ISN INTERNATIONAL SOCIETY OF NEPHROLOGY | 60 years 1960-2020 | GRANTS

Interventional Nephrology Training Centers

Practical details for interested institutions
2020 edition

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1. OBJECTIVES OF ISN INTERVENTIONAL NEPHROLOGY TRAINING CENTERS

Over the past decade, ISN Programs have helped improve awareness and provide fundamental education on improving vascular access care. These goals were accomplished mainly through workshops and vascular access focused symposiums. These events were either linked with World Congresses of Nephrology or ISN endorsed CME Meetings. The educational format at these workshops revolved mainly around didactic sessions and simulation model based training as a group. The broad goals of such a platform now need to transition into providing individualized training that can translate into improving patient care.

The natural next step is to establish training centers to provide true patient experience and in-depth understanding of individual procedures. The ISN Interventional Nephrology Working Group recognizes the growing demand from trainees to establish such training centers and proposes to establish ISN Interventional Nephrology Training Centers to support procedural training needs in different regions of the world. The working group also recognizes the need to customize the training requirement based on local and regional resources.

The demand for Interventional Nephrology training has been steadily growing in low and middle-income countries, where number of interventionalists is very limited, and patients often miss dialysis treatment because of vascular access problems. For young nephrologists who want Interventional Nephrology training, the opportunity to be trained in developed countries is rarely available. If they can be trained in the ISN-recognized centers with some funds for training, they will provide better quality of care for dialysis patients and train others interventional nephrologists in the same region.

ISN Interventional Nephrology Training Centers will host trainees for two types of curriculum:

- Foundation course (2-4 weeks) – designed for trainees who need training in a specific interventional procedure.
- Advanced course (3 months) – designed for trainees who need training in a broad spectrum of procedures, especially endovascular procedures.

2. BENEFITS OF BEING AN ISN INTERVENTIONAL NEPHROLOGY TRAINING CENTER

Selected centers will receive a provisional approval as ISN Interventional Nephrology Training Centers for a year, which will be extended to 5 years after submission of a quality assurance report.

At the end of this period, selected centers will have the option to re-apply to remain an ISN Interventional Nephrology Training Center.

Selected centers will host trainees from low and middle-income countries for Foundation courses (2-4 weeks) or for Advanced courses (3 months). ISN will support these trainees with a grant to contribute to their travel, accommodation and living costs during the training.

ISN Interventional Nephrology Training Centers will benefit from increased visibility at national, regional and global levels – they will be promoted on the ISN website and all other ISN communication channels.

Selected centers will receive a certificate; and may state that they are an 'ISN Interventional Nephrology Training Center 20XX-20XX' (with the ISN logo alongside this statement) on their letterhead and other communications.

Note that:

- ISN recognition does not provide certification according to the criteria of any existing postgraduate training organization;
- ISN recognition does not provide evidence of completed and certified specialist training in nephrology for any individual who spends time in an ISN Interventional Nephrology Training Center.

3. HOW TO APPLY

The deadline to apply is ***October 15***. The application portal opens approximately 6 weeks before the deadline).

ELIGIBILITY CRITERIA

- No restriction in terms of country income category as classified by the World Bank;
- The program director and senior staff involved in training should be a full ISN member;
- The center should either:
    - have university affiliated programs or accredited academic programs as per regional/national regulations for at least 2 years;
    - or have performed specific procedures for at least 2 years such as tunneled HD catheter insertion, PD catheter insertion, diagnostic endovascular procedures, therapeutic endovascular procedures (PTA, thrombectomy, stents insertion, coils embolization, etc), dialysis vascular access ultrasound, vascular access surgery, etc;
- The center should have performed at least 200 interventional procedures in the previous year of application.

FACILITY AND EQUIPMENT REQUIREMENTS

- Designated space to perform procedures: Interventional Suite within radiology, surgery, cardiac cath lab or designated nephrology suite;
- Equipment: Fluoroscopy C-arm (or equivalent), Vascular ultrasonography machine, Operating table, Adequate lighting, Patient monitoring needs (pulse oximetry, cardiac monitor, ECG, oxygen supply);
- Proper recovery area;
- Storage area;
- Meet safety needs as per local/regional requirements and regulations;

- Maintain quality assurance records: procedure log, complications (as per ASDIN guidelines), outcomes, radiation safety log. It should be ongoing with the aim of developing regional guidelines;
- Patient safety: contingency plan for management of complications, emergencies, and maintain standard operating procedure plan.

REQUIREMENTS FOR A TRAINER

- The program director and senior staff involved in the training should be full ISN members;
- Trainers should either be:
    - nephrologists, surgeons, radiologists, cardiologists who have performed these procedures for at least 2 years;
    - or nephrologists who were trained by ISN Education Ambassadors and have performed these procedures for at least 2 years.

GENERAL TIPS AND COMMENTS

APPLICATION:

The application is a lengthy process and we recommend you allocate enough time for it before submission. The ISN will select a limited number of ISN Interventional Nephrology Training Centers each year and only candidates with a strong application file will be accepted.

FORMS:

Your application must be submitted via the online application system. Applications sent by email, fax or post will not be considered.

ISN MEMBERSHIP:

Interventional Nephrology Training Centers serve as ISN beacons within a region. The program director and senior staff at these centers are expected to be **active members of the ISN community with** full ISN Membership. Explore different ISN membership opportunities for your colleagues and become part of the ISN community. If membership fees are not paid, the application will not be considered.

LANGUAGE:

The application and all enclosed documents must be written in English. Documents submitted in any other language will not be accepted.

