C M S A
The Colleges of Medicine of South Africa NPC
Nonprofit Company (Reg No.1955/000003/08)
Nonprofit Organisation (Reg. No. 009-874 NPO)
Vat No. 4210273191
27 Rhodes Avenue, PARKTOWN WEST, 2193
Tel: +27 11 726 7037; Fax: +27 11 726 4036
Website: www.cmsa.co.za
General: Academic.Registrar@cmsa.co.za

JOHANNESBURG OFFICE
EXAMINATIONS & CREDENTIALS

September 2020

THE COLLEGE OF OBSTETRICIANS AND GYNAECOLOGISTS OF SOUTH AFRICA

R E G U L A T I O N S

FOR ADMISSION TO THE EXAMINATION FOR THE POST-SPECIALISATION

SUB-SPECIALTY CERTIFICATE

IN

GYNAECOLOGICAL ONCOLOGY

Cert Gynaecological Oncology(SA)

1.0 BACKGROUND

1.1 The Council of the College of Obstetricians and Gynaecologists (COG(CMSA)) has recommended the registration of subspecialties in Obstetrics and Gynaecology to the Health Professions Council of South Africa (HPCSA).

1.2 In doing so the Council has decided to advise and keep under review:

1.1.1 the development of subspecialisation in the four fields of gynaecological oncology, reproductive medicine, maternal and fetal medicine and urogynaecology, including requirements and regulations for subspecialist training and accreditation

1.1.2 the further development of training for special interest work within obstetrics and gynaecology

1.1.3 criteria and procedures for approval of subspecialty trainees, training centres and training programmes, and for subspecialist accreditation on completion of training

2.0 DEFINITION

2.1 Subspecialists are defined as obstetricians and gynaecologists who, undertook appropriate additional higher training and passed their examinations at the end of their training. They must be recognised to have special expertise in the relevant field and devote at least half, and probably more, of their working time to it. This higher degree of specialisation indicates intensive training, experience and expertise

The aims of subspecialisation are:

2.1.1 to improve knowledge, practice, teaching and research

2.1.2 to promote the concentration of very specialised expertise, special facilities and clinical material that will be of considerable benefit to some patients

2.1.3 to establish a close understanding and working relationship with other disciplines involved in each of the subspecialty fields

2.1.4 to encourage co-ordinated management of relevant clinical services throughout a region

2.1.5 to accept a major regional responsibility for higher training, research and audit in the subspecialty fields

2.1.6 to improve the recruitment of talented graduates into the recognised subspecialties and into the specialty of obstetrics and gynaecology as a whole

3.0…/

3.0 SUBSPECIALTY TRAINING

3.1 Subspecialist training posts will be at subspecialty trainee level, and more than one centre may provide the programme provided each is recognised by the HPCSA and the COG(CMSA) as a subspecialty training centre. The programme must include theoretical instruction, (including the relevant basic sciences) intensive clinical experience in the subspecialty, and a research component is recommended but not required. Pre-FCOG(SA) experience may be taken into account in planning the content of a subspecialty training programme, but will not usually be credited towards the clinical part of the programme. With the approval of the HPCSA and the COG(SA) relevant fulltime research done before the approved programme starts may be credited towards a research year of the programme, provided that it has led either to a higher degree (MD/PhD) or a significant contribution to the literature. Clinical experience as a specialist registrar in the subspecialty or a closely related field may also be counted towards a maximum of six months of the programme, if approved by the HPCSA

3.2 The minimum requirement for entry into clinical subspecialty training is postgraduate training and qualification in Obstetrics and Gynaecology, eg MMed(O&G) or Part II FCOG(SA). Medical graduates who have obtained equivalent specialist training outside South Africa, who are registered as specialist in their own country and who wish to undertake subspecialty training and examination in South Africa, will have this taken into account on application to the COG. Such trainees who are successful in the examination, will receive the Certificate after completion and approval of training. Registration at the HPCSA as subspecialist in South Africa will be dependent upon their rules and regulations.

