











iMEP
MECHELEN • BELGIUM

DISCOVER OUR LATEST COURSES



Welcome to iMEP

NIPRO's Institute for Medical Practice

Since 1954, NIPRO has been a frontrunner in healthcare innovation, growing to become a leading global supplier of life-saving medical devices. Over the past seven decades, we have seen how medical breakthroughs, while welcome for patients, often require healthcare professionals to adapt rapidly to change. Trying out new techniques and adjusting day-to-day practices can be difficult in a high-stakes environment, especially when patients' lives may be at risk.

In 2018, NIPRO established the Institute for Medical Practice (iMEP), a state-of-the-art, 3000 m² training facility next to NIPRO's European HQ in Mechelen, Belgium. Equipped with realistic artificial arms, patient mannequins, and cutting-edge distance learning technology, iMEP provides a safe, controlled environment for healthcare professionals to acquire the knowledge and skills necessary to save lives. iMEP embodies our belief that continuous learning and development enable healthcare professionals to stay at the forefront of medical practice.

Our training helps build confidence through psychological safety, mentorship, and teamwork. Specialized courses in hemodialysis, vascular access, and ultrasound encourage clinical reasoning and evidence-based best practices, ultimately leading to better patient outcomes. Our experts teach healthcare professionals the technical and decision-making skills necessary to put theory into practice immediately.

This course catalogue will provide you with more information on the program content and the knowledge and skills to be gained, for every course we offer.

We encourage you to join us and take the next step in your professional development.

Best regards,



Ben de Witte

Director, iMEP Belgium

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Arteriovenous Fistula Cannulation

THEORY AND PRACTICE

Arteriovenous fistula (AVF) cannulation is one of the most essential skills in hemodialysis care and plays a major role in treatment safety, effectiveness, vascular access preservation, and patient comfort.

This fundamental training provides a structured introduction to the basic principles, techniques, and best practices required for safe and successful arteriovenous fistula cannulation. The course focuses on both theoretical understanding and practical application, helping learners build confidence in daily dialysis practice.

During the training, participants learn how to assess an AV fistula before cannulation, select and handle the appropriate dialysis needle, prepare the skin correctly, and apply safe cannulation techniques. The course also covers practical tips such as needle insertion angle, patency checks, skin fixation, needle fixation, and post-cannulation care. Special attention is given to the prevention and recognition of common complications, including hematoma, thrombosis, infection, bleeding, aneurysms, stenosis, pain, and venous needle dislodgement.

PROGRAM CONTENT

The program focuses on both the theoretical background and practical implementation. The knowledge gained is immediately usable in practice.

- Arteriovenous fistula (AVF) fundamentals, including basic anatomy, function, and differences with arteriovenous grafts (AVG)
- Cannulation techniques, including rope-ladder, area cannulation, and buttonhole
- Clinical assessment of the vascular access through inspection, auscultation, palpation, thrill, pulsations, and temperature
- Dialysis needle selection, handling and positioning, including type, gauge, and length
- Skin preparation, disinfection, and fixation techniques
- Practical cannulation tips, including insertion angle, patency checks, and needle monitoring
- Needle fixation, taping methods, and prevention of venous needle dislodgement
- Post-cannulation care, needle removal, compression, and recognition of common complications

We practice what we preach!

During the training, you will be able to put theory into practice, developing your knowledge and skills by training on realistic artificial arms at various stations. We will take each participant's level of experience into account. The training is structured so that the knowledge acquired can immediately be put into practice.

What will you gain?

You will know...

- the basic principles of AVF cannulation and vascular access assessment
- the main cannulation techniques and when they are used
- how to select and handle the appropriate dialysis needle
- how correct skin preparation, needle fixation, and monitoring can support patient safety
- which complications can occur during or after cannulation

You will be able to ...

- assess the vascular access before cannulation
- apply safe cannulation principles in daily practice
- use appropriate needle handling, skin fixation, and taping techniques
- perform patency checks and monitor the needle site during dialysis
- recognize warning signs and respond to common complications such as hematoma, infection, bleeding, stenosis, thrombosis, aneurysm, pain, and needle dislodgement

Who should attend?

- Nurses new to fistula cannulation
- Healthcare professionals who want to improve cannulation success and confidence



Additional information

Use of the iMEP building and its facilities | Coffee, tea, and water provided | Education, mentoring, and support from experienced trainers | On-site parking

imep@nipro-group.com | www.nipro-group.com

Duration:

3 hours

€250/person

4–6 attendees



Ultrasound in Hemodialysis

THEORY

Practical experience with ultrasound is important. In addition, having a background in theory will help in understanding how an image is generated and what can influence this image positively or negatively.

Ultrasound is an interesting field where it can be difficult to recognize and understand the generated images. This theory training will cover the most essential parts to make it easier to understand what you see. Generating ultrasound and processing the echoes will result in an image. Many factors can influence this image ranging from attenuation, reflection, and reverberation to scattering. Knowing why this happens will help you understand the image and and improve it, where possible, by applying the correct settings or probe adjustments.

This training will serve as pre-learning to help you get the most out of both the fundamentals and advanced ultrasound training.

PROGRAM CONTENT

The program focuses on the theoretical background of ultrasound. The knowledge gained will help you to understand both the fundamentals and advanced ultrasound training.

- What is ultrasound?
- Ultrasound principles influencing the image
- The ultrasound probe
- B-mode
- Color Doppler mode

We practice what we preach!

During the training, you will be able to put theory into practice, developing your knowledge and skills by training on realistic artificial arms at various stations. We will take each participant's level of experience into account. The training is structured so that the knowledge acquired can immediately be put into practice.

What will you gain?

You will know...

- what ultrasound is, how it's generated and processed
- the different principles, such as attenuation, reflection, scattering, reverberation, and absorption
- what an ultrasound probe is
- how to scan and position the probe
- B-mode and how to apply the correct settings
- color Doppler mode and why it is not a spectral Doppler mode

Who should attend?

- Dialysis nurses at all levels of experience
- Dialysis nurses who are part of a vascular access team



Additional information

Use of the iMEP building and its facilities | Coffee, tea, and water provided | Education, mentoring, and support from experienced trainers | Reference book – Handbook on ultrasound for vascular access examination: from the specialist to the nurse | On-site parking

imep@nipro-group.com | www.nipro-group.com

Duration:

1 hour

€100/person

4–100 attendees



Ultrasound in Hemodialysis

FUNDAMENTALS

Practice cannulation using ultrasound in a high-tech environment with realistic arm simulators, supported by a comprehensive theoretical background.

Access to the bloodstream is essential for an effective hemodialysis session. Nurses play a vital role in the care and management of the patient's vascular access (VA). The use of ultrasound (echography) is a powerful tool in achieving a smooth and successful cannulation, no matter the difficulty (whether standard or challenging cannulations) nor the VA type (arteriovenous fistulas or grafts).

Without prior knowledge or training on the use of ultrasound during cannulation, nurses can experience stress and doubt. It is also evident that this technique is not used to its full potential. Therefore, by following a training course that specifically focuses on the needs of dialysis nurses, the use of ultrasound can be transformed into a technique that makes a positive difference for nurses, patients, and hemodialysis units.

PROGRAM CONTENT

- Utility and purpose of echography (theory)
- Possibilities and handling of the echo probe (theory & practice)
- Applying different settings of the echo device (practice)
- Obtaining the desired ultrasound image (theory & practice)
- Interpreting the echo image (practice)
- Practical tips (theory & practice)
- Echo-guided cannulation on arm simulators (practice)
- Brief introduction to other applications of echography (theory & practice)
- Pre- and post-learning provided by online tools

We practice what we preach!

During the training, you will be able to put theory into practice, developing your knowledge and skills by training on realistic artificial arms at various stations. We will take each participant's level of experience into account. The training is structured so that the knowledge acquired can immediately be put into practice.

What will you gain?

You will know...

- the fundamental concepts of an ultrasound device
- the added value of ultrasound in cases of complications, such as stenosis and thrombosis

You will be able to...

- obtain and interpret an ultrasound image of an AVF or AVG
- use an ultrasound device while cannulating an AVF or AVG

Who should attend?

- Novice dialysis nurses with little or no experience with ultrasound
- All nurses without dialysis experience
- Experienced nurses requiring dialysis recertification



Additional information

Use of the iMEP building and its facilities | Coffee, tea, and water provided | Education, mentoring, and support from experienced trainers | Reference book – Handbook on ultrasound for vascular access examination: from the specialist to the nurse | On-site Parking

imep@nipro-group.com | www.nipro-group.com

Duration:

3 hours, including a short break for coffee/tea/water

€250/person

4–6 attendees



Ultrasound in Hemodialysis

ADVANCED

Become an echography expert with a deeper knowledge of ultrasound settings as you learn to assess AV fistula maturation, cannulate difficult AV fistulas, and discover complications using ultrasound.

While ultrasound is used in many applications, it is an especially effective tool in verifying the maturation status and ongoing condition of a patient's vascular access. Routine monitoring using echography is a means to predict possible complications and detect issues early (e.g., stenosis, thrombosis).

In addition to ultrasound's use in monitoring an AVF, it is especially helpful when cannulating under difficult circumstances: small diameter (<5 mm), deep placement (>5 mm), or difficult pathway (not straight, hard vessel walls, impossible to feel, etc.).

This advanced training focuses on the knowledge and skills required to use an ultrasound device in different AVF situations.

PROGRAM CONTENT

- All B-mode settings to create a clear image (theory and practice)
- Principles of the Doppler effect (theory)
- All color Doppler settings to create a clear image (theory and practice)
- Assessing AVF maturation (theory and practice)
- Vein and artery mapping (theory and practice)
- Detecting AVF complications using ultrasound (theory and practice)
- Anatomy exercises on own arms (practice)
- Pre- and post-learning by provided online tools

We practice what we preach!

During the training, you will be able to put theory into practice, developing your knowledge and skills by training on realistic artificial arms at various stations. We will take each participant's level of experience into account. The training is structured so that the knowledge acquired can immediately be put into practice.

What will you gain?

You will know...

- the principles of the Doppler effect
- how to map and name veins and arteries

You will be able to...

- create a clear B-mode image
- create a clear Doppler image
- assess AVF maturation
- detect and recognize AVF complications
- refer to a doctor when needed

Who should attend?

- Highly recommended for experienced dialysis nurses who already have:
  - basic knowledge and practical experience with cannulating an AVF
  - basic knowledge and practical experience with the use of ultrasound



Additional information

Use of the iMEP building and its facilities | Coffee, tea, and water provided | Education, mentoring, and support from experienced trainers | Reference book – Handbook on ultrasound for vascular access examination: from the specialist to the nurse | Parking spaces on-site

imep@nipro-group.com | www.nipro-group.com

Duration:

4 hours, including a short break for coffee/tea/water

€250/person

4–6 attendees



Doppler Ultrasound

SPECIALIZED TRAINING ON VASCULAR ACCESS IN HEMODIALYSIS

Doppler ultrasound is a powerful extension of vascular access ultrasound, allowing you to assess blood flow, direction, velocity, and waveform characteristics.

This specialized training focuses on the practical use of Color Doppler, Power Doppler, and Spectral Doppler in the evaluation of arteriovenous fistulas and grafts. During the training, you deepen your understanding of the Doppler effect and learn how motion is translated into clinically relevant flow information.

The course also covers how to optimize Doppler settings, how to correctly interpret Doppler images and waveforms, and how Doppler ultrasound supports the detection and evaluation of vascular access complications in daily practice.

PROGRAM CONTENT

The program focuses on both theoretical background and practical implementation. The knowledge gained is immediately usable in practice.

