



## Learn & Improve Professional Skills (LIPS) Track – Session 7

Inflammation & Infection Committee

Monday, September 11, 15:00 – 16:30

### Session Title

**Tips and Tricks in the Study of Prosthesis Infection**

### Chairpersons

**Paola Ferro** (Bergamo, Italy)

**Edel Noriega** (Ciudad Real, Spain)

### Programme

15:00 – 15:30 **Edel Noriega-Álvarez** (Ciudad Real, Spain): Tips and tricks in orthopedic prosthesis

15:30 – 16:00 **Lucia Leccisotti** (Rome, Italy): Tips and tricks in heart valve prosthesis

16:00 – 16:30 **Andor Glaudemans** (Groningen, Netherlands): Tips and tricks in vascular prosthesis

### Educational Objectives

1. To provide participants with an understanding of the possible artifacts that can be generated by different types of prostheses and how to recognize and mitigate them. This would include artifacts caused by metallic and non-metallic materials, as well as those resulting from motion and other factors.
2. To provide practical tips for obtaining high-quality images in these patients, including optimizing imaging parameters, using specialized collimators and filters, and positioning the patient and prosthetic device correctly.
3. To provide the knowledge and tools necessary to interpret images through clinical cases of patients with different types of prostheses using nuclear medicine techniques, to obtain more accurate diagnoses and better results in the management of these patients.

### Summary

Orthopaedic and cardiovascular prosthetic infections remain a serious problem in healthcare, with high morbidity and mortality. Establishing the correct diagnosis can be difficult, but an early and accurate diagnosis is invaluable for the therapeutic management of the patient.

Therefore, an adequate diagnostic imaging tool is essential to initiate timely and appropriate treatment. In this session we will discuss how to correctly acquire and interpret scintigraphy (bone and radiolabelled leukocyte) and FDG-PET/CT images in these patients because artefacts may appear on nuclear medicine images, posing diagnostic problems and possible misinterpretations. Therefore, one of the objectives of this session would be to provide participants with an understanding of the types of artefacts that can be generated by these devices and how to recognize and mitigate them.

### Key Words:

Radiolabelled WBC; SPECT/CT, PET/CT, orthopedic prosthesis, heart valve prosthesis, vascular prosthesis.