4. REVIEW OF APPLICATIONS

The ISN Interventional Nephrology Working Group will review applications and forward its recommendations to the ISN Programs Chair for approval. The names of centers selected will be submitted to the ISN Executive Committee for final approval.

Assessment will be based on the criteria listed below:

- Evidence of ISN membership of program director and senior staff members in the last 5 years;
- Facilities and equipment available at the training center;
- Number of procedures undertaken in the last 2 years;
- Experience of the trainers;
- Available curriculum and possibility of hands-on training;
- Language of training;
- Local accreditation (by professional organization or government);
- Adequate governance, planning, staffing and with quality insurance.

The outcome of applications will be announced within two months of the deadline. The selected centers will be encouraged to host trainees accepted by the ISN Interventional Nephrology Working Group in the application sessions held in January each year.

5. **ROLE** OF ISN INTERVENTIONAL NEPHROLOGY TRAINING CENTERS

The primary objective of ISN Interventional Nephrology Training Centers is to provide interventional nephrology training to young nephrologists in low, lower-middle, or upper-middle-income countries from their region through the ISN Interventional Nephrology Training Courses.

In addition, like all ISN Regional Training Centers, ISN Interventional Nephrology Training Centers are expected to promote ISN activities in their region.

Selected centers will be receive a provisional approval as ISN Interventional Nephrology Training Centers for a year, which will be extended for a period of 5 years after submission of a quality assurance report.

ISN INTERVENTIONAL NEPHROLOGY TRAINING COURSES

To be eligible to apply for the ISN Interventional Nephrology Training Courses, trainees should be full ISN members, below 45 years old, from a low or middle income country as classified by the World Bank, and have the guarantee from the home institution of their re-employment once the training has been completed.

There is one application session per year, in ***January***, and applications will be reviewed by the ISN Interventional Nephrology Working Group. Trainees must complete the "*Interventional Nephrology eLearning Program*" before starting the hands-on training at the host center.

INTERVENTIONAL NEPHROLOGY ELEARNING PROGRAM:

Didactic components are standardized with a "Interventional Nephrology eLearning Program" on ISN Academy. It includes sessions on:

- Introduction to interventional nephrology
- Fundamentals of vascular anatomy
- Fundamentals of vascular access – Catheter, AVF, AVG.
- Physiology of AV access dysfunction
- Monitoring and surveillance techniques principles
- Physical examination of AV access
- Central venous catheter and its complications
- Management of catheter related blood stream infection
- Safety rules for IN procedures – sedation, radiation, infection prevention
- Physics of Ultrasonography and its roles in AV access assessment
- Basics knowledge on tools used to perform IN procedures
- CVC designs for temporary/bridge access
- PD catheter - design, placement steps, complications
- Kidney biopsy - needles, sample handling, indications and complications

Once the Interventional Nephrology eLearning Program is completed, trainees can start the hands-on training, which includes the following procedures:

- Tunneled and non-tunneled central venous catheter placement
- Peritoneal dialysis catheter placement
- Diagnostic angiography
- Therapeutic endovascular therapy (angioplasty, thrombectomy, etc)
- Kidney biopsy
- Ultrasonography of vascular access

The ISN Interventional Nephrology Training Courses offer two levels of hands-on training: a Foundation course and an Advanced course.

LEVEL 1 – FOUNDATION COURSE:

The Foundation Course is a training of 2 to 4 weeks designed for trainees who need training in a specific procedure listed in the training curriculum. Training Centers can provide observatory training or hands-on training with patients.

This course is useful for trainees who want to learn specific procedure such as tunneled HD catheter insertion, PD catheter insertion or kidney biopsy based on the resources and situation they encountered. However, they can observe or assist cases in the curriculum, which broaden their knowledge and expertise in dialysis access management.

LEVEL 2 – ADVANCED COURSE:

The Advanced Course is a training of up to 3 months designed for trainees who need training in a broad spectrum of procedures listed in training curriculum, especially endovascular procedures. Training Centers should provide hands-on training with patients.

This course is useful for trainees who want advanced level training such as broad endovascular procedures. The trainees will be able to start interventional nephrology program immediately after return if facility and equipment for the procedures are ready.

Level 2 course mandates minimum number of procedures in 3 months as follows:

- CVC (tunneled and non-tunneled): 10 procedures and 50% performed independently
- Tunneled PD catheter: 10 procedures and 50% performed independently
- Acute PD catheter: 10 procedures and 50% performed independently
- Diagnostic angiography and Endovascular procedures: 20 procedures and 50% performed independently
- Kidney biopsy: 5 native and 5 transplant biopsies performed independently using USG. Simultaneous understanding of the tissue processing needs for histopathology reading.

CERTIFICATE:

Trainees will receive a certificate "*Completion of Interventional Nephrology (Foundation or Advanced) Training Course*" from ISN at the end of training period based on the type of trained procedures, number of performed procedures, and a short report about trainee's performance from host mentor (e.g. certificate of endovascular procedures, certificate of tunneled HD catheter insertion, etc).

6. RENEWAL PROCESS FOR ISN INTERVENTIONAL NEPHROLOGY TRAINING CENTERS

ISN Interventional Nephrology Training Centers will need to re-apply to keep their status every five years.

The ISN Interventional Nephrology Working Group reviews quality assurance data (number of trainees, number of procedures, individual trainee log of procedures, etc) and feedback from trainees.

The ISN Interventional Nephrology Working Group will review applications and forward its recommendations to the ISN Programs Chair for approval. The names of centers selected will be submitted to the ISN Executive Committee for final approval.

7. ACKNOWLEDGEMENT

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