

### Organization Committee

José Ibeas, MD, PhD. Nephrology  
Joaquim Vallespín. MD. Vascular Surgery  
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Hospital de Sabadell, Corporació Sanitària Parc Taulí. Sabadell, Barcelona

### Sponsored by (pending):

- Catalan Society of Nephrology and its Workgroup on Vascular Access
- Spanish Society of Nephrology and its Workgroup on Vascular Access
- Catalan Society of Angiology, Vascular Surgery and Endovascular Surgery
- Spanish Society of Angiology and Vascular Surgery
- Vascular Access Society

### Scientific Coordination

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

### Health Interest and Accreditation (pending)

Health Interest Statement by the Ministry of Health, Social Services and Equality

Accredited by:



## 4<sup>th</sup> THEORETICAL UPDATE AND PRACTICAL WORKSHOP IN ULTRASOUND AND MULTIDISCIPLINARY APPROACH TO VASCULAR ACCESS



April 8-9, 2014  
Sabadell, Barcelona

Sponsored by (pending):



## Aimed at:

Nephrologists, vascular surgeons, radiologists, and specialists in training who have some experience ultrasound for vascular access or who have completed the introductory course on ultrasound in vascular access.

## Introduction and objectives

The progressive incorporation of ultrasound for early diagnosis of vascular access pathology in nephrology requires multidisciplinary teamwork shared among nephrologists, vascular surgeons, radiologists and nurses to optimize resources.

This course aims to help professionals keep their knowledge up to date and improve their practical skills in the use of ultrasound for vascular access.

Nephrologists, vascular surgeons, radiologists, and specialists in training who have some experience ultrasound for vascular access or who have completed the introductory course on ultrasound in vascular access will have the opportunity to go deeper into the subject.

## Methodology

1. Review of the theory of the physical principles of ultrasound applied to different hemodynamic models of vascular access.
2. Theoretical and practical sessions on ultrasound mapping and diagnosis of vascular access pathology. From the simple to the complex.
3. Representative clinical cases and clinical cases for students to solve in interactive electronic student self-assessment sessions
4. **HANDS-ON SESSIONS** on vascular access ultrasonography  
From classroom simulation to ultrasound examinations done by students. Hands-on practice with patients 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.
5. On previously mapped vascular access, surgery transmitted live from the operating room.
6. **HANDS-ON SESSIONS** on ultrasound-guided venipuncture.  
Study of cervical and femoral human anatomy in patients. From classroom simulation to the examinations done by students. Ultrasound-guided puncture for central line placement on simulation models. Review of techniques and approaches. (human torso, phantom, and biological models such as turkey). Temporary and tunneled catheter placement, from puncture to tunnel creation.

## Course Secretary

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

## Registration

To register, send an e-mail to [efreixa@tauli.cat](mailto:efreixa@tauli.cat)

### PRICE IN EUROS (VAT not included)

	WORKSHOP	SYMPOSIUM	COMBO
<b>Early</b> Before Dec 1, 2013	<b>550</b>	<b>350</b>	<b>725</b>
	Resident/Fellow: <b>450</b>	Resident/Fellow/Nurse: <b>250</b>	Resident/Fellow: <b>525</b>
<b>Advance</b> Before Feb 15, 2014	<b>650</b>	<b>425</b>	<b>900</b>
	Resident/Fellow: <b>550</b>	Resident/Fellow/Nurse: <b>325</b>	Resident/Fellow: <b>700</b>
<b>Late</b>	<b>750</b>	<b>500</b>	<b>1075</b>
	Resident/Fellow: <b>650</b>	Resident/Fellow/Nurse: <b>400</b>	Resident/Fellow: <b>875</b>

Includes:

- Course attendance, documentation CD, coffee breaks, lunch, and certificate of attendance.
- **Membership in the Vascular Access Society for a year, which includes electronic subscription to the Journal of Vascular Access.**

Limited to 24 students. Places will be assigned in function of the order of registration.

### Cancellation:

Up to 10 days before the start of the course. After this date, the registration fee will not be refunded.

### Payment

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

## 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

Auditorium Taulí nou  
Corporació Sanitaria Parc Taulí  
Parc Taulí, 1. 08208. Sabadell

## PROGRAM

### April 8

**07:45 h** Registration

**08:00 h** Welcome and opening of the course

*Joan Martí-López, MD*

*Ejecutive Director Hospital de Sabadell and Albada,  
Corporació Sanitària Parc Taulí*

#### **Introduction and course objectives**

*José Ibeas-López, MD, PhD*

#### **Ultrasonography in vascular access: from innovation to a fundamental tool**

*Manuel García-García, MD, PhD*

#### **Multidisciplinary management of vascular access: the importance of resource management**

*Antonio Giménez-Gaibar, MD*

#### **Clinical application of second-generation screening methods in the diagnosis of vascular access stenosis**

*Ramón Roca-Tey, MD, PhD*

**09:00 h** From the physical principles of color-Doppler ultrasound to technical optimization. Adaptation to vascular access hemodynamics

*Jana Merino-Raldúa, MD, PhD*

Practical use:

- B Mode
- Color Doppler and power Doppler
- Spectral Doppler
- Settings: from PRF to SVP
- Flow measurement: how to avoid mistakes

- **Clinical cases**

- **Clinical problems: how to avoid mistakes, Self-assessment**

**10:30 h** Ultrasonography, from theory to clinical practice: tips, tricks, and a quiz

*Simon van Hooland*

**11:00 h** Coffee break

**11:30 h** Presurgical mapping:

*Joaquim Vallespín-Aguado, MD*

- Ultrasound anatomy of arterial and venous vascular tree: outline of systematic mapping
- From the morphological study to hemodynamics
- Mapping for the first AVF
- Mapping of patients with complex vascular beds
- Mapping oriented to VA reconstruction
- Indications for angiography
- **Clinical cases and Self-assessment**

**13:00 h** The pathological vascular access

*José Ibeas López, MD, PhD*

- Outline of the systematic physical examination of the VA
- Outline of the systematic ultrasound study of the pathological VA
- Diagnosis of stenosis: from the moderate to critical
- Diagnosis of thrombosis: identifying candidates for treatment
- Value of flow in decision making
- Mapping strategy for dysfunctional AVF puncture awaiting treatment
- The AVF with moderate stenosis: conservative management by US surveillance
- **Clinical cases**
- **Clinical cases: Self-assessment**

**14:30 h** Lunch

### Workshop

**15:30 h** Simulation Lab applied to arteriovenous fistula

**16:30 – 20:00 h** Hands On. Ultrasound VA assessment in patients

#### **1. Pathological and Nonpathological VA**

- Developing arteriovenous fistula
- Medium flow arteriovenous fistula
- High flow arteriovenous fistula
- Arteriovenous fistula stenosis
- Graft
- Aneurysms
- Deep veins

#### **2. Presurgical mapping.**

- Candidate for first AVF with vessels preserved
- Candidate for first AVF with arteriopathy
- Candidate for first AVF with poor venous bed
- Candidate for VA reconstruction

## PROGRAM

### April 9

#### 09:00 h Workshop: case-based discussion

##### Discussion of clinical cases and live surgery in parallel

1. Clinical cases
2. Live surgery

#### 13:00 h Lunch

#### 14:00 h Ultrasound-guided puncture in central vessels. Techniques and approaches

*José Ibeas López, MD, PhD*

- Optimizing the use of ultrasound in the puncture of central lines
- Vascular anatomy. Anatomical variants
- Ultrasound-guided puncture: different approach techniques:
  - In plane and out of plane
  - Combinations of longitudinal, transverse, and oblique approaches
- Clinical Cases

#### 15:00 h Simulation Lab: ultrasound-guided catheter placement

#### 16:00 h Hands-on workshop: ultrasound practice on real patients and simulation models

- Exploration in anatomical human model:
  - Normal anatomy and variants
  - Jugular and femoral areas
  - Complex approach
- Training on simulation models. Ultrasound-guided puncture in:
  - Simulated Human Torso
  - Phantom
- Training in ultrasound-guided short-term and tunneled catheter placement with different approaches:
  - Biological model (turkey)
- Training in ultrasound-guided short-term and tunneled catheter placement with different approaches:
  - Plane
  - Out of plane
  - Combination of transverse and oblique

#### 19:00 h Symposium closing

## Faculty

**Loreley Ana Betancourt, MD.** Nephrology, Corporació Sanitària Parc Taulí.

**M<sup>a</sup> Isabel Bolos, MD.** Nephrology, Corporació Sanitària Parc Taulí.

**Jordi Branera, MD.** Interventional Radiology, UDIAT, Corporació Sanitària Parc Taulí.

**Ivan Constenla, MD.** Vascular Surgery, Corporació Sanitària Parc Taulí.  
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**Eva Criado, MD.** Interventional Radiology, UDIAT, Corporació Sanitària Parc Taulí.

**José Ramón Fortuño, MD.** Interventional Radiology, UDIAT, Corporació Sanitària Parc Taulí.

**Manuel García, MD, PhD.** Chief of the Nephrology Department, Corporació Sanitària Parc Taulí.

**Antonio Gimenez Gaibar, MD.** Chief of the Vascular Surgery Department, Corporació Sanitària Parc Taulí. President of the Catalan Society of Angiology, Vascular Surgery, and Endovascular Surgery.

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**Carol Herranz, MD.** Vascular Surgery, Corporació Sanitària Parc Taulí. Certificate of noninvasive vascular diagnosis (CDVNI) of the Spanish Society of Angiology and Vascular Surgery.

**José Ibeas, MD, PhD.** Nephrology, Corporació Sanitària Parc Taulí. Vascular Access Workgroups of the Catalan and Spanish Societies of Nephrology. Council member of the Vascular Access Society

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**Sol Otero, MD, PhD.** Nephrology, Corporació Sanitària Parc Taulí.

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**M. Pau Valenzuela, MD.** Nephrology, Corporació Sanitària Parc Taulí.

**Joaquim Vallespín, MD.** Vascular Surgery, Corporació Sanitària Parc Taulí.  
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**Simon Van Hooland MD.** Department of Nephrology, AZ St Lucas. Ghent, Belgium.

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