- Principles of the Doppler effect
- Practical use of Color Doppler, Power Doppler, and Spectral Doppler
- Optimization of Doppler settings
- Flow detection, flow direction, and velocity assessment
- Waveform analysis
- Detection and evaluation of stenosis, thrombosis, maturation issues, aneurysms, and other access-related abnormalities
- Common Doppler artifacts and how to avoid misinterpretation

We practice what we preach!

During the training, you will be able to put theory into practice, developing your knowledge and skills by training on realistic artificial arms at various stations. We will take each participant's level of experience into account. The training is structured so that the knowledge acquired can immediately be put into practice.

What will you gain?

You will know...

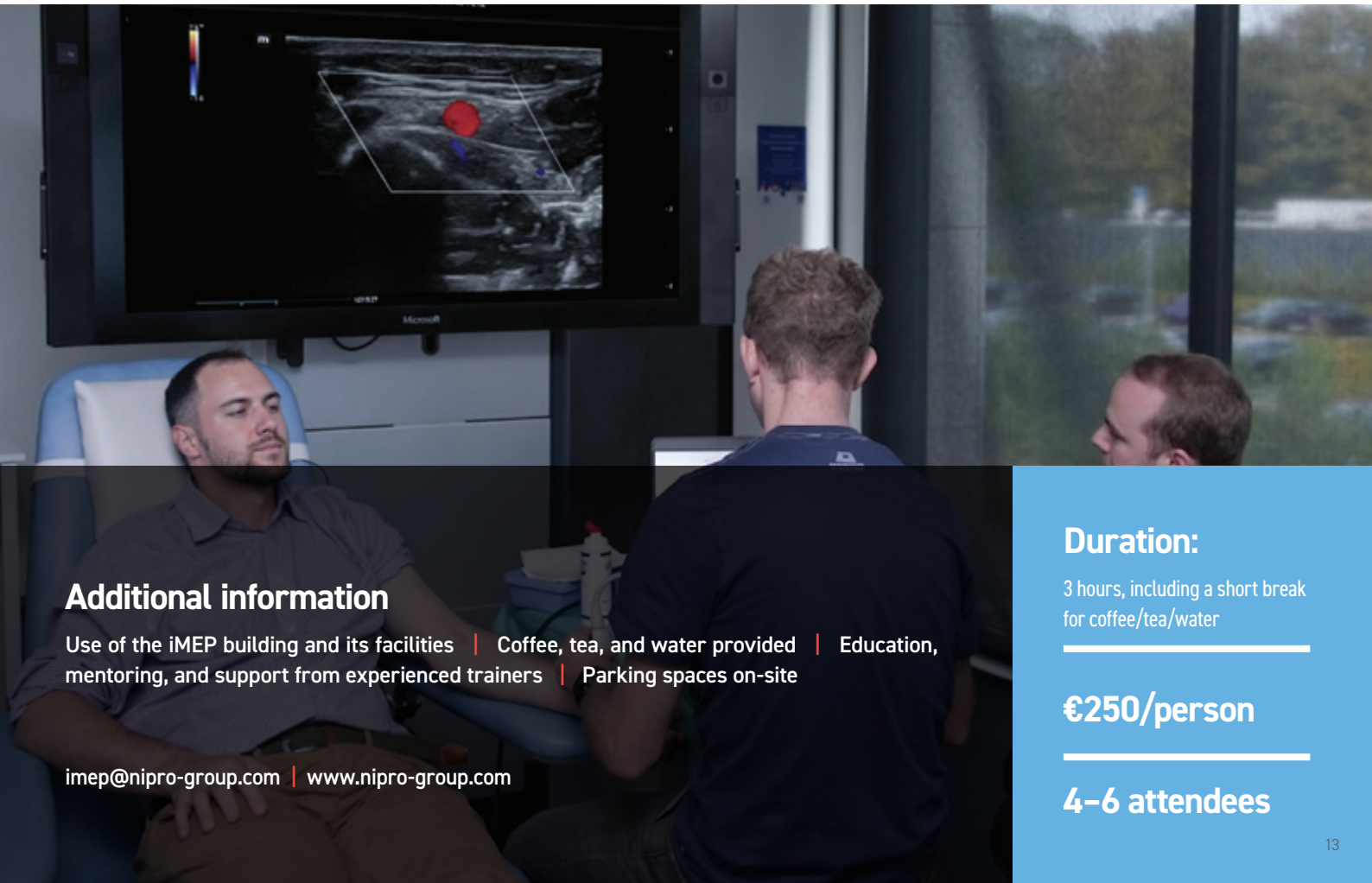
- the principles of the Doppler effect
- the differences between Color Doppler, Power Doppler, and Spectral Doppler
- how Doppler ultrasound can support the evaluation of arteriovenous fistulas and grafts
- how Doppler artifacts can influence interpretation

You will be able to...

- optimize Doppler settings for daily practice
- assess flow direction, flow velocity, and waveform characteristics
- measure blood flow
- interpret Doppler images and waveforms correctly
- recognize vascular access abnormalities such as stenosis, thrombosis, maturation issues, and aneurysms

Who should attend?

- Nephrologists
- Vascular surgeons
- Nurse Specialists/Nurse Practitioners
- Members of a vascular access team



Additional information

Use of the iMEP building and its facilities | Coffee, tea, and water provided | Education, mentoring, and support from experienced trainers | Parking spaces on-site

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Duration:

3 hours, including a short break for coffee/tea/water

€250/person

4–6 attendees



Vascular Access in Hemodialysis

AVF AND AVG

Vascular access comes in different forms and sizes, from native blood vessels to artificial tubing. During this training, you will have the chance to acquire deeper knowledge about different types of arteriovenous fistulas (AVF), endo-AVFs, and arteriovenous grafts (AVG), as well as how to manage them.

Vascular access is the lifeline of the patient and is essential for effective dialysis treatment. Nurses play a vital role in the care and management of the patient's vascular access.

There is no one-size-fits-all vascular access. Choosing the right vascular access is an individual approach, but it also means that nurses and doctors need to differentiate their actions according to the type of vascular access they have in front of them. This training makes it possible to recognize the type of vascular access and the different approaches it demands.

Monitoring is essential to predict possible complications. Issues, such as stenosis or thrombosis, can often be detected early on.

PROGRAM CONTENT

The program focuses on theoretical background.

- Different types of AVF, endo-AVFs, and AVGs
- Clinical examination
- Detection of vascular access complications and how to manage them

We practice what we preach!

During the training, you will be able to put theory into practice, developing your knowledge and skills by training on realistic artificial arms at various stations. We will take each participant's level of experience into account. The training is structured so that the knowledge acquired can immediately be put into practice.

What will you gain?

You will know...

- the different types of AVFs, endo-AVFs, and AVGs
- How to perform a clinical examination
- How to detect, recognize, and manage complications

Who should attend?

- Dialysis nurses at all levels of experience
- Dialysis nurses who are part of a vascular access team



Additional information

Use of the iMEP building and its facilities | Coffee, tea, and water provided | Education, mentoring, and support from experienced trainers | Reference book – Handbook on ultrasound for vascular access examination: from the specialist to the nurse | Parking spaces on-site

imep@nipro-group.com | www.nipro-group.com

Duration:

2 hours, including a short break for coffee/tea/water

€100/person

4–100 attendees



The Buttonhole Technique

Want to learn the buttonhole technique and how to implement it in your department?

Implementing the buttonhole technique in your department requires a good protocol and organizational preparation. During this training, you will learn how to organize the implementation of this technique effectively.

Furthermore, the procedure to create and cannulate buttonholes is an essential aspect of the course, and will be addressed together with the possible complications and treatments.

PROGRAM CONTENT

The program focuses on both theoretical background and practical implementation. The knowledge gained is immediately usable in practice.

- Different cannulation techniques
- Indications
- Organizational implementation
- Procedure
- Tips & tricks
- Complications & treatment

We practice what we preach!

During the training, you will be able to put theory into practice, developing your knowledge and skills by training on realistic artificial arms at various stations. We will take each participant's level of experience into account. The training is structured so that the knowledge acquired can immediately be put into practice.

What will you gain?

You will know...

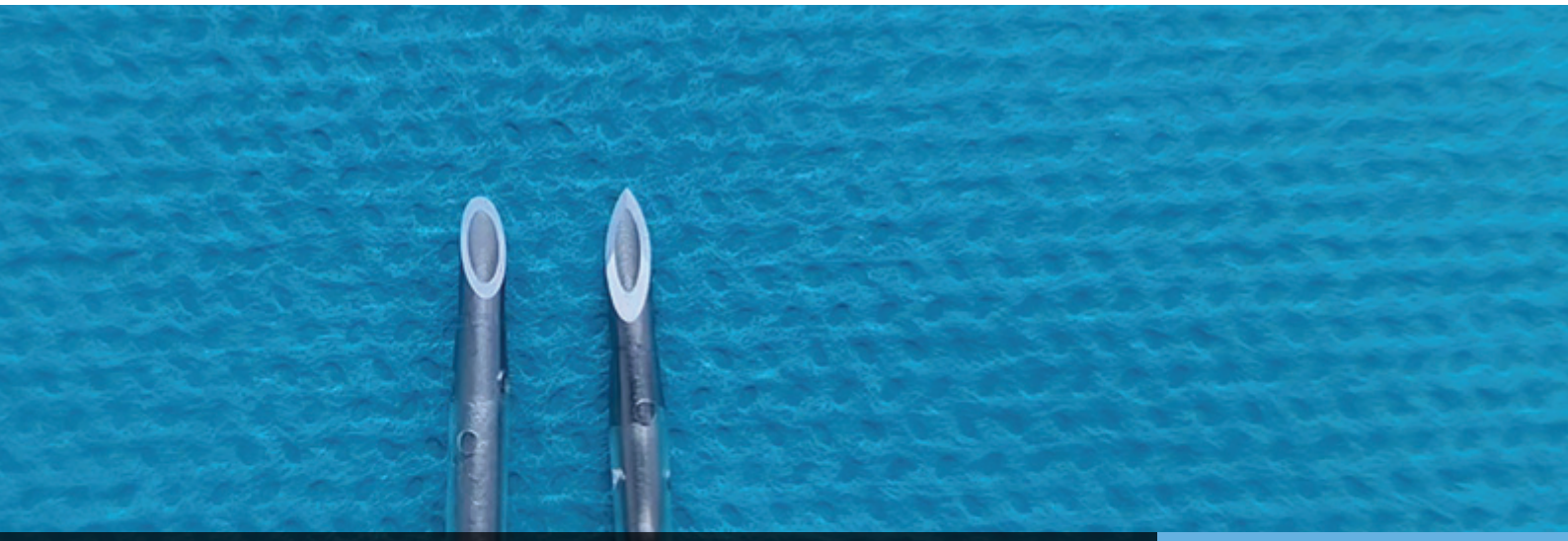
- the different cannulation techniques
- the guidelines and latest scientific evidence
- the different approaches to using the buttonhole technique
- the different complications and treatments

You will be able to...

- develop a suitable briefing tool
- choose a location, create, and cannulate a buttonhole
- recognize and act on complications

Who should attend?

- Dialysis nurses or doctors who want to:
  - implement the buttonhole technique in their departments
  - join or establish a vascular access team
  - refresh their knowledge of, or learn about, the buttonhole technique



Additional information

Use of the iMEP building and its facilities | Coffee, tea, and water provided | Education, mentoring, and support from experienced trainers | Reference book – Handbook on ultrasound for vascular access examination: from the specialist to the nurse | Parking spaces on-site

imep@nipro-group.com | www.nipro-group.com

Duration:

2 hours, including a short break for coffee/tea/water

€100/person

4–100 attendees



Central Venous Hemodialysis Catheter Management

Learn all about central venous catheter management in a hands-on training session supported by theory.

Central venous catheters (CVCs) are commonly used for hemodialysis treatments. Many different types exist and each of them require a specific approach. That's why we provide a thorough background during this training about the different types, configurations, and insertion locations. In addition, we also cover dressing changes and complication management. With this knowledge, you will better understand the various complications that can occur and how to manage them.

