

## **M.CH (GYNAECOLOGICAL ONCOLOGY)**

**[Syllabus Approved by Board of Studies, Medical & Health Sciences]**

<b>Programme Code</b>	:	HLTH10B02
<b>Programme Details</b>	:	M.CH GYNAECOLOGICAL ONCOLOGY
<b>Programme Learning Outcomes (PLOs / PSOs)</b>	:	ANNEXED IN THE BELOW FORMAT
<b>Eligibility Criteria</b>	:	<b>AS PER NMC NORMS</b>
<b>Duration of the Course</b>	:	3 YEARS
<b>Programme Structure (Credit-Based)</b>	:	NA
<b>Detailed Course Syllabus</b>	:	ANNEXED IN THE BELOW FORMAT
<b>Teaching–Learning Methodologies</b>	:	3 YEARS RESIDENCY PROGRAM
<b>Examination &amp; Evaluation System</b>	:	ANNUAL APPRAISALS FOLLOWED BY FINAL YEAR EXAMINATION AS PER NMC NORMS
<b>Internship / Project / Dissertation Guidelines</b>	:	1 YEAR MANDATORY BOND
<b>Program In Charge</b>	:	HEAD, DEPT OF GYNAECOLOGICAL ONCOLOGY  Coordinator: Dr. Amita Maheshwari amita.maheshwari@tmc.gov.in
<b>Annexure (Books / Journals etc)</b>	:	ANNEXUED

## M.Ch. (GYNAECOLOGICAL ONCOLOGY)

*Programme Code:* HLTH10B02

*Programme Outcome:*

- To train gynaecologists in basics of clinical gynaecologic oncology
- To understand medical and radiation oncologic principles and their role in holistic, multidisciplinary management of cancer patients
- To provide exposure to the comprehensive management, including diagnosis, planning treatment, be a part of the multidisciplinary team delivering treatment and follow-up of a patient with cancer.
- To build surgical skill set (open& laparoscopic) and early exposure to robotic surgery in various disciplines of oncology.
- To provide a platform for clinical and SOS translational research early in their training to generate interest.
- To provide national and international platform for presentations of clinical/surgical research data.
- The training should produce consultants to practice all over the country, and teachers to train future generations of trainees
- The candidate should complete the training programme as per prespecified norms.
- All the necessary training and mandatory theory are specified in the syllabus of the M.Ch. Gynaecological Oncology Course.
- The student is expected to participate in the regular appraisal examinations and academic programmes conducted in the institute.
- The purpose would be to acquire an understanding of the subject of gynaecological oncology in specific and clinical oncology in general.
- The candidate's progress through the 3 years will also be assessed with feedback from all stake holders, including the candidate and work-based assessment.

## DETAILED SYLLABUS

### ▪ AIMS AND OBJECTIVES

The MCh in Gynecological Oncology is designed as a Subspecialty course aimed at training candidates who having obtained a primary MCI-recognized postgraduate qualification in Obstetrics & Gynecology i.e. MS/MD or equivalent (DNB) and desire to pursue a career in the subspecialty of Gynecological Oncology.

The MCh in Gynecological Oncology has been designed as a comprehensive formal 3- year training program in all aspects of gynecologic oncology. It also includes training in the allied surgical subspecialties of Urological, Gastrointestinal and Breast Oncology, as well as Preventive Oncology, Radiation and Medical Oncology.

The candidate will receive comprehensive training in the management of patients with gynecological cancers. The program is designed to provide the candidate with every opportunity to gain proficiency in the principles of prevention and early detection, diagnosis and evidence-based treatment, palliative and terminal care. The program also stresses the importance of clinical and basic research relevant to the Subspecialty.

A candidate who successfully completes the course will be expected to have gained proficiency in the following:

- Ability to function as an independent consultant clinician in Gynecological Oncology
- Understand the epidemiology of gynecological cancers as also the principles underlying screening, early detection and prevention. The candidate should acquire a high level of competency in the performance of colposcopy and LEEP procedures in the management of pre-invasive and micro-invasive lesions of the female genital tract
- Acquire a sound knowledge of gross and microscopic pathology and cytology relevant to gynecological oncology. The candidate should be capable of interpreting the details of cytopathology and histopathology reports and use this effectively in making decisions regarding treatment and prognosis
- Acquire the necessary skillset and competence to safely perform radical surgery for gynecological cancers including the ability to prevent, recognize and manage any complications arising thereof

