



MEDICINE AND SURGERY

Course: Obstetrics and Gynecology

Year (1st-2nd-3rd-4th-5th-6th): 5th

Period (1st-2nd semester – annual): 2nd semester

Credits: 5+2 (vocational activities)

Objectives

The course of Obstetrics and Gynecology has focused on woman's health, from adolescence to menopause. Different aspects will be explored and discussed in depth to provide the knowledge from physiology to disease, covering prevention, management and treatment.

The Professors will give information about the maternal modification during pregnancy, the most frequent obstetrical diseases and the diagnostic and therapeutic options in gynecology. Students will know how to manage a gynecological patient, how to diagnose hormone-related gynecological pathologies, as well as ovarian and uterine diseases.

- ***Knowledge and understanding (Dublino 1)*** At the end of this course, each student has to show a good knowledge of the physiology and pathology of all the treated topics. S/He must know the physiology of the menstrual cycle and normal pregnancy, as well as knowing the diagnosis and treatment of infertility, of high risk pregnancies and of ovarian and uterine cancers.
- ***Applying knowledge and understanding (Dublino 2)*** The student's knowledge of physiological and pathological conditions, as well as the knowledge of the treatment will be important tools for the patient's management in terms of decision, timing, strategies, techniques and risks.
- ***Making judgements (Dublino 3)*** The student should develop judgment skills and decisional abilities when facing the integrated clinical care and management of patients in different clinical scenarios.
- ***Communication skills (Dublino 4)*** The course will promote the student's communication skills in various medical contexts including the patient's evaluation and scientific audience. S/He will need to demonstrate their abilities in elaborating information from multiple sources and to synthetically express complex concepts. They should also acquire the ability to discuss patient concerns and expectations.
- ***Learning skills (Dublino 5)*** By the end of the course, the student will gain the capacity to deepen and update their knowledge on scientific literature with the use of web-based electronic databases allowing the assimilation of the most recently updated information.



Prerequisites

The course prerequisites include the knowledge of the fundamentals in: basic sciences, anatomy, physiology, pharmacology, internal medicine and the basic principles of general surgery. As a general prerequisite the students must have passed all the exams of the previous years.

Contents

- Adolescence.
- Menstrual cycle
- Family Planning and contraception
- Infertility: female and male
- Treatments of infertility
- Primary and secondary amenorrhea: epidemiology, causes, evaluation and management
- Polycystic ovary syndrome (PCOS): definition, pathophysiology, diagnosis, clinical features and manifestations, differential diagnosis and treatment.
- Pelvic inflammatory disease (PID)
- Ectopic pregnancy
- Sexual dysfunctions
- Pelvic pain
- Benign ovarian cysts
- Uterine myomas
- Urinary incontinence and prolapse
- Endoscopy in gynecology
- Screening of pre-neoplastic lesions of the lower genital tract
- Uterine cervical cancer: clinical presentation, diagnosis, staging, treatment
- Endometrial cancer: clinical presentation, diagnosis, staging and treatment
- Ovarian Cancer: clinical presentation, diagnosis, staging and treatment
- Vulvar cancer work-up, surgical staging and treatment
- Breast diseases
- Preconceptional counselling, screening tests and vaccination.
- Physiology of pregnancy
- Prenatal diagnosis: counseling, invasive e non-invasive methods (villocentesis, amniocentesis, obstetrical ultrasound, screening tests)
- Fetal therapy and Congenital anomalies
- Placenta: anatomy, physiology and abnormalities.
- Gestational trophoblastic neoplasia
- Post-term pregnancy
- Delivery
- Caesarean section
- Obstetric hemorrhage
- The puerperium
- Recurrent pregnancy loss
- Premature rupture of the membranes



- Preterm labor and delivery
- Pregnancy related hypertension
- Thyroid disease and pregnancy
- Rheumatologic and connective tissue disorders
- Diabetes in pregnancy
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- Menopause: diagnosis, menopausal transition, symptoms, metabolic changes, clinical evaluation of cardiovascular and other disease risks
- Menopausal Hormone Therapy: MHT benefits and risk
- Premature ovarian failure: physiologic and iatrogenic premature menopause clinical issues
- Postmenopausal osteoporosis: diagnosis and treatments

Teaching Method

The teaching methods will be based on: interactive lessons, discussion of clinical cases and professional training in the clinical wards and surgery areas (operating theatres).??