Managing CVCs correctly and efficiently will improve patency and prevent complications. You will implement the acquired knowledge during hands-on training in multiple stations including flow simulators, complication simulators, and scenario-based simulation training. In addition to offering new knowledge and skills, department- or hospital-specific rules and culture are also considered. As a result, the training is applicable in practice immediately.

PROGRAM CONTENT

Theoretical background about CVCs

- The different types of CVCs (tunneled, non-tunneled, tip and inner lumen configurations)
- Various insertion locations
- CVC materials like dressings, neutral valve connectors, ...
- CVC complications and how to manage them

Practical hands-on

- Flow simulation to recognize different types of thrombosis or fibrin sheath development
- Complication management on realistic models
- Scenario-based simulation training
- Use of CVC access materials
- Pre- and post-learning using provided online tools

We practice what we preach!

During the training, you will be able to put theory into practice, developing your knowledge and skills by training on realistic simulators at various stations. We will take each participant's level of experience into account. The training is structured so that the knowledge acquired can immediately be put into practice.

What will you gain?

You will know...

- the different types of CVCs
- the various insertion locations of a CVC
- the materials used for CVC care
- the different CVC complications
- how to use a syringe to assess the different types of flow problems
- how to recognize CVC complications and take the necessary steps

Who should attend?

- Dialysis nurses at all levels of experience
- Dialysis nurses who are part of a vascular access team
- Other disciplines that come into contact with the CVC



Additional information

Use of the iMEP building and its facilities | Coffee, tea, and water provided | Education, mentoring, and support from experienced trainers | Reference book – Handbook on ultrasound for vascular access examination: from the specialist to the nurse | Parking spaces on-site

imep@nipro-group.com | www.nipro-group.com

Duration:

3.5 hours, including a short break for coffee/tea/water

€250/person

4–6 attendees



Vascular Access in Hemodialysis (EDTNA-accredited)

The EDTNA-accredited Vascular Access in Hemodialysis program equips healthcare providers with the knowledge and skills necessary for vascular access management.

Our comprehensive training covers essential topics such as traditional blind cannulation, ultrasound-guided cannulation, advanced ultrasound techniques, and the creation and maintenance of arteriovenous fistulas (AVF) and grafts (AVG).

Participants gain hands-on experience and learn best practices from expert instructors, ensuring they are well-prepared to provide high-quality care to hemodialysis patients.

Participants are trained in the buttonhole technique and central venous hemodialysis catheter management, with the aim of enhancing proficiency, improving patient outcomes, and reducing complications.

Participants receive an official EDTNA certificate on completion of the training, recognizing their commitment to excellence, dedication to professional growth, and advanced capability in the field of hemodialysis. The certificate counts as 13 hours of education.

The program focuses on both theory and practical implementation. The knowledge gained is immediately applicable to real-world practice.

PROGRAM CONTENT

- Blind cannulation in hemodialysis
- Ultrasound-guided cannulation in hemodialysis
- Advanced ultrasound in hemodialysis
- Arteriovenous fistulas (AVFs) and arteriovenous grafts (AVGs)
- Buttonhole technique
- Management of central venous hemodialysis catheter

We practice what we preach!

During the training, you will be able to put theory into practice, developing your knowledge and skills by training on realistic simulators. We will take each participant's level of experience into account. The training is structured so that the knowledge acquired can immediately be put into practice.

What will you gain?

You will know...

- best practice for blind cannulation in hemodialysis
- the benefits of ultrasound-guided cannulation in hemodialysis
- the applications of advanced ultrasound in hemodialysis
- the functions of arteriovenous fistulas (AVF) and grafts (AVG)
- the advantages of using the buttonhole technique
- the protocols for managing central venous hemodialysis catheters

You will be able to...

- perform blind cannulation with confidence and precision
- utilize ultrasound-guided cannulation for improved success rates
- implement advanced ultrasound techniques in your practice
- create and maintain arteriovenous fistulas (AVF) and grafts (AVG)
- implement, apply and manage the buttonhole technique
- manage central venous hemodialysis catheters proficiently

Who should attend?

- Dialysis nurses at all levels of experience
- Dialysis nurses who are part of a vascular access team



Additional information

Use of the iMEP building and its facilities | Use of the kitchen area for refreshments | Mentoring and support from experienced trainers | On-site parking

imep@nipro-group.com | www.nipro-group.com

Duration:

13 hours, including a short break for coffee/tea/water

€750/person

4-6 attendees



Crisis Resource Management

NON-TECHNICAL SKILLS FOR EFFECTIVE TEAMWORK

Learn the principles of Crisis Resource Management (CRM), which refers to the non-technical skills required for effective teamwork, in order to improve performance and reduce errors.

The most common root causes of unanticipated events in healthcare are human factors, leadership, and communication.[1] Furthermore, a review noted empirical evidence linking positive teamwork behavior with positive clinical patient outcomes, and its inverse – negative teamwork behavior with negative clinical patient outcomes.[2]

Crisis Resource Management is relevant to all healthcare professionals, regardless of experience or specialization. iMEP is proud to offer non-technical skills training in CRM, which is equally important as learning technical skills, especially for dynamic decision-making, interpersonal behavior, and team management – in both critical and non-critical situations.

PROGRAM CONTENT

Crisis Recourse Management (theory)

- Know the environment
- Anticipate and plan
- Call for help early
- Exercise leadership and followership
- Distribute the workload
- Mobilize all available resources
- Communicate effectively
- Use all available information
- Prevent and manage fixation errors
- Cross-check (double-check)
- Use cognitive aids
- Re-evaluate repeatedly
- Use good teamwork
- Allocate attention wisely
- Set priorities dynamically

Team Exercise Debriefing (practice)

- Discuss what went well
- Discuss what can be improved next time using the principles of CRM
- Discuss how to apply the skills learned in daily clinical activities

We practice what we preach!

During the training, you will be able to put theory into practice, developing your knowledge and skills through micro-simulations and gamification. We will take each participant's level of experience into account. The training is structured so that the knowledge acquired can immediately be put into practice.

What will you gain?

You will be able to...

- understand the principles of CRM
- identify the importance and relevance of non-technical skills
- enhance team dynamics by applying the principles of CRM in practice

Who should attend?

- **Healthcare providers from all fields:**
  - who want to develop and enhance their non-technical skills for improving teamwork
  - who want to improve communication within their team
  - who want to learn effective leadership
- **Students who will become healthcare providers**

1. The Joint Commission International. (2015). Human Factors Analysis in Patient Safety Systems. The Source. Volume 13, Issue 4. pp.7
2. Ivetee Motola, Luke A. Devine, Hyun Soo Chung, John E. Sullivan & S. Barry Issenberg (2013). Simulation in healthcare education: A best evidence practical guide. AMEE Guide No. 82, e1511.



Additional information

Use of the iMEP building and its facilities | Coffee, tea, and water provided | Education, mentoring, and support from experienced trainers | Reference book – Handbook on ultrasound for vascular access examination: from the specialist to the nurse | Parking spaces on-site

imep@nipro-group.com | www.nipro-group.com

Duration:

2 hours, including a short break for coffee/tea/water

€250/person

8–16 attendees



Scenario-based Simulation Training

INTRA-HEMODIALYTIC SCENARIOS FOR TEAMS

Enhance skills and teamwork as you engage in highly realistic dialysis simulations in a safe learning environment.

It is important to regularly practice scenarios involving intra-hemodialytic critical situations in order to properly manage the actual events in a clinical setting.

Scenario-based simulation training is an effective and unique way of gaining knowledge, practicing skills, and achieving confidence, all while practicing the critical event protocols of your specific dialysis unit.[1,2] You will learn using high-fidelity mannequins that simulate real patients, allowing your team to make errors, which then become learning opportunities. Thus, both patient safety and the psychological safety of learners are maintained.

A prerequisite for this training is "Crisis Resource Management", which will allow your team to understand the non-technical skills required for effective teamwork, such as communication, leadership, dynamic decision-making, cooperation, and situation awareness skills. Non-technical skills are as important as technical skills, since the most common root causes of incidents in healthcare are human factors, leadership, and communication.[3]

Multifaceted learning!

Volunteers in your team will engage in an intra-hemodialytic scenario while the remaining team members observe the simulation session in a different room. Afterwards, all participants meet together to discuss what went well and what can be improved next time, using the principles of Crisis Resource Management. This peer-learning debrief session is a crucial moment of learning and is facilitated by professional trainers.

PROGRAM CONTENT

- Familiarization with patient simulator and simulation rules (theory and practice)
- Simulation session (practice)

  2-3 learners: *actors in the scenario*

  Other learners: *observers of the simulation session*

  A suitable scenario will be selected according to the different working experiences of the team (a mixed level of experience is also effective)
- Debriefing session in a team setting (practice)

We practice what we preach!

During the training, you will be able to put theory into practice, developing your knowledge and skills by training on realistic artificial arms at various stations. We will take each participant's level of experience into account. The training is structured so that the knowledge acquired can immediately be put into practice.

What will you gain?

You will be able to...

- apply the principles of Crisis Resource Management in simulated intra-hemodialytic critical events
- enhance teamwork and communication in a clinical setting (non-technical skills)
- present opportunities to use clinical reasoning specific to the team's own dialysis unit protocols (technical skills)
- understand what knowledge, skills, and attitudes should be improved through one's own experience
- increase confidence during intra-hemodialytic critical events

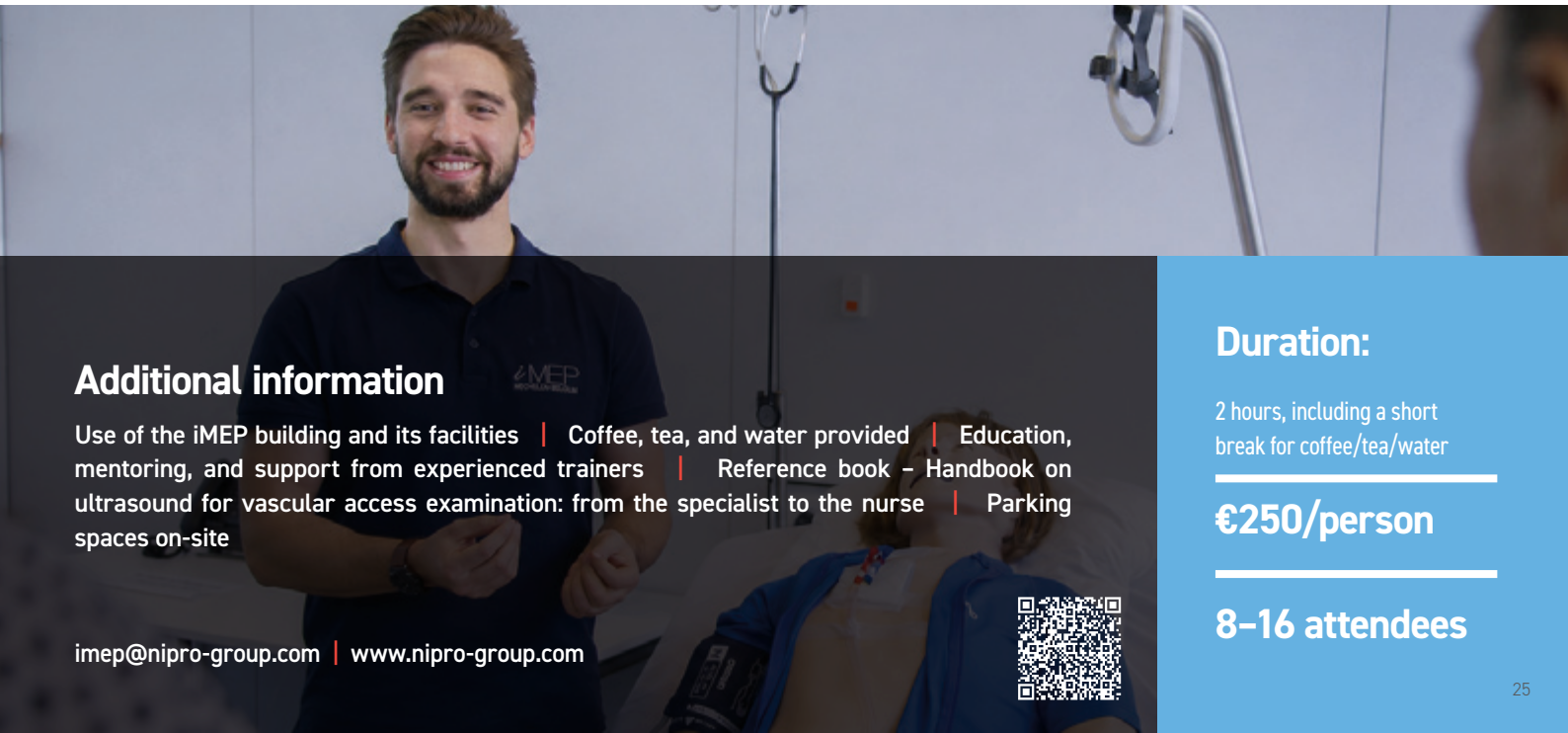
Who should attend?

