



UniSR

Università Vita-Salute
San Raffaele

II LEVEL MASTER INTERVENTIONAL ELECTROPHYSIOLOGY

STUDY PLAN

During the **first semester**, participants will learn to autonomously interpret the intracavitary signals, and independently perform the electrophysiological procedures in the right sections (i.e. electrophysiological study, atrial flutter, right atrial tachycardia, reentrant tachycardia in the AV and atrioventricular node). They will actively participate in complex studies, discussing case reporting with one of the "supervising" physicians. Participants will also become familiar with the materials used and the intervention strategies. They will begin to learn the transseptal puncture technique. At least 60 procedures will be ensured for each student. Part of the interventional activity will also be the examination reporting and the definition of the subsequent therapeutic orientation, agreed with the electrophysiologist in charge and explained to the patient.

In the **second semester**, the completion of mapping procedures of complex arrhythmias with supervision of the final result is expected. These arrhythmias may be: atrial fibrillation or ventricular extrasystole. Candidates will complete the procedure by performing catheter ablation.

Furthermore, the Department of Arrhythmology organizes annually, in collaboration with other internationally renowned centers, **Joint Interventional Meetings**, including international congresses, educational and training courses lasting two/three days on a monthly basis, including lessons, debates, theoretical-practical sessions.

The **Journal Club Meetings** will present the most recent scientific acquisitions of the literature on topics of current interest in electrophysiology. The organization will be entrusted to two senior members of staff. To foster the ability to work independently, the preparation of each topic is entrusted to a master student, with supervision of the selected material and lines of exposure by one of the two staff members.

Discussion of clinical cases and laboratory activities >>> The various cases to be treated on that day are discussed and illustrated. This allows you to clarify the specific therapeutic programs that you intend to implement. 8 hours a week for 40 weeks.

Staff meetings and competency meetings >>> Held every 2 weeks and last 1 hour. Topics include: presentation of new interventional techniques; presentation of new controlled clinical trials; review of cases of interest in the previous days or to be scheduled, re-evaluating or deciding on the



UniSR

Università Vita-Salute
San Raffaele

individualized therapeutic approach. Once a month, one of these meetings is also open to nursing and technical staff for the discussion of complications that occurred in the previous month during the activity in rooms and the operating methods to avoid their recurrence and treat them more effectively. Departmental meetings >>> They are held monthly for 1 hour before the start of clinical activity and are organized on a rotational basis by the Interventional Cardiology, Clinical Cardiology, Cardiac Surgery, Arrhythmology Services. New diagnostic and therapeutic techniques are presented at the meetings, reviewing cases with an interdisciplinary approach, and proposing new diagnostic and therapeutic protocols for the revision of the guidelines.

Theoretical-practical courses and activities		
TEACHINGS	ECTS	HOURS
1. Management e inquadramento clinico del paziente aritmologico / Management and clinical classification of the arrhythmological patient	1	25
2. Approccio elettrofisiologico al paziente con aritmie atriali / Electrophysiological approach to the patient with atrial arrhythmias	1	25
3. I materiali, gli strumenti, e i sistemi di mappaggio endocavitari nel panorama elettrofisiologico / Materials, tools, and endocavitary mapping systems in the electrophysiological panorama	1	25
4. Il trattamento del flutter atriale / Treatment of atrial flutter	1	25
5. Il trattamento delle aritmie sopraventricolari / Treatment of supraventricular arrhythmias	1	25
6. Le manovre elettrofisiologiche per escludere o confermare una diagnosi di rientro / Electrophysiological maneuvers to exclude or confirm a reentry diagnosis	1	25
7. Il trattamento della tachicardia atriale / Treatment of atrial tachycardia	1	25
8. Il trattamento della fibrillazione atriale / Treatment of atrial fibrillation	2	50
9. La tecnica della puntura transettale / The transeptal puncture technique	2	50
10. Come evitare complicanze durante il mappaggio e l'ablazione transcatetere / How to avoid complications during catheter mapping and ablation	2	50
11. Il ruolo dell'imaging nel contesto dell'ablazione transcatetere delle tachicardie ventricolari / The role of imaging in the context of catheter ablation of ventricular tachycardias	2	50
12. Approccio elettrofisiologico al paziente con aritmie ventricolari / Electrophysiological approach to the patient with ventricular arrhythmias	2	50
13. L'extrasistolia ventricolare / Ventricular extrasystole	1	25



UniSR

Università Vita-Salute
San Raffaele

14. L'ablazione della tachicardia ventricolare / Ablation of ventricular tachycardia	2	50
15. Analisi statistica applicata alla cardiologia elettrofisiologica: piano statistico e analisi finale / Statistical analysis applied to electrophysiological cardiology: statistical plan and final analysis	1	25
16. Joint Interventional Meeting	1	25
17. Journal Club Meeting	1	25
Clinical training activities		
TEACHINGS	ECTS	HOURS
Traineeship	375	15
Case discussions, laboratoy	100	4
Staff meetings and competencies meetins	100	4
Departmental meetings	100	4
Final dissertation		
TEACHINGS	ECTS	HOURS
Research and preparation of an experimental thesis	250	10