3.3 The minimum training time for the subspecialty Certificates is 2 years of full-time training or four years of part-time training. Clinical experience as a specialist registrar in the subspecialty or a closely related field may also be counted towards a maximum of six months of the programme, if approved by the COG. Satisfactory completion of one year of special interest training will usually allow six months exemption.

3.4 Training at more than one centre is encouraged, but a minimum of 18 months full-time (or its equivalent in part-time) clinical training must be done at an approved subspecialty training programme in South Africa. Six months training at a unit not accredited by the HPCSA or outside South Africa can be allowed but must be approved by the relevant Subspecialty Committee and the Council of the COG. Prior approval is encouraged, but alternatively the Subspecialty Committee can grant approval for the purpose of examination. The Certificate is awarded after confirmation by the Council of the COG (CMSA) and completion of the training time but registration at the HPCSA will be dependent upon their rules and regulations.

3.5 **Trainees with obstetric and gynaecological training outside recognised COG(SA) training centres:**
Most trainees will enter a subspecialty programme after obtaining the FCOG(SA) or MMed(O&G) degree. Alternatively, postgraduate training outside of RSA should be the equivalent of MMed(O&G) or FCOG(SA) and should be recognised/accredited by the HPCSA.

4.0 GENERAL REQUIREMENTS FOR SUBSPECIALTY TRAINING CENTRES

4.1 Subspecialty training centres are approved by the HPCSA and registration depends among other factors on appropriate numbers of registered subspecialists (in new subspecialties also ‘registerable’ or ‘recognised’) to act as trainers and consultants. Staffing should be adequate to enable trainees to be engaged in the subspecialty field on a fulltime basis with supervision available

4.2 The COG (CMSA) also recommends that such units or centres should provide sufficient clinical workload to support the total number of trainees at speciality and subspecialty levels, provide a service for the referral and transfer of appropriate patients and provide a full range of services appropriate to the subspecialty, either alone or in collaboration

4.3 Training units must also:

- 4.3.1 work in collaboration with related disciplines to provide the high degree of teamwork, and in collaboration with other subspecialists within and outside the centre and country
- 4.3.2 have a programme director to co-ordinate and accept main responsibility for the training programme; each satellite or collaborating centre must also have a supervisor
- 4.3.3 have adequate library, laboratory and other resources to support subspecialty work, training and research

4.4 Participation in emergency or after-hour work is allowed.

5.0…/

5.0 SPECIAL REQUIREMENTS FOR TRAINING CENTRES IN GYNAECOLOGICAL ONCOLOGY

5.1 To be eligible for subspecialty training in gynaecologic oncology, the centre must be accredited for such training by the HPCSA, and must provide a service for the referral and transfer of patients with precancer and cancer, including assessment, all relevant therapeutic facilities and expertise.

5.2 The unit must have an adequate clinical workload with a full range of gynaecological cancers, precancers, palliative and terminal care

5.3 The unit must provide training in advanced pelvic oncologic surgeries as listed in the logbook requirements.

5.5 There must be a (weekly) formal multidisciplinary discussion forum where management options for patients with cancer is decided, with participation of at least medical and radiation oncology.

5.6 The training unit should collaborate with diagnostic and interventional radiologists, consultant surgeons and urologists, anatomical pathologists, intensive care physicians and their supporting staff.

5.7 The unit must have access to an adequate gynaecological pathology service and have a research programme in the subspecialty field with access for the trainee to support his or her own training programme

6.0 TRAINING IN THE SUBSPECIALTY OF GYNAECOLOGIC ONCOLOGY

6.1 Definition:
Subspecialists in Gynaecologic Oncology should have a broad knowledge of gynaecologic cancer in women and of all pre-cancerous conditions. They must be clinically competent in management of risk factors for reproductive cancers and the evaluation, management decisions and especially the surgery relevant to all these disorders. They must have a working understanding of clinical and other methods of assessment, including ultrasound and advanced imaging, pathology; treatment methods including endocrine therapy, radiation therapy and chemotherapy as well as their complications and long term effects. In addition they must have knowledge of the staging, assessment and management of primary cancer as well as that of persistent and recurrent cancers and have a thorough knowledge of follow-up after cancer. They should be involved in basic and applied investigation in the field and should be able to provide a consultancy service to other obstetricians/gynaecologists.