- Understand the surgical principles and have the skills necessary to perform appropriate surgical procedures on the GI and Urinary tract as and when required in the management of gynecological cancer and its complications
- Be familiar with principles of management of diseases of the breast
- Be able to perform the following invasive diagnostic procedures i.e. cystoscopy, thoracic and abdominal paracentesis, and placement and care of central lines
- Have a detailed knowledge of relevant imaging technologies, (indications and limitations) i.e. Ultrasound, CT, MRI and FDG-PET scans
- Have a sound knowledge of the principles of peri-operative patient care
- Have a sound knowledge of the principles of pain management, palliative care and end-of-life issues
- Acquire an understanding of the principles of radiobiology and radiation physics. Be well informed in the principles and techniques of modern radiation treatments. The candidate must develop the skills necessary to recognize and treat the side-effects and complications of radiation treatment
- Acquire sound knowledge of the clinical pharmacology of cancer chemotherapy and related treatment modalities. The candidate should develop the skills necessary for the appropriate selection of patients for chemotherapy and the practical use of the available chemotherapeutic options used in the management of gynecological cancer patients. The candidate should develop skills in the recognition and management of toxic side effects and acquire the ability to administer them in an independent capacity, if necessary
- Acquire skill in the assessment of the effects of treatment and the care of complications. This includes skill in the assessment of patients after treatment and during follow-up.
- Understand cancer survivorship issues and the principles underlying the management of fertility issues in gynecological cancer patients
- Develop skills in the planning, conduct, reporting and interpretation of research in gynecological oncology
- Understand the psycho-sexual, socio-cultural and economic aspects of cancer management in the Indian setting

## ▪ **ELIGIBILITY**

The candidate must fulfill the following requirements to be considered eligible to apply for the course:

- Hold the MBBS degree and be fully registered with either the Medical Council of India (MCI) or possess full registration with the Medical Council of the domicile State.
- Hold a MCI-recognized postgraduate degree in Obstetrics & Gynecology or any other qualification declared as equivalent i.e. MD/MS, DNB

## ▪ **ADMISSION**

Admission to the course at Tata Memorial Hospital shall be based strictly on merit and as per the guidelines laid down by the MCI & the Homi Bhabha National Institute (HBNI)

## ▪ **TYPE OF COURSE**

The MCh in Gynecological Oncology is a Full time Subspecialty course of three years duration

## ▪ **GENERAL RULES**

The course will be strictly in-service training in nature and the candidate will have all clinical responsibilities including emergency duties

- The candidate will actively participate in the weekly Departmental Academic Program which includes didactic lectures, clinico-pathological Meetings, Journal clubs, Case discussions and Unit Grand Rounds
- The candidate will be required to undertake one research project and be responsible for the planning, execution, analysis and presentation of the same. The research topic will be provided by the Teacher and should be approved within the first six months of commencing the course..Three hardcopies and one soft copy on a CD of the same will be submitted to the Dept. of Academics prior to the completion of the course and the number required by the Board will be forwarded for dispatch to the examiners for the evaluation of the same. The defense

of the same will be required during the viva voce as a separate session. The conclusions of the study should be presented at a forum within the institution or at a suitable National forum and the same should also ideally be accepted for publication in a peer-reviewed Journal

- The candidate will maintain a daily Training Record/Logbook for recording the following:
  - Clinical attendance
  - Attendance at Departmental/Institutional Meetings
  - Record of the patients in whose management the candidate has been actively involved. This record will need to be checked and signed regularly by the Teacher. The Record Book is intended as a means of continuous self- assessment. It is designed to stimulate the Trainee towards greater efforts in areas where the assessment reveals a standard that is below par and also to record progress in skill acquisition made by the Trainee.
- Regular 6-monthly evaluation of the overall performance of the Trainee will be done by the supervisor in consultation with other departmental Faculty, according to the criteria as indicated below (vide infra). The evaluation is to be discussed with the trainee to facilitate improvements and correct deficiencies in the training system
- Additional formal internal assessments will be performed in the form of a written and oral examination conducted at 6-monthly intervals. This evaluation is independent of the 6-monthly internal assessments of Trainee performance indicated above
- The leave period sanctioned to a Trainee during the course will be as per Institutional and MCI rules. Absence during the course exceeding the number of days specified will have to be made up by the extra days of work in that particular posting in which the candidate availed of leave prior to the acceptance of the candidate for the examination and the payment of the examination fees

## ▪ **CLINICAL ROTATION**

The Trainee will undergo a Clinical Rotation during the 3-years as a MCh Gynec. Oncology Trainee as outlined below:

Gynec. Oncology (Parent Unit)	24 months
Urologic Oncology	02 months
GI Surgical Oncology	04 months
Breast Unit	06 weeks

Radiation Oncology	04 weeks
Medical Oncology	04 weeks
Preventive Oncology	06 weeks
Lab (ACTREC)	01 month

- The Trainee will spend 24 months of the Course full-time in the Gynecological Oncology unit
- The Trainee will be expected to rotate through the various relevant clinical specialties as outlined above
- The candidate will spend 12 months of his/her training in relevant allied subspecialty units
- The Trainee will be allowed to sit the MCh examination ONLY after completing all the required formalities as specified by the MCI.