- Dialysis nurses of at all levels of experience
- The level of difficulty of the scenario will be adjusted according to your team's working experiences
  - Nurses who want to develop and enhance their cognitive, technical, and non-technical skills to an advanced level to lead a nursing team
- Experienced nurses requiring dialysis recertification

Prerequisite

All participants must have already completed the "Crisis Resource Management" training in order to practice and apply its principles in the simulation session

1. McGaghie et al. (2011). Does Simulation-based Medical Education with Deliberate Practice Yield Better Results than Traditional Clinical Education? A Meta-Analytic Comparative Review of the Evidence. Academic Medicine. 86(6): 706–711.
2. Wayne DB, Didwania A, Feinglass J, et al. (2008). Simulation-based education improves quality of care during cardiac arrest team responses at an academic teaching hospital: a case-control study. CHEST. 133:56–61.
3. The Joint Commission. (2015). Human Factors Analysis in Patient Safety Systems. The Source. Volume 13, Issue 4. pp.7



Additional information

Use of the iMEP building and its facilities | Coffee, tea, and water provided | Education, mentoring, and support from experienced trainers | Reference book – Handbook on ultrasound for vascular access examination: from the specialist to the nurse | Parking spaces on-site

imep@nipro-group.com | www.nipro-group.com

Duration:

2 hours, including a short break for coffee/tea/water

€250/person

8–16 attendees



Evolution of Hemodialysis

Our Evolution of Hemodialysis course introduces participants to the people, the moments, and the innovations that have laid the groundwork for modern hemodialysis (HD).

This course takes participants on a journey from 1500 BCE to 2030 CE, exploring the fascinating history of dialysis care through an engaging presentation and interactive Q&A session by our experienced trainers at iMEP.

Discover how early challengers paved the way for creative breakthroughs such as innovations to vascular access and the miracle of the artificial kidney.

Participants in the course get a sneak peek into the future of dialysis treatment and potential cures for chronic kidney failure (CKD).

This course equips participants with fun facts and intriguing tales they can use to get their patients more invested in the lore behind hemodialysis machine that, unknown to its inventors and innovators, is being used today to save their lives.

PROGRAM CONTENT

- From concept to machine: foundations, ideas, materials, and techniques of dialysis
- The dialysis innovation timeline: 1500 BCE to 2030 CE
- Developments redefining the future of hemodialysis

We practice what we preach!

During the training, you will be able to put theory into practice, developing your knowledge and skills in an engaging way. We will take each participant's level of experience into account. The interactive nature of the training ensures that the knowledge acquired can immediately be put into practice.

What will you gain?

You will know...

- the medical principles and material science behind hemodialysis
- where dialysis technology was first conceived and who made it possible
- how our understanding of chronic kidney disease (CKD) has evolved over millennia
- how dialysis terminology and practice entered the medical world
- who invented the artificial kidney and how was it improved for patient treatments
- what innovators are doing today to improve future treatments for CKD

You will be able to...

- answer the deeper questions of engaged and curious patients
- get patients invested in their care through the power of storytelling

Who should attend?

- All healthcare providers working in hemodialysis
- Those who want a little more depth to their knowledge of Hemodialysis
- Individuals interested in how the current standard dialyzer was developed
- Individuals interested in trends influencing the future of treatment







Additional information

Use of the iMEP building and facilities | Use of the kitchen area for refreshments | Mentoring and support from experienced trainers | On-site parking

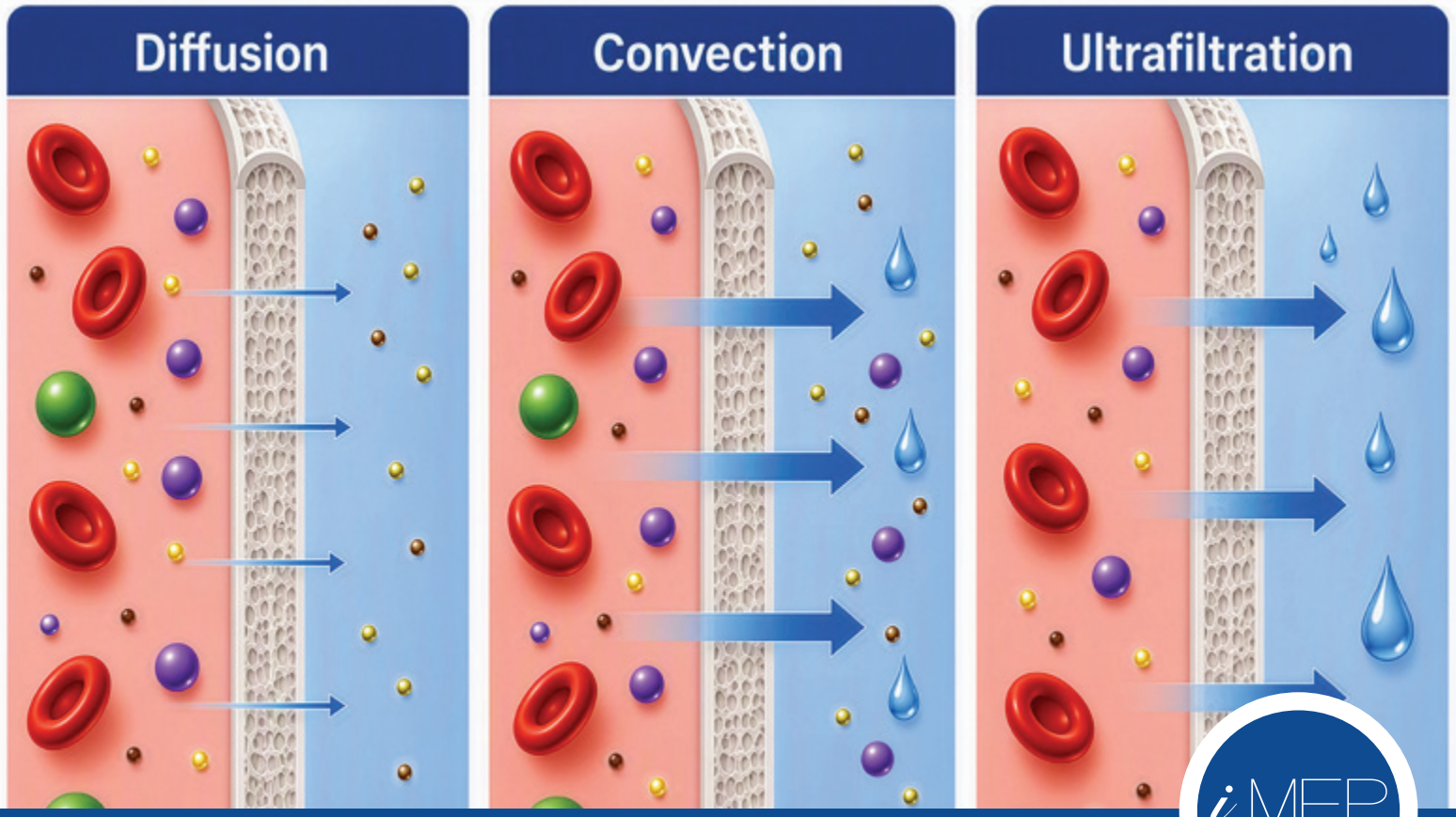
imep@nipro-group.com | www.nipro-group.com

Duration:

2 hours, including a short break for coffee/tea/water

€100/person

4–100 attendees



iMEP
MECHELEN • BELGIUM

Fundamentals of Hemodialysis

Our Fundamentals of Hemodialysis course covers kidney function, chronic kidney disease (CKD), and hemodialysis (HD), the most common treatment for patients with CKD. The course provides an accessible, interactive, fun, and inspiring perspective on the diagnosis and treatment of CKD. Understanding the impact of CKD is fundamental in providing patients and their families with effective care and guidance.

The course covers the fundamental aspects of the kidney, including its anatomy and function, followed by the diagnosis and treatment of chronic kidney disease (CKD).

Participants are educated on the basic principles of hemodialysis treatment for CKD, covering the essential components of treatment, from pure water, acid concentrates, dialysate fluid, and dialyzer membranes, to the dialysis machine itself.

We cover how blood is purified in the dialyzer and explore various therapies, applying principles such as diffusion, osmosis, ultrafiltration, and convection to modern dialysis sessions.

We discuss the effectiveness of dialysis therapy, the potential complications, and the allergic reactions that may occur during treatment.

This comprehensive approach will equip you with the knowledge to manage and optimize dialysis therapy effectively.

The program focuses on both theory and practical understanding.

The training combines presentations and practical demonstrations.

PROGRAM CONTENT

Chronic Kidney Disease (CKD)

- Anatomy and function of the kidney
- Chronic kidney disease (ckd) and end-stage renal failure (esrf)
- Causes, symptoms, diagnosis, and treatment for ckd

Hemodialysis (HD)

- Prescriptions and requirements for treatment
- Toxins and water in the human body
- Principles and goals of dialysis
- Dialysis in practice
- Understanding the dialyzer, pure water, and dialysate

Efficacy and Challenges

- Measuring the effectiveness
- of hemodialysis
- Complications during hemodialysis treatment
- Allergic reactions

We practice what we preach!

During the training, you will be able to put theory into practice, developing your knowledge and skills through fun and engaging demonstrations. We will take each participant's level of experience into account. The training is structured so that the knowledge acquired can immediately be put into practice.

