily put progress note in files.

The normal working hours will be from 8 AM to 8 PM. When on emergency duty, the resident is supposed to stay overnight in the resident room.

Log Book

- The student will maintain a log book of all the procedures.
- The student will be graded as per his clinical & technical skill performance.
- The student has observed the procedures as an assistant.
- The part of the procedures performed under direct supervision.
- The procedure performed with assistance.
- The purpose of training is to grade the skills and evaluate the ability to take decisions.

The resident will be assessed once every year in the form of theory test at the end of each academic year.

Research Projects

- Every candidate shall carry out work on an assigned research project under the guidance of a recognized postgraduate teacher, the project shall be written and submitted in the form of a Project.
- Every candidate shall submit project plan to university within time frame set by university
- Thesis shall be submitted to the University within 9 months of joining the course.
- The student will (i) identify a relevant research problem, (ii) conduct a critical review of literature, (III) formulate a hypothesis, (iv) determine the most suitable study design, (v) state the objectives of the study, (vi) prepare a study protocol, (viii) undertake a study according to the protocol, (viii) analyze and interpret research data, and draw conclusion, (ix) write a research paper.

Assessment

All the MCh residents are assessed daily for their academic activities and also periodically.

General Principles

- The assessment is valid, objective and reliable
- It covers cognitive, psychomotor and affective domains.
- Formative, continuing and summative (final) assessment is also conducted in theory as well as practical. In addition, research project is also assessed separately.

Formative Assessment

- The formative assessment is continuous as well as end of term.
- The former is based on the feedback from the consultants concerned.
- Formative assessment will provide feedback to the candidate about his/her performance and help to improve in the areas they lack.
- Record of internal assessment should be presented to the board of Examiners for consideration at the time of final examination.

Internal Assessment

The performance of the resident during the training period should be Monitored throughout the course and duly recorded in the log books as evidence of the ability and daily work of the student. Marks should be allotted out of 100 as followed.

SL.No	Items	Marks
1	Personal Attributes	20
2	Clinical Work	20
3	Academic activities	20
4	End of term theory examination	20
5	End of term practical examination	20

Personal attributes:

- **Behavior and Emotional Stability:** Dependable, disciplined, dedicated, stable in emergency situations, shows positive approach.
- **Motivation and Initiative:** Takes on responsibility, innovative, enterprising, does not shirk duties or leave any work pending.
- **Honesty and Integrity:** Truthful, admits mistakes, does not cook up information, has ethical conduct, exhibits good moral values, loyal to the institution.
- **Interpersonal Skills and Leadership Quality:** Has compassionate attitude towards patients and attendants, gets on well with colleagues and paramedical staff, is respectful to seniors, has good communication skills.

1. Clinical Work:

- **Availability:** Punctual, available continuously on duty, responds promptly on calls and takes proper permission for leave.
- **Diligence:** Dedicated, hardworking, does not shirk duties, leaves no work pending, does not sit idle, competent in clinical case work up and management.
- **Academic ability:** Intelligent, shows sound knowledge and skills, participates adequately in academic activities, and performs well in oral presentation and departmental tests.

- **Clinical Performance:** Proficient in clinical presentations and case discussion during rounds and OPD work up. Preparing Documents of the case history/examination and progress notes in the file (daily notes, round discussion, investigations and management) Skill of performing bed side procedures and handling emergencies.

2. **Academic Activity:**

- Performance during presentation at Journal club/ Seminar/ Case discussion/Stat meeting and other academic sessions.
- Proficiency in skills as mentioned in job responsibilities.

3. **End of term theory examination:** End **of 1st, 2nd year and after 2 years 9 months** Conducted by the Department of surgical oncology ,Yenepoya Medical college hospital.

4. **End of term practical/oral examinations** after 2 years 9 months Conducted by the Department of surgical oncology ,Yenepoya Medical college hospital .

Marks for **personal attributes** and **clinical work** should be given annually by all the consultants under whom the resident was posted during the year. Average of the three years should be put as the final marks out of 20.

Marks for **academic activity** should be given by the all consultants who have attended the session presented by the resident.

The Internal assessment should be presented to the Board of examiners for due consideration at the time of Final Examinations.

Summative Assessment

Ratio of marks in theory and practical will be equal.

The pass percentage will be 50%.

Candidate will have to pass theory and practical examinations separately.