6.2 Training opportunities:
At the conclusion of subspecialty training, and as a prerequisite for obtaining a certificate, trainees must be able to demonstrate that they have fulfilled all the requirements of the training programme as described in detail in the Appendix to this document.

6.3 Clinical experience:
Candidates must also be able to demonstrate that they have been exposed to the necessary clinical cases and have obtained the needed clinical experience by completing the Logbook as in the Appendix.

6.4 Curriculum:
The level of knowledge expected at the end of training and which will be assessed is outlined in the Appendix.

7.0 PRE-REQUISITES TO ENTRY INTO THE FINAL EXAMINATION

7.1 Candidates may enter the examination after a minimum of 18 months full-time or 3 years of part-time training at recognised centre; a certificate in a subspecialty of Obstetrics and Gynaecology will be awarded after all aspects of training has been completed and approved

7.2 Before being allowed to enter for the examination candidates must submit proof of completed training time and activities complying with the regulations at the time of entry into the examination. The completed portfolio of learning must reflect all of the candidate's academic and practical participation during the sub-specialty training. It must reach the Academic Registrar in Johannesburg before the dates published on the CMSA website.

7.3 The portfolio must contain proof of fulfilment of the rotation requirements and the logbook should reflect clinical activities and technical experience according to the respective subspecialty's prescriptions reflected under point 9 below. The heads of the respective training units must confirm validity by signing the document. The portfolio must be approved by the Convenor before entry is gained to the examination.

7.4 Candidates who fail the examination may enter the examination again on the basis of their original accepted portfolio.

7.5…/

7.5 All subspecialty trainees should take part in the research effort of the training unit. The assessment of the research project will be the responsibility of the relevant university if the candidate has registered for a university degree as well. Research outputs are not part of the portfolio and are not required for the Certificates. Research methodology remains part of the curriculum of all subspecialties and will be assessed during the clinical examination.

8.0 THE WRITTEN COMPONENT OF THE FINAL EXAMINATION

8.1 The exit examination consists of a written and a clinical component. The written component will count 40% of the final assessment and the clinical examination 60%.

8.2 The written examination paper will consist of two papers each consisting of three questions, with or without subdivisions to allow shorter and longer questions, to a total of 100 marks per question and 300 marks per paper. There should be a minimum of four and a maximum of nine questions or subdivisions per paper and some of these may be replaced by multiple choice questions. Candidates will have three hours to complete each paper.

8.3 Candidates writing the Certificate in Maternal and Foetal Examination must pass both papers with an average of 50% to be invited to the clinical examination. For all other subspecialties, the total mark needs to be 50% to be invited to the clinical examination, with a subminimum of 45% in each paper.

8.4 Marks are submitted to the convenor who calculates the final marks and share these with the moderator. The convenor will round up the final mark only. The Colleges of Medicine of South Africa (CMSA) receives the approved list of candidates who are invited for the clinical examinations.

8.5 A candidate who has been invited to the clinical examination and fails the oral aspect of the examination, shall automatically gain access to the clinical part of the examination without re-writing the written part. This exemption from the written part will be allowed only once for the next examination, after which the written part must be attempted again.

9.0 THE CLINICAL COMPONENT OF THE FINAL EXAMINATION

9.1 The clinical examination will count 60% of the final mark and consists of three parts: OSCE, OSPE and a discussion of the Portfolio and Research methodology.

9.2 The OSCE contributes 25% of the final mark and will consist of six to eight OSCE stations. Candidates will have eight to ten minutes to complete each OSCE station. The OSCE must be passed with an average mark of at least 50%.