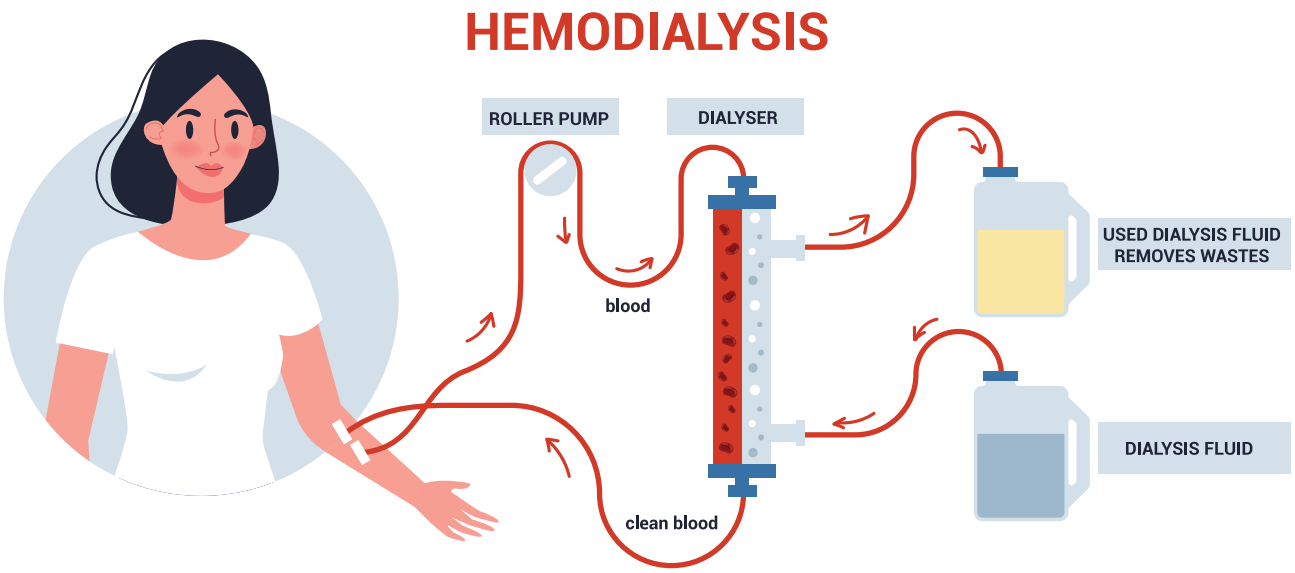
What will you gain?

You will know...

- how the dialyzer can emulate human kidney function
- what the early and later stage symptoms of kidney failure are
- how CKD is diagnosed and what the classifications of CKD are
- what the treatment options for end-stage kidney failure are
- what the basic principles of hemodialysis are
- how toxins are moved out of the body and through the dialyzer
- how hemodialysis principles are applied in practice
- how the efficacy of Hemodialysis assessed

Who should attend?

- Students in the healthcare profession
- Nurses and other professionals new to dialysis
- Individuals who want to expand their knowledge of dialysis



Additional information

Use of the iMEP building and facilities | Use of kitchen area for refreshments | Mentoring and support from experienced trainers | On-site parking

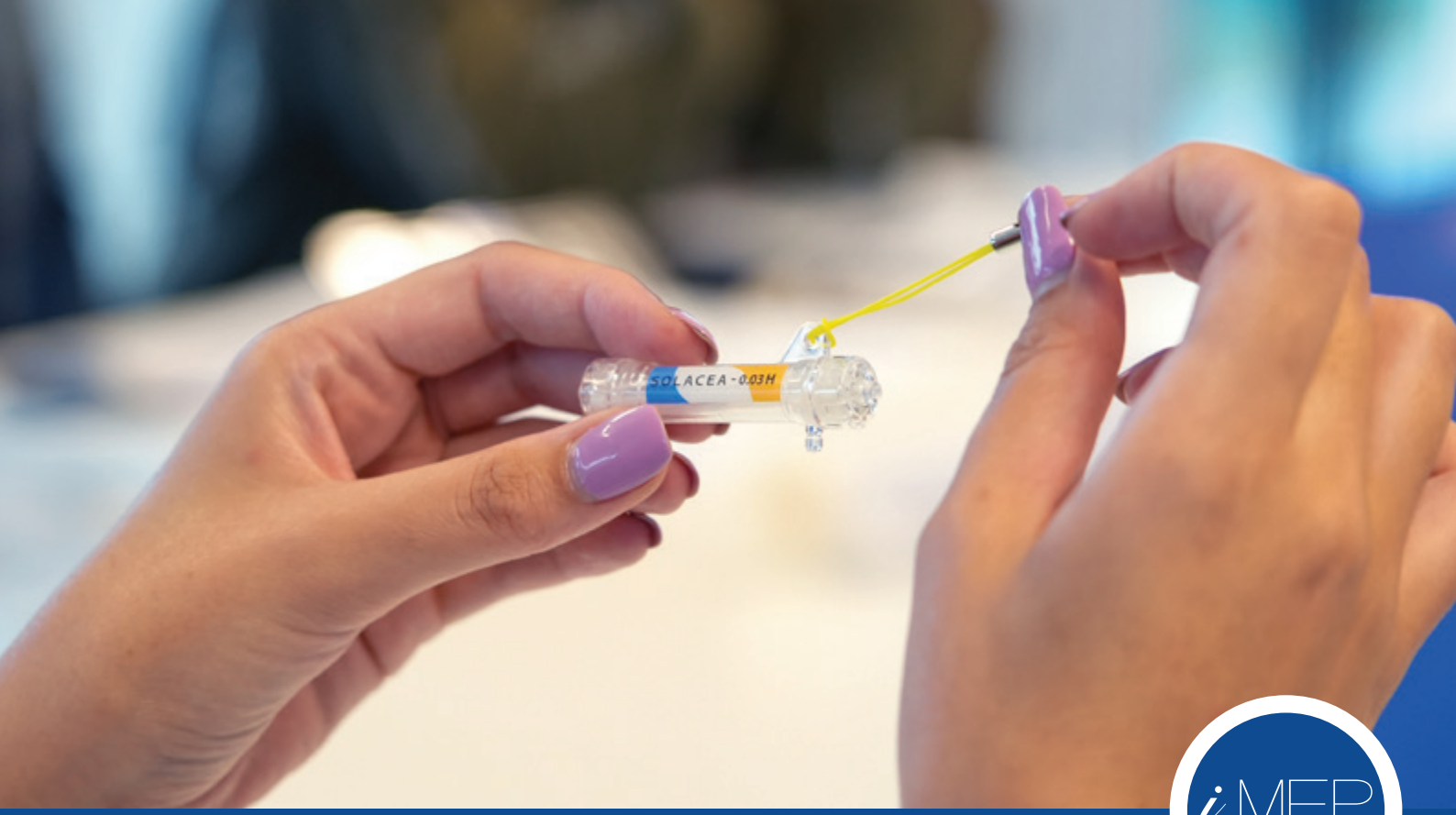
imep@nipro-group.com | www.nipro-group.com

Duration:

2 hours, including a short break for coffee/tea/water

€100/person

4–100 attendees



Mini Dialyzer Workshop

HANDS-ON ACTIVITY

Make your own miniature dialyzer and discover the important role it plays in hemodialysis.

Hemodialysis is a complex and vital treatment prescribed only by a nephrologist. Many important factors and components must be considered in the dialysis prescription, including the dialyzer. There are many different dialyzers to choose from, with variations in size, type, material, and other technical specifications – which is why a nephrologist must choose the one that is best suited for the type of therapy needed, as well as the patient's unique physiology and condition.

Some might consider a dialyzer to be "simply" a disposable or consumable. In reality, it is a piece of engineering artwork that offers life and makes it possible for patients to survive their renal condition. This is why we offer a detailed look at the art of creating a dialyzer.

PROGRAM CONTENT

- Understand the history and production process of a dialyzer (theory)
- Create your own personal mini dialyzer (workshop)

We practice what we preach!

During the training, you will be able to put theory into practice, developing your knowledge and skills by making your own miniature dialyzer. We will take each participant's level of experience into account. The training is structured so that the knowledge acquired can immediately be put into practice.

What will you gain?

You will know...

- the history of dialyzers
- the mechanisms of a dialyzer
- the concept of dialyzer surfaces

You will be able to...

- deepen your understanding of a real dialyzer through the creation of a mini-dialyzer

Who should attend?

- Dialysis nurses at all levels of experience
- Students who are interested in the field of hemodialysis



Additional information

Use of the iMEP building and its facilities | Coffee, tea, and water provided | Education, mentoring, and support from experienced trainers | Reference book – Handbook on ultrasound for vascular access examination: from the specialist to the nurse | Parking spaces on-site

imep@nipro-group.com | www.nipro-group.com

Duration:

1.5 hours, including a short break for coffee/tea/water

4–6 attendees



The Art of the Dialyzer

FROM FIBRE TO FILTRATION

A dialyzer may look like a simple cartridge, but inside it, material science, fluid dynamics and clinical medicine all come together. Discover how thousands of hollow fibres are engineered to remove the right molecules, retain essential proteins and interact safely with blood.

A dialyzer is much more than a filter. Behind its transparent housing lies a carefully engineered system in which membrane structure, blood and dialysate flow, molecular transport and blood compatibility must work together.

This advanced course follows the dialyzer from polymer powder to finished medical device. Participants explore how hollow-fibre membranes are produced, how diffusion, ultrafiltration and convection occur within the fibre bundle, and how design choices influence solute removal, fluid transport, albumin retention and interaction with blood.

By linking manufacturing characteristics to clinically relevant performance, participants learn why dialyzers that appear similar may behave differently and how to interpret these differences critically when comparing modern dialysis membranes.

PROGRAM CONTENT

- Anatomy and construction of a hollow-fibre dialyzer
- From polymer solution to semipermeable membrane
- Diffusion, ultrafiltration, convection and internal filtration
- Membrane structure, permeability and molecular selectivity
- Blood compatibility, device materials and sterilization
- Critical interpretation and comparison of dialyzer performance

We practice what we preach!

During the training, you will be able to put theory into practice, developing your knowledge and skills by training on realistic simulators. We will take each participant's level of experience into account. The training is structured so that the knowledge acquired can immediately be put into practice.

What will you gain?

You will know...

- how hollow-fibre dialysis membranes are manufactured
- how dialyzer design influences diffusion, convection and ultrafiltration
- how pore structure, wall architecture and surface area relate to solute transport
- how to interpret permeability, KUF, clearance and sieving characteristics correctly
- how membrane surfaces interact with proteins, blood cells and coagulation pathways
- the importance of housing, potting, blood-entry design, materials and sterilization

You will be able to...

- compare dialyzers using clinically relevant performance characteristics and test conditions
- explain why dialyzer selection should match the patient, treatment modality and therapeutic objective

Who should attend?

- Hemodialysis nurses seeking advanced dialyzer knowledge
- Nephrologists and physicians involved in dialysis care
- Dialysis technicians and clinical engineers
- Clinical educators and dialysis trainers
- Healthcare professionals involved in dialyzer selection or evaluation
- Professionals interested in membrane science and future dialysis technologies



Additional information

Use of the iMEP building and its facilities | Use of the kitchen area for refreshments | Mentoring and support from experienced trainers | On-site parking | Transportation and hotel included | Lunch catering included

imep@nipro-group.com | www.nipro-group.com

Duration:

2 days, including a short break for coffee/tea/water

€850/person

16 attendees



Nurse Training Program (2 days)

During the training, you will be able to put theory into practice, developing your knowledge and skills by training on realistic simulators. We will take each participant's level of experience into account. The training is structured so that the knowledge acquired can immediately be put into practice.

Designed with flexibility in mind, these sessions provide a customized training experience that aligns perfectly with your requirements.

Scenario-based simulations and crisis resource management make up the first half of the training, with the second half focusing on specialized topics, such as vascular access or hemodialysis, for a practical and hands-on education.

Explore the rest of our catalog to discover the diverse training options available to build your ideal program.

This program focuses on both theory and practical implementation. The knowledge gained is immediately usable in practice.

PROGRAM CONTENT

- Theoretical presentations
- Hands-on practical training
- Simulation training with debriefing
- Access to e-learning courses

We practice what we preach!

