

Perinatology

Code: 103651
ECTS Credits: 3

Degree	Type	Year	Semester
2502442 Medicine	OT	4	0
2502442 Medicine	OT	5	0
2502442 Medicine	OT	6	0

Contact

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Use of Languages

Principal working language: catalan (cat)
Some groups entirely in English: No
Some groups entirely in Catalan: Yes
Some groups entirely in Spanish: No

Teachers

Wifredo Coroleu Lletget
Gemma Guinovart Galiana
Joan Badia Barnussell
Jorge Costa Pueyo
Miguel Angel Luna Tomás
Félix Castillo Salinas

Prerequisites

It is advisable that the student has reached the competences developed during the previous courses.

Sufficient knowledge about the psychological basis of health and disease states is desirable, as well as an adequate level of knowledge in interpersonal communication.

The student will acquire the commitment of preserving the confidentiality and professional secrecy of the data to which he/she may have access because of the learning in the assistance services. Also to maintain an attitude of professional ethics in all its actions.

Objectives and Contextualisation

It is an optional subject that can be taken from the fourth year and whose general objective is that the student becomes familiar with professional practice in the real context of perinatology.

Competences

Medicine

- Demonstrate an understanding of the fundamentals of action, indications, efficacy and benefit-risk ratio of therapeutic interventions based on the available scientific evidence.
- Demonstrate understanding of basic statistical methodologies used in biomedical and clinical studies and use the analytic tools of modern computational technology.
- Demonstrate understanding of the organisation and functions of the genome, the mechanisms of transmission and expression of genetic information and the molecular and cellular bases of genetic analysis.
- Demonstrate, in professional activity, a perspective that is critical, creative and research-oriented.
- Establish a diagnostic approach and a well thought-out strategy for action, taking account of the results of the anamnesis and the physical examination, and the results of the appropriate complementary tests carried out subsequently.
- Indicate the basic diagnosis techniques and procedures and analyse and interpret the results so as to better pinpoint the nature of the problems.
- Maintain and sharpen one's professional competence, in particular by independently learning new material and techniques and by focusing on quality.
- Recognize one's role in multi-professional teams, assuming leadership where appropriate, both for healthcare provision and for promoting health.
- Use information and communication technologies in professional practice.

Learning Outcomes

1. Assess the efficiency of the main therapeutic interventions.
2. Assess the relationship between efficacy and risk in the main therapeutic interventions.
3. Compare one's own opinions with those of colleagues and other healthcare professionals as a basis for teamwork.
4. Critically assess the results of complementary examinations, taking their limitations into account.
5. Demonstrate, in professional activity, a perspective that is critical, creative and research-oriented.
6. Differentiate between situations that require hospitalisation and those that require intensive care.
7. Establish a method for complementary examinations, in accordance with the standard process and the diagnostic expectations.
8. Establish a therapeutic action plan considering the needs of patients and their family and social environment, and involving all members of the healthcare team.
9. Further investigate the techniques and methods that help in genetic diagnosis.
10. Indicate and interpret the basic techniques and procedures for laboratory diagnosis, diagnostic imaging and others.
11. Indicate suitable therapeutic interventions for the main maternal and infant health problems.
12. Know, critically assess and use clinical and biomedical information sources and technologies.
13. Maintain and sharpen one's professional competence, in particular by independently learning new material and techniques and by focusing on quality.
14. Make correct use of genetic terminology in text and reference books.
15. Obtain, in an appropriate way, clinical samples needed for laboratory tests.
16. Obtain, organise, interpret and communicate clinical, scientific and healthcare information.
17. Order signs and symptoms to perform a differential syndromic diagnosis.
18. Understand and interpret statistical data in medical literature.
19. Use information and communication technologies in professional practice.

Content

1. Perinatology concept. Perinatal mortality Fetal mortality Neonatal mortality Maternal mortality Concept of high risk. Health organization according to risk.
2. Prenatal diagnosis Goals. Combined screens. Biochemical screening. Invasive procedures Array techniques. Prenatal diagnosis in maternal blood. Future perspectives.
3. Ultrasound follow-up of pregnancy. Goals. Possibilities and limitations. Fetal genetic sonogram. Fetal echocardiography. Neuroultrasonography. Delayed fetal growth.
4. Breastfeeding: lights and shadows.
5. Prematurity Identification of the risk. Prevention. Use of tocolytic drugs. Fetal lung maturation. The late preterm. Fetal viability concept. Ethical problems