There will be a final exam in theory calculated Yenepoya University at the end of 3 years with the following patterns.

A.Theory examination

SL.No	Title	Marks
Paper –I	Basic Sciences as applied to Oncology	100
Paper-II	Clinical Oncology	100
Paper-III	Management of Solid Tumors	100
Paper -IV	Recent Advances in Oncology	100

After the theory examination there will be practical & viva – Voce examination conducted by Yenepoya University on the following patterns,

B. Practical & Viva-Voce Examination

SL.No	Title	Marks
1	Long Case (1)	120
2	Short Cases (2) 60 marks each	120
3	OSCE/Dissertation Viva	60
4	Grand Viva including Instruments/Radiology/Onco Pathology	100
Total		400

The candidate will be declared to pass Mch degree from Yenepoya University only after the passing separately in theory examination & practical & Viva –Voce Examination.

Job Responsibilities

10.1 Outdoor Patient (OPD) Responsibilities

- The working of the residents in the OPD should be fully supervised.
- They should evaluate each patient and write the observations on the OPD card with date and signature.
- Investigations should be ordered as and when necessary using prescribed forms.

- Residents should discuss all the cases with the consultant and formulate a management plan.
- Patient requiring admission according to resident's assessment should be shown to the consultant on duty.
- Patient requiring immediate medical attention should be sent to the casualty services with details of the clinical problem clearly written on the card.
- Patient should be clearly explained as to the nature of the illness, the treatment advice and the investigations to be done.
- Resident should specify the date and time when the patient has to return for follow up.

In-Patient Responsibilities

Each resident should be responsible and accountable for all the patients admitted under his care. The following are the general guidelines for the functioning of the residents in the ward:

- Detailed work up of the case and case sheet maintenance:
- He/She should record a proper history and document the various symptoms Perform a proper patient examination using standard methodology. He should develop skills to ensure patient comfort/consent for examination. Based on the above evaluation he/she should be able to formulate a differential diagnosis and prepare a management plan. Should develop skill for recording of medical notes, investigations and be able to properly document the consultant round notes.
- To organize his/her investigations and ensure collection of reports.
- Bedside procedures for therapeutic or diagnostic purpose.
- Presentation of a precise and comprehensive overview of the patient in clinical rounds to facilitate discussion with senior residents and consultants.
- To evaluate the patient twice daily (and more frequently if necessary) andmaintain a progress report in the case file.
- To establish rapport with the patient for communication regarding the nature of illness and further plan management.
- To write instructions about patient's treatment clearly in the instruction book along with time, date and the bed number with legible signature of the resident.
- All treatment alterations should be done by the residents with the advice of the concerned consultants and senior residents of the unit.

Admission day

Following guidelines should be observed by the resident during admission day.

- Resident should work up the patient in detail and be ready with the Preliminary necessary investigations reports for the evening discussion with the consultant on duty.
- After the evening round the resident should make changes in the treatment and plan out the investigations for the next day in advance.

Doctor on Duty

- Duty days for each Resident should be allotted according to the duty roster.
- The resident on duty for the day should know about all sick patients in the wards and relevant problems of all other patients, so that he could face an emergency situation effectively.
- In the morning, detailed over (written and verbal) should be given to the next resident on duty. This practice should be rigidly observed.
- If a patient is critically ill, discussion about management should be done with the consultant at any time.
- The doctor on duty should be available in the ward throughout the duty hours.

Care of Sick Patients

- Care of sick patients in the ward should have precedence over all other routine work for the doctor on duty.
- Patients in critical condition should be meticulously monitored and records maintained.
- If patient merits ICU care then it must be discussed with the senior residents and consultants for transfer to ICU.

Resuscitation skills

At the time of joining the residency programme, the resuscitation skills should be demonstrated to the residents and practical training provided at various work stations.

- Residents should be fully competent in providing basic and advanced cardiac life support.
- They should be fully aware of all advanced cardiac support algorithms and be aware of the use of common resuscitative drugs and equipment like defibrillators and external cardiac pacemakers.

- The resident should be able to lead a cardiac arrest management team.

Discharge of the Patient

- Patient should be informed about his/her discharge one day in advance and discharge cards should be prepared 1 day prior to the planned discharge.
- The discharge card should include the salient points in history and examination, complete diagnosis, important management decisions, hospital course and procedures done during hospital stay and the final advice to the patient.
- Consultants and MCH Residents should check the particulars of the discharge card and counter sign it.
- Patient should be briefed regarding the date, time and location of OPD for the follow up visit.

