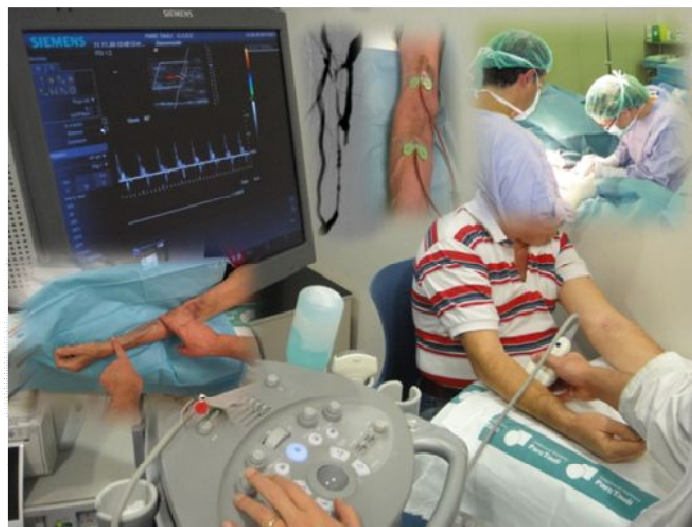




## **THEORETICAL AND PRACTICAL COURSE FOR VASCULAR ACCESS MANAGEMENT**



**Sabadell, Barcelona**

**2018 - 2019**



## INTRODUCTION AND OBJECTIVES

Early diagnosis and treatment of vascular access pathology requires a multidisciplinary approach by nephrologists, vascular surgeons, radiologists and nurses to optimize resources. Both theoretical and practical knowledge are required to carry out the diagnostic and therapeutic procedures in this field.

The course is aimed at nephrologists, vascular surgeons and radiologists who have limited experience in vascular access management and/or those wishing to refresh or improve their knowledge. It will help professionals bring this knowledge up to date and improve their skills.

It gives attendees an opportunity to become acquainted with the most common techniques and devices used in 4 different areas:

- Hemodialysis catheter placement
- Ultrasound mapping and arteriovenous fistula examination
- Endovascular procedures
- Vascular access surgery

### Learning objectives:

- To understand the principles of different procedures
- To acquire a standardized technique in a step-by step fashion
- To become familiar with devices and their use
- To discuss technical problems with experts
- To learn technical tips and tricks
- To understand how to avoid or minimize the most commonly encountered complications

## METHODOLOGY

- 1. Theoretical introduction of concepts applied of each topic.**
  - Description of the theory and technical aspects of different procedures, indication and techniques.
- 2. Representative clinical cases for attendees to solve.**
  - Interactive sessions.
- 3. Hands-on sessions. Principles to practice. Skills training.**
  - *Ultrasound-guided venipuncture and catheter placement.*
    - Study of cervical and femoral human anatomy in patients.
    - Ultrasound-guided cannulation for central line placement on simulation models. Review of techniques and approaches (human torso, phantom, and biological models such as turkey). Temporary and tunnelled catheter placement, from cannulation to the tunnel creation.
  - *Vascular access ultrasonography.*
    - Ultrasound mapping. From the simple to the complex
    - Ultrasound vascular access surveillance. How to use or improve the skills in ultrasound use in patients. Hands-on practice with patients with normal vascular access and with different types of pathology (stenosis, thrombosis, aneurysms, deep veins, etc.
- 4. Review of the techniques endovascular and surgical procedures**
  - On previously ultrasound examined vascular access, in case of scheduled procedure, analysis of endovascular or surgical procedures in interventional or surgical suites.
- 5. Final evaluation of the student to test the knowledge acquired**
- 6. Student evaluation of the course**



## AREAS

### 1. Vascular access ultrasonography

- Review of the theory of the physical principles of ultrasound applied to different hemodynamic models of vascular access.
- Theoretical and practical sessions on ultrasound mapping and diagnosis of vascular access pathology. From the simple to the complex.
- Hands-on practice with patients for presurgical mapping and fistula examination. With normal vascular access and with different types of pathology (stenosis, thrombosis, aneurysms, deep veins, etc.), giving students the opportunity to apply the theoretical knowledge they have acquired. Different models of ultrasound devices will be used.

### 2. Hemodialysis Catheter

- Review of techniques and approaches. Temporary and tunneled catheter placement, from puncture to tunnel creation
- From classroom simulation to the examinations done by students.
- Hands-on sessions on study of cervical and femoral human anatomy in patients, ultrasound-guided venipuncture, ultrasound-guided cannulation for central line placement on simulation models with review of techniques and approaches (human torso, phantom, and biological models such as turkey). Temporary and tunneled catheter placement, from puncture to the tunnel creation.

### 3. Endovascular Vascular Access Procedures

- Review of the indications and principles underlying the endovascular procedures used in different treatments of vascular access pathology.
- On previously ultrasound examined vascular access, in case of scheduled procedure, analysis of endovascular procedures in the interventional radiology suite.

### 4. Vascular Access Surgery

- Review of the indications and principles underlying the surgical procedures applied in arteriovenous fistula creation and treatment of complications, both native and prosthetic, and its surgical approach in complications.
- On previously ultrasound examined vascular access, in case of scheduled procedure, analysis of surgical procedures in the operation room.