6. Diabetes and pregnancy. Type I and II diabetes. Gestational diabetes. Recursions on the fetus and the baby. Maternal repercussions. Multidisciplinary treatment concept.
7. Control of the fetus status by monitoring the FHR and Doppler in pregnancy. Fetal cardiotocographic monitoring in childbirth. Diagnosis of fetal hypoxia.
8. Congenital perinatal infections I: General. Infection by herpesvirus type 1 and type 2, cytomegalovirus, varicella-zoster virus, other herpesviruses. Infection with parvovirus B19, enterovirus. Infection by zika virus.
9. Congenital perinatal infections II: Infection for HIV. Hepatitis B, hepatitis C. L. Parasitic infections: toxoplasmosis, Chagas disease, malaria.
10. Neonatal infections: Early sepsis. Late sepsis, nosocomial infection. Immunoprophylaxis during pregnancy and neonatal (influenza, whooping cough).
11. Hypoxico-ischemic encephalopathy. Consequences in the short, medium and long term. Measures to improve neurological outcomes.
12. Screening newborns of metabolopathies and other diseases. Inborn errors of metabolism. Genetic and chromosomal diseases of neonatal presentation.
13. Neonatal respiratory distress Respiratory causes and their treatment. Congenital cardiopathies of neonatal presentation.
14. Malformations and congenital surgical diseases in the prenatal or neonatal period.
15. Social pediatrics during pregnancy and the neonatal period. Fetal mistreatment consequences of maternal drug addiction. Newborn abandoned.

Methodology

The final organization of the subject with respect to the number and size of groups, distribution in the calendar and dates of examinations, specific evaluation criteria and review of exams, will be specified in each of the hospital teaching units (UDH), which will make it explicit through its web pages and the first day of class of each subject, through the professors responsible for the subject at the UDH.

For the present course, the professors appointed by the Department as responsible are:

UDHSP	UDHVH	UDGTiP	UDPT
Gemma Guinovart ginovart@santpau.cat	Felix Castillo fecastillo@vhebron.net	Carlos Rodrigo carlos.rodrigo@uab.cat	Juan Badia jbadia@tauli.cat

Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Directed	15	0.6	
Type: Supervised			
Supervised	16	0.64	
Type: Autonomous			
Autonomous	40.25	1.61	

Assessment

Continuous evaluation, discussion of cases: evaluation of the qualitative participation of the student and delivery of resolutions of cases worked in the seminar.

Evaluation of the works: each student will have to elaborate and present a work based on a clinical case lived during the practices of the subject.

Oral recovery test in case the student does not pass the initial evaluation.

When it is considered that the student has not been able to provide enough evidence of evaluation in the minutes, this subject will be recorded as non-evaluable. The teaching guide has to establish the criteria to assign a non-evaluable one.

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Delivery of reports / written works.	50%	1.75	0.07	9, 3, 12, 5, 6, 18, 8, 7, 10, 11, 13, 15, 16, 17, 14, 19, 4, 1, 2
Practical evaluation	50%	2	0.08	9, 3, 12, 5, 6, 18, 8, 7, 10, 11, 13, 15, 16, 17, 14, 19, 4, 1, 2

Bibliography

Obstetrics

Obstetric clinical algorithms . [Wiley Online Library eBooks EBS 2019](#) Errol R. Norwitz, George R. Saade, Hugh Miller, Christina M. Davidson. 2nd edition. ISBN 9781118849873 (pdf) | ISBN 9781118849880 (epub)

<https://login.are.uab.cat/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=edspub&AN=edp1179>

Protocol de seguiment de l'embaràs a Catalunya 3^a ed.: Generalitat de Catalunya. Departament de Sanitat i Seguretat Social, 2018 (

http://salutpublica.gencat.cat/web/.content/minisite/aspcat/promocio_salut/embaras_part_puerperi/protocol_segui).

Protocol de cribatge prenatal d'anomalies congènites a Catalunya. Departament de Sanitat i Seguretat Social, 2018 (

http://salutpublica.gencat.cat/web/.content/minisite/aspcat/promocio_salut/embaras_part_puerperi/protocol_cribra)

Tratado de Ginecología, Obstetricia y Medicina de la Reproducción. 2 tomos. Dir. Luis Cabero Roura. Editorial Médica Panamericana.2012.

<https://login.are.uab.cat/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=edspub&AN=edp1430>

Neonatology

Avery's diseases of the newborn. CA Gleason, SV Devaskar, 10th ed. Elsevier Saunders, 2018.

Fanaroff & Martin's Neonatal-perinatal medicine. Diseases of the fetus and infant. RJ Martin, AA fanaroff, MC Walsh, 11th ed. Saunders Elsevier 2019.

Fetus and neonatal physiology. R Polin, NW Fox, SH Abman, 5th ed. Elsevier Saunders, 2017.

Infectious diseases of the fetus and newborn infant. C Wilson, V Nizet, Y Maldonado, J Remington, J Klein. 8th ed. Elsevier Saunders, 2016.