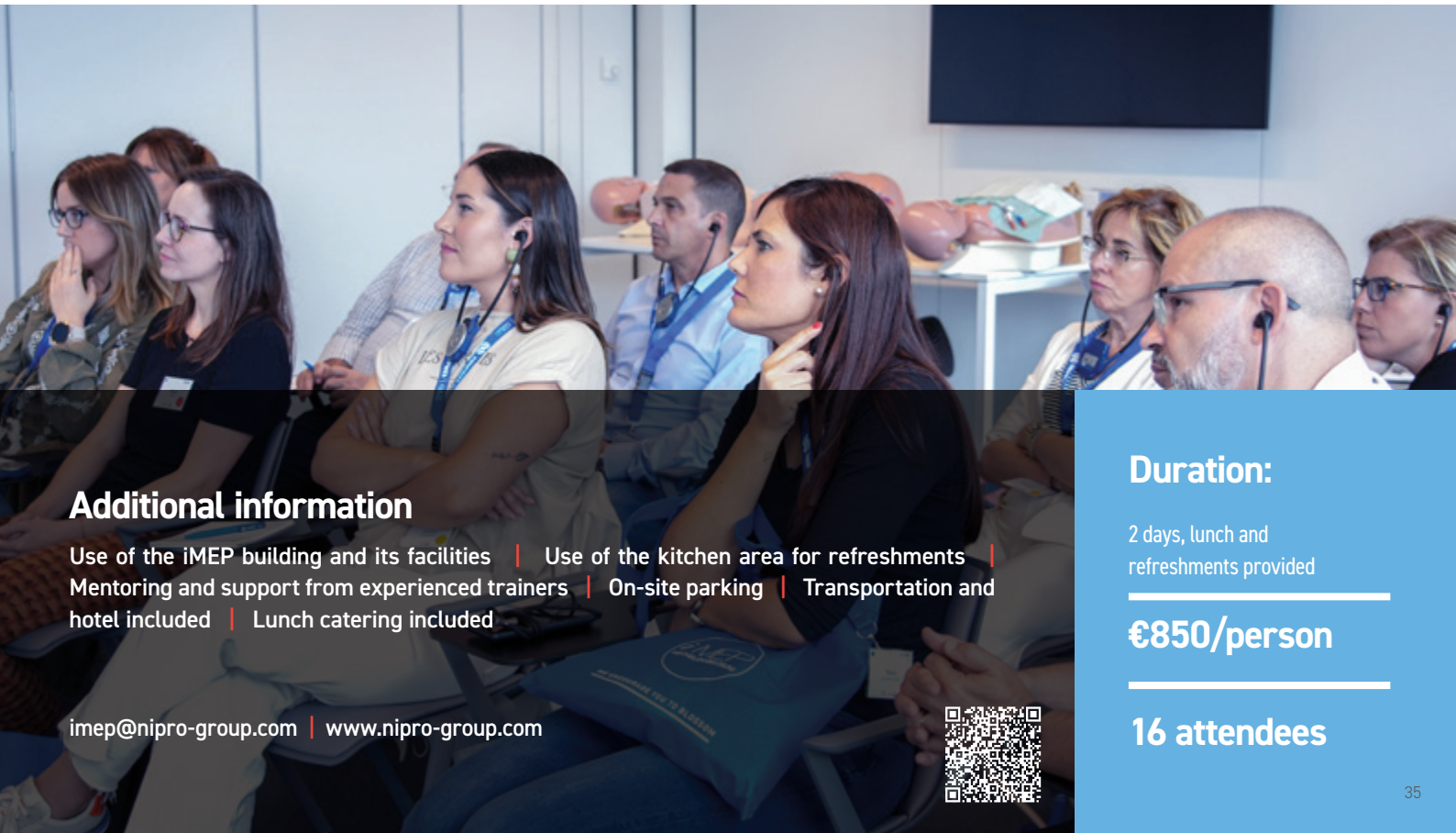
During the training, you will be able to put theory into practice and work on your knowledge and skills by training on realistic simulators. We will bear in mind each participant's level of experience. The chronological transition of the training ensures that the knowledge acquired can be immediately put into practice.

What will you gain?

- **CUSTOMIZED LEARNING EXPERIENCE:** Benefit from a program tailored to your specific needs, ensuring relevance and applicability.
- **HANDS-ON PRACTICE:** Engage in scenario-based simulations that provide practical knowledge.
- **CRISIS RESOURCE MANAGEMENT SKILLS:** Learn to effectively manage team dynamics, communication, and resources during high-pressure situations.
- **SPECIALIZED KNOWLEDGE:** Gain an in-depth understanding of specialized topics such as vascular access and hemodialysis.
- **ENHANCED COMPETENCE:** Improve proficiency and confidence while handling complex situations in your field.

Who should attend?

- Nurses working in hemodialysis
- Suitable for all levels of expertise and experience
  - Beginners refreshing their foundational knowledge
  - Professionals building up specialized skillsets



Additional information

Use of the iMEP building and its facilities | Use of the kitchen area for refreshments | Mentoring and support from experienced trainers | On-site parking | Transportation and hotel included | Lunch catering included

imep@nipro-group.com | www.nipro-group.com

Duration:

2 days, lunch and refreshments provided

€850/person

16 attendees



Basic Life Support

Our Basic Life Support (BLS) training program provides healthcare professionals and first responders with the knowledge and skills to respond effectively to cardiac and respiratory emergencies.

BLS covers Cardiopulmonary Resuscitation (CPR), use of the Automated External Defibrillator (AED), maintaining patient's ventilation and oxygenation (airway management), and other skills for ensuring that, in emergency situations, participants are ready and able to save lives.

Participants in our BLS Training Program will gain hands-on experience and learn best practices from instructors certified by the European Resuscitation Council (ERC).

Through a combination of theoretical knowledge and practical exercises, attendees will develop the confidence and competence needed to act swiftly and effectively in life-threatening situations.

On completion, participants receive an official BLS certification, recognizing their ability to provide critical care in emergencies and their commitment to maintaining high standards of patient safety.

The program teaches theoretical foundations and practical implementation, in order to gain new skills that are immediately useable in real-world emergencies.

PROGRAM CONTENT

- Early recognition
- Cardiopulmonary resuscitation (CPR)
- Airway management
- Automated external defibrillator (AED)
- Responding to suffocation
- Introduction to in-hospital resuscitation (including arrhythmia) (optional)

We practice what we preach!

During the training, you will be able to put theory into practice, developing your knowledge and skills by training on realistic simulators. We will take each participant's level of experience into account. The training is structured so that the knowledge acquired can immediately be put into practice.

What will you gain?

You will know...

- the fundamental principles of Basic Life Support (BLS)
- when to perform Cardiopulmonary Resuscitation (CPR) (on adults)
- when to use the Automated External Defibrillator (AED)
- when to intervene in choking emergencies

You will be able to...

- perform CPR correctly and confidently
- use an AED effectively during cardiac emergencies
- manage airways properly
- respond to choking emergencies appropriately

Who should attend?

- Health care providers
- First responders



Additional information

Use of the iMEP building and its facilities | Use of the kitchen area for refreshments | Mentorship and support provided by experienced trainers | On-site parking

imep@nipro-group.com | www.nipro-group.com

Duration:

4 hours, including a short break for coffee/tea/water

€250/person

3–12 attendees



In-Hospital Cardiac Arrest

EARLY RECOGNITION AND EMERGENCY RESPONSE

Early recognition, rapid intervention, and effective teamwork are essential to improve outcomes for patients experiencing a cardiac arrest in hospital.

This clinically focused training provides healthcare professionals with the practical knowledge and structured approach needed to recognize patient deterioration early, initiate Basic Life Support (BLS), and respond effectively within multidisciplinary emergency teams.

Participants learn how to assess acutely ill patients using the ABCDE approach, communicate effectively during emergencies, and apply core Advanced Life Support (ALS) principles in daily clinical practice. Special attention is given to dialysis-specific considerations that may influence emergency management.

PROGRAM CONTENT

The program combines essential theoretical knowledge with practical clinical application. The skills learned can be immediately implemented in acute care and dialysis settings.

- Early recognition of patient deterioration
- Recognition of cardiac arrest, heart attack, and stroke
- Structured patient assessment using the ABCDE approach
- Effective communication during emergencies using ISBAR
- Basic Life Support (BLS) and high-quality CPR
- Early defibrillation and use of an AED
- Core principles of Advanced Life Support (ALS)
- Recognition of common cardiac rhythms
- Overview of emergency medications used during resuscitation
- Dialysis-specific considerations during emergency response
- Teamwork and coordination in multidisciplinary emergency situations

We practice what we preach!

During the training, you will be able to put theory into practice, developing your knowledge and skills by training on realistic simulators. We will take each participant's level of experience into account. The training is structured so that the knowledge acquired can immediately be put into practice.

Who should attend?

- Nurses
- Physicians
- Dialysis professionals
- Clinical staff refreshing BLS and ALS competencies
- Healthcare professionals involved in acute patient care

What will you gain?

You will know ...

- the early signs of patient deterioration
- the clinical presentation of cardiac arrest, heart attack, and stroke
- the principles of the ABCDE assessment approach
- the importance of clear communication using ISBAR(R)
- the fundamentals of BLS and ALS
- common cardiac rhythms encountered during emergencies
- key emergency drugs used during resuscitation
- specific considerations when managing emergencies in dialysis patients

You will be able to ...

- identify and respond to patient deterioration promptly
- perform a structured ABCDE assessment
- communicate effectively with colleagues during acute situations
- initiate high-quality CPR according to current guidelines
- use an AED safely and effectively
- support the multidisciplinary emergency team during resuscitation
- recognize basic cardiac rhythms and understand their clinical significance
- apply emergency response principles in dialysis care settings



Additional information

Use of the iMEP building and its facilities | Use of the kitchen area for refreshments | Education, mentoring, and support from experienced trainers | On-site parking

imep@nipro-group.com | www.nipro-group.com

Duration:

3 hours, including a short break for coffee/tea/water

€250/person

4–6 attendees



Peripheral IV Catheter Insertion

Practice cannulation in a high-tech environment with realistic arm simulators, supported by a comprehensive theory. Cannulation training provides healthcare professionals with the knowledge and skills necessary to perform effective peripheral IV catheter insertion.

The training covers the fundamentals of peripheral catheters, including indications, contraindications, alternatives, vein assessment, and patient involvement.

Participants learn techniques for blind cannulation, how to handle failed attempts, relevant safety measures, maintenance of catheters, and practical tips.

The training introduces ultrasound-guided cannulation, focusing on its indications, vein assessment methods, and probe handling, and differences from blind techniques.

Practical sessions ensure hands-on application to enhance skills and confidence.

The program focuses on both theoretical background and practical implementation. The knowledge gained is immediately usable in practice.

PROGRAM CONTENT

- Peripheral IV catheter
- Blind cannulation
- Ultrasound-guided cannulation

We practice what we preach!

During the training, you will be able to put theory into practice, developing your knowledge and skills by training on realistic simulators. We will take each participant's level of experience into account. The training is structured so that the knowledge acquired can immediately be put into practice.

What will you gain?

You will know...