In Case of Death

- In case it is anticipated that a particular patient is in a serious condition,relatives should be informed about the critical condition of the patient before hand.
- Residents should be expected to develop appropriate skills for breaking bad news and bereavements.
- Follow up death summary should be written in the file and face sheet notes must be filled up and the sister in charge should be requested to send the body to the mortuary with respect and dignity from where the patient's relatives can be handed over the body.
- In case of a medico legal case, death certificate has to be prepared in triplicate and the body handed over to the mortuary and the local police authorities should be informed.
- Autopsy should be attempted for all patients who have died in the hospital especially if the patient died of an undiagnosed illness.

Bedside Procedures

The following guidelines should be observed strictly:

- Be aware of the indications and contraindications for the procedure and record it in the case sheet. Rule out contraindications like low platelet count, prolonged prothrombin time, etc.
- Plan the procedure during routine working hours, unless it is an emergency.Explain the procedure with its complications to the patient and his/her relative and obtain written

informed consent on a proper form. Perform the procedure under strict aseptic precautions using standard techniques. Emergency should be ready during the procedure.

- Make a brief note on the case sheet with the date, time, nature of the procedure and immediate complications, if any.
- Monitor the patient and watch for complications(s).

OT responsibilities

The 1st year resident observes the general layout and working of the OT, understands the importance of maintaining sanctity of the OT, scrubbing,working and sterilization of all the OT Instrument, know how of endoscopes. He/ She is responsible shifting of OT patients, for participating in surgery as 2nd assistant and for post operative management of patient in recovery and in ward. The 2nd year resident is responsible for pre op work up of the patient, surgical planning and understanding the rationale of surgery. He/she is the first assistant in surgery and is responsible for anticipating intra op and post op complications and managing them. The final year resident should be able to perform minor/medium/major surgeries independently and assist in medium/major/extra major surgeries. He/she should be able to handle all emergencies and post op complications independently and is responsible for supervision and guidance of his/her juniors.

Medico-Legal Responsibilities of the Residents

- All the residents are given education regarding medico-legal responsibilities at the time of admission in a short workshop.
- They must be aware of the formalities and steps involved in making the correct death certificates, mortuary slips, medico-legal entries, requisition for autopsy etc.
- They should be fully aware of the ethical angle of their responsibilities and should learn how to take legally valid consent for different hospital procedures & therapies.
- They should ensure confidentiality at every stage.

Suggested Books

Molecular biology

- Molecular Diagnosis of cancer , cotter F.E
- Molecular biology for oncologist Yarnold JR
- Cancer Chemotherpay handbook Baquiran delia

- The Lymphomas Cannellos GP ET al
- Chemotherapy Source Book Perry MC
- Leukemia Henderson ESetal
- Cancer Medicine Holland
- Atlas of clinical haematology begemann
- Text book of malignant Haematology Degos
- Clinical oncology Abeloff
- Imporatnat advances in oncology Devitha v t
- Cancer Principle and practice of oncology devitha v t
- Decision making in oncology evidence based management djulbegovic b and Sullivan
- AJCC cancer staging manual (American joint committee on cancer)
- Cancer tretement halnane E
- Cancer treatment haske L
- Oncology for Palliative Medicine, Hoskin Peter And Wendy
- Regional Therapy of Advanced Cancer, Rubin.J.T
- The non Hodgkin's Lymphoma, Magrath.I.
- Comprehensive Text book of Oncology, Vol 1-2,Mossa, A.R
- Oxford textbook of Oncology Peckham. M et al
- A Multi- disciplinary Approach for Physicians and Students, Rubin Clinical oncology
- Atlas of Diagnostic oncology, Skarin.A.T
- Basic Science of Oncology,TannocK,E.I
- Pediatric Oncology, Philip Lanszowsky
- Comprehensive Text Book of Thoracic Oncology, Aisner J,at al
- Pediatric Surgical Oncology, Andrassu, R.J
- Breast: Comprehensive Management of Benign and Malignant Disorders, Bland
- Gleenn's Thoracic and Cardiovascular Surgery, Baue.A.E et al
- Surgery of Childhood Tumours, Carachi. R. et al
- Cancer of the Colon, Rectum and Anus, Cohen, A.M
- Atlas of Surgical Oncology, Daly.J.M And Cady.B
- Cancer of the Prostate, Das.S & Crawford ,E.D
- Prostate Cancer, Ernstoff,M.S.et al
- Bone Marrow Transplantation, Forman, S.J
- Minimal Access Surgery in Oncology, Geraghty,J.G.et al
- Clinical Management of Bladder Cancer, Hall,R,R 1999 (Acc.No.3667