## ▪ **TRAINING MODULES**

Specific training modules have been designed and it will be the responsibility of the Faculty and Teachers/Mentors to ensure that the Trainee is trained as per the recommendations provided within each module as given below:

### **I. GYNECOLOGICAL ONCOLOGY MODULES**

#### **Module 1: General Assessment of a Gynecological Oncology Patient**

##### **• Objectives**

To train the Trainee in the skills required for appropriate clinical assessments of patients with suspected or known gynecological cancers

- Obtain detailed clinical history
  - Perform appropriate physical examination
  - Consolidate information received from prior investigations if any
  - Initiate further investigations
  - Communicate clinical plan to patient and relatives
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- **Knowledge Criteria**

Trainee should demonstrate knowledge of the following:

- Indications/limitations of screening for gynecological cancer
- Patterns of clinical presentation
- Investigations required for establishing a diagnosis
- Care pathways for suspected/proven gynecological cancer
- Pre-operative investigations (routine/specific) of patients
- Assessment of fitness for surgery

- **Criteria of Clinical Competence**

To demonstrate clinical competency with respect to the following:

- Counseling patients appropriately about screening and interpreting screening results
- Taking an appropriate clinical history including family history and genetic susceptibility where relevant
- Correlation of presenting symptoms/co-morbid conditions
- Performance of a detailed clinical examination
- Counseling patients re: diagnosis, investigations and appropriate treatment options including adverse effects and complications
- Communicating the results of investigations and treatment
- Discussing prognosis

- **Professional Skills and Attitudes**

- Ability to demonstrate clinical competency as indicated above
- Ability to identify the high-risk surgical patients and liaise with colleagues in anesthesia
- Ability to liaise with colleagues in Radiation and Medical Oncology as also with specialists in palliative care as when appropriate
- Ability to demonstrate counseling skills with respect to screening tests as also treatment/prognosis-related issues

## **Module 2: Pre-, Peri- and Post- operative Care Objectives**

To understand and demonstrate appropriate knowledge, skills and attitudes in relation to patients undergoing surgery for gynecological malignancies

- Plan appropriate surgery
- Identify risk factors if any: Surgical and Anesthetic
- Counsel patients for surgery
- Demonstrate an understanding of peri-, intra- and postoperative patient management
- Principles of peri-operative nutrition and Total Parenteral Nutrition (TPN).
- **Knowledge Criteria**
  - Thorough knowledge of the FIGO Staging and TNM staging system (where appropriate) for all gynecological cancer sites
  - Type of surgery appropriate for each gynecological cancer (see separate modules)
  - Principles of fluid and electrolyte balance
  - Elemental feeding and TPN
- **Criteria of Clinical Competence**
  - Counsel patients regarding diagnosis, management and risks of surgical treatment
  - Assessment of operability/inoperability
  - Recognize and appropriately manage intra-operative complications
    - Haemorrhage
    - Unintended visceral injury
    - Planned bowel resection
    - Dealing with unexpected surgical findings
  - Post-operative care and management of complications
    - Infection
    - Thrombosis and thromboembolism
    - Bowel obstruction
  - Appropriately order and interpret investigations
  - Inform patient of results
  - Manage peri-operative fluid balance
  - Order and supervise appropriate thromboprophylaxis.

- Liaise with nutritional support team and decide when TPN or enteral feeding is appropriate
  
- **Professional Skills And Attitudes**
  - Ability to interpret preoperative investigations and liaise with anesthesia colleagues
  - Ability to counsel patients regarding extent of surgical treatment
  - Ability to select and perform appropriate surgical procedures according to patient's needs
  - Ability to manage postoperative care and complications thereof
  - Ability to counsel patients and relatives regarding diagnosis, investigations and to discuss treatment options, advantages and disadvantages of each
    - Ability to convey decisions of the multidisciplinary team to patients and relatives
    - Ability to liaise with colleagues and other health professionals regarding coordinating investigations and management strategies pertinent to individual patients

### **Module 3: Generic Surgical Skills In Gynecological Oncology**

- **Objectives**

To achieve surgical skills appropriate for a subspecialist gynecological oncology surgeon:

- Anatomical knowledge
- Surgical skills
- Personal audit
  
- **Knowledge Criteria**
  - Detailed knowledge of the surgical anatomy of the female abdomen/pelvis
  - Working knowledge of anesthesia techniques
  - Principles of good surgical technique
  
- **Criteria of Clinical Competence**
  - Diagnosis and surgical management of gynecological cancers:
    - Uterine cervix
    - Ovary

- Uterine Corpus: Endometrium and uterine sarcomas
- Vulva
- Vagina
- Gestational trophoblastic neoplasms
- Ability to liaise with general surgical oncology colleagues for assistance in complicated cases, when required

- **Professional Skills and Attitudes**

The candidate should be adequately trained to independently perform the following surgical procedures:

- Fine-needle aspiration cytology (FNAC)/biopsy of superficial lymph nodes
- Trucut biopsy
- Simple hysterectomy.
- Radical hysterectomy.
- Pelvic lymph node dissection
- Para-aortic lymph node dissection
- Groin node dissections
- Infracolic and Supracolic omentectomy.