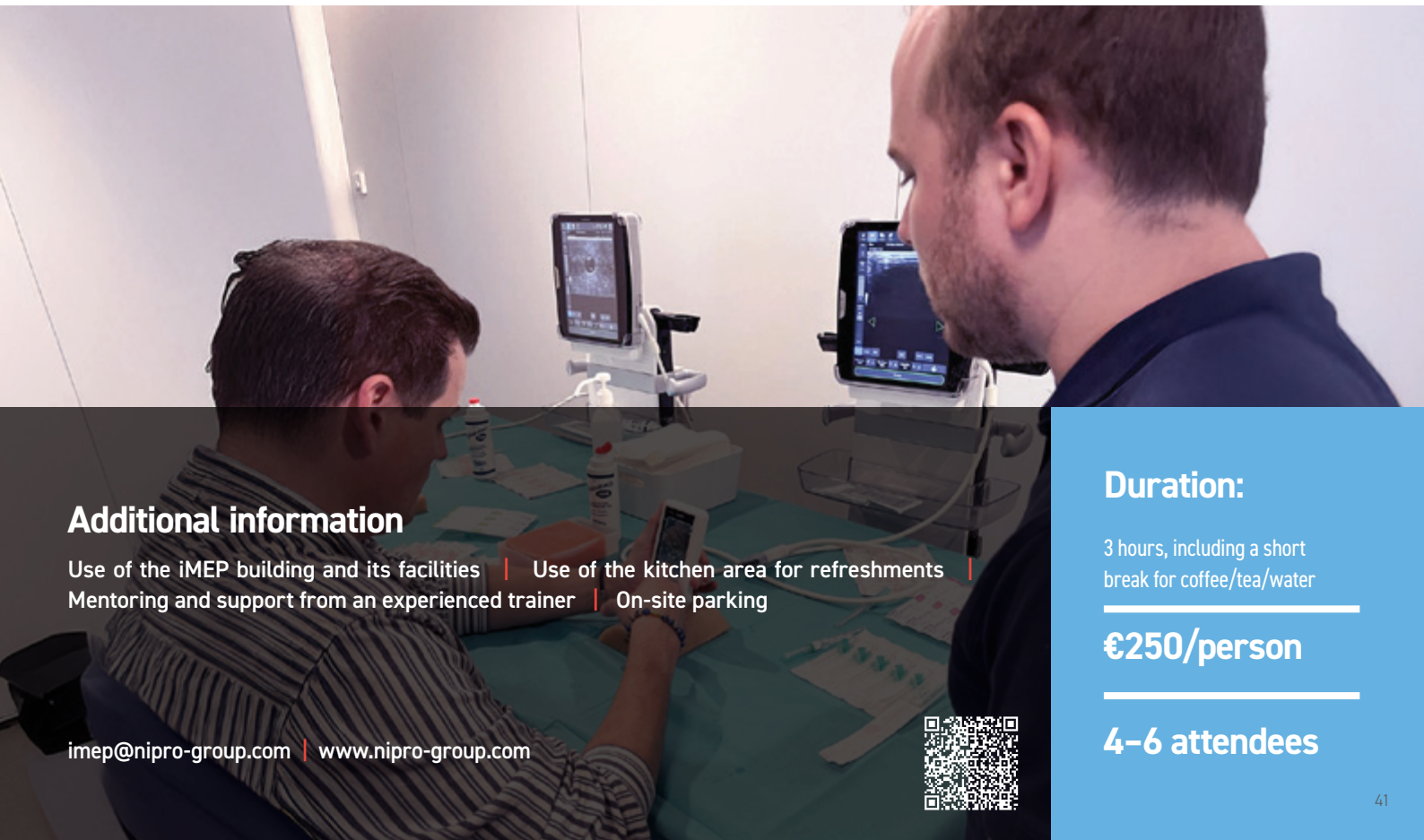
- what a peripheral IV catheter is
- when to use and not to use a peripheral IV catheter
- locations for the placement of a peripheral IV catheter
- the relevant safety measures
- best practice for the maintenance of a peripheral IV catheter
- when to choose blind or ultrasound-guided cannulation

You will be able to...

- assess veins
- place a peripheral IV catheter blind
- place a peripheral IV catheter with ultrasound guidance
- handle failed cannulations
- handle an ultrasound probe

Who should attend?

- All healthcare providers responsible for placing peripheral IV catheters



Additional information

Use of the iMEP building and its facilities | Use of the kitchen area for refreshments | Mentoring and support from an experienced trainer | On-site parking

imep@nipro-group.com | www.nipro-group.com

Duration:

3 hours, including a short break for coffee/tea/water

€250/person

4-6 attendees



Oncology in the Home Care Setting

Home-based oncology care offers patients greater comfort, flexibility, and continuity of care, but it also requires strong clinical knowledge, strict safety protocols, and close monitoring by skilled home care nurses.

This training provides home care nurses with a practical introduction to oncology care in the home setting. The course starts with the fundamentals of cancer, including common cancer types, staging, prognosis, and main treatment modalities such as surgery, radiation therapy, chemotherapy, immunotherapy, and targeted therapy.

The training then focuses on the safe delivery of chemotherapy and other cancer treatments at home. Participants learn about cytostatic medications, safe handling and disposal of cytotoxic drugs, infection prevention, central venous access devices, Huber needles, infusion pumps, and the use of disposables and equipment in the home environment. Special attention is given to monitoring complications, managing side effects, providing psychological and emotional support, and applying palliative care principles in daily home care practice.

PROGRAM CONTENT

The program focuses on both theory and practical implementation. The knowledge gained is immediately usable in practice.

- Basic understanding of cancer, cancer types, staging, prognosis, and treatment modalities
- Chemotherapy and cytostatic medication use in the home care setting
- Safe handling, administration, and disposal of cytotoxic drugs
- Infection prevention, complication monitoring, and emergency awareness
- Medical devices in home oncology care, including CVADs, PICC lines, Hickman catheters, implantable ports, and Huber needles
- Infusion pumps, elastomeric pumps, disposables, and home therapy equipment

PROGRAM CONTENT

- Home administration setups, outpatient comparison, and patient/caregiver education
- Monitoring and management of common side effects
- Psychological and emotional support for patients and families
- Palliative care principles, comfort care, and quality of life at home

What will you gain?

You will know ...

- the basic principles of cancer, staging, prognosis, and common treatment options
- how chemotherapy and cytostatic medications can be delivered in the home setting
- which safety measures are needed when handling cytotoxic drugs and medical waste
- how central venous access devices, Huber needles, and infusion pumps are used in home oncology care
- how to recognize common complications and side effects in patients receiving oncology treatment at home
- how psychological, emotional, and palliative care support contribute to holistic cancer care

You will be able to ...

- support safe oncology care in the home care setting
- apply infection prevention principles and safe handling precautions
- monitor patients for treatment-related side effects and complications
- recognize warning signs such as fever, infection, occlusion, dislodgement, thrombosis, dehydration, pain, and emotional distress
- support the correct use and monitoring of home care devices and infusion systems
- educate patients and caregivers on safety, monitoring, and when to contact healthcare professionals
- contribute to comfort, dignity, and quality of life for oncology patients receiving care at home

Who should attend?

- Home care nurses involved in oncology care
- Nurses who support patients receiving chemotherapy or other cancer treatments at home
- Nurses who work with central venous access devices, infusion pumps, or home therapy equipment



Additional information

Use of the iMEP building and its facilities | Use of coffee, tea and water facilities | Education, mentoring, and support from experienced trainers | On-site parking

imep@nipro-group.com | www.nipro-group.com

Duration:

4 hours, including a short break for coffee/tea/water

€250/person

4–6 attendees



Central Venous Catheter Masterclass

Our masterclass provides each participant with a comprehensive education on indications for central vein catheter placement, followed by hands-on training in techniques for both tunnelled and non-tunnelled catheter insertion.

This masterclass gives participants valuable insights, practical knowledge, troubleshooting, and various tips and tricks you can apply immediately in your cliunical practice. The workshop enhances the skills and confidence needed for hemodialysis catheter placement.

This program focuses on both theory and practical implementation. The knowledge gained is immediately usable in practice.

PROGRAM CONTENT

- Types and indications for tunnelled and non-tunnelled catheters
- Insertion techniques
- Tips and tricks
- Troubleshooting
- Hands-on exercise: tunnelled & non-tunnelled catheter insertion
- Case presentations: potential problems with central venous catheters

We practice what we preach!

During the training, you will be able to put theory into practice, developing your knowledge and skills by training on realistic simulators. We will take each participant's level of experience into account. The training is structured so that the knowledge acquired can immediately be put into practice.

What will you gain?

You will know...

- the types and indications for central venous catheters
- the different types of insertion techniques
- what to do in case of complications

You will be able to...

- place a non-tunneled central venous catheter
- place an antegrade tunneled central venous catheter
- place a retrograde tunneled central venous catheter

Who should attend?

- (Interventional) nephrologists
- Interventional radiologists
- Vascular surgeons



Additional information

Use of the iMEP building and its facilities | Use of the kitchen area for refreshments | Lunch catering included | Mentoring and support from experienced trainers | On-site parking

imep@nipro-group.com | www.nipro-group.com

Duration:

7.5 hours, including a short break for coffee/tea/water

€550/person

20 attendees



HD Vascular Access Creation for Doctors

Our HD Vascular Access Creation Course for Doctors covers decision-making, techniques, methods, and approaches involved in vascular surgeries related to hemodialysis (HD). The 2-day intensive course introduces doctors to strategic decision-making processes related to vascular access creation with guidance on performing access surgery using human cadavers.

The course teaches basic and advanced operative techniques for vascular access (VA) creation and complication management, including the common types of AVF and AVG for which each patient is eligible. Lectures and case discussions cover vascular anatomy, types of vascular access, and access complication treatment.

The course provides participants with the knowledge necessary to determine the optimal vascular access for each patient and the skills to achieve low complication rates in terms of short-term and long-term functioning.

The theory of vascular access creation and complication management are covered on day one. Discussion of patient cases bring these subjects into real-world context.

The techniques for common AVF and AVG are covered on day two, following by a practical training on human cadavers. The program focuses on both theoretical background and practical implementation. The knowledge gained is immediately usable in practice.

PROGRAM CONTENT

- Upper extremity vascular anatomy
- Ultrasound imaging of upper
- extremity vessels
- AVF
- AVG
- Central venous catheter
- Central vein obstruction
- Stenosis and thrombosis in vascular access
- Aneurysm management
- Complication management
- Ischemia
- Strategy for surgical planning and complication management (case discussion)
- Forearm/elbow vascular access (technical aspects)
- Upper arm vascular access (technical aspects)

We practice what we preach!

During the training, you will be able to put theory into practice, developing your knowledge and skills by training on realistic simulators and human cadavers. We will take each participant's level of experience into account. The training is structured so that the knowledge acquired can immediately be put into practice.

Workshops

- Central vein catheter insertion
- Upper extremity vessel mapping
- Forearm loop AVG
- Brachio-cubital AVF
- Brachio-basilic transposed AVF
- DRIL procedure

What will you gain?

You will know...

- what vascular anatomy is relevant for the upper extremity
- what the techniques are for ultrasound imaging of upper extremity vessels
- what AVFs and AVGs are
- how central vein catheters are used and managed
- how vascular access stenosis and thrombosis can be strategically addressed
- the methods for managing aneurysms and ischemia
- how a central vein obstruction can be approached and handled
- what is important for surgical planning and complication management
- the technical aspects to forearm/elbow, upper arm, and thorax vascular access
- the techniques involved in complication management

You will be able to...

- insert a central vein catheter
- map upper extremity vessels
- place forearm loop AVGs
- create brachio-cubital AVFs
- execute brachio-basilic transposed AVFs
- conduct the DRIL procedure

Who should attend?

- Vascular surgeons



Additional information

Use of the iMEP building and its facilities | Use of kitchen area for refreshments | Mentoring and support by experienced trainers | On-site parking | Lunch and dinner provided | One night's hotel accommodation included

imep@nipro-group.com | www.nipro-group.com

Duration:

2 days, lunch and refreshments provided

€550/person

18 attendees



HD Vascular Access: Radiology and Ultrasound Intervention

Our HD Vascular Access Radiology and Ultrasound Intervention Course provides participants with practice in percutaneous transluminal angioplasty and stenting, as well as preoperative vessel mapping and duplex scanning of vascular access in hemodialysis (HD).

Expertise in fluoroscopic and ultrasound-guided interventions for vascular access in hemodialysis prepares participates with the skills needed to address dysfunctional AVFs.

In this course, we familiarize participants with the decision-making process for vascular access interventions and enhance their technical skills in access preservation.

Lectures and case discussions educate participants in vascular anatomy, indications for endovascular interventions, and the treatment of access complications.

The program focuses on both theory and practical implementation. The knowledge gained is immediately usable in practice.

PROGRAM CONTENT

- Indications for endovascular vascular access intervention
- Ultrasound imaging of complicated vascular access
- Interventions for stenosis & thrombosis in AVF and AVG
- Patient case discussion

We practice what we preach!