- Soft Tissue Tumours, Harms D & Beattie, E.J
- Cancer Surgery, Harvey,J.C and Beattie,E.J
- Testicular Cancer: Investigation and Management, Horwich. A
- Bone Tumor: Diagnosis, Treatment and Prognosis, Huvos. Andrew G
- Reconstrction and Plastic Surgery: Grab's Encyclopedia of flaps.
- Bailey & Love's Short Practice of Surgery , Manrl, C.V.Russel R.C.G
- Surgical Emergencies , Monson .J. et al
- Gastric Cancer, Nishi.M
- Superficial Bladder Cancer, Pagano.F. et al
- Carcinoma of the Kidney, Testis and Rare Urologic Malignancies, Petrovic H .Z.et al
- Breast Cancer, Roses.D.F
- Breast Cancer, Singlets .D.E
- Atlas of Esophageal Surgery, Skinner D.B.
- Surgery of the Breast: Principles and Art, Spear.S.L. et al.
- Gastric Cancer, Sugimori. T & Sasaki.M.
- Colorectal Cancer, Williams.N.S
- Campbell's Urology, Walsh. et.al
- Soft Tissue, Weiss.S.W. & Brooks J.S.J.
- Urological Oncology Waxmanj, J. Williams.
- Prevention and Early Detection of Colorectal Cancer, Young.G.P. et.al
- Maingot's Abdominal Operations, Zinner M.J.

Anesthesiology

- Pharmacology and Physiology in Anesthetic Practice, Stoelting .R.K
- Anesthesiology: Problem – Oriented Patient Management, Yao .F.S.F.

Head & Neck Oncology

- Essentials of Head & Neck Oncology, Close.I.G.
- Head & Neck cancer: A Multidisciplinary approach, Harrison L.B.
- Complication in Head & Neck Surgery, Ossoff.R.H
- An Atlas of Head & Neck, Lore.J.M.
- Management of Head & Neck Cancer: Multidisciplinary Approach, Million .C.R.
- Color Atlas of Head & Neck Surgery Face, Skull & Neck , Shah.J.P

- Color Atlas of Operative Technology in Head and Neck Surgery, Parotid.
- Soft Tissue and Reconstructive Surgery. Shah.J.P
- Surgery of Cancer of the Larynx and Related Structures, Silver E.E.
- Multimodality Therapy for Head and Neck Cancer, Snoks.G.B
- Comprehensive Management of Head and Neck tumors, Thawley.S.E et.al
- Basal & Squamous Cell Skin Cancer of the Head and Neck , Weber.R.G.et.al

Oral Oncology

- Burker's Oral Medicine: Diagnosis and Treatment .Lynch. M.A
- Malignant Tumor's of the Mouth. Jaws and Salivary Glands, Langdonj. I.D & Henk. J.M
- Cancer of the Face and Mouth: Pathology and Management for Surgeons. Mcgregor. I.A & Mcgregor. F.M
- Oral Oncology, (Proceedings of the 3rd International congress on oral cancer), Varma. A. K.

Gynecologic oncology

- Practical Gynaecologic Oncology, Berekj & Hacker .W.F
- Gynecological oncology : Guide to Clinical Management, Blake Peter et.al
- Gynaecologic Oncology: Fundamental Principles & Clinical Practice, Copplegon.
- New Development in Cervical Cancer Screening and Prevention, Franco. E &
- Principles and Practice of Gynecologic Oncology, Hosking W.J et al.
- Ovarian Cancer : Controversies in Management, Gershenson .D.M &
- Essentials of Gynaecologic Cancer, Lakiton.F et al
- Epithelial Cancer of the Ovary, Lawton. Frank. G. et.al
- Hand Book of Colposcopy, Luesely. D. et.al
- Cancer and Pre-Cancer Of The Cervix, Luesley.D.M & Barrass.R
- Gynaecologic Cancer Surgery, Morrow.C.P et.al
- Synopsis of Gynecologic Oncology , Morroki.C.P & Curtun.J.P
- Multimodality Therapy in Gynecologic Oncology, Sevin .B.U. et al
- Ovarian Cancer, Sharp.F. et.al
- Cancer of the Cervix, Shingleton H.M & Orr.J.W