The candidate should also receive training in the ability to perform, with the assistance of surgical colleagues if necessary, pelvic exenterative surgery and urinary diversion in selected cases.

It is anticipated that the relevant allied surgical skills will be imparted during the candidate's planned clinical rotation in the relevant Subspecialty services i.e. GI Surgical and Urological Oncology

## **II. SITE-SPECIFIC MODULES**

### **Module 4: Cancer of the cervix**

- **Objectives**

- Aetiopathology, histogenesis and principles of population screening and prevention of cervical cancer
- Ability to diagnose, investigate, counsel and manage patients with cervical cancer

- Ability to choose the most appropriate treatment approach for a given patient
- Perform appropriate surgery for cervical cancer and manage treatment complications
- Indications and choice of adjuvant treatments
- Plan appropriate follow up
- Diagnosis and management of relapsed disease
- Selection of patients for symptomatic palliation and best supportive care
  
- **Knowledge Criteria**
  - Understanding of the epidemiology and etiology of cervical cancer
  - Understanding of the pathophysiology and management of pre-invasive cervical disease (CIN)
  - Understanding of the role of human papillomavirus/HPV in the etiology and development of CIN and cervical cancer
  - Knowledge of the clinical presentation and diagnosis of cervical cancer
  - Knowledge of the pathology and staging of cervical cancer
  - Knowledge of the management of all stages of cervical cancer including
  - Detailed knowledge of the surgical anatomy of the female pelvis
  - In-depth knowledge of radiotherapy principles of treatment and appropriate application to cervical cancer
  - Knowledge of appropriate chemotherapy for cervical cancer
  - Knowledge of complications and adverse effects of treatment, short- and long-term
  - Knowledge of patterns of disease recurrence and their appropriate management
  - Knowledge of the physical and psychosexual morbidity of cancer diagnosis and treatment
  
- **Criteria of Clinical Competence**
  - History taking and physical examination
  - To obtain cervical smears, perform colposcopy and colposcopically-directed procedures i.e. cervical biopsy including punch biopsy, loop electrosurgical excision (LEEP) and ablative/excisional therapy in appropriate cases
  - Perform clinical staging for invasive cervical cancer
  - Perform appropriate surgery for cervical cancer
  - Counsel patients about the diagnosis, investigations and appropriate treatments for cervical

- cancer, including adverse effects and complications of treatment
- Communicate results of investigations and treatment to the patient, including prognosis and palliative care
  
  - Interpret results of radiological investigations appropriate to cervical cancer
  - Assist in delivery of brachytherapy
  - Assist in delivery of chemotherapy/chemoradiation
  - Manage adverse effects and recognize complications of treatment
  - Diagnose, investigate and manage recurrent cervical cancer
  - Select patients for exenterative surgery
  - Detect and manage physical and psychosexual morbidity
- **Professional Skills and Attitudes**
- Ability to take history and examination
  - Ability to perform colposcopy
  - Ability to perform cervical biopsy and LLETZ
  - Ability to perform clinical staging, including cystoscopy with biopsy where indicated
  - Ability to perform the following surgical procedures relevant to cervical cancer:
    - Hysterectomy (abdominal/vaginal)
    - Class II and III Radical hysterectomy
    - Pelvic lymph node dissection
    - Para-aortic lymph node dissection
  - Ability to assist with execution of relevant radiotherapy procedures and chemotherapy
  - Ability to interpret:
    - Intravenous urograms
    - Pelvic MRI
    - Computed tomography scans (CECT)
    - FDG-PET
  - Ability to perform with the assistance of surgical colleagues where necessary pelvic exenterative surgery, urinary and bowel diversion procedures
  - Ability to initiate discussion of management at multidisciplinary team meetings
  - Ability to counsel patients and relatives regarding diagnosis, investigations and discuss
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- treatment options and advantages and disadvantages of each
- Ability to convey information regarding prognosis and decisions regarding selection of patients for palliative care
- In units where advanced laparoscopic surgery has been established and is offered as a matter of course, the trainee should be exposed to and be trained in the following:
  - Bilateral laparoscopic adnexectomy
  - Laparoscopic Assisted Radical Vaginal Hysterectomy (LARVH)
  - Total Laparoscopic Radical Hysterectomy (TLRH)
  - Laparoscopic pelvic lymph node dissection
  - Laparoscopic para-aortic lymph node dissection