During the training, you will be able to put theory into practice, developing your knowledge and skills by training on realistic simulators, including a fully-functional cath lab environment. We will take each participant's level of experience into account. The training is structured so that the knowledge acquired can immediately be put into practice.

What will you gain?

You will know...

- the indications for endovascular interventions
- what can be done about complicated vascular accesses, stenosis, and thrombosis

You will be able to...

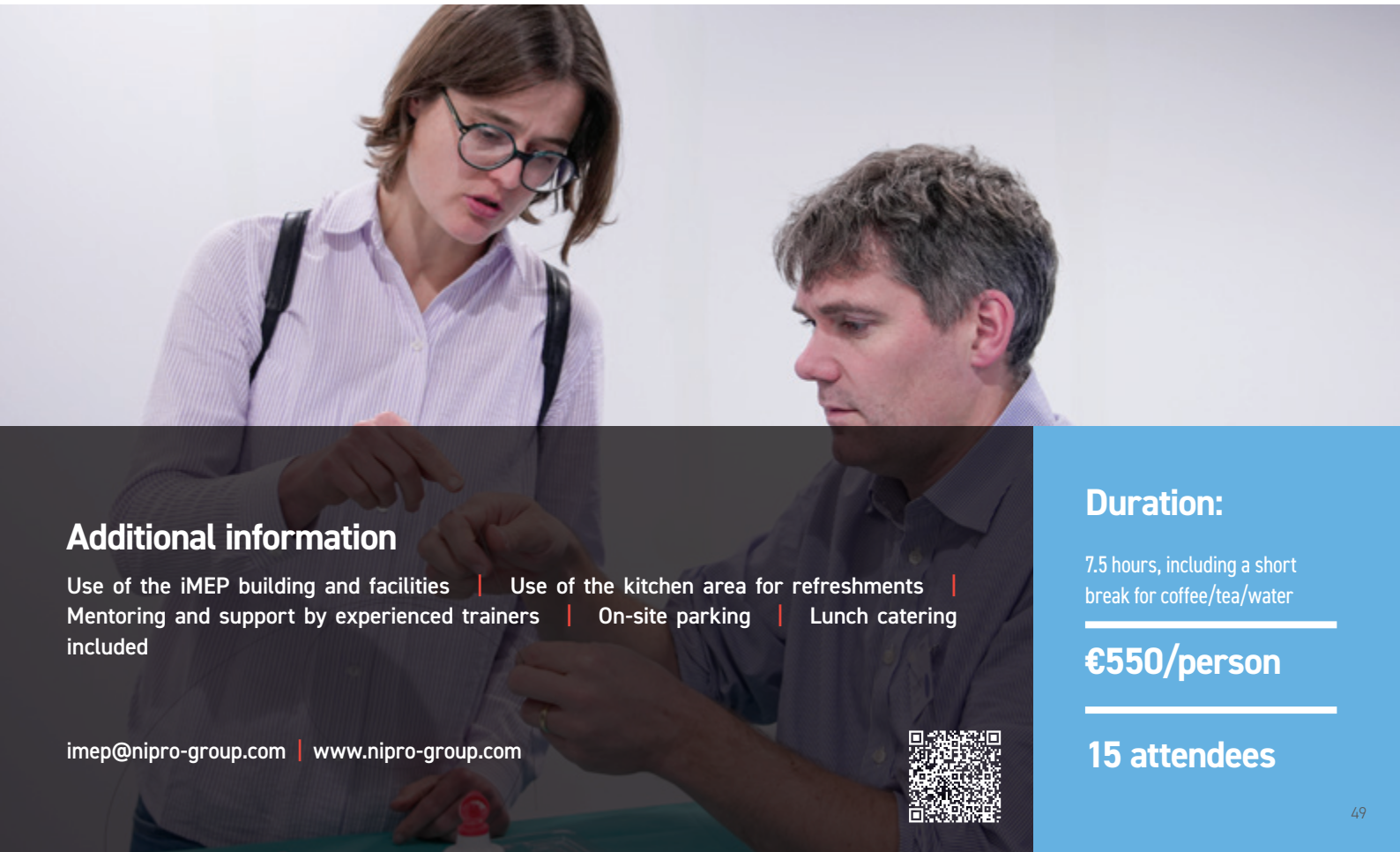
- perform a preoperative vessel assessment
- perform an ultrasound guided PTA and stent placement
- perform an endovascular fluoroscopic intervention

Workshops

- Ultrasound-guided PTA & stent Placement on model
- Pre-op vessel assessment
- Endovascular fluoroscopic intervention on model

Who should attend?

- (Interventional) nephrologists
- Interventional radiologists
- Vascular surgeons



Additional information

Use of the iMEP building and facilities | Use of the kitchen area for refreshments | Mentoring and support by experienced trainers | On-site parking | Lunch catering included

imep@nipro-group.com | www.nipro-group.com

Duration:

7.5 hours, including a short break for coffee/tea/water

€550/person

15 attendees



Vascular Access: PCI Training

EXPERT MASTER CLASS

Percutaneous coronary intervention is a complex and highly technical procedure that requires a strong understanding of coronary anatomy, interventional techniques, device selection, imaging technologies, and complication management.

This expert master class provides an in-depth introduction to PCI procedures, combining expert presentations with hands-on stations and patient case discussions. The training focuses on the practical and clinical aspects of PCI, including indications, coronary anatomy, arterial access, balloons, stents, guidewires, standard PCI procedures, bifurcation PCI, CTO lesions, complications, and troubleshooting.

Participants also explore the role of intravascular imaging in PCI, with a focus on IVUS and OCT (Optical Coherence Tomography). The course covers technical principles, clinical applications, plaque and stent assessment, PCI optimization, and the use of imaging in complex cases such as bifurcation lesions and stent thrombosis.

PROGRAM CONTENT

The program focuses on both theory and practical implementation. The knowledge gained is immediately usable in practice.

- Indications for PCI and overview of coronary anatomy
- Use of balloons, stents, guidewires, and related PCI materials
- Standard PCI procedures, bifurcation PCI, and CTO lesions
- Arterial access, including femoral and radial access considerations
- PCI complications and troubleshooting strategies
- Intravascular imaging technologies, including NIRS, IVUS, and OCT
- IVUS and OCT for plaque assessment, stent assessment, and PCI optimization
- Hands-on stations using normal PCI and bifurcation PCI models
- Patient case discussions based on PCI procedures and imaging findings

We practice what we preach!

During the training, you will be able to put theory into practice, developing your knowledge and skills by training on realistic simulators, including a fully-functional cath lab environment. We will take each participant's level of experience into account. The training is structured so that the knowledge acquired can immediately be put into practice.

What will you gain?

You will know ...

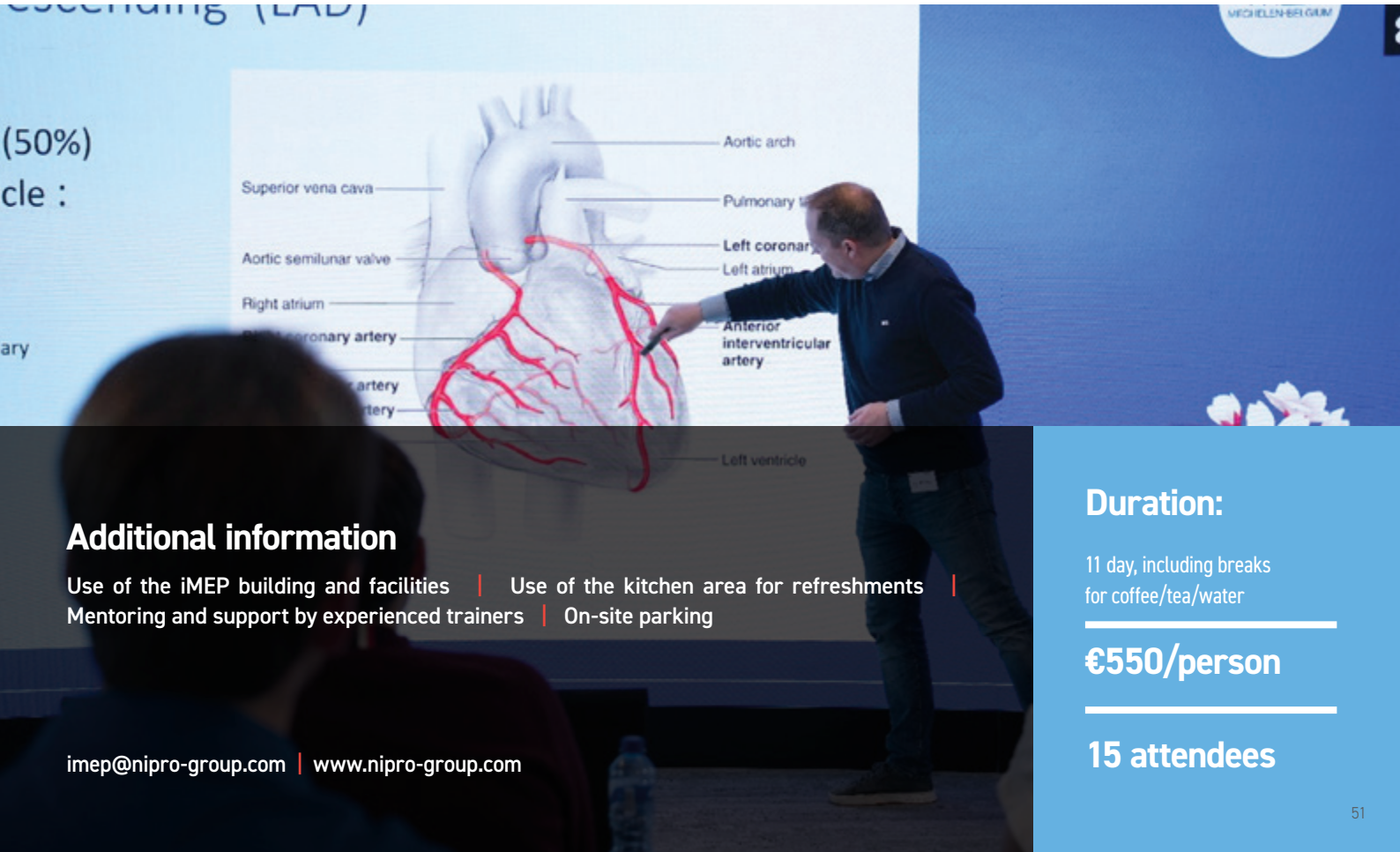
- the indications and basic procedural principles of PCI
- the role of balloons, stents, guidewires, and imaging technologies in PCI
- how standard PCI, bifurcation PCI, and CTO procedures differ
- how IVUS and OCT support coronary plaque assessment, stent assessment, and PCI optimization
- which complications can occur during PCI and how troubleshooting is approached

You will be able to ...

- understand the key steps and decision points in PCI procedures
- recognize important anatomical and procedural considerations in coronary interventions
- interpret the practical relevance of IVUS and OCT during PCI planning and optimization
- apply insights from patient cases to better understand PCI strategy and complication management
- connect theoretical knowledge with hands-on practice using PCI models and imaging demonstrations

Who should attend?

- Interventional cardiologists
- Cardiologists with an interest in PCI and intravascular imaging
- Physicians involved in coronary interventions



Additional information

Use of the iMEP building and facilities | Use of the kitchen area for refreshments | Mentoring and support by experienced trainers | On-site parking

imep@nipro-group.com | www.nipro-group.com

Duration:

11 day, including breaks for coffee/tea/water

€550/person

15 attendees












NIPRO iMEP Belgium

Blokhuisstraat 40, 2800 Mechelen, Belgium | T: +32 (0)15 263 500 | F: +32 (0)15 263 510 | imep@nipro-group.com | www.nipro-imep.com

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