## FACILITIES

1. **Nephrology Outpatient Clinic**, for ultrasound surveillance of vascular access.
2. **Nephrology-Vascular Surgery Joint Outpatient Clinic**, for presurgical mapping, orientation, and prioritization of surgical salvage of vascular access.
3. **Vascular Surgery Operating Room**, for the creation of vascular access and treatment of complications.
4. **Interventional Radiology Unit**, for imaging support in mapping and evaluation of vascular access, interventional treatment of complications (angioplasty, thrombectomy, stenting, etc.), fluoroscopic guidance for placement of tunneled catheters, endovascular treatment of complications associated with tunneled catheters, and placement of complex temporary catheters under fluoroscopic guidance.
5. **Acute Dialysis Unit**. For temporary catheter placement.
6. **Chronic Dialysis Unit**. For on-site monitoring of the patient requiring pre-hemodialysis session control.



### SCIENTIFIC COORDINATION

José Ibeas, MD, PhD.  
Nephrology  
Hospital de Sabadell, Corporació Sanitària Parc Taulí

### ACCOMMODATION

Gran Hotel Verdi \*\*\*\*  
C/ Francesc Macià, 62  
08206 – Sabadell

Room /day: 75 eur + VAT (breakfast included)

Reservations and payment for accommodation must be made through the course secretary.

### COURSE VENUE

Parc Taulí, Hospital Universitari  
Corporació Sanitaria Parc Taulí  
Parc Taulí, 1  
08208 Sabadell



## **COURSE SECRETARIAT**

Ester Freixa  
Fundació Parc Taulí  
E-mail [efreixa@tauli.cat](mailto:efreixa@tauli.cat)

### **Registration**

For Registration, send an e-mail [efreixa@tauli.cat](mailto:efreixa@tauli.cat)

### **Price in Euros (VAT not included)**

One week: 3000 euros + Taxes  
Two weeks: 4500 euros + Taxes

5 courses scheduled per year.

Limited to 1 student per course. Places will be assigned in function of the order of registration.

### **Cancellation:**

Up to 30 days before the course starts. After this date, only half of the registration fee will be refunded.

### **Payment**

Bank transfer to: Banc de Sabadell  
IBAN: ES69-0081-5154-22-0002103622  
SWIFT: BSABESBB



# PROGRAM



# Monday

**08:00 h** Welcome. Vascular Access Program presentation

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**09:00 – 12:00 h** Outpatient Nephrology Clinic. Vascular Access Ultrasound Surveillance program

**12:00 – 13:30 h.** Hemodialysis Unit. Vascular Access Surveillance ultrasound program

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**13:30 – 14:30 h.** Lunch

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**14:30 – 17.00 h.** Theoretical review in Arteriovenous Fistula management

1. Mapping
2. Surveillance





# Tuesday

**8:00 - 12:00 h Theoretical review of vascular access ultrasound**

- Physical principles
- US in AVF. General issues
- US in AVF. Specific issues

**12:00 – 14:30 h US training in Hemodialysis Unit**

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**14:30 – 15:30 h Lunch**

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**14:30 – 17:00 h Theoretical review of Arteriovenous Fistula management**

1. Treatment of complications. Interventional Radiology
  2. Treatment of complications. Surgery.
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# Wednesday

**8:00 – 11:00 h. Clinical cases session.**

**11:00 – 14.30 h. Nephrology-Vascular Surgery Joint Outpatient Clinic.**

- Presurgical mapping
- Orientation and prioritization of surgical or endovascular salvage of vascular access complications.

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**14:30 – 15:30 h Lunch**

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**15:30 – 17:00 h. Bibliographic review. AVF topics**

**Or Vascular Access Surgery in operating Room (depending on the activity scheduled)**

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# Thursday

**8:00 – 11:00 h. Theoretical review of catheter management**

- Placement
- Management of complications

**11:00 – 14.30 h. Catheter placement in Simulation Models**

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**14:30 – 15:30 h Lunch**

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**15:30 – 17:00 h. Bibliographic review.** Bibliographic review of catheter topics

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## Friday

**8:00 – 12:00 h.** Interventional radiological procedures in Interventional Radiology Suite

**12:00 – 14.30 h.** Final review and Evaluations

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**Note:** *The specific educational objectives can be customized depending on the aims of the applicant and the possibilities on changing the schedule. For instance, increasing the training on some specific issues in lieu of others.*



## ACKNOWLEDGES AND AGREES FOR THE APPLICANT

The applicant while in their formative stay in the CSPT, undertakes to respect the instructions and considerations that the tutor assigned will make and shall comply with the internal rules of the CSPT.

The applicant undertakes to strictly comply with Law 15/1999, of December 13, Protection of Personal Data, applicable to CSPT health legislation and internal regulations of confidentiality.

In the event of not being a citizen of the European Union, the applicant is committed to maintaining his/her status of legal residence in Spain for the length of the training period.

## REQUESTS

To be accepted, the necessary documents will be provided:

- ID / residence permission
  - Certification of the specialty (nephrology, surgery or radiology)
  - Specific educational objectives, if required
  - Health care insurance
  
  - Liability risks pertaining to civil responsibility will be provided by the Organization of the Course (in the event the applicant has any, he/she will not be charged)
  - Negative criminal record certification for normal work with minors or center of origin certification proving it.
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The personal data will be part of a file owned by the Corporation Sanitària Parc Taulí in order to manage their training and will be treated with strict confidentiality in accordance with the Organic Law 15/1999 Protection of Personal Data and you are entitled to access, modify or cancel your data by sending a request in writing to the following address: Corporació Sanitària Parc Taulí. Parc Taulí, 1. 08208 Sabadell. For any further information please contact the email address [docencia@tauli.cat](mailto:docencia@tauli.cat).