## **Module:5 Ovarian Cancer**

### **• Objective**

- To demonstrate appropriate skills and attitudes in relation to clinical work-up and management of patients with all varieties of suspected/clinically overt ovarian cancer
- Initial assessment and investigations of suspected/clinically overt ovarian cancer i.e. epithelial ovarian cancer, germ cell tumors of the ovary, non-epithelial and other variants of ovarian cancer
- Plan subsequent management of patients with a suspicious adnexal mass
- Plan subsequent management of patients with clinically overt ovarian cancer
- Perform appropriate diagnostic or treatment surgery
- Communicate with multidisciplinary team and organize adjuvant treatment
- Plan follow-up

### **• Knowledge Criteria**

- Etiology and clinical presentations of ovarian cancer
  - Population screening for ovarian cancer
  - Pathology of ovarian cancer
  - Radiological assessment for preoperative diagnosis and guided biopsy
  - Indications, techniques, limitations and complications of surgical treatment of ovarian cancer
  - Clinical work-up of suspected ovarian cancer
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- Clinical work-up and treatment selection of clinically over ovarian cancer
  - Multidisciplinary team meeting discussions and management planning.
  - Role of laparoscopy in assessment
  - Case selection for surgery:
    - Fertility conserving surgery
    - Primary cytoreductive surgery
    - Interval cytoreductive surgery
  - Selection of cases for secondary cytoreductive surgery
  - Medical management of ascites, pleural effusions and bowel obstruction
  - Consideration of all management options including best supportive and palliative
  - care
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- **Criteria of Clinical Competence**
    - Counsel patient and relatives about:
      - Diagnosis and further therapy
      - Surgical options and complications
      - Medical options
    - Prognosis.
    - Discuss results of the surgery with patients, relatives and carers
    - Communicate with referral doctor/unit and primary care
    - Perform appropriate surgery for diagnosis and surgical management of ovarian cancer, including optimal debulking surgery
    - Management of recurrent disease
    - Discharge from hospital and produce appropriate follow-up plan
    - Detect and manage physical and psychosexual morbidity
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- **Professional Skills and Attitudes**
    - Ability to counsel patients sensitively about available treatment options available and to respect patient confidentially
    - Ability to explain clearly and openly about treatments, complications and adverse effects of surgical treatment
- 
- Ability to formulate and implement a plan of management and modify if necessary

- Ability to liaise effectively with colleagues in other disciplines, clinical and non- clinical
- Ability to appropriately stage ovarian cancer
- Ability to perform optimal debulking surgery
- Ability to decide appropriate extent of surgery including resection of bowel and formation of stoma
- Ability to select patients for conservative surgery
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- Ability to perform a laparoscopic assessment and biopsy in suspected advanced ovarian cancer to obtain histology
- Ability to counsel patients regarding entry into clinical trials

## **Module 6: Cancers of the Uterine corpus**

### **• Objectives**

- To demonstrate appropriate skills and attitudes in relation to clinical work-up and management of patients with endometrial cancer and other malignant tumors of the uterine corpus
- Understand the principles of management of any comorbid conditions likely to impact choice and delivery of appropriate treatment
  - Undertake primary surgical management
  - Manage recurrent disease

### **• Knowledge Criteria**

- Epidemiology and aetiopathology of cancers of the uterine corpus
- Histological types of endometrial cancer and prognostic factors
- Preoperative investigation of patients, including assessment of fitness for surgery
- Risks of major surgery (surgical and anesthetic)
- Type of surgery appropriate for endometrial cancer
- Role of radiotherapy and chemotherapy in the treatment of endometrial cancer
- Risk factors for- and patterns of recurrence
- Management options for recurrent disease

- **Criteria of Clinical Competence**

- Take a history, examine and investigate patients with suspected and proven endometrial cancer
- Order and interpret appropriate investigations of endometrial cancer
- Formulate a management plan
- Ability to liaise with anesthesia department
- To counsel patients regarding diagnosis, management and risks of treatment.
- Perform appropriate surgical procedures for endometrial and other uterine cancer
- Recognize and manage intraoperative complications
- Postoperative care and complications
- Inform patient of results
- Understand the indications for- and principles underlying choice of appropriate adjuvant treatments
- Planning follow-up
- Recognition of- investigation and management of disease recurrence

- **Professional Skills and Attitudes**

- Ability to take a clinical history and appropriately work-up patients with suspected or proven uterine cancer
- Ability to recognize histological patterns of disease
- Ability to interpret preoperative investigations
- Ability to counsel patients regarding treatment options and histology
- Ability to select and perform the following surgical procedures for endometrial cancer:
  - Total abdominal hysterectomy and bilateral salpingo-oophorectomy
  - Pelvic lymph node dissection
  - Para-aortic lymph node dissection
- Ability to manage postoperative care and complications thereof
- Ability to assign a surgicopathological FIGO Stage
- Ability to decide need for adjuvant therapy
- Ability to follow up patients appropriately
- In units where advanced laparoscopic surgery has been established and is offered as a matter of course the trainee should be exposed to and be trained in the following:
  - Bilateral laparoscopic adnexectomy
  - Laparoscopic Assisted Vaginal Hysterectomy (LAVH)