9.3 The OSPE contributes 25% of thefinal mark and will consist of four structured clinical OSPE cases. Candidates will have 20 minutes preparation time followed by 20 minutes examination time for each case. The structured clinical cases will emphasise clinical problem solving. The four OSPE cases must be passed with an average mark of at least 50%, provided no more than one case is failed.

9.4 Each candidate will have a discussion lasting 30 minutes on the portfolio during which also assessment of the understanding of research methodology is established. This evaluation will contribute 10% towards the final mark for the clinical examination.

9.5 The final mark will be weighted and calculated as follows:

Written examination	40%
Clinical Examination	60%
OSCE	25%
OSPE	25%
Portfolio	10%
Total	100%

9.6 The outcome of the examination (pass or fail) will be communicated to candidates after the examiner's meeting on the day of the clinical examination. Candidates must notice and will be informed that the marks are provisional, and the CMSA Senate must still ratify the marks. The CMSA will communicate the final marks to candidates.

APPENDIX: CLINICAL TRAINING, LOGBOOK AND CURRICULUM

LOGBOOK

1.0 ROTATIONS:

- During the training time the following rotations must be completed:
  - Radiation oncology
  - Medical oncology
- Exposure to and where possible rotation in the following disciplines should be attempted and listed in the log book:
  - Colorectal surgery
  - Urology
  - Plastic and reconstructive surgery
  - Surgical intensive care
  - Palliative and hospice care
  - Radiologic imaging

2.0 CLINICAL GYNAECOLOGIC SERVICE:

2.1 OUTPATIENTS

- Weekly colposcopy clinic
- Weekly gynaecologic oncology clinic
- Weekly general gynaecology clinic

2.2 INPATIENTS

- Preoperative care
- Staging of malignancies
- Appropriate special testing
- Postoperative care
- After hours and emergency care related to gynaecologic oncology
- In-patient care and palliative care

3.0 SURGICAL PROCEDURES

• Surgical management of invasive cervical cancer (RHND)	15
• Surgical management of ovarian cancer (debulking)	15
• Surgical management of endometrial cancer (+/- nodes)	15
• Surgical management of invasive vulvar cancer (+ nodes)	6
• Surgical management of VIN/VAIN	6
• Cystoscopy, hysteroscopy	record all
• LLETZ	30
• Cold knife cone biopsy	5

- The following surgical competencies should be listed in the logbook if appropriate but are not requirements:
  - Minimal invasive surgical operations in gynaecologic oncology
  - Laparoscopic lymph node dissection

The candidate must assist in all exenterative procedures and diversion procedures performed in the training unit during the training period. This must be certified in the Logbook

4.0 RESEARCH PROJECT

All subspecialty trainees will take part in the research effort of the training unit but the examination of the research component is done by the Universities.

5.0 PORTFOLIO

The specific details pertaining to the 'PORTFOLIO OF LEARNING' are in a separate document on the CMSA website and each candidate must be aware of its contents. In brief, the portfolio must reflect all of the candidate's academic and practical participation during the subspecialty training. The portfolio must be signed by the HOD or training centre HOD to confirm validity of the contents.

CLINICAL TRAINING…/

CLINICAL TRAINING AND CURRICULUM

1.0 ADVANCED KNOWLEDGE AND SKILLS OF:

- a comprehensive knowledge of the diagnostic techniques and procedures necessary for the diagnosis and assessment of gynaecological cancers, including the knowledge to stage cancers and to decide on the most appropriate management methods
- an extensive knowledge of the epidemiology and aetiology of all cancers of the female genital tract
- diagnostic and screening laboratory investigations, invasive and non-invasive clinical examinations and all available modalities of imaging
- a high level of understanding of the processing, evaluation and reporting of anatomical pathology specimens relevant to the subspeciality, including detailed knowledge of the interpretation of these reports
- capability to fully manage the patient requiring surgical treatment of her malignancy, and a comprehensive understanding of the techniques and indications of radiation oncology and medical oncology treatment
- full cognisance of the requirements for the collection and interpretation of data arising from his/her own studies of the subject
- must have a sound understanding of supportive and palliative care and management strategies for counselling, bad news and pain control

2.0 EXPERIENCE AND KNOWLEDGE OF:

- administration and management
- epidemiology, statistics, research methodology and audit
- legal and ethical issues
- teaching

3.0 GUIDELINES TO LEARNING

These are guidelines and not an exhaustive outline of the knowledge required in this subspecialty

3.1 Physiology and pathophysiology:

The trainee should have sufficient knowledge of physiology and pathophysiology to manage patients with gynaecological cancer.