Pediatric oncology

- Color Atlas of Pediatric Hematology .Hann. I.M
- Manual of Pediatric Hematology and Oncology .Lanzkowsky Philip.
- Principles & Practice of Pediatric Oncology. Pizzo.P.A & Popla CK

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Blueprint of MCh Surgical Oncology Theory Question paper

Paper I :Basic Sciences as applied to Oncology

Sl. No	Topic	Weightage	Mark alloted	No. of Questions
1	Cancer Biology	10%	10	1
2	Chemotherapy	10%	10	1
3	Radiotherapy	10%	10	1
4	Immunotherapy	10%	10	1
5	Cancer etiology	10%	10	1
6	Cancer epidemiology	10%	10	1
7	Cancer prevention & Screening	10%	10	1
8	Cancer genome	10%	10	1
9	Molecular methods in cancer	10%	10	1
10	Statistics and Research	10%	10	1

Paper II : Clinical Oncology

Sl. No	Topic	Weightage	Mark alloted	No. of Questions
1	Imaging in evaluation of solid tumors	20%	20	2
2	Diagnostic work up of Solid tunors	20%	20	2
3	Pathophysiology of surgical	20%	20	2

	complications			
4	Evaluation of a surgical patient	20%	20	2
5	Principals of treatment of solid tumors	20%	20	2

Paper III : Management of Solid Tumors

Sl. No	Topic	Weightage	Mark alloted	No. of Questions
1	Head & neck	10%	10	1
2	GI	20%	20	2
3	GU	20%	20	2
4	Beast	10%	10	1
5	Endocrine	10%	10	1
6	Thoracic	10%	10	1
7	STS & bone tumors	10%	10	1
8	Gynaec oncology	10%	10	1

Paper IV: Recent Advances in Oncology

Sl. No	Topic	Weightage	Mark alloted	No. of Questions
1	Recent Advances Surgical principles	20%	20	2
2	Recent Advances in Management of solid tumors	50%	50	5

3	Recent Advances in Chemotherapy	10%	10	1
4	Recent Advances in Radiotherapy	10%	10	1
5	Recent Advances in Molecular biology	10%	10	1

Department of Surgical Oncology

Formative Assessment

Theory	**1stYear**	**2ndYear**	**3rdYear**
	100Marks 1 Paper	**100Marks 1 Paper**	**100Marks 1 Paper**
Practical	• **Tumor Board Presentation** **-10Marks** • **Logbook Maintenance** **-10Marks** • **Seminar/ Journal Club Presentation** **-10 Marks**		

Summative Evaluation

Final PG University Examination MD/MS/DM/M.Ch.courses

For all Clinical and Prepara subjects

Distribution of marks for Theory examination

Item	Marks
No. of Theory Papers	4
Marks for each Theory Ppaer	100
Total Marks for Theory Paper	**400**
Passing Minimum for Theory	200/400 (40% minimum in each paper) Theory-aggregate 50 %(In addition, in each Theory paper a candidate has to secure minimum of 40%)

Distribution of marks for Practical examination-Clinical departments

Item	Marks	Total Marks
Long case	1*120	120
Short case	2*60	120
OSCE(Minimum 4 stations and two should be manned stations)	40	40
Dissertation viva	20	20
Subtotal of clinical/practical	300	300
Viva voce	100	100
100Grand total	400	400

Practical/Clinical and Viva voce – aggregate 50%

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Model Question Papers

MCh Surgical Oncology

Basic Sciences as applied to Oncology

Maximum Marks : 100

Time : 3 Hours

Attempt **ALL** questions.

Answer each question and its parts in **SEQUENTIAL ORDER**.

ALL questions carry equal marks.

Illustrate your answer with **SUITABLE DIAGRAMS** wherever necessary.