- Total Laparoscopic Hysterectomy (TLH)
- Laparoscopic pelvic lymph node dissection
- Laparoscopic para-aortic lymph node dissection
- Laparoscopic omentectomy

## **Module 7: Cancer of the Vulva**

### **• Objectives**

- To diagnose, investigate and manage a patient with cancer of the vulva
- Perform appropriate surgery in a patient with vulva cancer
- Manage complications of treatment

### **• Knowledge Criteria**

- Anatomy of the vulva, vagina and the inguino-femoral region
- Epidemiology and etiology of vulval cancer
- Histopathology and patterns of spread of vulval cancer
- Staging of vulval cancer
- Diagnosis and investigations for vulval cancer
- Principles of treatment of all stages of vulval cancer
- Complications of treatment and their appropriate management
- Patterns of recurrence of vulval cancer
- Recognition and management of recurrent cancer of the vulva
- Long-term complications of treatment of vulval cancer
- Knowledge of the psychosexual morbidity of treatment

### **• Criteria of Clinical Competence**

- Take an appropriate history and perform appropriate clinical investigations
- Perform vulval biopsies and vulvoscopy in indicated cases
- Perform appropriately tailored surgical procedures for vulval cancer
- Perform sentinel node assessment procedures for vulval cancer
- Liaise with plastic surgeons to select and manage patients requiring major skin flaps to close vulval wounds
- Perioperative management of vulval cancer patients

- Manage recurrences of vulval cancer
- Manage physical and psychosexual morbidity
  
- **Professional Skills And Attitudes**
  - Ability to take a clinical history and to perform appropriate physical examination and plan treatment on an individualized basis
  - Ability to investigate and counsel patients regarding treatments
  - Ability to select and perform competently diagnostic and therapeutic surgical procedures for vulval cancer
    - Vulval biopsy
    - Wide local excision
    - Skinning vulvectomy
    - Radical vulvectomy
    - Groin node dissection
    - Sentinel node detection.
    - Simple skin flaps.
  - Ability to perform major skin flaps with assistance of plastic surgeons
  - Ability to manage patient's postoperative care

## **Module 8: Vagina cancer**

- **Objectives**
    - To diagnose, investigate and manage a patient with cancer of the vulva
    - Understand the indications for primary surgical management
    - Understand management options to address comorbidity
    - Manage recurrent disease
  
  - **Knowledge Criteria**
    - Anatomy of the vagina
    - Etiology of vaginal cancer, including sarcoma botryoides and metastatic lesions.
    - Vaginal infections and benign pathology
    - Pathophysiology of vaginal intraepithelial neoplasia (VAIN)
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- Multifocal lower genital tract malignancy
- Clinical presentation, investigation and FIGO staging.
- Detailed management of vaginal cancer
- Physical and psychosexual morbidity of cancer
- **Criteria of Clinical Competence**
  - Take a history and perform an appropriate examination
  - Perform vaginoscopy and vaginal biopsy
  - Arrange staging and imaging investigations
  - Arrange and aid delivery of radio- or chemotherapy
  - Perform partial and radical vaginectomy
  - Detect and manage physical and psychosexual morbidity
- **Professional Skills And Attitudes**
  - Ability to perform vaginal biopsy
  - Ability to perform partial (Abdominal/Vaginal) and radical vaginectomy
  - Ability to perform radical exenterative surgery when appropriate

### III **ALLIED SURGICAL SPECIALTY MODULES**

#### **Module 9: Uro-Oncological Surgery**

- **Objectives**
  - To understand the impact of gynecological cancer and its treatment on the renal tract.
  - To be aware of possible urological complications associated with gynecological cancers and their management
  - To Identify and manage urological complications.
- **Knowledge Criteria**
  - Anatomy and physiology of the female urinary tract
  - Effects of gynecological cancer and its treatment (surgery, radiotherapy and chemotherapy) upon the urinary tract.

- Ability to request relevant investigations and interpret the results
  - Recognition and management of injury to the urinary tract
  - Principles of repair of injury to the urinary tract
  
  - Selection of patients who would benefit from intervention surgery involving the urinary tract
  - Pre- and postoperative care of patients undergoing a urological procedure
  
  - **Criteria of Clinical Competence**
    - Ability to communicate the possible urological implications of gynecological cancer and its treatment on the urinary tract
    - Ability to appropriately investigate and diagnose disorders of the urinary tract in a gynecological cancer setting.
    - Ability to request appropriate investigations in patients with a suspected involvement/injury of the urinary tract and to liaise with the urology team
    - Ability to Investigate diseases of urinary tract i.e. UTI detrusor dysfunction, incontinence etc.
    - Detailed knowledge of injuries to the lower urinary tract during/after surgery or radiotherapy
    - Perform diagnostic cystoscopy/bladder biopsy/placement and removal of ureteric stents
    - Perform suprapubic cystostomy
    - Surgical repair of intraoperative injury to the bladder and ureters
    - Principles of urinary diversion and ability to perform with the aid of a urology colleague, basic urinary diversion surgery i.e. ilea conduit
  
