

Fellowship in Diabetic Foot and Ankle Care and surgery in Barcelona



General Information

Duration: 2 months (1 weekly session, 2 hours per session)

Format: Online

On hands practice

Week 1: Introduction and Key Concepts and Comprehensive Assessment of the Diabetic Foot

Definition of diabetic foot: Epidemiology, clinical, and socioeconomic impact.

Pathophysiology of diabetic neuropathy: Pathogenesis, risk factors, and structural alterations.

Comprehensive clinical evaluation:

- Foot inspection, palpation and functional tests.

Risk assessment tools:

- Wagner Classification, PEDIS System, Texas Scale.

Diagnostic tests in diabetic foot: CT, MRI, Vascular tests.

Importance of a multidisciplinary approach: Roles of specialists in diabetic foot management.

Week 2: Infections in the Diabetic Foot

Identification and initial management:

- Clinical signs of infection: Erysipelas, cellulitis, abscesses.
- Identification of critical and high-risk infections.

Advanced diagnosis:

- Imaging methods: X-ray, MRI, ultrasound.
- Role of bone biopsy in diagnosing osteomyelitis.

Surgical management of infections:

- Debridement: Types (selective, radical) and techniques.
- Use of negative pressure wound therapy (NPWT).
- Use of cement with antibiotic.

Week 3: Medical and Antibiotic Treatment / Types of Diabetic Foot Wound Care

-Antibiotic management:

- Basic principles: Indications, regimens, and duration of treatment.
- Strategies to combat bacterial resistance in diabetic foot infections.
- Coordination between infectious disease specialists and surgeons to optimize treatment.
- Monitoring and evaluation of response to antibiotic therapy.

Classification and care techniques:

- Wet vs. dry dressings: Indications and benefits.
- Active dressings and their role in healing: Bioactive dressings, hydrogels, and alginates.
- Negative pressure wound therapy (NPWT): Indications, techniques, and clinical benefits.
- Hyperbaric oxygen therapy: Evidence and criteria for use.

Role of specialized nursing teams:

- Daily management and application of wound care.
- Monitoring wound healing progression.
- Educating patients and caregivers on proper care management.

Week 4: Conservative Treatment of Diabetic Foot / Charcot Foot

Offloading strategies:

- Use of total contact casts, customized insoles, and devices.
- Specific indications for each technique.

Conservative management of Charcot foot:

- Immobilization during the acute phase.
- Pharmacological therapies to reduce inflammation.

Patient education:

- Prevention of recurrences and complications.
- Basic home care.

Week 5: Surgical Treatment of Diabetic Foot / Charcot Foot

Surgical options for diabetic foot:

- Soft tissue reconstruction.
- Surgical approach to recalcitrant ulcers and osteomyelitis.

Surgical treatment of Charcot foot:

- Internal and external fixation
- Minimal invasive surgery in diabetic foot

Reconstructive procedures to restore functionality.

Functional amputations

Week 6: Advanced Multidisciplinary Assessment and Treatment

Advanced vascular assessment:

- Imaging techniques: Doppler ultrasound, angio-MRI, CT angiography.
- Functional assessment: Ankle-brachial index and perfusion tests.

Vascular surgery:

- Endovascular revascularization: Indications and outcomes.
- Bypass surgery for critical ischemia.

Plastic surgery:

- Skin grafts: Autologous, synthetic, and bioengineered options.
- Flaps for extensive defect coverage.

Week 7: Future Perspectives and Case Discussion

Advances in diabetic foot management:

- New technologies: 3D bioprinting, smart materials, and cell therapies.
- Impact of artificial intelligence in diagnosis and monitoring.

Innovative technologies and advanced therapies:

- Bioactive materials: Collagen membranes,
- Regenerative therapies: Growth factors and PRP, dermal matrices,

Week 8: Interactive clinical cases

Guided discussion on complex cases.

Practical application of acquired knowledge.