



INSTITUTO DE HIGIENE E
MEDICINA TROPICAL
DESDE 1902

OPPORTUNISTIC PARASITES IN THE CONTEXT OF HIV/AIDS INFECTION

CU characterization:

CU name:

Opportunistic Parasites in the context of HIV/AIDS Infection

Scientific area acronym:

PM

Duration:

Modular

Working hours:

58

Contact hours:

33

ECTS:

2

Observations:

Optional CU

Teacher in charge and respective teaching load in the CU:

Olga Matos – 25 hours

Other teachers and respective teaching load in the CU:

Maria Luísa Costa – 25 hours

Invited speaker – 1 hour

Intended learning outcomes (knowledge, skills and competences to be developed by the students):

After this unit, students should be able to:

1. Select the technologies of diagnosis/dating of opportunistic human parasitic infections-OP- (cryptosporidiosis, microsporidiosis, toxoplasmosis, pneumocystosis), to be applied in each situation/disease and also to perform the most utilized techniques.



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Intended learning outcomes (knowledge, skills and competences to be developed by the students): (continuation)

2. Apply molecular methods to the study of the epidemiology of OP: a) detection and differentiation of species/genotypes/subgenotypes of OP; b) identification of sources of contamination in waterborne/foodborne diseases outbreaks; c) characterization of the transmission dynamics of infections in endemic areas; d) determination of importance to public health from the presence of opportunistic parasites in drinking public water; e) comparison of pathogenicity/characteristics of the infection due to species/genotypes of OP.
3. Run the molecular biology techniques commonly used in the study/characterization of the human opportunistic parasites.
4. Apply the control/prevention measures of OP.

Syllabus:

- I. Opportunistic parasitic infections in the context of HIV/AIDS infection: pathogenesis, clinic and treatment.
- II. Laboratory diagnosis of opportunistic parasitic infections (implementing the techniques used).
- III. Molecular epidemiology of the major opportunistic parasites (execution of the techniques used).

Teaching methodologies (including assessment):

Theoretical practical lessons, practical sessions, seminar.

Continuous assessment to determine the progress of learning, on the objectives we are trying to achieve. As such, parameters such as attendance, attitude dynamics and the various participatory activities, availability, curiosity, knowledge integration and relationships with colleagues will be taken into account. Classification will be assigned on a scale of 0-20 values, based on continuous assessment (5 points) and a written exam consisting of 15 quick-response questions, with 5 points in each question, in which only one question will be correct. Approval with classification ≥ 10 values.



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References for consultation / mandatory existence:

- Garcia L. S. (2007). Diagnostic Medical Parasitology, 5ª edição. ASM Press. Washington, DC, USA.
- Xiao L, Fayer R, Ryan U, Upton ST. Cryptosporidium Taxonomy: Recent Advances and Implications for Public Health. Clin Microbiol Rev, 2004, 17: 72–97.
- Cecile-Marie Aliouat-Denis, Magali Chabe´, Christine Demanche, El Moukhtar Aliouat, Eric Viscogliosi, Jacques Guillot, Laurence Delhaes, Eduardo DeiCas. Pneumocystis species, coevolution and pathogenic power. Infection, Genetics and Evolution, 2008, 8: 708–726.
- Sibley LD, Khan A, Ajioka JW, Rosenthal BM. Genetic diversity of Toxoplasma gondii in animals and humans. Philos Trans R Soc Lond B Biol Sci. 2009; 364(1530):274961. Review.