  - **Professional Skills and Attitudes**
    - Effectively manage patients with suspected disorders of urinary tract.
    - Request and interpret investigations of urinary tract.
    - Appropriate selection of patients for intervention surgery involving the urinary tract.
    - Ability to safely perform relevant urological surgical procedures as outlined above
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## **Module 10: Gastrointestinal/Colorectal Surgery**

- **Objectives**

- To understand the impact of gynecological cancer and its treatment on the GI tract.
- To be aware of possible GI complications associated with gynecological cancers and their management
- To Identify and manage GI complications
- To understand the role of fluid balance and nutrition in a patient undergoing major surgery for gynecological cancer
- To understand the indications and principles of bowel resection and repair in the context of gynecological oncology
- To understand the principles of elective bowel resection in gynecological cancer surgery and the principles of management of an accidental surgical injury to the bowel

- **Knowledge Criteria**

- Anatomy and physiology of the gastrointestinal tract
- Pathophysiology of intestinal function
- Appropriate selection of patients who will benefit from bowel surgery.
- Preoperative preparation required for a patient who may or will have bowel surgery.
- Principles of gastrointestinal surgery, including exposure and handling of the bowel
- Principles underlying repair of surgical bowel injuries
- Principles of resection and repair of intestinal tissues: Primary and secondary surgical repair/bowel diversion
- Indications to perform bowel surgery in a gynecological oncology setting

- **Criteria of Clinical Competence**

- Counseling patients preoperatively and postoperatively regarding bowel surgery and stoma management, including benefits, risks and complications
- Order appropriate bowel preparation preoperatively.

- Select patients preoperatively and intraoperatively who will benefit from bowel surgery.
  - Ability to select an appropriate location for bowel stomas
  - Ability to independently perform:
    - Appendectomy
    - Primary repair of serosal/mucosal injury to the small/large bowel
    - Resection-anastomoses of small/large bowel
    - Diversion stomas: Ileostomy, transverse/end colostomy
    - Mobilization of the colon, sigmoid and rectum
      - Standard sigmoid colectomy, anterior rectal resection, abdomino-perinrectal resection
  - Manage postoperative care of patients following bowel surgery.
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- **Professional Skills and Attitudes**
    - Effectively manage patients with involvement of the GI tract in the gynecological oncology setting
  
    - Request and interpret relevant investigations
    - Appropriately select patients for intervention surgery involving the GI tract.
    - Ability to safely perform relevant GI surgical procedures as outlined above

## **Module 11: Breast Cancer Surgery**

- **Objectives**
  - Understanding the role/limitations of screening for breast cancer
  - Clinical care and counseling of women with breast symptoms and breast lumps
  - Understanding hereditary breast cancer syndromes, BRCA testing and the implications
  - Imaging in breast cancer
  - Understanding the principles underlying the multidisciplinary management of breast cancer and evidence-based guidelines
  - Understanding principles of treatment in different stages of breast cancer including metastatic breast cancer

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- **Knowledge Criteria**

- Ability to counsel women about screening issues
  - Ability to conduct a comprehensive physical assessment of the female breast
  - Ability to counsel patients with a breast lump and advise regarding clinical management pathways
  - Ability to plan surgical management of breast cancer and be familiar with relevant surgical approaches including principles of breast reconstruction
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- **Criteria of Clinical Competence**
    - To have a good overview of the relevant literature of the subject
    - Ability to do a comprehensive clinical/diagnostic workup of patients with suspected or clinical breast cancer
    - Ability to discuss management plans with colleagues from the Breast Cancer unit

## IV. ALLIED NON-SURGICAL SPECIALTIES

### Module 12: Radio-Diagnostics

- **Objectives**
  - To understand the role of imaging in gynecological cancer.
  - To understand the principles underlying selection of different imaging modalities.
  
- **Knowledge Criteria**
  - To have a working knowledge of the theory underlying the main imaging modalities used in gynecological oncology i.e. USG, CECT, MRI, FDG-PET
  - Indications and limitations of each of these imaging modalities
  - Principles of nuclear medicine in radiodiagnostics
  - Indications for Intervention radiology procedures in gynecological oncology: Guided biopsies, percutaneous nephrostomy/antegrade ureteric stenting
  
- **Criteria of Clinical Competence**
  - Ability to request appropriate imaging tests
  - Ability to assess and interpret the results with relevance to the clinical scenario
  - Ability to recognize the indications for interventional radiology procedures

- **Professional Skills And Attitudes**

- Liaising with the radiology team to discuss images with reference to a given clinical scenario

