



## VI Hands-on Skills Training Workshop in Vascular Access:

### A Multidisciplinary Approach



May 8-10, 2017

## Sabadell, Barcelona









#### 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, radiologists and specialists-in-training who have limited or no experience in vascular access management 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 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

#### Maximum number of attendees: 24

Faculty: Interventional nephrologists, vascular surgeons, interventional radiologists.

#### METHODOLOGY

- 1. **Theoretical introduction of concepts applied of each topic.** Description of the technical aspects of different procedures, indication and techniques.
- 2. **Representative clinical cases for attendees to solve.** In interactive electronic student self-assessment sessions.

#### 3. Hands-on sessions

- Principles to practice. Skills training: education and simulation
- Participants rotating through 4 areas
- 120 minutes for each topic
- Small group training sessions close interaction with faculty
- Participants will learn how to use or improve the skills with currently available devices for different procedures. Experienced tutors will discuss technical tips and tricks.
  - With Simulation Models, the attendee will learn:
    - How to perform the procedures
    - Manage procedural complications
    - Tips and tricks
- 4. Surgery transmitted live from the operating room. On previously mapped vascular access.





#### AREAS

#### 1. Vascular Access Ultrasonography

- Review of the theory of the physical principles of ultrasound applied to different homodynamic 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 tunnelled 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 puncture for central line placement on simulation models with review of techniques and approaches (human torso, phantom, and biological models such as turkey). Temporary and tunnelled catheter placement, from puncture to the tunnel creation.

#### 3. Endovascular Vascular Access Procedures

- Review of the principles underlying the endovascular procedures used in different treatments of vascular access pathology.
- Hands-on practice sessions aimed at vascular treatment of different pathologies with simulation models. Simulation models will be used for treating endovascular stenosis with transluminal angioplasty/stenting procedure, thrombosis with thrombectomy; collaterals with coils deployment, etc.

#### 4. Vascular Access Surgery

- Review of the principles underlying the surgical procedures applied in arteriovenous fistula creation, both native and prosthetic and its surgical approach in complications.
- Hands-on practical demonstration of various suture techniques for arterial and venous anastomoses. Vascular access reconstruction in different pathological conditions. Simulation models will be used.





#### **ORGANIZATION COMMITTEE**

José Ibeas, MD, PhD. Nephrology Joaquim Vallespín. MD. Vascular Surgery Anna Alguersuari, MD. Interventional Radiology Carolina Rubiella, RN, Nephrology Hospital de Sabadell, Corporació Sanitària Parc Taulí. Sabadell, Barcelona

#### **SCIENTIFIC COORDINATION**

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

#### WITH SUPPORT OF:

- Centro de Educación Médica basada en la Simulació. Parc Taulí Sabadell, Hospital Universitari
- Catalan Society of Nephrology and its Working Group of Vascular Access
- Spanish Society of Nephrology
- GEMAV. Spanish Multidisciplinary Working Group on Vascular Access
- Catalan Society of Angiology, Vascular and Endovascular Surgery
- Spanish Society of Angiology and Vascular Surgery
- Spanish Society of Vascular and Interventional Radiology
- Spanish Society of Dialysis and Transplant
- Vascular Access Society
- European Renal Association European Dialysis and Transplantation Association
- International Society of Nephrology

#### **ACCREDITATION:**



Has been accredited by the European Accreditation Council for Continuing Medical Education (EACCME) to provide **15 European CME credits (ECMEC)**.



It has applied for Consell Català de Formació Continuada de les Professions Sanitàries - Comisión de Formación Continuada del Sistema Nacional de Salud. Pending



#### ACCOMMODATION

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

Room /day: 85 eur (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





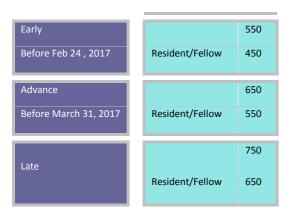
#### **COURSE SECRETARIAT**

Ester Freixa Fundació Parc Taulí E-mail efreixa@tauli.cat

#### **Registration**

For Registration, send an e-mail efreixa@tauli.cat

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



Includes:

- Course attendance, documentation pendrive, coffee breaks, lunch and certificate of attendance.
- Membership discount in the Vascular Access Society for the first 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 course starts, 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





## PROGRAM







07:45 – 08:00 h Registration

08:00 – 09:00 h Welcome and opening of the course Cristina Carod, MD Executive Director Hospital de Sabadell and Albada Corporació Sanitària Parc Taulí

> Jaume Almirall , MD Director del Servicio de Nefrología

Introduction and course objectives José Ibeas López, MD, PhD

Multidisciplinary management of vascular access: the importance of resource management