Fluid and electrolyte balance:

- Normal distribution of body components:
  - volume distribution: total body water, intra- and extracellular water and exchange osmotic pressure determinants: osmotic concentration, ionic composition and exchange regulatory mechanisms: buffers, respiratory, renal
- Diagnosis and management:
  - volume deficits and excesses
  - composition changes
  - acid-base derangements

Nutrition:

- Normal adult daily requirements for:
  - water, electrolytes, essential vitamins, specific proteins, carbohydrates and fat
  - Ability to calculate the results of deprivation of water, electrolytes, calorics and essential vitamins
  - Ability to apply calculation of specific abnormalities to nutritional replacement requirements
  - Principles of fluid replacement, hyper alimentation

Blood:

- Composition, indication for use, limitations of whole blood and its components
- Haemostasis and thrombo-embolic disease

Pulmonary function; mechanical ventilation:

- Interpretation of arterial blood gas results
- Types of ventilation, indications, monitoring and management of complications

Shock, aetiology…/

Shock, aetiology, clinical manifestations and treatment of:
- Hypovolemic shock
- Cardiogenic shock
- Septic shock

Renal function
- including diagnosis and management of renal failure

Gastrointestinal and liver function and including:
- alterations caused by irradiation, chemotherapy, extensive resection, diagnosis and management of blind loop syndrome, short bowel syndrome, fistula formation
- effects of various forms of ileus and mechanical bowel obstruction

3.2 Pathology:

The trainee should understand how, on the basis of direct visual and microscopic evaluation, lesions that are pre-malignant or malignant are distinguished from benign disorders. They should also know the derivation, biological behaviour, important characteristics and prognostic features of diseases of the female genital tract. The following is a non-exhaustive list of conditions:

Vulva
- granulomatous veneral disease
- vulval dystrophies
- warts
- intraepithelial neoplasia
- carcinoma
- sarcoma

Vagina
- adenosis
- warts
- intraepithelial neoplasia
- carcinoma
- sarcoma

Uterine cervix
- metaplasia
- hyperkeratosis
- warts
- intraepithelial neoplasia
- microinvasive carcinoma
- carcinoma
- sarcoma

Uterine body
- endometrial hyperplasias
- carcinoma
- sarcoma
- trophoblastic disease

Fallopian tube
- carcinoma

Ovary
- benign cysts
- benign, borderline and malignant epithelial tumours
- stromal tumours
- germ cell tumours
- metastatic tumours

Peritoneum
- primary peritoneal tumours

3.3 Carcinogenesis:
The trainee should demonstrate an understanding of the current knowledge of chemical agents, irradiation and infectious agents including the association between:
- Antenatal hormone exposure and the development of malignancies in the vagina and cervix
- Oestrogens and the development of endometrial carcinoma
- Role of sex hormones in development of breast cancer
- Malignancies subsequent to radiation
- Long term use of alkylating agents and the development of leukaemia
- Granulomatous veneral disease and carcinoma of the vulva
- Papillomavirus infection and carcinoma of the cervix
- HIV and malignancy
- Other viruses and malignancy
- Hormone therapy in gynaecological and breast cancer survivors.