## **Module 13: Medical Oncology**

- **Objectives**

- To understand the role of chemotherapy in the management of gynecological cancers
- To understand the pharmacology of the major drugs used in chemotherapy.
- To understand the principles underlying the use of chemotherapeutic and newer targeted therapies in the management of gynecological cancers

- **Knowledge Criteria**

- Relevant cell biology including:
  - Cell-cycle kinetics
  - Log kill hypothesis
  - Cycle and phase-specificity
- Classes of chemotherapeutic agents and their mechanisms of action
- Pharmacology of the main agents used in gynecological cancers
- Principles of dose calculation and scheduling
- Understand the benefits and limitations of single-agent and combination chemotherapy
- Principles of Phase I, II, and III drug trials in clinical research
- Understand the concepts of neoadjuvant adjuvant chemotherapy
- Short- and long-term toxicity, both general and drug-specific
- The role of hormonal therapy
- Therapeutic options for recurrent disease
- Role of newer targeted therapies in ovarian cancer

- **Criteria of Clinical Competence**

- Take an appropriate history and perform clinical examination
- Know the indications for chemotherapy

- Principles of response assessment in patients undergoing chemotherapy
- Counsel patients about their chemotherapy regimens including adverse effects/complications of treatment
- Know when to change or stop treatment
- Ability to recognize, assess and manage acute and chronic toxicity
- **Professional Skills and Attitudes**
  - Ability to discuss management at multidisciplinary team meeting, including most appropriate chemotherapy regimen, according to patient's disease and medical status
  - Ability to counsel patients about chemotherapy, including adverse effects and complications of treatment
  - Ability to liaise with colleagues and other health professionals regarding management strategies pertinent to individual patients
  
  - Ability to recognize, investigate and management of toxicity
  - Ability to counsel patients about clinical trials

## **Module 14: Radiation Oncology**

- **Objectives**
  - To be familiar with the principles and practice of radiotherapy in the management of gynecological cancer
- **Knowledge Criteria**
  - Cell-cycle kinetics
  - Principles of radiobiology and radiation effects
  - Principles of tissue repair and recovery
  - Principles of radiation protection.
  - Radiosensitivity of different organs
  - Principles of radiation physics
  - Principles of fractionation.
  - CT planning and dosimetry.
  - Types of radiation sources and techniques
  - Principles of planning standard external beam radiotherapy and brachytherapy

- Principles of concurrent chemoradiation
- Side effects and toxicity of radiotherapy
- **Criteria of Clinical Competence**
  - Selecting patients for radiotherapy according to disease site, tumor type and stage
  - Understand the principles of treatment planning
  - Counsel patients regarding radiotherapy and its potential side-effects and complications
  - Understand the difference between curative and palliative treatment
  - Management of long-term side-effects of radiotherapy:
  - Recognition, investigations and management of recurrent gynecological cancer following primary radiotherapy and chemoradiation.
- **Professional Skills and Attitudes**
  - Ability to select patients for radiotherapy
  - Ability to counsel patients regarding radiotherapy
  - Ability to plan radiotherapy treatment
  - Ability to counsel patients regarding complications
  - Ability to recognize and manage adverse effects of radiotherapy:
  - Ability to recognize and manage major complications of radiotherapy in liaison with other colleagues
  - Ability to recognize and investigate tumor recurrence

## ▪ **EXAMINATION SCHEMA**

The MCh examination in Gynecological Oncology will be conducted as per the norms laid down by the Department of Academics, Tata Memorial Hospital, Mumbai. The examination has been planned along the lines of the MCh Examination in General Surgical Oncology.

The examination will have the following two components as detailed below:

### ▪ **Written Examination**

This will consist of four written papers of three hour duration each with a total of 100 marks per paper. The candidate will have to write 10 out of 12 short notes. Each short note will carry a maximum of 10 marks.

Paper I: Basic Sciences applied to Gynecological Oncology

Paper II: General Principles of Oncology

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Paper III: Clinical Practice of Gynecological

Oncology Paper IV: Recent Advances in Gynecological Oncology

▪ **Practical Examination**

This will include two sections:

Clinical (One long case and two short cases) 200

marks Viva Voce 200 marks

▪ **Candidate Evaluation Metrics**

- Outlined below is a representative scheme, which could be used while evaluating the trainees during their periodic appraisals:

▪ **Metrics**

- Theoretical knowledge of the subject
- Knowledge of current, relevant evidence-based literature
- Ability to practically apply his/her knowledge to clinical scenarios
- Involvement with patient care
  - Outpatient clinics
  - Inpatients
- Surgical skill set commensurate with seniority
- Keeness and aptitude to learn
- Rapport with peers/colleagues - ability to be a part of a team
- Rapport with Senior colleagues - ability to take criticism constructively
- Understanding of the of ethics of clinical medicine
- Research ability/aptitude
- Leadership and people management qualities

▪ **Grades of Evaluation**

- Excellent
- Exceeds objectives
- Just meets objectives
- Needs improvement
- Below par