- **Knowledge and understanding (Dublino 1):** During frontal face-to-face lessons a clinical case discussion and clinical professional training will take place. The Professors will explain the main topics and stimulate an active participation by the students to improve their skills. What do you mean by ‘frontal’?
- **Applying knowledge and understanding (Dublino 2):** Students should participate fully during the lessons. During the professional training the Professors will take a direct approach with the students answering questions but also discussing the different implications and clinical possibilities available with them. Similarities and general rules linking the different conditions are underlined and explained in order to promote immediate understanding and memorization.
- **Making judgements (Dublino 3):** By means of clinical case presentation, the course helps students to re-organize their acquired knowledges into critical judgments based on a patient’s disease, the organs involved and the related counseling issues.
- **Communication skills (Dublino 4):** During lessons, the close examination of clinical cases should allow students to discuss with the teacher and their classmates using appropriate scientific language.
- **Learning skills (Dublino 5):** Self-learning is supported by lessons and through referral to original scientific literature, PUB med keywords and on-line materials.

Verification of learning

Learning steps

The students must follow all the steps below.



Gynecology outpatient clinic

- 1) Learn the indications for a gynecologic visit;
- 2) Learn how to take the gynecological medical history;
- 3) Recognize the correct steps that constitute a gynecological examination and the related objectives. In particular, the student, under the guidance of the tutor, must become aware of: A) the procedures that allow the correct positioning of the patient on the gynecological examination table; B) the steps that allow the correct insertion of the speculum; C) how to carry out the bimanual gynecological examination; D) how to recognize the type and extent of vaginal discharge.

Delivery room and obstetric outpatient clinic

- 1) Learn the indications for an obstetric examination;
- 2) Learn how to take the obstetric medical history;
- 3) Recognize the correct steps that constitute an obstetric examination and the related objective. In particular, the student, under the guidance of the tutor, must become aware of: A) the procedures that allow the correct positioning of the patient on the obstetric examination table; B) the steps to correctly conduct an obstetric abdominal examination; C) the steps to correctly conduct a vaginal examination; D) how to recognize the type and extent of vaginal discharge;
- 4) Under the guidance of the tutor, learning how to recognize with an ultrasound probe the presence of an intrauterine pregnancy at term and the features that make it possible to determine the viability of the fetus;
- 5) View the cardiotocography positioning and, under the guidance of the tutor, recognize the fetal heart rate and uterine contractions characteristics;
- 6) Under the guidance of the tutor, recognize the stages of labor and birth;
- 7) Learn the principal indications for a cesarean section;
- 8) View at least one vaginal or cesarean birth. The student won't have an active role. This learning objective is optional.

Gynecological operating room

- 1) Learn the indications for gynecological surgery
- 2) View at least one of: gynecological laparotomic surgery, gynecological laparoscopic surgery, urogynecological surgery

Infertility outpatient clinic

- 1) Learn how to conduct the infertility workup
- 2) Learn the indications for assisted reproductive technology (ART)
- 3) View at least one transvaginal gynecological ultrasound and recognize, under the guidance of the tutor, the anatomical structures and the features that are relevant for the gynecological diagnostic framework

Infertility/ART operating room:

- 1) View at least one embryo transfer and at least one oocyte retrieval
- 2) Considering that, both the embryo transfer and the oocyte retrieval are performed under an ultrasound guidance, recognize the steps of each procedure and the anatomical structures.

The final exam will be on clinical cases and will contain questions with multiple answers.



Clinical case: Using the appropriate scientific language the students must be able to evaluate the clinical case, describe the symptoms, evaluate the organs involved, make a diagnosis and suggest a treatment.

Questions with multiple answers: the students must have followed the learning steps , and they have to show a thorough knowledge of all the topics discussed during the lessons.

Texts

Williams Obstetrics, 25e

F. Gary Cunningham, Kenneth J. Leveno, Steven L. Bloom, Jodi S. Dashe, Barbara L. Hoffman, Brian M. Casey, Catherine Y. Spong

Williams Gynecology, 4e

Barbara L. Hoffman, John O. Schorge, Lisa M. Halvorson, Cherine A. Hamid, Marlene M. Corton, Joseph I. Schaffer