3.4 Genetics:
The trainee should demonstrate an understanding of:
- Current knowledge of inheritable factors related to malignancy, especially with view to BRCA aberration
- Construction of family pedigrees for malignant disease
- Family counselling
- Risk assessment

3.5 Tumour immunology:
The trainee should demonstrate understanding of:
- Immune systems
- Antigens and antibodies, including response, production, tumour associated antigens, tumour specific transplantation antigen, human leukocyte antigen
- Complement
- Lymphokines
- Hypersensitivity
- Humoral and cell mediated responses
- Immunological surveillance
- Occurrence of neoplasms in immunodeficient and immunosuppressed persons
- Significance of CEA, AFP, hCG, CA125 and other antigens, antibodies and biomarkers in malignancy

3.6 General pharmacology:
The trainee should understand and be able to discuss, including indications, routes, composition, complications, risks, overdose, management of overdose:
- Total parenteral nutrition
- Gastrointestinal alimentation
- Hematinics
- Antibiotics
- Analgesics and hypnotics
- Anticoagulants
- Cardiovascular drugs
- Design, analysis and organisation of participation in clinical trials
- Chemotherapeutic drugs, side effects and treatment strategies

3.7 Diagnostic techniques and staging:
The trainee should know, understand, acquire and be able to discuss the following:
3.7.1 Basic clinical skills:
- take a comprehensive medical history and perform a general physical examination, in addition to a detailed specific gynaecological history and examination
- select diagnostic techniques needed to establish the diagnosis and the extent of the disease
- evaluate coexisting disease
- evaluate response of cancer to treatment
- stage the cancer according to FIGO classification for the organ site malignancies, and TNM classifications additionally for vulvar cancer

- discuss the indications…/

- discuss the indications for and limitations of colposcopy in the evaluation of abnormal cervical or vaginal cytology and vulval neoplasia, and identify abnormal epithelial and vascular patterns of the lower genital tract using the colposcope
- discuss the methods and principles of differential staining to contrast normal from abnormal epithelium
- perform cystoscopy, proctosigmoidoscopy, and discuss indications for these procedures as well as further gastrointestinal endoscopy
- discuss indications for and be able to perform directed cervical biopsies, cone biopsies, hysteroscopy and biopsy, curettage of endocervix and endometrium, endometrial biopsy, vulval biopsy, nodal biopsy from sites in pelvis, abdomen, groins, neck and other sites
- diagnostic laparoscopy
- ascitic fluid aspiration
- discuss indications and techniques for open, laparoscopic and percutaneous biopsies of possible organ metastatic sites
- discuss the indications for and be able to perform transvaginal and transabdominal needle biopsy for the diagnosis and evaluation of extent of pelvic cancer
- discuss the limitations of cytology in the detection of cancer, and know how to obtain the necessary samples

3.7.2 Diagnostic imaging:

- Radiographic diagnosis: plain X-rays of chest, abdomen and skeletal system; CT of head and body; angiography and lymphangiography, intravenous and retrograde urography, gastrointestinal radiography, magnetic resonance imaging, PET – CT scan and new techniques as those develop
- Radio-isotope scanning
- Ultrasonography: abdominal and transvaginal scanning, Doppler flow studies; normal and pathologic ultrasound appearance of abdominal and pelvic organs and masses, retroperitoneale masses and free fluid; duplex Doppler assessment of vasculature
- Radio-immunoassay: biologic tumour markers, receptor assays
- Biochemical analysis of organ and system function
- Blood coagulation tests including monitoring of anticoagulant therapy
- Pulmonary function tests
- Cardiovascular function tests including central venous pressure and pulmonary wedge pressure
- Being able to integrate serological and imaging investigations and apply scoring systems for screening or diagnosis of cancer.