Antonio Giménez Gaibar, MD, PhD

Clinical application of second-generation screening methods in the diagnosis of vascular access stenosis *Ramón Roca Tey, MD, PhD* 

#### 09:00 - 10:30 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 – 11:00 h Coffee break

#### 11:00 – 12:30 h Presurgical mapping:

Joaquim Vallespín Aguado, MD

- Ultrasound anatomy of arterial and venous vascular tree: outline of systematic mapping
- From the morphological study to the 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





#### **12:30 – 14:00 h** Pathological vascular access

#### José Ibeas López, MD, PhD

- Outline of the systematic physical examination of the VA
- Outline of the systematic ultrasound study of pathological VA
- Diagnosis of stenosis: from moderate to critical
- Diagnosis of thrombosis: Approach to the identification of candidates for treatment
- Value of flow in decision making
- Mapping strategy for dysfunctional AVF puncture awaiting treatment
- The AFV with moderate stenosis: conservative management approach by US surveillance
- Clinical Cases
- Clinical problems: Self-evaluation

#### 14:00 - 15:00 h Lunch

#### **15:00 – 16:00 h** Surgical approach to complications in the arteriovenous fistula Joaquim Vallespín Aguado, MD

- Stenosis
- Thrombosis
- Aneurismas and pseudoaneurismas
- Infection
- Distal hypoperfusion ischemic syndrome

#### 16:00 – 17:00 h Ultrasound-guide puncture in central vessels. Review of techniques and approaches José Ibeas López, MD, PhD

- Review to optimize the use of ultrasound in the puncture of central lines
- Vascular anatomy. Anatomic variants
- Ultrasound-guided puncture: different approach techniques:
  - In plane and out of plane
  - Combinations of longitudinal, transverse, and oblique approaches

#### **17:00 – 18:00 h** Endovascular approach to complications in the vascular access Anna Alguersuari, MD

- Arteriovenous fistula: stenosis and thrombosis
- Catheter dysfunction treatment

18:00 – 20:00 h

#### HANDS ON WORKSHOP







09:00 – 13:30 h Workshop discussion based on the case. Discussion of clinical cases and live surgery in parallel

- 1. Clinical cases
- 2. Live surgery

13:30 - 15:00 h Lunch

15:00 – 16:00 h Simulation Lab: Ultrasound-guided arteriovenous fistula examination

16:00 – 20:00 h

#### HANDS ON WORKSHOP





## May 10

9:00 – 10:00 h Simulation Lab: Ultrasound-guided catheter placement

10:00 – 12:00 h

#### HANDS ON WORKSHOP

**12:00 – 13:00 h** That quiz! Interactive questions to review the learned concepts.

13:00 h Workshop closing

#### HANDS ON WORKSHOP SCHEDULE

|                         | Ultrasound | Catheter | Endovascular | Surgery |
|-------------------------|------------|----------|--------------|---------|
| May 8<br>18:00-20:00 h  | GROUP 1    | GROUP 2  | GROUP 3      | GROUP 4 |
| May 9<br>16:00-18:00 h  | GROUP 4    | GROUP 1  | GROUP 2      | GROUP 3 |
| May 9<br>18:00-20:00 h  | GROUP 3    | GROUP 4  | GROUP 1      | GROUP 2 |
| May 10<br>10:00-12:00 h | GROUP 2    | GROUP 3  | GROUP 4      | GROUP 1 |





#### FACULTY

Anna Alguersuari, MD. Interventional Radiology. UDIAT. Corporació Sanitària Parc Taulí.

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

Juan Carlos Gil, MD. Interventional Radiology. UDIAT. Corporació Sanitària Parc Taulí

Eva Criado, MD. Interventional Radiology. UDIAT. Corporació Sanitària Parc Taulí.

Josep Guitart, MD. Interventional Radiology. UDIAT. Corporació Sanitària Parc Taulí

**Antonio Gimenez Gaibar, MD**. **PhD**. Chief of Vascular Surgery Department. Corporació Sanitària Parc Taulí. Past- President of the Catalan Society of Angiology and Vascular and Endovascular Surgery. Past-Vice-president of the Spanish Society of Angiology and Vascular Surgery. Spanish Multidisciplinary Working Group on Vascular Access (GEMAV).

**Elena González, MD.** Coordinator of the Vascular Surgery Department 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. Interventional Nephrology Workgroup of the Spanish Society of Nephrology. Spanish Multidisciplinary Working Group on Vascular Access (GEMAV). President elect of the Vascular Access Society. International Committee of the American Society of Diagnostic and Interventional Nephrology.

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