Q1: HPV and Oropharyngealcancer

Q2: Cancer genome atlas

Q3: A 45 years old lady presented after excision of left ovarian mass diadnosed as adeno carcinoma,please expalin how immunohistochemistry will help out in diagnosing the primary / mets

Q4: Viral carcinogenesis with one example

Q5: Capecitabine

Q6: Field carcinogenesis in oral cancers

Q7: Radiobiology of Cancer Radiotherapy

Q8: Selective Estrogen Receptor Modulators (SERMs)

Q9: EGFR inhibitors

Q10: p value

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MCh Surgical Oncology

Clinical Oncology

Maximum Marks : 100

Time : 3 Hours

Attempt **ALL** questions.

Answer each question and its parts in **SEQUENTIAL ORDER**.

ALL questions carry equal marks.

Illustrate your answer with **SUITABLE DIAGRAMS** wherever necessary.

Q1: Neoadjuvant chemotherapy for Ca Urinary Bladder

Q2: Neoadjuvant approaches in early breast cancer

Q3: Short course RT with delayed surgery for rectal cancer

Q4: Retinoblastoma

Q5: Neoadjuvant approches in esophageal cancer

Q6: Prophylactic neck dissection for oral cancer

Q7: 60year old man with good performance status presenting with carcinoma rectum T3N0M1 with two synchronous mets in liver segments 5 ang 7 largest in segment 7 3cms in size with healthy liver and no comorbidity.

Please mention the therapeutic pathways

Q8: Retroperitoneal sarcoma

Q9: 68Ga-DOTATOC Scan

Q10: Intraductal Papillary Mucinous Neoplasm of Pancreas

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M.Ch. Surgical Oncology

Management of Solid Tumors

Maximum Marks : 100

Time : 3 Hours

Attempt **ALL** questions.

Answer each question and its parts in **SEQUENTIAL ORDER**.

ALL questions carry equal marks.

Illustrate your answer with **SUITABLE DIAGRAMS** wherever necessary.

Q1: Surgical margins in infiltrating Duct Ca and Ductal carcinoma in situ Breast(discuss evidence)

Q2: Assessment of cirrhotic patient for the evaluation for liver resection

Q3: Discuss management of 35-years-old lady presenting with complex cyst right ovary on ultrasound with no other symptoms/findings

Q4: Reconsrtuction of pharyngeal defects after cancer surgery

Q5: D3 dissection for colonic cancer

Q6: Management of well differentiated thyroid cancer

Q7: RPLND for Nonsemiomatous GCT testis

Q8: Describe the role of minimally invasive surgery for rectal cancer, quoting evidences

Q9: Mediastinal staging for lung cancer

Q10: How you rehabilitate a 45 year old college professor who has undergone total laryngectomy recently

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MCh Surgical Oncology

Recent Advances In Oncology

Maximum Marks : 100

Time : 3 Hours

Attempt **ALL** questions.

Answer each question and its parts in **SEQUENTIAL ORDER**.

ALL questions carry equal marks.

Illustrate your answer with **SUITABLE DIAGRAMS** wherever necessary.

Q1: New generation surgical robots

Q2: Laser in head and neck cancer surgery

Q3: Carbon ion radiation

Q4: Genetic counseling in Hereditary nonpolyposis colon cancer

Q5: Molecular screening for cervical cancer

Q6: CDK inhibitors for breast cancer

Q7: Pressurized Intraperitoneal Aerosolized Chemotherapy

Q8: Partial breast radiation

Q9: Watch and wait policy for rectal cancer

Q10: ICG for Sentinel node biopsy for endometrial ca

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Check List FOR Mch SURGICAL ONCOLOGY

DEPARTMENT OF SURGICAL ONCOLOGY

YENEPOYA MEDICAL COLLEGE

P.G Classes Conducted on :

Presented by/ Nameofthe Postgraduate :

Nameofthe Moderator :

Topics:

Clinical Seminar :

Theory classes taken :

Case Presentation :

Journal Club :

Tumor Board/Group Discussion :

Attended by :

Name	Designation	Signature
Dr. M.Vijayakumar	Professor	
Dr.Jalaluddin Akbar	Professor & HOD	
Dr.Rohan Sheety	Associate Professor	
Dr.Amar Rao	Assistant Professor	
Dr.Noor Mohammed	Assistant Professor	
Dr.Anjum Mariam Ifthikar	Associate Professor	

Dr.Rohan Thomas	Reader	
Dr.Vipul S Jain	Final year MCH Resident	
Dr.Jacob A Kaithakkary	Final year MCH Resident	
Dr.Kotharu Surya Mohith	2nd year MCH Resident	
Dr.Mahek dave	2nd year MCH Resident	