3.8 Chemotherapy:

The trainee should understand the pharmacology of the major drugs used in human tumour chemotherapy and be able to use them (therefore knowledge of dosages are included)

- Biology:
  - Cell cycle kinetics
  - Log kill hypothesis
  - Cycle and phase specificity

- Classes of chemotherapeutic agents including biologic response modifiers:
  - Pharmacology of different classes
  - Routes of administration, absorption and distribution
  - Biotransformation and excretion
  - Drug interaction
  - Pharmacokinetics
  - Mechanism of action:

- Benefits and limitations of combination chemotherapy

- General guidelines for clinical evaluation:
  - Partial and complete responses
  - Phase I, II and III drug trials
  - Adjuvant therapy

• Toxicity…/

- Toxicity:
  - General effects and effects on organ systems
  - Drug specific toxicity
  - Management

3.9 Radiation oncology treatment:

The trainee should have sufficient familiarity with the principles and practise of radiation oncology:

Radiobiology:

- Cell cycle effects
- Cell damage and healing
- Potentiation and protection
- Relative radiosensitivity of different organ systems

Physics:

- Alpha, beta, gamma and particle irradiation
- Inverse square law
- Central axis and depth dosage; isodose curves and points A and B
- Time dose relationships
- Units of radiation
- Isotopes, half-life and values
- Ionisation and the factors modifying it

Sources:

- Different sources used in vaginal applications
- Protraction and fractination
- Ortho- and supra-orthovoltage irradiation
- Use of multiple, rotational, split and moving strip fields
- Use of computer plotting of radiation dosimetry

Therapeutic methods:

- Role of interstitial, intracavitary and external therapy

Complications:

- Factors which influence radiation complications
- Complications at different organs and sites
- Management of these complications
- Management of vesico-vaginal and recto-vaginal fistula with view to recognition, diagnosis and determining further treatment strategies
- Strategies to prevent and manage vaginal stenosis.

3.10 Surgery:

3.10.1 The trainee should gain expertise in:

- Preoperative evaluation
- Preoprative preparation:
  - Bowel preparation
  - Fluids
  - Ostomy sites
  - Cardiopulmonary
  - Prophylactic medication: antibiotics, anticoagulation
  - Counselling (patient and family)
- Choice of treatment
- Surgical anatomy in detail
- Management of complications
  - Intraoperative: bleeding, transfusion reaction, cardiac arrest, viscus injury
  - Postoperative: atelectasis, bleeding, thrombo-embolic disorders, fistulation, renal failure, cardiac failure, jaundice, pyrexia, respiratory insufficiency, wound problems, sepsis including pelvic thrombophlebitis, communication with patient and family

3.10.2…/

3.10.2 The following procedures may be independently and completely performed by the completion of the training period (see Appendix B for numbers of procedures):

- Primary procedures:
  - Hysterectomy: radical, total abdominal, vaginal, laparoscopic assisted vaginal
  - Pelvic lymphadenectomy of normal or suspicious nodes
- Radical procedures for vulvar cancer with direct closure of with the use of simple local skin flaps
  - Partial or total vaginectomy and vault excision
  - Inguino femoral lymphadenectomy
  - Complete operation for ovarian cancer
  - Appropriate use of minimal access surgery
- Evaluation procedures including: hysteroscopy, cystoscopy, diagnostic laparoscopy, colposcopy, sigmoidoscopy
- Colostomy and ileostomy

3.10.3 The trainee should be familiar with the following procedures, including indications, even if these have not been personally undertaken:

- Pelvic exenteration
- Para-aortic lymph node dissection (normal/malignant)
- Vaginal reconstruction techniques
- Gastrointestinal procedures, including:
  - Small intestine: resection and anastomosis; bypass procedures
  - Large intestine: resection and anastomosis (hand and staple methods including low anterior and AP resection), feeding jejunostomy/gastrostomy
  - Splenectomy
- Urinary tract procedures, including:
  - Bladder: partial cystectomy; cystotomy
  - Ureter: ureterneocystotomy, end-to-end ureteric anastomosis
- Radiation procedures including the insertion of intracavitary radiation applicators and instillation of radioisotopes
- Repair of vesicovaginal fistulae
- Plastic reconstructive procedures after radical surgery or following radiotherapy

3.11 Terminal care:

The trainee should be familiar with the principles and practise of terminal care including:

- Pain relief:
  - Non-narcotic analgesics
  - Narcotic analgesics
  - Role of the anaesthetist (neural blocks) and of pain clinics
- Anxiety relief:
  - Medicinal
  - Counselling
- Nausea and vomiting:
- Medicinal
- Dietary
- Bodily function: Appetite, bowel action, urinary functions, incontinence, sleep, weight
- Complementary therapy
- Community support roles, including personal practical exposure to hospice care

3.12 Epidemiology, Research, Statistics and Audit:

The trainee should be able to:

- Understand epidemiological techniques (eg cohort studies and case control studies; cumulative rates calculation and assessment of bias)
- Understand population parameters and sampling techniques
- Compute and interpret measures of comparisons of means and variations
- Understand randomised controlled trials and techniques of meta analysis
- Analyse a presented experiment and construct a hypothetical experiment with respect to the following:

  - The question examined…/

  - The question examined
  - The hypothesis
  - The sampling technique (including sampling bias and sample calculations)
  - The expression and correlation of raw data and simple (eg log) transformations
  - The selection and application of appropriate statistical tests
  - Significance of the results
  - The conclusions
  - The appropriate inferences which can be obtained
- Apply the following statistical tests:
  - Chi-square analysis
  - Correlation and regression
  - Multi-variate analysis
  - Non-parametric tests
  - Parametric tests such as unpaired, paired, "t" tests, analysis of variance
  - Receiver operator characteristics
- Define the terms "significance", "confidence interval", "Type I error" and "Type II error", predictive value, sensitivity, specificity, absolute risk reduction, power of study
- Understand Bayes Theorem, likelihood ratio, probability and uncertainty, especially when requesting special investigations
- Perform statistical analysis of assay data and evaluation of quality control
- Understand the value of discussion and collaboration with statistical advisers
- Understand disease surveillance systems and disease registries
- Understand the need for organisation of and implementation of screening programmes
- Understand sensitivity, specificity, positive predictive and negative predictive values

The trainee should be familiar with:
- Experimental design (eg laboratory, epidemiology)
- Data acquisition, storage, interpretation and statistical analysis
- Conducting clinical audit and feedback and be able to utilise data collection systems
- Scientific writing and presentational skills including the formulation of a grant application
- the principles of screening and the organisation/implementation and audit of screening programmes

The trainee should have the opportunity to attend appropriate national (and where possible international) meetings relevant to their subspecialty annually

The trainee will participate in a research project within the research plan of the institution. Completion of this project is required prior to completion of training

3.13 Teaching:

The trainee should gain experience in teaching which will include:
- Some responsibility for teaching junior staff in their subspecialty area
- Full participation in the unit's postgraduate programme with some administrative responsibility for the organisation of teaching in their subspecialty
- Participation in the undergraduate teaching programme
- Gain experience of appraisal and assessment techniques

3.14 Ethical and Legal Aspects:

The trainee should be able to discuss the ethical and legal aspects of the clinical practise of their subspecialty and should have particular knowledge of the relevant areas listed below:
- Legislation, particularly recent, relevant to their subspecialty practise
- Ethics of health care provision and resource allocation
- Medical confidentiality
- Consent:
  - Nature of consent; capacity; knowledge, voluntariness
  - Treatment of minors
  - Treatment of the incapacitated patient

• Medical negligence…/

- Medical negligence
- Role and relevance of ethics committees
- Treatment of the terminally ill patient:
  - Ethics and legal aspects of euthanasia
  - Research in oncology patients and the terminally ill
- Screening for familial cancer traits
- Principles of distributive justice related to oncology.

3.15 Administration:

The trainee should be given some administrative experience and responsibility to allow the development of skills relevant to the future provision and organisation of clinical services. Types of relevant knowledge and experience are listed below:

- Attendance at a management course
- An understanding of health service organisation and administrative and advisory structures
- An understanding of the mechanisms of health care purchasing, provision of care, resource allocation and contractual issues relevant to the clinical service
- Cognisance of the need for regional referral systems and role of tertiary service in health care provision
- The system for managing hospital complaints
- The know how to review a service and formulate a business plan